

निविदा पूछताछ TENDER ENOUIRY

[वेब निविदा] |WEB TENDER|

माझगांव डॉक शिपबिल्डर्स लिमिटेड (भारत सरकार का उपक्रम) MAZAGON DOCK SHIPBUILDERS LIMITED

(Formerly known as Mazagon Dock Limited) (A Govt. of India Undertaking) CIN: L35100MH1934GOI002079

Dockyard Road, Mumbai 400 010 Website- www.mazagondock.in

Certified - ISO 9001: 2008 for Shipbuilding Division GST ID : 27AAACM8029J1ZA

सेवा में /To

विभाग/Department MPV COMMERCIAL

क्रय अधिकारी/Purchase Exec. Bhuvnesh Kalwar दूरभाष सं./Telephone No 23762738

फैक्स सं./Fax No 23744709 ई-मेल/E-Mail bkalwar@mazdock.com

निविदा सं./Tender No 1700000734 निविदा तिथि/ Tender Date 24.09.2025 निविदा बंद की तिथि/Tender Closing Date 22.10.2025 निविदा बंद होने का समय/Tender Closing Time 14:00:00 आरएफक्यू सं./RFQ No 2230000108

दूरभाष सं./Telephone

निविदा श्ल्क/Tender Fee

फैक्स सं./Fax ई-मेल/E-Mail

₹/Rs 0.00

बयाना राशि/EMD Amount रू/Rs 700,000.00

पुर्व बिड बैठक तिथि और समय/Pre Bid Meeting Date & Time ,00:00:00 निविदा खोलने की तिथि और समय/Tender Opening Date & Time 24.10.2025,14:00:00

प्रस्ताव वैधता तिथि है/Offer should be valid up to

सुरक्षा जमा/Security Deposit 0.00 %आदेश मूल्य का/PO value वरीय बैंक जमानत /Perf. Bank Guarantee 5.00 %आदेश मूल्य का/PO value

(आगे के विवरण हेतु कृपया सम्बंद्ध नियम शर्तो को पढ़े । सुनिश्चित करें कि कोटेशन और संबंधित पत्राचार के लिए विभाग का नाम, क्रय अधिकारी का नाम ,निविदा संख्या, बंद होने का समय एवं तिथि एवं आरएफक्यू सं. अपने कोटेशनमें लिखें ।

20.04.2026

Kindly read and refer relevant terms & conditions for further details. Do ensure to Quote Department Name, Purchase Executive's Name, Tender Number, closing date & time and RFO Number in your Quotation & related correspondence)

प्रिय महोदय/महोदया Dear Sir / Madam,

विषय /SUB:- PROCUREMENT OF RADIO EQUIPMENT CONFORMING TO GMDSS (EXTERNAL COMMUNICATION) SYSTEM FOR PROJECT 7500 DWT MULTI-PURPOSE DRY CARGO VESSEL.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड प्रतिष्ठित/संभावित आपूर्तिकर्ताओं से निम्न हेतु, प्रतियोगितात्मक दो बोली प्रणाली में (भाग -। तकनिकी - वाणिज्य बोली एवं भाग ।। मूल्य बोली) बोली आमंत्रित करती है।

Mazagon Dock Shipbuilders Limited (MDL) invites Competitive – Bid from reputed Supplier for the following in TWO BID system (Part - 1 Techno - Commercial Bid & Part - 11 Price Bid).

क्र सं.	सामग्री / सेवा विवरण	मात्रा / इकाई	आपूर्ति तिथि
SL.No.	Material / Service Details	Quantity / unit	Delivery Date
00100	सामग्री सं./ Material Number :- 150000000000077593	1 SET	31.07.2026
	MPV - MAIN EQUIPMENT(GMDSS)		
	सामग्री वर्णन/Material Description :MPV - M	ain Equipment Includes:-	

Page: 1 of 9

निविदा सं./ 🏾	Cender No:- 1700000734 निविदा तिथि/ Tender Date	e:- 24.09.2025	सं./RFQ No:- 223000010
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	A) GMDSS 1) 125W MF/HF TX/RX WITH DSC - 01 S 2) V.H.F. RADIO TELEPHONE - 02 SET 3) STANDARD INMARSAT C WITH ECC 4) NAVTEX RECEIVER - 01 SET		
	B) SATELLITE COMMUNICATION 5) FLEET BROAD BAND - 01 SET		
	C) TWO WAY VHF RADIO TELEPHONE 6) PORTABLE HAND FREE TWO-WAY BATTERIES (LATEST VERSION) - 03	VHF RADIO TELEPHONE V	WITH
	D) SURVIVAL AIRCRAFT 7) EPIRRB 406 MHz - 01 SET 8) AIS-SEARCH AND RESCUE TRANSP	ONDER (9 GHZ) - 02 SET	
	E) SECURITY ALERT SYSTEM 9)SHIP SECURITY ALERT SYSTEM - 01	SET	
	F) PORTABLE U.H.F TRANSCEIVER 10) PORTABLE TRANSCEVERS OF UHI WITH BATTERY CHARGER - 03 SE		
00200	सामग्री सं./ Material Number :- 150000000000088820 MPV - GMDSS CONSOLE	1 SET	31.07.2026
0300	सामग्री वर्णन/Material Description : MPV - G सामग्री सं./ Material Number :- 150000000000077594 MPV - INSTALLATION MATERIAL	MDSS CONSOLE 1 SET	31.07.2026
	सामग्री वर्णन/Material Description : MPV-IN		
0400	सामग्री सं./ Material Number :- 150000000000077596 MPV - DOCUMENTATION	1 SET	31.07.2026
0500	सामग्री वर्णन/Material Description :MPV-DO CONNECTIORISATION & SETTING TO WORK	CUMENTATION 1 Activity unit	31.08.2026
0300	Service Description :Connectorisation, Setti in TSP SEction I, Para 28 & Section II Para	ng to Work (STW) and Techn	
	The Line item 00500 covers the following		
00000001	_	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- Connectorisation, STW & Technical Assist		

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Dat
00600	OPS CHECK	1 Activity unit	30.09.2026
	The Line item 00600 covers the followin	g services	
00000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- OPS CHECK		
0700	सामग्री सं./ Material Number :- 150000000000077593 MPV-MAIN EQUIPMENT(GMDSS)	1 SET	31.08.2026
	सामग्री वर्णन/Material Description :MPV - N	Main Equipment Includes:-	
	A) GMDSS		
	1) 125W MF/HF TX/RX WITH DSC - 01	SET	
	2) V.H.F. RADIO TELEPHONE - 02 SET	Γ	
	3) STANDARD INMARSAT C WITH EG	CG RECEIVER - 01 SET	
	4) NAVTEX RECEIVER - 01 SET		
	B) SATELLITE COMMUNICATION		
	5) FLEET BROAD BAND - 01 SET		
	C) TWO WAY VHF RADIO TELEPHON	IF	
	6) PORTABLE HAND FREE TWO-WAY		WITH
	BATTERIES (LATEST VERSION) - 03	3 SET	
	D) SURVIVAL AIRCRAFT		
	7) EPIRRB 406 MHz - 01 SET		
	8) AIS-SEARCH AND RESCUE TRANS	SPONDER (9 GHZ) - 02 SET	
	E) CECUDITY ALEDT CYCTEM		
	E) SECURITY ALERT SYSTEM 9)SHIP SECURITY ALERT SYSTEM - (01 SET	
))SIM SECTOR RESERVED	71 521	
	F) PORTABLE U.H.F TRANSCEIVER		
	10) PORTABLE TRANSCEVERS OF UI WITH BATTERY CHARGER - 03 S		
00800	सामग्री सं./ Material Number :- 1500000000000088820	1 SET	31.08.2026
70000	MPV-GMDSS CONSOLE	1 221	31.00.2020
	सामग्री वर्णन/Material Description : MPV -	GMDSS CONSOLE	
00900	सामग्री सं./ Material Number :- 150000000000077594 MPV - INSTALLATION MATERIAL	1 SET	31.08.2026
	सामग्री वर्णन/Material Description :MPV-IN	ISTALLATION MATERIAL	
01000	सामग्री सं./ Material Number :- 150000000000077596	1 SET	31.08.2026

निविदा सं./ 🏾	Sender No:- 1700000734 निविदा तिथि/ Tender Date	:- 24.09.2025 आरएफक्यू	सं./RFQ No:- 2230000108
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
01100	CONNECTIORISATION & SETTING TO WORK	1 Activity unit	30.09.2026
	Service Description :Connectorisation, Settir in TSP SEction I, Para 28 & Section II Para 6		ical Assistance as indicated
	The Line item 01100 covers the following s	services	
000000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- CConnectorisation, STW & Technical Assis		
01200	OPS CHECK	1 Activity unit	30.10.2026
	The Line item 01200 covers the following s	services	
000000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- OPS CHECK		
01300	सामग्री सं./ Material Number :- 150000000000077593 MPV-MAIN EQUIPMENT(GMDSS)	1 SET	31.08.2026
	सामग्री वर्णन/Material Description :MPV - Ma	in Equipment Includes:-	
	A) GMDSS 1) 125W MF/HF TX/RX WITH DSC - 01 S 2) V.H.F. RADIO TELEPHONE - 02 SET 3) STANDARD INMARSAT C WITH ECC 4) NAVTEX RECEIVER - 01 SET		
	B) SATELLITE COMMUNICATION 5) FLEET BROAD BAND - 01 SET		
	C) TWO WAY VHF RADIO TELEPHONE 6) PORTABLE HAND FREE TWO-WAY V BATTERIES (LATEST VERSION) - 03 S		WITH
	D) SURVIVAL AIRCRAFT 7) EPIRRB 406 MHz - 01 SET 8) AIS-SEARCH AND RESCUE TRANSPO	ONDER (9 GHZ) - 02 SET	
	E) SECURITY ALERT SYSTEM 9)SHIP SECURITY ALERT SYSTEM - 01	SET	
	F) PORTABLE U.H.F TRANSCEIVER 10) PORTABLE TRANSCEVERS OF UHF WITH BATTERY CHARGER - 03 SET		
01400	सामग्री सं./ Material Number :- 150000000000088820 MPV-GMDSS CONSOLE	1 SET	31.08.2026

निविदा सं / T	ender No:- 1700000734	24 09 2025 आरमफक्स	यू सं./RFQ No:- 2230000108
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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	सामग्री वर्णन/Material Description : MPV - G	•	V
01500	सामग्री सं./ Material Number :- 150000000000077594 MPV - INSTALLATION MATERIAL	1 SET	31.08.2026
	सामग्री वर्णन/Material Description : MPV-INS	STALLATION MATERIAL	
01600	सामग्री सं./ Material Number :- 150000000000077596 MPV-DOCUMENTATION	1 SET	31.08.2026
	सामग्री वर्णन/Material Description :MPV-DO	CUMENTATION	
01700	CONNECTIORISATION & SETTING TO WORK	1 Activity unit	30.09.2026
	Service Description :Connectorisation, Setting in TSP SEction I, Para 28 & Section II Para		nical Assistance as indicated
	The Line item 01700 covers the following	services	
000000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- Connectorisation, STW & Technical Assist		
01800	OPS CHECK	1 Activity unit	30.10.2026
	The Line item 01800 covers the following	services	
000000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- OPS CHECK		
01900	सामग्री सं./ Material Number :- 150000000000077593 MPV-MAIN EQUIPMENT(GMDSS)	1 SET	29.01.2027
	सामग्री वर्णन/Material Description :MPV - Ma	ain Equipment Includes:-	
	A) GMDSS 1) 125W MF/HF TX/RX WITH DSC - 01 S 2) V.H.F. RADIO TELEPHONE - 02 SET 3) STANDARD INMARSAT C WITH ECC 4) NAVTEX RECEIVER - 01 SET	SET	
	B) SATELLITE COMMUNICATION 5) FLEET BROAD BAND - 01 SET		
	C) TWO WAY VHF RADIO TELEPHONE 6) PORTABLE HAND FREE TWO-WAY BATTERIES (LATEST VERSION) - 03 S	VHF RADIO TELEPHONE	WITH
	D) SURVIVAL AIRCRAFT 7) EPIRRB 406 MHz - 01 SET 8) AIS-SEARCH AND RESCUE TRANSPO	ONDER (9 GHZ) - 02 SET	

निविदा सं./ T	ender No:- 1700000734 निविदा तिथि/ Tender Date	:- 24.09.2025 आरएफक	न्यू सं./RFQ No:- 2230000108
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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	E) SECURITY ALERT SYSTEM 9)SHIP SECURITY ALERT SYSTEM - 01 F) PORTABLE U.H.F TRANSCEIVER 10) PORTABLE TRANSCEVERS OF UHF		
	WITH BATTERY CHARGER - 03 SET	Γ	
02000	सामग्री सं./ Material Number :- 150000000000088820 MPV-GMDSS CONSOLE	1 SET	29.01.2027
02100	सामग्री वर्णन/Material Description : MPV - Gl सामग्री सं./ Material Number :- 150000000000077594 MPV - INSTALLATION MATERIAL	1 SET	29.01.2027
02200	सामग्री वर्णन/Material Description : MPV-INS सामग्री सं./ Material Number :- 150000000000077596 MPV-DOCUMENTATION	1 SET	29.01.2027
	सामग्री वर्णन/Material Description :MPV-DO	CUMENTATION	
02300	CONNECTIORISATION & SETTING TO WORK Service Description :Connectorisation, Setting in TSP SEction I, Para 28 & Section II Para 6		26.02.2027 hnical Assistance as indicated
	The Line item 02300 covers the following		
000000001 0	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- Connectorisation, STW & Technical Assist		
02400	OPS CHECK	1 Activity unit	31.03.2027
	The Line item 02400 covers the following		
000000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- OPS CHECK		
02500	सामग्री सं./ Material Number :- 150000000000077593 MPV-MAIN EQUIPMENT(GMDSS)	1 SET	31.03.2027
	सामग्री वर्णन/Material Description :MPV - Ma	in Equipment Includes:-	
	A) GMDSS 1) 125W MF/HF TX/RX WITH DSC - 01 S 2) V.H.F. RADIO TELEPHONE - 02 SET 3) STANDARD INMARSAT C WITH ECC 4) NAVTEX RECEIVER - 01 SET		
	B) SATELLITE COMMUNICATION		

निविदा सं./ 🏾	Tender No:- 1700000734 निविदा तिथि/ Tender Date:	- 24.09.2025 आरएफक्यू	सं./RFQ No:- 2230000108
क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
•	5) FLEET BROAD BAND - 01 SET		
	C) TWO WAY VHF RADIO TELEPHONE 6) PORTABLE HAND FREE TWO-WAY V BATTERIES (LATEST VERSION) - 03 S		WITH
	D) SURVIVAL AIRCRAFT 7) EPIRRB 406 MHz - 01 SET 8) AIS-SEARCH AND RESCUE TRANSPO	NDER (9 GHZ) - 02 SET	
	E) SECURITY ALERT SYSTEM 9)SHIP SECURITY ALERT SYSTEM - 01 S	SET	
	F) PORTABLE U.H.F TRANSCEIVER 10) PORTABLE TRANSCEVERS OF UHF WITH BATTERY CHARGER - 03 SET		
02600	सामग्री सं./ Material Number :- 150000000000088820 MPV-GMDSS CONSOLE	1 SET	31.03.2027
	सामग्री वर्णन/Material Description : MPV - GM	IDSS CONSOLE	
02700	सामग्री सं./ Material Number :- 150000000000077594 MPV - INSTALLATION MATERIAL	1 SET	31.03.2027
	सामग्री वर्णन/Material Description : MPV-INS'	ΓALLATION MATERIAL	
02800	सामग्री सं./ Material Number :- 150000000000077596 MPV-DOCUMENTATION	1 SET	31.03.2027
	सामग्री वर्णन/Material Description :MPV-DOC	UMENTATION	
02900	CONNECTIORISATION & SETTING TO WORK	1 Activity unit	30.04.2027
	Service Description: Connectorisation, Setting in TSP SEction I, Para 28 & Section II Para 6		nical Assistance as indicated
	The Line item 02900 covers the following s	ervices	
000000001	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- Connectorisation, STW & Technical Assist		
03000	OPS CHECK	1 Activity unit	31.05.2027
	The Line item 03000 covers the following s	ervices	
000000001 0	सेवा सं./Service Number :-	1 Activity unit	
	संक्षिप्त वर्णन/Short Description :- OPS CHECK		
03100	सामग्री सं./ Material Number :- 150000000000077593 MPV-MAIN EQUIPMENT(GMDSS)	1 SET	31.05.2027

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
<u> </u>	सामग्री वर्णन/Material Description :MPV - M		·
	A) GMDSS		
	1) 125W MF/HF TX/RX WITH DSC - 01 S	SET	
	2) V.H.F. RADIO TELEPHONE - 02 SET	.21	
	3) STANDARD INMARSAT C WITH EC	G RECEIVER - 01 SET	
	4) NAVTEX RECEIVER - 01 SET		
	B) SATELLITE COMMUNICATION		
	5) FLEET BROAD BAND - 01 SET		
	C) TWO WAY VHF RADIO TELEPHONE		
	6) PORTABLE HAND FREE TWO-WAY		WITH
	BATTERIES (LATEST VERSION) - 03	SET	
	D) SURVIVAL AIRCRAFT		
	7) EPIRRB 406 MHz - 01 SET		
	8) AIS-SEARCH AND RESCUE TRANSP	ONDER (9 GHZ) - 02 SET	
	E) SECURITY ALERT SYSTEM		
	9)SHIP SECURITY ALERT SYSTEM - 01	SET	
	F) PORTABLE U.H.F TRANSCEIVER		
	10) PORTABLE TRANSCEVERS OF UH	F (400 MHz - 5W)	
	WITH BATTERY CHARGER - 03 SE		
03200	सामग्री सं./ Material Number :- 150000000000088820	1 SET	31.05.2027
	MPV-GMDSS CONSOLE सामग्री वर्णन/Material Description : MPV - G	MDSS CONSOLF	
03300	सामग्री सं./ Material Number :- 150000000000077594	1 SET	31.05.2027
02200	MPV - INSTALLATION MATERIAL	1 521	31.00.2027
	सामग्री वर्णन/Material Description : MPV-IN	STALLATION MATERIAL	
03400	सामग्री सं./ Material Number :- 150000000000077596	1 SET	31.05.2027
	MPV-DOCUMENTATION		
	सामग्री वर्णन/Material Description :MPV-DO		
03500	CONNECTIORISATION & SETTING TO WORK	1 Activity unit	30.06.2027
	Service Description :Connectorisation, Setti in TSP SEction I, Para 28 & Section II Para		nical Assistance as indic
	The Line item 03500 covers the following		
000000001	सेवा सं./Service Number :-	1 Activity unit	
0	गंशिया वर्णन/Short Description . Commentaries		
	संक्षिप्त वर्णन/Short Description :- Connectorisation, STW & Technical Assist		

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क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
03600	OPS CHECK	1 Activity unit	30.07.2027
	The Line item 03600 covers the followin	g services	
000000001	सेवा सं./Service Number :-	1 Activity unit	
;	संक्षिप्त वर्णन/Short Description :- OPS CHECK		

नियम और शर्ते : भाग ए मे लिखी हुई और इतर संलग्नपत्रे इस निविदा एक अभिन्न अंग हैं |हमें आशा हैं की,हमें प्रतियोगित्मिक और उचित प्रस्ताव इस निविदा के लिए प्राप्त होगा |

Terms & Conditions as indicated in Part A of this tender and other enclosures / annexures form an integral part of this tender document. We look forward to receive your most competitive and reasonable offer against this Tender.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd



Tender Enquiry

Enclosure to Tender Enquiry: Terms and Conditions (Section I & II) Item: Procurement of Radio Equipment conforming to GMDSS (External Communication) System for Project 7500 Dwt Multi-Purpose Dry Cargo Vessel. Project: Multi-Purpose Dry Cargo Vessel (MPV)

Section I - Notice Inviting Tender (NIT)

- (i) Notice Inviting Tender (NIT): Mazagon Dock Shipbuilders Limited (MDL), Mumbai is India's leading Shipbuilding Company with ISO 9001:2015 accreditation. Mazagon Dock Shipbuilders Limited, invites offer in two bid system i.e. Part-I (Techno Commercial Bid) and Part-II (Price Bid) from Indian/Foreign nominated bidders through online bidding via MDL e-procurement portal (https://eprocuremdl.nic.in) for Item/Services.
- (ii) The Tender Document:
 - (i) **Bidders must read the complete 'Tender Document'.** Kindly visit MDL website Link:
 - https://mazagondock.in/English/pages/Tenders under tab Ship Building (SB)/MPV Project for formats as detailed in enclosure.
 - (ii) Bids must be uploaded till the deadline for submission of bids. Request for extension, if at all to be made, shall be forwarded at least 3 working days in advance to the tender closing date / time (excluding tender closing date) with proper reasoning. However, the extension would be granted by MDL on merit of the case at MDL discretion and would be binding on all bidders.
- (iii) **Eligibility Criteria for Participation in this Tender:** Subject to provisions in the Tender Document, participation in this Tender Process is open to bidders who fulfil the 'Eligibility' and Pre-Qualification criteria. Bidder shall be required to declare fulfilment of Eligibility Criteria.

Note: In case manufacturer has submitted the bid, then bids of its authorised dealer will not be considered.

- (iv) Submission of Bids: No manual Bids shall be made available or accepted for submission (except for originals of scanned copies as mentioned in tender). Bidder must comply with the conditions of the eProcurement portal, including registration, compatible Digital Signature Certificate (DSC) etc. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling in the required information.
- (v) **Disclaimers and Rights of MDL:** The issue of the Tender Document does not imply that MDL is bound to select bid(s), and it reserves the right without assigning any reason to
 - a. reject any or all of the Bids, or
 - b. cancel the tender process; or
 - c. abandon the procurement of the Goods/Services in partial or full; or
 - d. issue another tender for identical or similar Goods/Services.
 - e. Placement of order is subject to Customer (ship's owner) confirmation.

Note: Please refer to appended complete Tender Document for further details.

Tender Inviting Authority

Section II - Tender Enquiry Form (TEF)

1. Description & Scope of Supply / Work: Procurement of Radio Equipment conforming to GMDSS (External Communication) System for Project 7500 Dwt Multi-Purpose Dry Cargo Vessel as per Tender & TSP NO - DR / EL / MPV / 5009 REV 04 dated 09th Sept 2025.

2. Validity Period of Offer:

- (a) Bid / Offer shall have the validity period of **180 days** from the tender closing date.
- (b) MDL may request the bidders to extend the validity period for a specified additional period. A bidder may agree to or reject the request. A bidder who has agreed to MDL's request for extension of bid validity, in no case, he shall be permitted to modify his bid. In case techno-commercially accepted bidder/s does not agree to extend the offer validity, the offers of all techno commercially accepted bidder/s including the bidder who has not agreed to extend their offer validity shall be opened and proceed further with valid bids. However, offer of the bidder(s) who have not agreed to extend their offer validity shall not be considered for L1 evaluation purpose.
- **3. Delivery Period:** The delivery dates shall be as mentioned below:

Yard No.	Equipment delivery date
21001	PO date + 03 months
21002	PO date + 05 months
21003	PO date + 07 months
21004	PO date + 09 months
21005	PO date + 11 months
21006	PO date + 11 months

Delivery schedule given for services is tentative; the exact schedule will be communicated 15 days in advance before respective activity. Refer TSP for terms related to services.

- 4. Submission of Offer in Two Bid System: Offer must be submitted in two parts as follows:
 - (a) **Part I (Techno Commercial Bid):** The bidder shall ensure submission of technocommercial offer as per tender terms.

Note: In any case, prices are not to be mentioned in Part-I bid.

(b) **Part-II (Price Bid):** Prices for each of the listed items has to be uploaded strictly in the prescribed format provided in the e-procurement portal. Bids received other than this given format will be **rejected**.

Note:

- If, in the price structure quoted for the required goods, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly;
- If there is a discrepancy between words and figures, the amount in words shall prevail.
- Bidder must quote for all line items being inseparable line items.

5. Earnest Money Deposit (EMD) / Bid Security:

- (a) EMD applicable for this tender is Rs. 7,00,000/- (INR Seven Lakhs only) or equivalent in foreign currency.
- (b) EMD in the form of NEFT / Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee drawn in favour of MAZAGON DOCK SHIPBUILDERS LIMITED or bid bond shall be forwarded to HOD (Commercial) in sealed envelope super scribing Tender Enquiry No. and Due date, so as to reach us within 7 MDL working days from the tender closing date. The scanned image of EMD shall be uploaded at Part-I tender stage. The bid

bond/ Bank Guarantee should be valid for 4 more weeks beyond the offer validity period indicated in the tender. Either of these instruments should be drawn on as per the list of banks approved by SBI/ Canara bank published on MDL website, payable at Mumbai. Crossed DD/ Pay Order issued by Co-operative banks however will be accepted subject to realization. Authorized Indian agent of the overseas bidders can submit EMD in the form of NEFT / DD/ Pay Order in Indian Rupees. Similarly, authorized Indian agent of the overseas bidders can submit BG on behalf of foreign bank as per list of banks approved by SBI / Canara bank as bank of international repute published on MDL website. Bidders to advise their bank/ banker to send EMD directly to commercial department or through SWIFT to dispense with additional step of verification of authenticity of signatories. In case of EMD transmitted through SWIFT, it shall be the responsibility of the bidder that he directs the receiving banker to forward the message duly authenticated to the concerned commercial officer mentioned in the tender. No change/modification in the text of the prescribed format of the BG is permissible.

- (c) Bidders should mention EMD details on MDL e-procurement portal.
- (d) In case of online remittance of EMD amount, scanned image as per format, duly filled, shall be uploaded in Part-I Techno-commercial bid. Further, the bidder should specifically mention the details of company name as well as nature of remittance, tender number/order number etc. in the text/narration fields of Bank's NEFT remittance in order to identify the same.
- (e) EMD can also be remitted online through MDL website: https://www.mazagondock.in/OnlinePayment.aspx.

Or one can find Online payment tab on MDL website home page as under:

- Go to www.mazagondock.in
- Click on Online payment tab available on home page.
- 4 option viz. Career, Tender, Security, Scrap/ Disposal will be available.
- Click on the Tender tab and make the payment online using Debit cards, Credit Cards,
 Net banking, BHIM/ UPI etc. after filling the required details.
- (f) Bids received without EMD will be categorical rejected other than exempted categories. Following bidders shall be exempted from submission of EMD.
 - State & Central Government of India Departments & Public Sector Undertakings.
 - ii. Firms registered with MDL. To qualify for EMD exemption, firms should necessarily submit valid copy of the Registration Certificate issued by MDL, for the items for which the offer is being submitted (System Exploitation-Documentation / D013002). Firms in the process of obtaining MDL registration will not be considered for EMD exemption.
 - iii. Micro and Small Enterprises who are manufacturer or Service Provider and give specific confirmation to this effect at the time of bid submission and whose credentials are validated online through Udyam Registration (as validated by Government from time to time) and through uploaded supporting documents.
 - iv. Firms registered with NSIC under its "Single Point Registration Scheme". (Exemption will apply only to items/services for which they are registered. To qualify for EMD exemption, firms should necessarily submit valid copy of the Registration Certificate along with the list of items / services for which they are registered, as issued by NSIC, in Part-I offer / bid. Firms in the process of obtaining NSIC registration will not be considered for EMD exemption.
 - v. Start-ups as recognized by Department of Industrial Policy and Promotion (DIPP).
 - vi. The recognised institutes such as VJTI/IIT.
 - vii. Common/Deemed DPSU registered vendors qualify for EMD exemption. Such firms shall submit valid copy of the registration certificate issued by DPSUs (other than MDL) for the items / services for which the offer is being submitted in Part-I offer/bid. Firms in process of obtaining registration in other DPSUs will not be considered for EMD exemption.
 - viii. Green Channel Status vendors qualify for EMD exemption. Such firms shall submit valid copy of the Green channel certificate issued by MoD for the items for which the offer is being submitted in Part-I offer/bid. Firms in process of obtaining this certificate will not be considered for EMD exemption.

Note: Bidder shall submit/upload the supporting documentary evidence along with Part I bid for claiming EMD exemption.

- (g) The original of EMD other than online EMD must be submitted to the HOD(C), Mazagon Dock Shipbuilders Ltd., Dockyard Road, Mazagaon, Mumbai-400010 within seven (7) MDL working days from the Tender closing date, in an envelope super-scribing the Tender no., Tender date, Tender closing date, Purchase Officer's name & brief description of the goods/ services tendered. If the original BG is not received in MDL, the Bid would be considered invalid & rejected accordingly.
- (h) EMD of unsuccessful bidders will be returned after finalization of the tender and shall be interest free.
- (i) EMD of successful bidders may be converted into performance security or refunded on receipt of performance security. The returned / refunded EMD would be interest free.

6. Pre-qualification criteria:

A) Technical Pre-qualification criteria: -

- a) Bidder should have prior experience in executing GMDSS, EIPRB, SSAS, SART & FBB System for commercial ships. Offers from Bidder not having prior experience are liable for rejection. At least one number of Purchase Order & Work Completion certificates of GMDSS, EIPRB, SSAS, SART & FBB System in Commercial or Naval ships need to be submitted along with the bid.
- b) Bidder, who are not OEM shall have Authorization letter from OEM for Supply of below mentioned items.
- c) Bidder will be completely responsible for the execution of System as a Turnkey Project and a single point solution provider.
- d) The Offered product as per TSP Section II, Para 2.1 Should be of mandatorily from the following List of Makers Only-

Sr.	Title	Sub-System	Make of following OEM
No.			Only
А	GMDSS with Console	1) 125th/ MF/HF Tx/Rx with DSC 2) V.H.F Radio Telephone 3) Standard Inmarsat C with ECG receiver	
		4) Navtex Receiver	1) Eekels /
В	Satellite Communication	5) Fleet Broad Band	2) Alphatron / 3) Radio Holland /
С	Two-way VHF Radio Telephone	6) Portable handsfree Two-way VHF Radio Telephone with batteries	4) Wartsila / 5) Kongsberg/ 6) Furuno Japan/
D	Survival Aircraft	7) EPIRB 406 MHz 8) AIS-SART (9 GHz)	
E	Security Alert System	9) Ship Security Alert System.	
F	Portable U.H.F Transceiver	10) Portable transceivers of UHF (400 MHz — 5W) with Battery Charger.	

- e) GMDSS Product i.e., Sl. no 1 to 4 of above table should be compulsorily of same make.
- f) The products offered should be mandatorily from the above mentioned make and must comply with the latest DNV Class and IMO/SOLAS norms along with valid IACS certification/Type approval/Manufacturer Certificate. Assembled products will not be

accepted.

- g) In the event that any of the aforementioned firms is acquired by any other company, and the bidder wishes to offer products from the acquired firm, such offering must be accompanied by valid documentary evidence of the acquisition.
- h) The MED B, MED D, IACS Certificates, Type Approval, Manufacturer certificate should have valid delivery date in line with Ship delivery dates mentioned in Technical Specification.

B) Commercial Pre-qualification criteria: -

- a) The average annual financial turnover of the bidder during the last three years, ending 31st March of the previous financial year excluding the calendar year of tendering should be at Rs. 1,05,00,000.00/- as per the annual report (audited balance sheet and profit and loss account) of the relevant period, duly authenticated by a Chartered Accountant / Cost Accountant in India.
- b) Bidders Shop and establishment registration certificate or registration certificate from registrar of firms or certificate of incorporation from Registrar of Companies (Not required for permanent registered vendors with MDL).
- c) 100% relaxation of prior turnover for MSE vendors. MSEs vendor shall meet prior experience criteria.
- d) Start-ups shall not be given any relaxation in prior turnover and prior experience.

Note:

a) Applicability to 'Make in India':

Bidders (manufacturer or principal of authorised representative) who have a valid/approved on going 'Make in India' agreement/program and who while meeting all other criteria above, except for any or more of sub-criteria in Experience and Past Performance above, would also be considered to be qualified provided:

- (i) their foreign 'Make-in-India' associates meet all the criteria above without exemption, and
- (ii) the Bidder submits appropriate documentary proof for a valid/approved on going 'Make in India' agreement/program.
- (iii) the bidder (manufacturer or principal of authorised representative) furnishes along with the bid a legally enforceable undertaking jointly executed by himself and such foreign Manufacturer for satisfactory manufacture, Supply (and erection, commissioning if applicable) and performance of 'The Product' offered including all warranty obligations as per the general and special conditions of contract.

b) Authorized Representatives:

Bids of bidders quoting as authorised representative of a principal manufacturer would also be considered to be qualified, provided:

- (i) their principal manufacturer meets all the criteria above without exemption, and
- (ii) the principal manufacturer furnishes a legally enforceable tender-specific authorisation in the prescribed form assuring full guarantee and warranty obligations and all contractual obligation as per the tender terms and conditions; and
- (iii) the bidder himself should have been associated, as authorised representative of the same or other Principal Manufacturer for same set of services as in present bid (supply, installation, satisfactorily commissioning, after sales service as the case may be) for same or similar 'Product' for past three years.

- c) Joint Ventures and Holding Companies: Credentials of the partners of Joint ventures cannot (repeat cannot) be clubbed for the purpose of compliance of PQC in supply of Goods/Equipment, and each partner must comply with all the PQC criteria independently. However, for the purpose of qualifying the Financial Standing Criteria, the Financial Standing credentials of a Holding Company can be clubbed with only one of the fully owned subsidiary bidding company, with appropriate legal documents proving such ownership.
- d) MSEs would be treated as owned by SC/ ST entrepreneurs:
 - (i) In case of proprietary MSE, proprietor(s) shall be SC /ST;
 - (ii) In case of partnership MSE, the SC/ ST partners shall be holding at least 51% (fiftyone percent) shares in the unit;
 - (iii) In case of Private Limited Companies, at least 51% (fifty-one percent) share shall be held by SC/ ST promoters.
- e) It is clarified that the work executed by the contractors for their in-house or capital use need not be considered for the purpose of bidders' experience of completion of similar works.
- f) Bidders need to upload/submit supporting documentary evidence in support of the Pre-Qualification Criteria Viz. Work / Purchase Order, Work Completion Certificate/ Proof of payment with Tax Invoice/Store Receipt and Acceptance Report or any other evidence that confirms that the work is completed which is issued by the party for whom the work is done. MDL has a right to verify / cause verification of authenticity of the said documents whenever felt necessary.

7. Bid Rejection Criteria:

- (a) **Categorical rejection criteria:** Any Bids received other than through e-portal (in case of e-tender) shall be summarily rejected.
- (b) Bids received without EMD (other than those who are exempted from payment of EMD), as specified in the tender.

(c) Liable rejection criteria:

- (i) Non-compliance/non-acceptance to any of the terms and conditions of the tender shall render the bid liable for rejection.
- (ii) Non submission of duly filled and signed Integrity pact.
- (iii) Bidders not meeting the Technical Pre-Qualification parameters stipulated in Tender / TSP enquiry.
- (iv) Bids received without pre-qualification documents where required as per the tender.
- (v) Bidders not meeting the Pre-Qualification parameters stipulated in Tender/TSP enquiry.

8. Performance Security Bank Guarantee (PSBG):

- (i) Separate Performance Security (PS) for an amount equal to 5% of each order value (excluding taxes, duties) payable in currency of purchase order shall be submitted within 25 days after notification of the award of contract and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.
- (ii) Performance security may be furnished in the form of NEFT / Online (MDL website) Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee in favour of Mazagon Dock Shipbuilders Limited, Mumbai from the list of Banks approved by SBI / Canara Bank published on MDL website.
- (iii) Non submission of PS with in stipulated time period may lead to cancellation of order by MDL at risk and cost of seller. In case cancellation of order is not opted by the buyer and seller has already commenced supply / services, MDL shall withhold 5% of order value

from his bills in lieu of PS. In such case, interest is to be recovered for the period starting from 26th day of transmission / notification of order/contract by any mode and amount involved at the relevant rate of interest. For foreign supplier, the interest will be EUROBOR/LIBOR plus 2%. For Indian suppliers, the interest will be SBI BPLR plus 2%.

- (iv) In case of foreign bidders, the performance security must conform to Uniform Rules for Demand Guarantees (URDG 758) an international convention regulating international securities.
- (v) The performance security will be forfeited and credited to MDL's account in the event of a breach of contract by the contractor. It will be refunded to the contractor without interest, after he duly performs and completes the contract in all respects including the warranty under the contract.
- (vi) Where the duration of contract is very long and banks are unwilling to issue BGs for long duration, rolling bank guarantee towards performance security can be submitted where it will be valid for at least one year with claim period of three months within which the same can be extended for further period by amendment.
- (vii) Performance security on reducing balance can be accepted when the contract period extends beyond one year. This will be effective on completion of one year and thereafter on six monthly / yearly basis.
- (viii) In the event of defects due to poor workmanship leading to non-performance of the Equipment/Item and bidder failure to attend the defects within a reasonable period of time, the PSBG will be enchased by MDL. MDL's decision in this regard shall be final and binding on the supplier / contractor.
- (ix) In the event of postponing of delivery of deliverables/services or extension of guarantee desired & sought by MDL, the Performance Security (for 5% of order value) has to be extended and its amendment charges shall be borne by supplier.

9. Warranty/Guarantee: Warranty/Guarantee shall be as per TSP.

- a) The equipment along with associated auxiliaries/components shall be warranted by the equipment supplier for the stipulated performance for a period of twelve (12) months after planned delivery date (D) of the ship by MDL to the Owner.
- b) During the said period, the equipment supplied shall be warranted against any malfunction, defects, material failure, and non-compliance to ordered specifications, sub-optimal performance, design deficiency, poor workmanship and quality. Any expense on account of equipment malfunction, repair or supply of spares against guarantee defects is to be borne by the equipment supplier. In case, warranty extension is required the same is to be catered for by the equipment supplier. If any defective part to be taken back to OEM's factory (i.e importing and re-exporting from County of origin), for service purpose the liability of the same shall be borne by the supplier.

Note: Bidders have to quote for warranty /guarantee extension charges for one year beyond warranty clause mention in TSP for each yard in the price sheet attached with the tender. Bidder should note that these charges will not be considered for ranking purpose. Bidders shall not claim for warranty extension in case this clause is not being exercised.

10. Currency of Bidding:

- (a) Indian Bidders shall quote in Indian Rupees only.
- (b) Foreign Bidders are allowed to quote price (and get paid) in RBI's notified basket of foreign currencies US Dollar or Euro or GBP etc.

11. Pricing:

(a) **For Indian Bidders:** Prices of all items/services shall be quoted for delivery of the items/services to the following destination including charges towards inland transportation, inspection charges, insurance, custom duty & cess, and other local costs incidental to the delivery of the Goods/Services.

Items/services	Delivery Location at MDL / MDL Stores,
	Mumbai

- (b) For Foreign Bidders: Bidder shall quote the prices for the delivery on Incoterm CIF, Mumbai/JNPT port basis for delivery at MDL. Order will be placed on CIF basis only.
- (c) The prices quoted shall remain firm and fixed during the currency of the order / contract unless agreed otherwise by MDL.

12. Taxes & Duties:

- (i) Indian Bidders must clearly mention the applicable Taxes in the rate sheet enclosed in the tender. The item wise rates (i.e. Basic + Duties & Cess + Packing, Forwarding, inspection charges, Freight & Insurance) quoted in the Rate sheet should exclude Taxes. Bidder should indicate GST rates as applicable separately under each of the head in the same rate sheet, which will be paid extra based on tax invoice to the extent applicable.
- (ii) Foreign Bidders shall quote their price on Incoterm CIF, Mumbai Basis. Taxes & duties as applicable to be borne by buyer & seller in their own country i.e MDL will bear the taxes & duties applicable within India and for outside India same will be borne by seller/bidder.
- (iii) Foreign bidder shall submit Tax Residency Certificate (TRC) in Part-I offer. In case of remittances to Foreign Companies for services, as per the Income tax act and DTAA provisions, TDS shall be carried out from the amount payable towards services. As per the extant applicability and existing rates, following cases pertaining to TDS are presented for clarity:
 - a) Case 1 (TRC is made available by foreign bidders): Tax Deduction at Source (TDS) @ 15% of total service payment is applicable or as per applicable TDS rate stipulated by Government of India. If this is not agreed to by the bidder in the bid or during TNC / CNC, then this shall be appropriately loaded as per applicable rates on the price for the purpose of ranking. However, bidders to note that TDS rates / DTAA rates differ from country to country. It varies from 10% to 25%.
 - b) Case 2 (TRC is not made available by foreign bidders): Tax Deduction at Source (TDS) at the rates as mentioned in the table below is applicable. If this is not agreed to by the bidder in the bid or during TNC / CNC, then this shall be appropriately loaded as per applicable rates stipulated by Government of India on the price for the purpose of ranking. These rates are tentatively as under:

Service Payment slabs	Rate of TDS applicable on total	
(converted in INR)	service payment	
Up to Value of INR 1 Cr.	25.75%	
Above INR 1 Cr up to INR 10 Cr.	26.26%	
Above INR 10 Cr.	27.0375%	

(iv) Goods and Services Tax (GST) - Applicable for Indian Bidder:

- a) The prevailing rate of GST is to be indicated in your blank rate sheet in Part-I.
- b) MDL's GST Number is 27AAACM8029J1ZA.
- c) Bidder/supplier shall comply as per GST act of India and responsible for the financial and non-financial consequences in case of non-compliance of GST provisions/requirements/timelines on their part.
- (v) End User Certificate if applicable. Format to be provided by vendor immediately after placement of order.

13. Payment Terms:

For Indian Bidders: On receipt of Invoice, 100 % of Payment shall be made within 15 days of receipt and acceptance of material and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus 100% taxes, duties etc. as applicable.

For Foreign Bidders: 100 % Payment made through LC for CIF Mumbai/JNPT port delivery against receipt of documents mentioned in payment mode.

Note: If PSBG is not submitted, then the equivalent amount shall be retained.

- (i) **Part Payment**: Part Supply, Part Payment shall be applicable.
- (ii) Services: 100% payment for all kinds of services wherever included in the same order will be admissible for payment within 15 days against certification by the designated acceptance authority after satisfactory completion of the respective activities/services and on receipt of invoice.
- (iii) **Extended Warranty (if applicable):** 100% payment for warranty wherever included in the same order will be admissible for payment will be made within 15 days from date of start of extended warranty period.

14. Payment Mode & Documents:

- (a) All the payments to indigenous bidders due shall be made through Real Time Gross Settlement (RTGS) / National Electronic Fund Transfer (NEFT) by MDL.
- (b) All the payments to foreign bidders shall be through Letter of Credit/Direct Remittance through Bank.
- (c) MDL may opt to make due payment for items having shelf life, services or any miscellaneous payment required as per contract through Direct Remittance from Bank post-delivery & acceptance or completion of services.

Note: Invoices should be submitted at "Receipt Section" adjacent to the ARS Punching Section, South Yard MDL.

(d) Documents for LC Payments for Goods (Foreign Bidders):

Note: LC will be opened 60 days before latest date of shipment. However, Bidders need to inform at least 75 days in advance for readiness of the equipment for shipment for processing the opening of LC.

- (i) Set of Original + 2 Copies of signed Invoice showing item-wise prices as per the order.
- (ii) Set of Original + 2 Copies of signed packing List clearly showing list of items packed.
- (iii) Set of Original + 2 Copies Clean on Board Bill of Lading OR Air Way Bill Made in the name of MDL's Bank and Marked as freight paid.
- (iv) Set of Original + 2 Copies Certificate of approval OR Release Note from Inspection agency.
- (v) Certificate of country of origin in Original + 2 Copies.
- (vi) Original + 2 Copies of Warranty/Guarantee Certificate as per contract/order.
- (vii) Original + 2 Copies of all Manufacturer's Test Certificates (MTCs) / Reports, Drawings, Manuals, Procedures etc. as relevant to the ordered item.
- (viii) Certificate Confirming that supplier has couriered / dispatched 4 set of Non-Negotiable Documents comprising of all Test reports / MTCs, Technical Documents, Drawings, Manuals, Procedures etc. and of Signed Invoices, Packing Lists, Bill of Lading/AWB marked as Freight Paid, Insurance Policy/Document, Freight Paid Certificate, MDL nominated Inspection Agency's Certificate of approval, Country of Origin Certificate, Guarantee / Warranty Certificate, directly to MDL.
- (ix) Original + 2 Copies of the Certificate issued by the classified society confirming seaworthiness of the vessel and that the shipment is made on vessels of not more than 15 years' vintage. (Applicable in case of CIF contracts / orders)
- (x) Certificate confirming that the shipping instructions (inclusive of packing)/Sea/Air worthiness packing have been followed while packing / shipment and forwarding of details for Freight and insurance to MDL.
- (xi) All the documents should clearly indicate the Purchaser's Order number, Import License Number, Airway Bill / Bill of Lading Number, Insurance Policy number/ Insurance Document reference number.

(e) Alternate MSME vendor payment through TReDS – Details are available on MDL Website. Kindly visit MDL website Link: https://mazagondock.in/English/pages/Tenders under tab Ship Building (SB)/MPV Project. This is applicable for Indian Bidder only.

15. Consignee:

(a) For Indian Bidders: Material scheduled for delivery are to be delivered at MDL (Anik / Bond / Electronic store located in Mumbai)

Note:- In order to avoid inconvenience during the delivery of material, it is advisable for supplier to depute their representative in their own interest to coordinate the activities between the transporter, and MDL stores.

- i) Following document should be submitted along with material:
 - PO copy & subsequent amendments issued to it, if any.
 - Delivery Challans clearly indicating MDL Purchase Order No, Inspection Note Details and Packing List co-relating the items in the inspection report.
 - Copy of Warranty Certificate, Preservation Certificate etc as applicable.
 - Technical documentation, if applicable.
- ii) Unloading of the equipment/ items will be arranged by MDL. Supplier is required to give 4 day's advance intimation to MDL clearly indicating approx. dimensions and weight of consignments for arranging fork lift/crane for unloading.
- (b) **For Foreign Bidders:** Bidder shall deliver the material on Incoterm CIF, Mumbai/JNPT port basis
- **16. Inspection & Testing**: It shall be as per TSP. Inspection agency TPI. Inspection charges to be borne by vendor/supplier
 - (a) **Receipt Inspection:** MDL shall carry out necessary inspection of the items on receipt in the MDL on the basis of appropriate MDL Inspection system requirements & the Inspection documents submitted by suppliers. In case joint receipt inspection (JRI) is required to be carry out, same may be carried out along supplier's rep. Any objection raised by MDL inspection team against quality of material or workmanship shall be satisfactorily corrected by the supplier at his expenses including replacement as may be required within shortest possible time within 30 days. Items damaged during transit shall also be rectified or replaced by the supplier within shortest possible time.
 - (b) **Rejection of the material:** Any portion of the equipment found defective/rejected, the supplier shall collect the same at his cost from the MDL Yard, all incidental charges being born by supplier, (inclusive of custom duty, if payable), within 30 days from the date of intimation to the supplier of such rejection. The MDL reserves the rights to dispose-off the rejected item at the end of a total period of 90 days in any manner, to the best advantage to the MDL & recover storage charges & any consequential damages, from sale proceeds of such disposal.

17. Loading Criteria:

Deviations sought by the bidder shall be loaded on the bidder/s quoted prices during price evaluation by MDL for ranking of bids to judge L1, as under.

- (a) Varied payment terms quoted by indigenous bidders as compared to the terms stated in the Tender document shall be normalized by adopting the Benchmark Prime Lending Rate of State Bank of India plus 2% thereon on the amount (s) at variation and / or for the period (in no. of days) at variation. For foreign bidders, LIBOR / EURIBOR rates plus 2 % or 6%whichever is higher would be applicable.
- (b) In case of Foreign bidders, L/C opening charges on CIF value, Interest for period of 20 days @ Benchmark Prime Lending Rate (BPLR) of SBI+2% on payment amount to be loaded if applicable for ranking purpose. In case of only foreign bidders quote this clause is not applicable.
- (c) If Service Component exists in an offer from a foreign vendor, then Tax Residency certificate (TRC) should be submitted with Part I offer. If no TRC is submitted, then the enhanced Income Tax rate and GST thereon will be considered while determining L-1.

(d) For the additional delivery period sought by the bidder over the stipulated date of delivery as per Tender, 0.50% per completed week will be loaded to the quoted price.

18. Integrity Pact (IP):

The Integrity pact essentially envisages the agreement between prospective vendors / bidders & buyers committing the person/officials of both the parties not to exercise any corrupt influence on any aspects of the contract. Only those vendors/bidders who enter into such an integrity pact with the buyer would be competent to participate in the bid. The format of integrity Pact is available on MDL's website; details are at enclosure. IP shall be submitted on plain paper.

The 'Integrity pact' dully filled as per enclosed format to be submitted along with the offer. Bidders to ensure that each page of Integrity pact shall be duly signed by the bidder. Non-submission of Integrity Pact by the bidders duly signed on each page along with Part-I bid is under liable for rejection. Bidders shall send original IP immediately to MDL post submission of bid.

Independent External Monitors (IEM): The following Independent External Monitors (IEMs) will have the power to access the entire project document and examine any complaints received by him. In case of any change in IEMs it will be informed accordingly.

For any administrative enquires and clarification on tender, bidders shall contact Commercial Dealing Executive. In case of issues related to Integrity Pact (IP) please contact Independent External Monitor (IEM) whose details are as below:

- i. Shri. M. N. Krishnamurthy, IPS(Retd)
- ii. Shri. Deepak Kashyap, IRTS(Retd)
- 19. Ranking of Bids: Tender line items are inseparable and non-divisible in nature.
 - (a) Ranking of bids shall be done on total value wise by considering following factors:
 - (i) The comparison of the responsive tenders shall be on total outgo on Least Cost Net of Credit Basis (LCNC), for the procurement to be paid to the supplier or service provider, including all elements of costs, duties, levies, freight, insurance etc. excluding GST (where ITC is available). Therefore, it should normally be on the basis of CIF/ FOR destination basis, duly delivered, commissioned, as the case may be.
 - (ii) The foreign bidders shall quote on Cost, Insurance & Freight (CIF) basis. They should also to indicate the custom tariff number and custom duty applicable in India. To arrive at the Free On Rail (FOR) destination cost over and above CIF cost the following charges to added / loaded:
 - a. Port Handling Charges: @ one per cent of consignment value excluding services.
 - b. Custom duty, cess and surcharges: @ Eleven per cent of consignment value excluding services
 - c. Clearing agency charges & Inland freight: @ one per cent of consignment value excluding services.
 - d. For bids with Letter of Credit (LC) payment, the likely LC charges (as ascertained from MDL's bankers) should also be added.
 - e. Interest for period of 30 days @ base rate of SBI BPLR plus 2% (As notified by HoD(F) of MDL on quarterly basis) on payment amount is to be considered while evaluating foreign bidders for ranking purpose. iii. In case both Indian and foreign bidders have quoted in the tender, the comparison of the offers would be done on the basis of FOR destination including all applicable taxes and duties (Where Input Tax Credit (ITC) cannot be availed by MDL) on the principle of the total outgo from MDL's pockets.
 - (iii) In case both Indian and foreign bidders have quoted in the tender, the comparison of the offers would be done on the basis of FOR destination including all applicable taxes

and duties (Where Input Tax Credit (ITC) cannot be availed by MDL) on the principle of the total outgo from MDL's pockets.

- (iv) In case there are no domestic bidders, a comparison of offers can be made on the basis of CIF/landed costs since the rest of costs would be same for all bidders.
- (v) The applicable loading towards deviations shall be loaded for ranking purpose.
- (b) For financial evaluation(Ranking), all bids shall be converted to Indian Rupees based on the "Bill for Collection (BC) selling "exchange rate on the last deadline for bid submission (Techno-commercial offer). If the last deadline for bid submission happens to be holiday or non-transaction day, the exchange rate on immediate previous working day will be adopted. The rate could be obtained from RBI/SBI rates as available on Internet.
- (c) Discount given, if any, by the bidders, after the last date for submission of the bids but before opening of the price bids, will not be considered for determining the ranking of bids but will be considered after the said bidder is adjudged as L1.
- (d) On-line ranking visible to the bidders after opening Part-II price bid is without loading parameters. However, the L1 bidder will be evaluated offline by applying all applicable loading parameters as per tender and clarifications during techno-commercial scrutiny / TNC meeting.
- (e) Loading/Ranking will be done on original submitted bid at the time of closing of tender. However, in case MDL invites supplementary price bid from technically qualified bidders, then same will also be considered while ranking of bids.

20. Public Procurement Policy (MII Order 2017 and MSE Order 2012):

This is applicable for this tender and details are available on MDL Website. Kindly visit MDL website Link: https://mazagondock.in/English/pages/Tenders under tab Ship Building(SB)/MPV Project.

Note: All nominated vendors (Class I, Class-II and Non-Local) are eligible to bid for this tender.

21. Public Grievance Cell:

A public grievance cell headed by Shri R. R. Kumar, ED (EY) has been set up in the company. Members of public having complaints or grievances are advised to contact above Authorities on Wednesday between 10.00 hours and 12.30 hours in his office at 3rd Floor, West Block, Mazagon Dock Shipbuilders Ltd or send their complaints / grievances to him in writing for redressal. Telephone No. is 23762106(MDL).

22. Breach of Obligation:

In case of breach of any obligation mentioned under, the bidder shall be disqualified / debarred from the bidding process for a period of one year from the date of notification;

- i) Bidder has withdrawn / modified / amended / impaired / derogated from the tender during the period of bid validity.
- Bidder fails or refuses to execute the contract upon notification of acceptance of bid by MDL during the period of bid validity.

23. Option Clause:

MDL the right to increase/decrease the ordered quantity by up to 50 % at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period).

24. Land Border:

This is applicable for this tender and details are available on MDL Website. Kindly visit MDL website Link: https://mazagondock.in/English/pages/Tenders under tab Ship Building (SB)/MPV Project.

25. Right to Reject any or all Bids:

MDL reserves its right to accept or reject any or all Bids, abandon/ cancel the Tender process, and issue another tender for the same or similar Goods/Services at any time before the award of the contract. It would have no liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action(s).

26. Additional Instructions:

- (a) Bidder shall abide to all tender terms & conditions including General Conditions of Contract (GCC).
- (b) In case of improper on-line filling or non-submission of Acceptance formats for Tender Enquiry Form (TEF), GCC, it shall be presumed that all our tender terms & conditions are acceptable to the bidder. For GCC, kindly visit MDL website Link: https://mazagondock.in/English/pages/Tenders under tab Ship Building (SB)/MPV Project.

27. E-Portal and E-Tender Guidance:

- (a) **Submission of bids against e-Tenders**: The bidder is required to quote online on the *e-Procurement* website **www.eprocuremdl.nic.in** by the deadline, by submitting the Techno-commercial Bid & Price Bid in Electronic format only. The prices/quotes & a few declarations shall have to be entered/uploaded by the bidder online in the Tender's entry forms & other bid documents scanned/soft copies shall have to be uploaded as part of the bid. All bids should be digitally signed using DSC (as explained below).
- (b) To participate in e-Tender (s), every bidder must register themselves on the ASP's website (registration is free of cost) & must possess a legally valid Class-IIB or above Digital Signature Certificate (DSC) as per IT Act-2000, using which they can sign their electronic bids. The DSC can be procured from any Certifying Authority (CA) authorized by Controller of Certifying Authorities (CCA) of Govt. of India.
- (c) National Informatics Centre (NIC) have been appointed by MDL as the Application Service Provider (ASP).
- (d) Online User Manual is available on the website for the guidance of users & for participating in the e-Procurement/ e-Tendering, the bidder must ensure having the requisite (IT) infrastructure at their office premises.
- (e) For any further details of e tendering & digital signatures, please contact 0120- 4200462, 0120-4001002, 8826246593, eproc-support@gov.in.
- (f) Problems in hardware/software, internet connectivity, system configurations, Browser setting etc., for whatsoever reason shall not be considered for extension of tender closing date and time.
- (g) MDL will not be responsible for an error in downloading of tender documents from web by the bidders. The version appearing on MDL website will be considered final and authentic.

28.Contact Details for Queries:

All bidders are requested to get their queries, if any, clarified in advance (i.e. 7 days in advance to tender closing date) to avoid last minute delay. In case of any clarifications regarding tender, bidders are requested to contact the following executives.

Department	Name of Executives	Contact No	Email
Tk-:l	Mr. Santosh Sitaraman DGM (SB-Design)	022 2376 3025	ssitaram@mazdock.com
Technical	Ms. Neha Singh, M (SB-Design- Elec & Weapon)	022 2376 3084	manwaruddin@mazdock.com
Commercial	Mr. Satish Chandra DGM / PE(C-P17A)	022 2376 2747	schandra@mazdock.com

Mr. Bhuvnesh Kalwar DM (C-P17A)	022 2376 2738	bkalwar@mazdock.com
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29. We look forward to receive your most competitive and reasonable offer against this tender.

Yours faithfully,

For MAZAGON DOCK SHIPBUILDERS LIMITED

Enclosure:

Enclosure-1	General Conditions of Contract (GCC) for Goods and Services	
Enclosure-2	Integrity Pact (IP)Format	
Enclosure-3	Performance Security (PS) Bank Guarantee Format	
Enclosure-4	RTGS format	
Enclosure-5	Details for remittance towards Performance Security (PS) Bank	
Eliciosure-5	Guarantee Format	
Enclosure-6	Contact Details of the bidder	
Enclosure-7	Format for Compliance Certificate w.r.t. Land Border Clause	
Enclosure-13-A	Format for declaration of Local Content & Purchase Preference as pe	
Liiciosule-13-A	PPP Order 2017. (Applicable for procurement below Rs 10 Cr)	
Enclosure-13-B	Format for declaration of Local Content & Purchase Preference as per	
Liiciosule-13-D	PPP Order 2017. (Applicable for procurement above Rs 10 Cr)	
Enclosure-14-A	Format for declaration of Actual Local Content (Applicable for	
Liiciosure-14-A	procurement below Rs 10 Cr)	
Enclosure-14-B	Format for declaration of Actual Local Content (Applicable for	
Liiciosui e-14-D	procurement above Rs 10 Cr)	

Note: All above enclosures are available on MDL Website. Kindly visit MDL website

<u>Link</u>: https://mazagondock.in/English/pages/Tenders under tab Ship

Building(SB)/MPV Project.





MAZAGON DOCK SHIPBUILDERS LIMITED

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SHIPBUILDING DESIGN- ELECTRICAL & WEAPON DEPARTMENT DOCKYARD ROAD, MUMBAI - 400 010

TECHNICAL SPECIFICATION FOR PROCUREMENT OF

Radio Equipment's conforming to GMDSS for 7500 DWT Multi-Purpose Dry Cargo Vessel - Hybrid.

(QUANTITY: ONE SET PER SHIP)

PROJECT	:	7500 DWT Multi-Purpose Dry Cargo Vessel
YARD NO	:	21001, 21002, 21003, 21004, 21005, 21006.
CLIENT	:	NAVI MERCHANTS
DOCUMENT NO	:	DR/EL/MPV/5009
DATE	:	09 September 2025

4	Pre Qualification added, Section II Modified	09-09-25	SEDs
3	Section I Modified – Number of Vessels changed	18-04-24	SEDs
2	Modified Warranty Clause & Yard Numbers of Section I Incorporated. AIS-SART Equipment included	14-03-24	MDL
1	U.H.F Trans-receiver, Antenna Cable length, Battery Backup Time, Service of Engineer Clause added	12-02-24	SEDs
0	TSP Prepared based on Specification mentioned in Project Contract.	02-02-24	SEDs
REV	DESCRIPTION	DATE	AUTHORISED BY

Neha Singh

Nena Singh M (D-L&Wn) Prepared By A

Sandeep Shinde CM (D-L&Wn) Checked By Amade

P.K.Modak DGM (D-L&WN) Section Head



MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	. 4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 2 of 39

CONTENTS

PARA NO.	DESCRIPTION	PAGE NO.
1	General Requirements	4
1.1	Application	4
1.2	Security of Information	4
1.3	Supplier's Offer	4
1.4	Deviations	4
2	Certificate of Conformity	5
3	PRE-QUALIFICATION CRITERIA	5
	GENERAL CONDITIONS AND REQUIREMENTS	6
1	Subject	6
2	Endurance	6
3	Class, Rules, Regulations & Flag	6
4	Ship's Basic Particulars	10
5	Ship's Support Systems Supplies	10
6	Vibration	11
7	Noise Level	11
8	Manning Policy	12
9	EMI/EMC Specifications	12
10	Documentation	12
11	Quality Assurance and Testing	14
12	Setting to Work (STW)/ Operation Check (Ops-check)/ Harbour Acceptance Trials	14
13	Spares	15
14	Installation & Commissioning Consumables	15
15	Space Constraints	15
16	Interchangeability	15
17	Tally and Diagram Plates	15
18	Instruction Plates	16
19	Painting	16
20	Lifting Arrangement	16
21	Preservation / Conditioning	16
22	Packing & Shipping	17
23	Security of Information	17
24	Warranty	17
25	Extension to Warranty	17
26	Planned Ship Delivery Details(D)	18
27	Weight Recording / Weight Certificate	18
28	Technical Assistance	18
29	Compliance Matrix and Deviation	19
30	Technical Offer as Per Shipyard Tender	19
31	General Scope of Supply	20
	Section II	21
1	Scope of Supply	21
2	System Configuration	21
3	Technical Requirement & Specification	22
3.1	125W MF/HF Tx/Rx with DSC	22
.3.2	V.H.F Radio Telephone with DSC	23



MAZAGON DOCK SHIPBUILDERS LTD., (A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 3 of 39

3.3	Standard Inmarsat C with EGC receiver	24	
3.4	Navtex (Navigational Telex) Receiver (latest version)	25	
3.5	Fleet Broad Band for Voice and Data	25	
	Communication	23	
3.6	Two way VHF Radio Telephone	26	
3.7	Satellite Emergency Position Indicating Radio	27	
	Beacon (EPIRB 406 MHz)	2/	
3.8	AIS – Search & Rescue transponder (9 GHz)	27	
3.9	Ship Security Alert System	28	
3.10	Portable U.H.F Transceiver	28	
4	Ship station Radio licence	29	
5	Deliverables	29	
6	SERVICES OF ENGINEERS	29	
7	DELIVERY TIMELINES	30	
	Appendix		
	Appendix-1:- Deviation List	31	
	Appendix-2:- Certificate of Conformity	32	
	Appendix-3:- Weight Control Data Sheet	33	
	Appendix-4:- Weight Certificate	34	
	Appendix-5:- Cable Form List	35	
	Appendix-6:- LMS Format	36	
	Appendix-7:- Cable Connection Details	38	
	Appendix-8:- Dimension & Shock Mount Details	39	
	Appendix-2:- Certificate of Conformity Appendix-3:- Weight Control Data Sheet Appendix-4:- Weight Certificate Appendix-5:- Cable Form List Appendix-6:- LMS Format Appendix-7:- Cable Connection Details	32 33 34 35 36 38	



MAZAGON DOCK SHIPBUILDERS LTD.,

(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4 4 4 5
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 4 of 39

1. **GENERAL**

- 1.1 <u>APPLICATION</u>: Mazagon Dock Shipbuilders Ltd., Mumbai is premier shipyard of India. The items projected in this specification are for use on 7500 DWT Multi-Purpose vessel Hybrid by NAVI Merchants. MDL have been awarded contract of 06 numbers of MPV by NAVI Merchants. MDL Yard number shall be 21001, 21002, 21003, 21004, 21005 & 21006.
- 1.2 **SECURITY OF INFORMATION:-** The information contained in this TSP/SOTR is restricted in nature. Adequate measures shall be taken to ensure safe custody of this document. The content of this document not be divulged to any other firm/third party without the prior permission of MDL/NAVI MERCHANTS.

1.3 **SUPPLIER'S OFFER**

- 1.3.1 The offer shall strictly conform to the details indicated in this specification and in the referred standards / drawings / documents (All Latest Issues are to be followed).
- 1.3.2 Unless referred to by supplier, before submission of offer & obtain clarifications, omission, if any, in the specifications shall not relieve the supplier of his responsibility to ascertain these requirements to perform work and furnish material in accordance with codes specified.
- 1.3.3 The offer should be complete with all relevant details as per Section I & II.
- 1.3.4 Any clarification required regarding Technical Specification / Requirement should be sought prior to submission of the offer.
- 1.3.5 Any incorrect / incomplete submission / non confirmation to any requirement shall lead to non-acceptance of offer.
- 1.3.6 Vendor has to ensure complete awareness of the relevant International / Indian / IMO standards/IRS Rules/ ABS Rules. Suppliers to note that no kind of correspondence as regards to non-awareness / ignorance on its part will be entertained, post order. Vendor to adhere strictly to all requirements mentioned in technical requirements.

1.4 DEVIATIONS -

1.4.1 In case the items offered are NOT conforming to the details given in the Specification, the offer should clearly indicate a comparative statement of the requirement indicated in the Specification vis-a-vis that of the items offered, indicating limitations/advantages, for Indian Coast Guard/ MDL consideration. Refer <u>APPENDIX - 1</u> for Format. Onus of proving the equivalence of the alternate specifications, if any, quoted in lieu of those required as per tender rests with the Supplier.



MAZAGON DOCK SHIPBUILDERS LTD.,

(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 5 of 39

- 1.4.2 No deviations shall be granted after the placement of order.
- 1.4.3 In case no deviation is indicated in the offer, it shall be presumed that the offer conforms to the technical specification and therefore binding on the supplier.

2. CERTIFICATE OF CONFORMITY -

- 2.1 The offer should be complete with **CERTIFICATE OF CONFORMITY** as per format detailed at **APPENDIX 2** for COTs item/equipment.
- 2.2 <u>IMPORTANT NOTE</u> The offer received without the "Certificate of Conformity", duly filled in and signed, may not be considered.

3. PRE-QUALIFICATION CRITERIA:-

- a) Bidder should have prior experience in executing GMDSS, EIPRB, SSAS, SART & FBB System for commercial ships. Offers from Bidder not having prior experience are liable for rejection. At least one number of Purchase Order & Work Completion certificates of GMDSS, EIPRB, SSAS, SART & FBB System in Commercial or Naval ships need to be submitted along with the bid.
- b) Bidder, who are not OEM shall have Authorization letter from OEM for Supply of below mentioned items.
- c) Bidder will be completely responsible for the execution of the System as Turnkey Project and a single point solution provider.
- d) The Offered product as per TSP Section II, Para 2.1 Should be of mandatorily from the following List of Maker's Only:-

Sr. No.	Title	Sub-System	Make of following OEM Only
Α	GMDSS with Console	1) 125W MF/HF Tx/Rx with DSC	1) Eekels /
		2) V.H.F Radio Telephone	2) Alphatron /
		 Standard Inmarsat C with ECG receiver 	3) Radio Holland /
		4) Navtex Receiver	4) Wartsila /
			5) Kongsberg /
В	Satellite	5) Fleet Broad Band	o, nongozong.
	Communication		6) Furuno Japan /
C	Two way VHF	6) Portable hands free Two-way VHF	
	Radio Telephone	Radio Telephone with batteries	
D	Survival Aircraft	7) EPIRB 406 MHz	
		8) AIS-Search and Rescue Transponder (9 GHz)	



MAZAGON DOCK SHIPBUILDERS

LTD.,

(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

		. 4 9
DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4 '
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 6 of 39

E	Security Alert System	9) Ship Security Alert System.	
F	Portable U.H.F Transceiver	10) Portable transceivers of UHF (400 MHz – 5W) with Battery Charger.	

- e) GMDSS Product i.e. SI. no 1 to 4 of above Table should be compulsorily of same make.
- f) The products offered should be mandatorily from the above mentioned make and must comply with the latest DNV Class and IMO/SOLAS norms along with valid IACS certification/Type approval/Manufacturer Certificate. Assembled products will not be accepted.
- g) In the event that any of the aforementioned firms is acquired by any other company, and the Bidder wishes to offer products from the acquired firm, such offering must be accompanied by valid documentary evidence of the acquisition.
- h) The MED B, MED D, IACS Certificates, Type Approval, Manufacturer certificate should have valid delivery date in line with Ship delivery dates mentioned in Technical Specification.

SECTION I - GENERAL CONDITIONS AND REQUIREMENTS

 Subject: The general conditions and requirements specified in this Section are intended to meet the functional requirements of the Equipment/ System elaborated in Section II and its associated auxiliaries/support systems; for meeting the overall requirements of the Vessel.

2. Endurance:

The endurance of the Vessel, at service speed of 11 knots, shall be about 5500 nautical miles.

3. Class, Rules, Regulations & Flag:

The Vessel will be registered under Danish flag and built under survey and in accordance with the rules of Classification Society of DNV.

Classification Notations: ¥1A

Ship Type Notation: Multi-purpose Dry Cargo Ship

Additional Class Notations:

Structural strength and integrity: GRAB (2-20): Hold designed for

Loading/discharging by grabs.

Strengthened (IB) : Inner bottom strengthened for heavy cargo Propulsion, Power Generation and auxiliary systems

E0 : Unattended Machinery Space



MAZAGON DOCK SHIPBUILDERS	DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
LTD.,	WEAPON DEPT.	REV. NO.	4
(A Govt. Of India Undertaking)	MDL YARD NO 21001 to	DATE	09 Sep 25
	21006.		
Dockyard Road, Mumbai -400 010.	Radio Equipment's	PAGE	Page 7 of 39

Battery (Safety)

: EES installation in one EES space has a rated

capacity of 1000kWh or above not having the

Battery (Power) notation

Navigation notations

: NAUT (AW)

Cargo operations notations:

: Loading computer system

• Equipment and design features notations:

DG (B)

: Carriage of dangerous goods in bulk acc. SOLAS

Reg. II-2/19

DG (P)

: Carriage of dangerous goods in packaged form acc.

SOLAS Reg. II-2/19

DBC

: Carriage of solid dangerous goods in bulk acc.

IMSBC Code

Container

: Equipped for carriage of Containers

Cold climate notations

: Ice 1B

Environmental and pollution notations:

BWM (T)

: Ballast Water Treatment

Clean

: Controlling and limiting operational emissions and

discharges ER (SCR) Installation of SCR System in

exhaust main engine

Recyclable

: Inventory of hazardous materials

Survey arrangement notations:

BIS

: In water survey

TMON (Oil lubricated)

: Tail shaft monitoring (oil lubricated system)

Note: Final Class notations to be confirmed by Classification society. As per above class notations, firm shall comply following rules and regulation as applicable

3.1 RULES AND REGULATIONS

The Vessel, including its hull, machinery and equipment shall be constructed in accordance with rules and regulations listed below and which are in force on the date of signing the contract.

3.2 GENERAL

- 1. Classification Society Rules for Multi-purpose vessel
- 2. Marine Laws and Regulations of Government of the Ship's Flag.

3.3 IMO CONVENTION

- 1. AFS, "International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001":
- 2. BWM "International Convention for the Control and Management of Ships Ballast Water and Sediments, 2004" and IMO Res. A.868(20) and USCG regulations, "Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Organisms and Pathogens"
- 3. COLREG Convention on International Regulations for Prevention of Collision at Sea, 1972 and amendments up to 2013.
- 4. SOLAS International Convention for the Safety of Life at Sea 1974, or it's protocol of 1988 and up to amendments 2023 January.
- 5. ILLC International Load Line convention, 1966/1988 and amendments up to 2014
- 6. MARPOL International convention for the Prevention of Pollution from ships, 1973 and protocol of 1978, amendments up to 2022 January.



MAZAGON DOCK SHIPBUILDERS LTD.,

(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL & WEAPON DEPT.	T.S.P. NO.	DR/EL/MPV/5009
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 8 of 39

7. International Convention on tonnage measurement of Ship 1969. 4.2.3.

3.4 IMO CIRCULAR

- 1. IMO MSC/Circ. 1053 "Explanatory Notes to the Standards for Ship Maneuverability"
- 2. IMO Resolution MSC.1/Circular.1353/Rev.2 (7 December 2020) "Revised guidelines for the preparation of the cargo securing manual"
- 3. MSC/Circular.891 Guidelines for the On-Board Use and Application of Computers.

3.5 IMO RESOLUTION

- 1. Resolution MEPC.266(68) Amendments to the Annex of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating there to (Adopted on 15 May 2015) Amendments to regulation 12 of MARPOL Annex I
- 2. Resolution MEPC.203(62) Regulations on energy efficiency for ships in MARPOL Annex VI
- 3. EEDI according to Chapter 4 of MARRPOL Annex VI, including verification according to IMO resolution MEPC.254(67) as amended
- 4. Resolution MEPC. 251(66) Guidance for calculation of Energy Efficiency for Ships as per MARPOL, Annex VI (EEDI Calculation) and NOx technical file.
- 5. IMO Resolution A.962(23) IMO Guidelines on Ship Recycling as amended by IMO Resolution A.980(24), or Ship Recycling Convention 2009, including complete inventory of hazardous materials (IHM) as per MEPC.269(68)
- 6. IMO Resolution MEPC.245(66) "2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships"
- 7. Resolution MEPC.254(67) 2014 Guidelines on Survey and Certification of the Energy Efficiency Design Index (EEDI)
- 8. IMO Resolution MEPC.282(70) "2016 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP)" and amendments (to be prepared by the Builder)
- 9. Resolution MEPC.107(49) Oily Water Separator
- 10. MEPC.1/Circular.642 2008 Revised Guidelines for Systems for Handling Oily Wastes in Machinery Spaces of Ships Incorporating Guidance Notes for an Integrated Bilge Water Treatment System (IBTS)
- 11. Resolution MEPC.227(64) 2012 Guidelines on Implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants (Adopted on 5 October 2012)
- 12. Resolution MEPC.127(53) Guidelines for Ballast Water Management and Development of Ballast Water Management
- 13. IMO Resolution A.1021(26) Code on Alerts and Indicators, 2009 (Adopted on 2 December 2009) 14. IMO Resolution MSC.215(82) PSPC Performance Standard for Protective Coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers
- 15. IMO Resolution MSC.277(85) Guidance for Application of Regulations in SOLAS to Ships which Occasionally Carry Dry Cargoes in Bulk and are not Determined as Bulk Carriers
- 16. Resolution MSC.137(76) Standards for Ship Maneuverability (adopted on 4 December 2002)
- 17. IMO Resolution A.813(19) General Requirements for Electromagnetic Compatibility (EMC) for all Electrical and Electronic Ships Equipment (Adopted on 23 November 1995)
- 18. IMO Resolution A.657(16) Instructions for Action in Survival Craft (Adopted on 19 October 1989) 19. IMO Resolution A.708(17) Navigation Bridge Visibility and Functions (Adopted on 6 November 1991)
- 20. Resolution A.952(23) Graphical Symbols for Ship Board Fire Control Plan. (Adopted on 5th December 2003)
- 21. Resolution MSC. 128(75) Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS) (Adopted on 20 May 2002)



MAZAGON DOCK SHIPBUILDERS LTD..

(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 9 of 39

- 22. Resolution MSC. 232(82) Adoption of the Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS). 23. MSC/Circular.982 Guidelines on Ergonomic Criteria for Bridge Equipment and Layout (Adopted on 20 December 2000)
- 24. MSC. 90/28//Add. 1
- 25. Resolution MSC.263(84) Revised Performance Standards and Functional Requirements for the Long-Range Identification and Tracking of Ships (Adopted on 16 May 2008)
- 26. IMPA Recommendation for pilot ladder. MSC/Circular.568/Rev.1 Pilot Transfer Arrangements Required boarding arrangements for pilots MSC/Circular.773 Pilot Transfer Arrangements Required boarding arrangements for pilots (Adopted on 2 January 1997)
- 27. MSC/Circular.451 Guidance Concerning the Location of Fire Control Plans for the Assistance of Shore Side Fire-Fighting Personnel (Adopted on 24 September 1986)
- 28. Statutory Documents IMO Publications and Documents Circulars Maritime Safety Committee MSC/Circular.917 Guidelines on Fire Safety Construction in Accommodation Areas (4 June 1999)

3.6 IMO CODE

- 1. FSS Code International Code for Fire Safety Systems
- 2. FTP Code International Code for Application of Fire Test Procedures
- 3. LSA Code International Life-saving Appliance Code
- 4. ISPS Code International Code for the Security of Ships and of Port Facilities.
- 5. IS Code International code on Intact Stability, 2008
- 6. Grain Code International Code of Safe Carriage of Grain in Bulk
- 7. Noise Code Code on noise levels on board ships, Resolution MSC.337(91)
- 8. IMSBC Code International Maritime Solid Bulk Cargoes Code Resolution MSC.268(85) (Italy bulk certificate)
- 9. Resolution A. 714(17) CSS Code Code of Safe Practice for Cargo Stowage and Securing (as far as practicable).
- 10. IMDG Code International Maritime Dangerous Goods Code

3.7 ISO STANDARDS

- 1. ISO 20283-5:2016 "Mechanical vibration, Measurement of vibration on ships Part 5 Guidelines for measurement, evaluation and reporting of vibration with regard to habitability on passenger and merchant ships"
- 2. ISO 8468 International Standard of Ship's bridge layout and associated equipment
- 3. ISO 7547 Air conditioning and ventilation of accommodation spaces on board ships
- 4. ISO 8861 Engine-room ventilation in diesel-engine ships
- 5. ISO 484/1:1981- Ship building- Ship propellers-Manufacturing tolerances.
- 6. ISO 3046-2002-1 Reciprocating internal combustion engines Performance
- 7. ISO 4406: 1999- Hydraulic fluid Power
- 8. ISO 4628:2003 Paints and Varnishes
- 9. ISO 8217:2012 Fuel standard for Marine distillate fuels
- 10. ISO 8501- Preparation of steel substrates before application of paints and related products Visual assessment of surface cleanliness
- 11. ISO 8862:1987 Air Conditioning and ventilation of Machinery Control-Rooms on board ships.
- 12. ISO 12944 Corrosion Protection of Steel Structures by Protective Paint System
- 13. ISO 15016:2015 Guidelines for the assessment of speed and power performance by analysis of speed trial data.
- 14. IEC 60092
- 15. IEC 60332-1:2004
- 16. IEC 60332-3:2000



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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 10 of 39

- 17. IEC 60533
- 18. IEC 60754-1:1994
- 19. IEC 61000
- 20. IEC 61034-2 CORR 1:2006
- 21. IEC requirements for electrical installation for ships TC 18/2022 with amendments.

3.8 OTHER RULES, DIRECTIVES AND GUIDANCE NOTES

- 1. U.S.C.G. Rules and Regulations for foreign flag Vessels operating in navigable waters of the United States
- 2. International Telecommunications & Radio Conference Regulations 2012 (WCIT 12) and 2019 (WRC 19) with annexes and revisions.
- 3. International Tele-communication Union Radio Regulation
- 4. Danish Maritime Authority Technical Regulation No.5 on noise measurements
- 5. IACS Rec 47 Shipbuilding and Repair Quality Standard rev.8 Oct.2017 and latest amendments
- 6. Maritime Labor Convention of 2006 (MLC 2006) except swimming pool & separation of deck & engine office
- 7. ILO Convention for all lifting appliances incl. engine lorry crane and lift C152, Art 22 of ILO 152
- 8. ILO 152 Convention deals with all articles related to OSH
- 9. Kiel Canal Rules
- 10. Black Sea Rules as far as practicable
- 11. Panama Canal Navigation Rules including Tonnage Measurement as far as practicable
- 12. Suez Canal Navigation Rules including Tonnage Measurement
- 13. Notice B from Danish Maritime Authority (DMA)
- 14. GMDSS Global Maritime Distress and Safety System 1992 as amended.
- 15. Performance Standard for Ship borne Radio communications and Navigation Equipment
- 16. IACS No. 38 Procedure for calculation and verification of the Energy Efficiency Design Index
- 17. Directive 2014/90/EU
- 18. EU directive 2005/33/EC

4. Ship's Basic Particulars:

Table 1

Dimensions:

Ship's displacement	Deep displacement	Around 7000 Tonnes
Endurance	At service speed of knots	5500 NM
Freeboard	: Type B	
Draught, moulded	: 6.50	m
Depth, moulded	: 9.80	m
Breadth, moulded	: 17.50	m
Length between	: 113.60	m
Length overall	: 116.20	m

5. Ship's Support Systems Supplies: - Following ship's support supplies shall be available for the equipment system. For electrical supplies, in case of different requirements (voltage/frequency, etc.), the equipment supplier shall provide suitable provision (transformer/converter/UPS, etc.).



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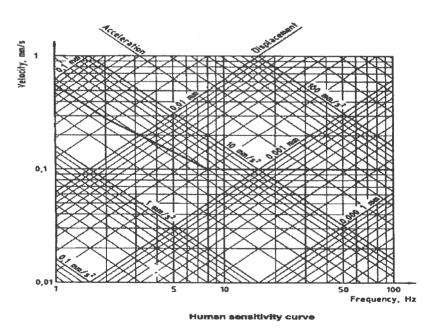
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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.		
Radio Equipment's	PAGE	Page 11 of 39
conforming to GMDSS - MPV.		,

Table 2

S.I	N SYSTEM	SUPPLIES	REMARKS
a)	Electrical	400 V AC @ 50 Hz, 3 phase 230 V AC @ 50 Hz, 3 or 1 phase.	Specific provisions shall be provided by the equipment supplier.

6. Vibration:

- a. Special attention is to be paid in design and manufacture of the equipment to prevent undue vibration. Vibration limits, evaluation and measurement shall follow the provisions of ISO 6954:2000, Mechanical Vibration – Guidelines for the measurement, reporting and evaluation of vibration with regard to habitability on passenger and merchant ships.
- b. The values are expressed in terms of the overall frequency-weighted RMS acceleration (mm/s2) and overall frequency weighted RMS velocity (mm/s) in the range 1 Hz to 80Hz. The overall frequency weighted RMS value of vibration velocity levels in the crew accommodation areas and service/working areas shall not exceed 6 mm/s and 8mm/s respectively. Vibration velocity limits are not applicable near equipment seatings.
- c. The vibration measurement is to be made at sea trial condition and when the Vessel is running ahead steadily at the continuous service output of the main engine.



d. If Vibration level exceeds the limit of the above defined criteria, vendor to make necessary improvement to a practical extent. Vendor shall submit the vibration analysis (prediction) report for MDL's reference.

7. Noise Level:

e. Vendor shall ensure that the noise level for equipment in the accommodation space and engine room is to be within the limits specified in IMO.MSC 337(91),



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4 ak
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 12 of 39

Code on Noise Level on board ships. In addition, vendor shall endeavour to achieve a noise level of max. 65dB for the equipment in the ECR.

- f. Noise level measurement is to be carried out in the following conditions:
 - During the sea trial when running ahead steadily continuous service output of the main engine with shaft generator at normal operating condition and all fans running.
 - ii. During the sea trial when running ahead steadily continuous service output of the main engine and 1 generator running at normal operating condition and all fans running.
 - iii. Harbour trial with 1 generator running
 - iv. Harbour trial with emergency generator running
- g. Measuring methods and points, measurement devices and reporting shall be in accordance with the Noise Code.
- h. In case the measured noise level exceeds the above values, necessary improvements shall be made to a practical extent.

 All engine room alarms shall be clearly audible above the noise of the running engine room machinery.

8. Manning Policy:

- i. The machinery spaces are envisaged for unmanned continuous operation. The spaces will be attended for starting/shutdown procedures and for routine checks.
- ii. Controls and surveillance on board the ship will be through Remote controls.
- iii. Each vital machinery shall be capable of control at the equipment level and need to be monitored from specified control station as recommended by the vendor and as per the class rules.

9. EMI/EMC Specifications:-

The proposed system should satisfy and compliant to EMI/EMC rules of DNV Classification Society.

10. Documentation: -

a) Various documents will be submitted by the equipment supplier as per the scope of supply and responsibility. Quality documentation is to be submitted in comprehensive and time bound manner for meeting ship's detailed design and production targets as well as equipment production and delivery schedule. Documentation to be submitted by the equipment supplier is broadly indicated below:-

Table 3

SI. No.	Documentation	Remarks
(1)	i) Binding design documentation	i) For progressing with detailed design.ii)Equipment quality assurance during production
(2)	Equipment STW/Ops-check documentation	For preparing installation inspection/Test and Trials documentation



MAZAGON DOCK SHIPBUILDERS LTD..

(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009			
WEAPON DEPT.	REV. NO.	4			
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25			
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 13 of 39			

(3)	Technical	Manuals	for	equipment	For	ship's	crew,	training	and	repair
	operation,	maintenance, logistics,			, organizations.					
	etc.									x ³

- b) All documentation (including documents, drawings, data, reports, manuals, etc.) should be in English language. Dimensional details in the drawings should be as per scale. Technical data and parameters should be in metric units (SI Units). Note: Above drawings/data are to be submitted in soft copies in latest software version.
- c) Overall documentation must be of high quality in terms of contents, clarity and completeness; for meeting the requirements of detailed design, integration, manufacturing, quality assurance, installation, trials and operation/maintenance of the equipment.
- d) All documents shall be sent electronically in PDF format without encryption and password. Printing of PDF provided by vendor shall be possible.
- e) Vendor shall supply electronic copies (2 sets) of all finished plans and manuals to the MDL including Class approved drawings duly stamped together with associated Class approval letter without delay. All finished plans and manuals shall be in printable PDF format without password or encryption. All instruction books shall be provided in printable electronic format.
- f) Vendor shall supply electronic copies (2 sets) and two (2) hard copy of drawings, manuals and instruction books for main and auxiliary machinery and all other major components such as motors, pumps, navigation & communication equipment, etc. to MDL. The instruction books from suppliers shall be provided only for the first Vessel if there are no change for the Vessel series.
- g) Two (2) hard copy of instruction books from suppliers to be provided in advance to Buyers site office.
- h) The drawings and documents which need approval by the Classification society are to be submitted to the society directly by the Vendor with information to MDL. The responsibility of getting the drawings and document approved from the classification society lies with the Vendor. The final approved drawings and documents are to be submitted to MDL.
- Approval by the Classification society and / or other regulatory authorities shall in no way be interpreted as approved by MDL, and MDL shall be entitled to make further requests provided they do not conflict with the requirements of specification of the PO.
- j) Two (2) sets of instruction books and manuals of all equipment and systems to be furnished to MDL in electronic format (USB type storage device) in PDF or other agreed format; one each to the Vessels and to MDL. USB type storage device shall contain finished manuals and instruction booklets of all equipment as far as practical. Vendor is to supply two (2) hard copies of the finished drawings (as built) to MDL.



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.		·
Radio Equipment's	PAGE	Page 14 of 39
conforming to GMDSS - MPV.		

- k) The Documents submitted by Supplier as a part of the Tender should consist of :
 - i. Block diagram of the system.
 - ii. Binding Data of equipment including Top, Bottom, front, rear view with maintenance envelop and special requirement (if any).
 - iii. Schematic of the System including cable pattern numbers (*Appendix-5*), Cable Length, AC/DC Power Supply Scheme, Connection Boxes, fuses etc.
 - iv. Installation documents (if any) covering detailed procedure for installation with sequence of activities.
 - v. Installation drawings indicating overall dimensions, C.G., weight (as per Appendix-3 &4), maintenance envelope, IP rating, shock mount details, mounting arrangement, bolting plan, lifting points, material specification etc. of each unit.
 - vi. Recommended arrangement of devices in nominated compartments.
- vii. Sequence of activities & procedure for installation, alignment, set to work and commissioning of the system.
- viii. Inter unit-cabling diagram with cables specifications.
- ix. Cable connection Schedule as per Appendix-7. (Connectorization Details)
- x. Power supply scheme for the system.
- xi. Cable length limitation etc., if any.
- xii. Detailed foundation drawing including bolting plan.
- xiii. Dimensional details and Weight of each component and their power consumption shall be indicated by the supplier.
- xiv. Relevant type approval certificates to be supplied along with the equipment.
- 10.1 **Documentation Associated with Test & Trials**: As per class requirement.
- 11. Quality Assurance and Testing: As per class requirement.

12. <u>Setting to Work (STW)/ Operation Check (Ops-check) / Harbour Acceptance</u> Trials: -

- a) Documentation associated with equipment setting to Work (STW)/ Operation Check (Ops-check) / Harbour Acceptance Trials (HATs), shall be submitted by the equipment supplier within the agreed time schedule.
- b) STW/Ops-chk/HATs documents shall include STW/Ops-chk/HATs schedule, procedure, pre-requisites, data to be recorded, time interval for data recording, formats for data recording, safety and precautions to be observed during trials, estimated time of the trials and all other relevant data/information required for the successful completion of the trials.
- c) During equipment setting to work and HATs/SATs, equipment suppliers shall assist and offer the respective equipment trials for successful completion of trials phase. Equipment testing, tuning and any defect rectification during on-board trials shall be undertaken by the equipment supplier in efficient and effective manner.
 - d) The HATs/SATs document is to be submitted by the supplier. HATs/SATs shall be carried out to the satisfaction of Inspection agencies.



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.	·	
Radio Equipment's	PAGE	Page 15 of 39
conforming to GMDSS - MPV.		

13.Spares: - Spares, are to be recommended by equipment supplier, taking into account operational and maintenance requirements of the equipment. Equipment supplier shall submit comprehensive list of all types of spares & tools along with the technical offer. The list of spares to be supplied should comply with class requirements and those listed in Section II of this document.

14. Installation & Commissioning Consumables: -

- a. <u>Installation Tool:</u> Special tools, jigs and fixtures & test equipment required for Installation, flushing, setting to work, testing & tuning, on-board trials (HATs/SATs) and post Sea Trials inspection of critical internal parts and reassembly of the equipment and its auxiliary systems shall be supplied by Supplier.
- b. <u>Commissioning Consumable:</u> The Commissioning consumables (first charge like coolants, greases, special oil, filters, gaskets, refrigerant etc.) shall be included in the scope of supply. Commissioning consumables shall be delivered before STW of the main equipment, tentative schedule of which shall be indicated in the Tender Enquiry.
- 15. Space Constraints: While designing the equipment and its associated auxiliaries/components the supplier is required to take into consideration the space availability in the respective compartments of the ship, ease of operation/maintenance of the equipment on-board the ship, ergonomics aspects and safety. Maintenance envelopes for equipment and its auxiliaries/components shall be provided by the equipment supplier and assessed in consultation with the Shipyard/ owner for finalizing the layout of respective ship compartments. Optimisation in design is to be ensured while meeting the functional, maintainability and ergonomic requirements.

Limiting dimensions & weight of the equipment are to be indicated by the OEM.

		<u> Table - 4</u>		
	Length	Breadth	Height	Mass
l		1	1	

OEM to comply with the limiting dimensions indicated in Table 4. Non-compliance of the said limiting dimensions shall be liable for rejection.

- **16.Interchangeability:** Equipment design is to ensure that components and parts having same dimensions and characteristics should be inter-changeable between different units of similar kind, without affecting the specified equipment performance.
- 17. Tally and Diagram Plates: All major components, including fittings such as valves, cocks, levers, gauges, switches, etc., should be provided with suitable identification tallies for appropriate identification. Tally plates shall be in English language and in SI units. All tallies and diagrammatic plates shall be of brass or aluminium as per manufacturer standard. They are to be fixed with screws firmly. Tallies for safety, caution & warning considerations should be in bold black letters on a fluorescent orange background. Diagrammatic plates indicating details of connections are to be provided / affixed near the terminal box of the motor.

Additional details required are as follows:



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Dockyard Road, Mumbai -400 010.

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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4 4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.		***
Radio Equipment's	PAGE	Page 16 of 39
conforming to GMDSS - MPV.		

- a. Danger labels in Red colour with white lettering are to be provided on all electrical equipment operating on 150Volts or higher
- b. The diagram plate, which is fixed on the rear side of the front door, shall have complete wiring diagram of the starter with sub-component identification number. The same identification number shall be engraved on the components fitted on the starter.
- c. Internal Cable-Cores terminating at the connection terminal strip shall have the same corresponding terminal ferrule no. Fixed / fitted on it.
- d. Tally of JB/Panel and other equipment internal diagram plate to be prepared by OEM.
- e. Cable Tallies as per approved system drawing to be prepared by OEM.
- f. Cable tallies should be supply for both the ends.
- 18.Instruction Plates: Instruction plates listing the starting/shut-down procedure and precautions in brief are to be prominently displayed on the equipment. The Instruction plates shall be of brass or aluminium as per manufacturer standard. Equipment is to be supplied with a set of instruction plates duly mounted on equipment or supplied loose.
- **19.Painting:** Standard painting procedure shall be applicable for suitability for marine environment. Colour scheme for painting the equipment shall be indicated subsequently/during TNC meeting.
- 20. Lifting Arrangement: Equipment components weighing more than 25 kilograms are to be provided with eyebolts, for ease of handling/lifting on board the ship or ashore. During transportation/transit of equipment, adequate provisions (such as supports, locking arrangement, jacking, etc.) are to be made for preventing any damage to the equipment & its associated components. Any component requiring special handling shall be clearly marked and appropriate handling instructions shall be provided by equipment supplier. One set of lifting gear shall be supplied to MDL.

21. Preservation / Conditioning:

Equipment supplier is to provide high quality packing for the complete scope of supply along with handling arrangements. The package/container should display clear instructions for stowage, handling, care and accessibility for inspection of equipment preservation condition.

Equipment shall be supplied with Initial preservation for a period of 24 months for tropical conditions and protected against high humidity. The equipment is to be preserved on delivery as per the standard marine engineering practice. Closing plates/plugs/caps are to be provided on all openings.

For re-preservation requirements, at shipyard or on board ship beyond initial preservation period, suitable provision is to be catered for by equipment supplier. Equipment supplier shall provide re-preservation & upkeep procedure, preservatives/consumables and technical assistance/supervision to the shipyard, as per requirements. (If special equipment/Pumps, hoses, fittings, etc. required shall be brought by the supplier along with them for carrying out the preservation on board the ship.



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 17 of 39

22. Packing & Shipping:

All equipment shall be adequately packed and protected with supports to ensure adequate protection during all methods of transportation. Each unit within a package/container shall be clearly marked in English for identification. The container shall clearly indicate the commodity description with caution marks, weight, size, etc. A separate document giving complete details & instruction for storage, preservation, handling & transportation after delivery shall be supplied & a copy must be included with the shipping document. The supplier should indicate the delivery schedule port of embarkation, transport, packing, preservation, insurance etc.

Following items shall be packed in separate containers/boxes with proper colour coding (with description) & list of their contents in English for their easy identification and traceability:

- a) Deliverables related to Main Equipment (to be marked in green colour).
- b) Deliverables related to Auxiliary Equipment (to be marked in green colour).
- c) Deliverables related to Installation material and Tools related to Main & Auxiliary Equipment (to be marked in green colour).
- d) Commissioning consumables and Tools (to be marked in green colour).
- e) Spares and Tools (to be marked in red colour).
- f) Documentation (to be marked in blue colour).

The list of actual deliverables against each of the above serials shall be forwarded to shipyards in soft copy (MS Excel format) with required part nos. within one week of finalization of PNC in order to detail them in the purchase order.

Packing list should give further breakup of items, wherever particular item is quantified by set.

23.Security of Information: - The information contained in this document is not to be divulged to any other firm/third party without the prior permission of MDL. Adequate measures are to be taken to ensure safe custody of this document.

24. Warranty:

- a)The equipment along with associated auxiliaries/components shall be warranted by the equipment supplier for the stipulated performance for a period of twelve (12) months after planned delivery date (D) (Refer table 5 below) of the ship by MDL to the Owner.
- b)During the said period, the equipment supplied shall be warranted against any malfunction, defects, material failure, and non-compliance to ordered specifications, sub-optimal performance, design deficiency, poor workmanship and quality. Any expense on account of equipment malfunction, repair or supply of spares against guarantee defects is to be borne by the equipment supplier. In case, warranty extension is required the same is to be catered for by the equipment supplier. If any defective part to be taken back to OEM's factory (i.e. importing and re-exporting from Country of origin), for service purpose the liability of the same shall be borne by the supplier.
- **25. Extension to Warranty:** Supplier shall mandatorily indicate, in the offer, the annual rate for extended warranty period, along with the commercial terms and conditions if any. The rates are to be indicated for the equipment in preserved state as well as for the equipment having been de-preserved and in operation.



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4 '
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 18 of 39

26.Planned Ship Delivery Details(D): The planned dates for delivery of the Ships to the Owner by MDL is tabulated below:

Table	5:

Ship no.	Planned Delivery date
1	Apr 2026
2	June 2026
3	Aug 2026
4	Oct 2026
5	Dec 2026
6	Feb 2027

27. Weight Recording / Weight Certificate: - Weights of all components are to be recorded and a suitable certificate shall be submitted, by the equipment supplier. The designated inspection authorities shall countersign such certificates. Format for weight control data sheet, is placed at Annexure 2 of this document.

Net weight of each component is to be recorded in presence of designated inspection authority and the weight certificate is to be submitted by the equipment supplier, along with equipment supply. Format for weight certificate, is placed at *Appendix- 4* of this document.

28. Technical Assistance:-

The Supplier shall provide the necessary representative(s) to assist, **as and when required,** in carrying out inspection and supervise the work that is done on the equipment, during the following phases:

- a. Preparation for installation of equipment by shipyard.
- b. Monitoring of proper equipment preservation (if required) during storage.
- c. Setting to Work (including fitment of latest calibrated instrumentation).
- d. Assistance during Harbour trials (till clearance by Shipyard, Class & ICG)
- e. Assistance during Sea trials
- f. Assistance in trouble shooting / attending equipment operational problem till warrantee period
- g. Post CST equipment Inspections.
- a) The supplier shall indicate total cost for executing all technical assistance activities mentioned above, in the price bid.
- b) The supplier shall provide Manday rates for each Ship for the above activities. The supplier shall indicate total cost for executing all technical assistance activities mentioned above, in the price bid.
- c) Shipyard has to progress on ship construction activities, simultaneously on ships of the same Class/Project or on ships of different projects. View this; there shall be every likelihood of clash of requirement of technical assistance. In such eventuality, in order to avoid delays on one ship due to similar work requirement on other ship, supplier shall depute their dedicated separate/independent team of supervisors/specialists for required technical assistance, on the required ships.



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL & WEAPON DEPT.	T.S.P. NO. REV. NO.	DR/EL/MPV/5009 4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 19 of 39

Rotation of supervisors/specialist amongst the various ships/projects shall be avoided.

- d) The supplier shall provide checklist for installation, setting to work, Ops-check & HATs to the shipyards to ensure the completeness of the activities by shipyards in order to avoid waiting period of the supplier specialists.
- 29. Compliance Matrix and Deviation_: Para-wise compliance matrix, including Para which are not applicable, as per the technical specifications (contained in this document) shall be submitted by the equipment supplier along with the technical offer, in the format at Annexure 1 (The technical offer received without Compliance Matrix shall be liable for rejection)
- **30.Technical Offer as Per Shipyard Tender:** Technical part of the offer with respect to the equipment and its associated auxiliaries/components/controls, to be submitted by the equipment supplier in comprehensive, systematic and structured manner, as per the requirements mentioned in this document, including the following (but not limited to):
 - a) Equipment description along with specifications.
 - b) Equipment performance data.
 - c) Characteristics data, curves, efficiency, etc., related to equipment performance
 - d) Outline general arrangement drawings of equipment with footprint, main dimensions, weights and mounting arrangement as per *Appendix-8*.
 - e) Associated support systems specifications and drawings.
 - f) Interface requirements.
 - g) Relevant drawings with all views and maintenance envelopes.
 - h) Control and monitoring system along with complete list of sensors and instrumentation (in structured manner).
 - i) Mounting data/details and characteristics along with minimum stiffness required for seating/foundation.
 - i) Associated electrical equipment specifications and drawings.
 - k) Recommended list of spares, special tools, test equipment, etc.., in systematic manner.
 - I) Preliminary quality assurance and test plan.
 - m) Compliance matrix (Para-wise compliance to tender specifications).
 - n) Proposed plan for technical assistance for installation, preservation and commissioning, trials, etc.
 - o) List of items required for auxiliary systems (shipboard systems), which are essentially, be fitted for proper functioning of main equipment. Also indicate any of them, which are not supplied along with main equipment.
 - p) List of Instrumentation & Diagram.
 - q) Clear demarcation between the scope of supply of firm and that of the yard.
 - r) Trial and commissioning time of complete system on board.
 - s) Delivery time from receipt of order.
 - t) List of special tools, instruments, jigs & fixtures & facilities required for lifting, transporting, aligning, installing and commissioning of main equipment and their auxiliaries.
 - u) Details of all connections to plant, Mounting details with pattern no, seat details, flange details etc



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Dockyard Road, Mumbai -400 010.

1	DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
۲	WEAPON DEPT.	REV. NO.	4.4.
	MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
	Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 20 of 39

- v) Within prescribed delivery date after receipt detailed order, the suppliers shall forward the following to Builder.
 - 1. Detailed dimensional and installation drawings, connection wiring diagrams, detailed Instructions for installation of all the equipment 2 sets
 - 2. Detailed bill of materials covering complete scope of supply various equipment, aerial materials, interconnecting cables, spares, etc., 2 sets
 - 3. Valid Type approval certificates from the relevant authorities for all equipment (As applicable) 2 sets.

31. General Scope of Supply:-

- i. Main equipment as detailed in Section II of this document.
- ii. Auxiliaries related to the Main equipment and its Electrical and Control Systems viz. Connection box, Adapters, Starters, Control Panels, Indicators etc. on Ship's foundation/structure. They shall be delivered along with Main Equipment.
- iii. All mating electrical connectors, plugs and sockets for supplied equipment, for assembly with ship's interconnecting cables. Suitable crimping type connectors of electrolytic copper and terminal clamps of Naval brass must be provided for termination of the permanent cables. They shall be delivered along with Main Equipment.
- iv. Deliverables related to Installation material and Tools required carrying out installation, alignment of Main and Auxiliary Equipment (shall be delivered along
- v. Tools shall be made available before STW of the Main and Auxiliary Equipment.
- vi. Preservatives for all mounts shall be supplied along with the mountings.
- vii. Preservatives required for preservation of the equipment & items (shall be delivered along with Main Equipment).
- viii. Special Tools, items etc. required to carry out preservation of Main and Auxiliary Equipment at Yard or on Board the ship (shall be brought by the supplier for carrying out preservation on board the ship).
- ix. Documentation in hard as well as soft copies shall be delivered along with Main Equipment for each ship set as detailed in the Para. 10 & 26 above.
- x. Communication cables like CAT, optical fiber cables are to supplied by the vendor if required in design of the equipment.
- xi. Interfacing System as per Section II with other systems, if required by classification society is in scope of Supplier.
- xii. Cable tallies required by the system should be supplied along with main equipment for shipyard use as per class guidelines.
- xiii. **Battery Charger and batteries** along with enclosures should be supplied along with main equipment, if required in the design of the equipment.
- xiv. Provision for external alarms and other important indications should be catered as per class rules.
- xv. Asbestos free construction certificates (Green Passport)
- **32. Green Passport**:- Supplier should provide compulsorily Asbestos free construction certificates (Green Passport) for the offered System/Equipment.



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.		
Radio Equipment's	PAGE	Page 21 of 39
conforming to GMDSS - MPV.		

SECTION II

1. Scope of Supply -

- The Scope of Supply includes Supply, Installation, Testing, Commissioning, Training, Documentation, STW, Ops-chk/HATs, of following Systems on Multi-Purpose Vessel (MPV) :
 - a) Global Maritime Distress and Safety System. (GMDSS)
 - b) Satellite Communication
 - c) Survival Craft Equipment.
 - d) Ship security System
- 1.2 The above communication Systems consist of communication on HF/MF/VHF radios and Satellite communication on-board Ship. The above mention systems are envisaged to fulfil the emergency communication needs meeting all on-board requirements of external communications in distress condition. The system must facilitate communication between ship to shore station and ship to ship. The detail Scope of supply covering Binding Data, Manufacturing, Class Approval, Supply, Preservation, HATs, Commissioning & Trials and complete supply of GMDSS & Survival craft for MPV are elaborated below.
- 1.3 The following radio equipment shall be provided to meet the requirement for the ship engaged on voyages in sea areas A1 to A4 of Global Maritime distress and Safety System (GMDSS(in accordance with the requirement of latest SOLAS Amendments and installed in the radio space in Wheel House except the devices specially specified.

2.

System Configuration 2.1 The GMDSS & S The GMDSS & Survival Craft System comprise of the following major sub systems:-

-	External Communication System			
Sr. No.	Title	Sub-System	Qty/ Ship	Unit
Α	GMDSS with Console	1) 125W MF/HF Tx/Rx with DSC	01	Set
		2) V.H.F Radio Telephone	02	Set
		3) Standard Inmarsat C with ECG receiver	01	Set
		4) Navtex Receiver	01	Set
В	Satellite Communication	5) Fleet Broad Band	01	Set
С	Two way VHF Radio Telephone	6) Portable hands free Two-way VHF Radio Telephone with batteries(latest version)	03	Set
D	Survival Aircraft	7) EPIRB 406 MHz	01	Set



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Dockyard Road, Mumbai -400 010.

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DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 22 of 39

		(40)	8) AIS-Search and Rescue Transponder (9 GHz)	02	Set
E	Security / System	Alert	9) Ship Security Alert System.	01	Set
F	Portable U Transceiver	J.H.F	10) Portable transceivers of UHF (400 MHz – 5W) with Battery Charger.	03	Set

The detailed requirements for the sub-systems stated above are enumerated in succeeding paragraphs

3. TECHNICAL REQUIREMENTS AND SPECIFICATIONS

- A) The Global Maritime Distress System & Safety System (GMDSS) consist of:-
- 3.1 <u>125W MF/HF Tx/Rx with DSC</u> (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)

Following are the minimum required Configuration and Features of 125W MF/HF Tx/Rx. However Supplier should supply complete package of the System.

- a) One set of 125W Trans-receiver MF/HF with integrated DSC along with handset shall be provided in the Main Unit.(latest version)
- b) The Main Unit consist of :
 - i) 01- MF/HF Transmitter 125W
 - ii) 01- MF/HF Receiver.
 - iii) 01- MF/HF DSC watch Keeping receiver.
 - iv) 01- MF/HF function.
 - v) 01- battery Charger.
- c) Ancillary Equipment for MF/HF Radio Station consist of :
 - i) 01 Controller in Radio space.
 - ii) 01 Controller for NBDP in Radio Space.
 - iii) 01 printer for NBDP and DSC in radio space.
 - iv) 01- Set of Accessories of manufacturer's standard in radio space
- d) Installation Material. (All Type of Cables, Connectors, consoles, etc.)
- e) Associated marine Antenna as follows:
 - i) 01 Transmitting self-supporting antenna without tilting device on Compass deck.
 - ii) 01 Receiving whip antenna, commonly used for DSC watch keeping receiver on compass flat
- f) Power Supply Unit as per System Requirement.
- g) Antenna Tuning Unit (if any)
- h) Alarm Panel
- i) DSC Equipment Class A for Watch keeping receiver on the respective frequency (as per Class regulation) as per Sea Areas.
- j) Provision of Interfacing with other Ship system as per Class to be considered e.g. GPS.
- k) Interfacing and Handshaking of System with other Ship System is in Supplier's scope.



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL & WEAPON DEPT.	T.S.P. NO.	DR/EL/MPV/5009
***************************************	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 23 of 39

- I) High quality display for Day and night vision.
- m) High Performance and reliable communication in marine bands.
- n) Interfacing details if (any)
- o) The Below Deck Equipment will be placed in Radio Space along with aerial equipment on Hangar top.
- p) The System must be suitable for marine environment for fitment onboard Multi Purpose Cargo Vessels.
- q) The system equipment should be of COTs (Commercially off the shelf) solution.
- r) 01 set of Battery Charger with Batteries for 01 Hour as per DNV or IMO Standards and it's integration with System.
- s) For radio installations, the following drawings should be prepared in addition to Documents mentioned in Para 10 of Section I:-
- t) Antenna drawing.
- u) Radio arrangement drawing.
- v) Wiring diagram.
- w) The equipment should be suitable for auto change of power supply form normal supply to 24V DC in the event of ac main power failure.
- x) Supply of Approved HATs & SATs document of the system: vetting by DNV Class of Society.
- y) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.
- 3.2 <u>V.H.F Radio Telephone with DSC</u> (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)

Following are the minimum required Configuration and Features of VHF Radio Telephone. However Supplier should supply complete package.

- a) Two sets of VHF Radio Telephone with integrated DSC Class A should be provided along with 01 number of handset.
- b) Both the Units shall be capable of continuously updating position as per rules.
- c) One set of VHF DSC will be watch receiver.
- d) Features of Main VHF Radio Telephone:
 - i) 01 Set Trans receiver (57 Channels) with control Unit & DSC receiver in Wheel House
 - ii) 01 Set with remote control unit in Captain's Day Room.
 - iii) 02 number of receptacles for handset, each one at Bridge Wing.
 - iv) 01 set of Remote control unit (or separate VHF unit) in control station.
 - v) 01 Antenna on Mast.
 - vi) 1 Antenna for DSC watch keeping receiver on compass deck.
 - vii) 01 number of Ship's position data input interface from DGPS navigator.
- e) Features of Auxiliary VHF Radio Telephone
 - i) 01 number of Transceiver (57 channels) with control unit in Wheel house console.
 - ii) 01 (One) Antenna on compass deck.



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Dockyard Road, Mumbai -400 010.

	·
T.S.P. NO.	DR/EL/MPV/5009
REV. NO.	4 *
DATE	09 Sep 25
l	,
PAGE	Page 24 of 39
1	
	REV. NO. DATE

- iii) M01 Number of Antenna for DSC watch keeping receiver on compass deck.
- iv) 01 number of Ship's position data input interface from DGPS navigator.
- f) Installation Material. (All Type of Cables, Connectors, consoles, etc.)
- g) Associated marine Antennas for VHF Communication
- h) Power Supply Unit as per System Requirement.
- i) Antenna Tuning Unit (if any)
- j) Alarm Panel
- k) High Quality Loudspeaker.
- I) Water Ingress
- m) The system equipment should be of COTs (Commercially off the shelf)
- n) DSC Equipment Class A for Watch keeping on the respective Channel(as per Class regulation).
- o) Interfacing and Handshaking of System (if any) with other Ship System is in Supplier's scope.
- p) The Antenna Cable Length from Antenna to Below Deck Equipment will be within 50 M
- q) 01 set of Battery Charger for 01 Hour as per DNV or IMO Standards and it's integration with System.
- r) For radio installations, the following drawings should be prepared in addition to Documents mentioned in Para 10 of Section I:
 - i. Antenna drawing.
 - ii. Radio arrangement drawing.
 - iii. Wiring diagram.
- s) The equipment should be suitable for auto change of power supply form normal supply to 24V DC in the event of ac main power failure.
- t) Supply of Approved HATs & SATs document of the system: vetting by DNV Class of Society.
- a) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.
- 3.3 <u>Standard Inmarsat C with EGC receiver</u> (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)

Following are the minimum required Configuration and Features of Inmarsat C with EGC receiver. However Supplier should supply complete package.

- a) One set of standard "C" Inmarsat communication System should consist of :
 - i) 01 Set of Main unit with EGC receiver and LRIT function in radio space.
 - ii) 01 Set of Tele-printer in radio space.
 - iii) 01 number of Ship's position data input interface from GPS/DGPS Navigator.
 - iv) 01 Antenna on mast top.
- b) Installation Material (All Type of Cables, Connectors, Shock Mounts) & other Accessories.
- c) Inmarsat C GMDSS.
- d) The System should have INMARSAT Enhanced Group Call (EGC) Services.
- e) Antenna should be designed to operate on vessels. The housing of Antenna



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 25 of 39

should be sealed and contains no user serviceable parts.

- f) The Antenna Cable Length from Antenna to Below Deck Equipment will be within 90 M.
- g) The system equipment should be of COTs (Commercially off the shelf)
- h) 01 set of Battery Charger for 01 Hour as per DNV or IMO Standards and it's integration with System.
- i) The equipment should be suitable for auto change of power supply form normal supply to 24V DC in the event of ac main power failure
- j) Supply of Approved HATs & SATs document of the system: vetting by DNV Class of Society.
- b) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.
- 3.4 <u>Navtex (Navigational Telex) Receiver (latest version)</u> (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)

Following are the minimum required Configuration and Features of Navtex (Navigational Telex) Receiver. However Supplier should supply complete package.

- a) One set of Navtex Receiver consist of :
 - i. 01 (One) Receiver with printer in Chart Spaces.
 - ii. 01 (One) Antenna on Compass Deck.
- b) The Navtex receiver should print navigational and meteorological warning and forecasts as well as urgent marine safety Information to ships.
- c) The system equipment should be of COTs (Commercially off the shelf)
- d) Supply of Approved HATs & SATs document of the system: vetting by DNV Class of Society.
- e) 01 set of Battery Charger for 01 Hour as per DNV or IMO Standards and it's integration with System
- f) Supplier should provide enclosed Battery Rack for same.
- g) The equipment should be suitable for auto change of power supply form normal supply to 24V DC in the event of ac main power failure
- h) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.
- B) The Satellite Communication consist of:-
- 3.5 <u>Fleet Broad Band for Voice and Data Communication</u> (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid Type Approval certificate.):-

Following are the minimum required Configuration and Features of Inmarsat FBB. However Supplier should supply complete package.



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Dockyard Road, Mumbai -400 010.

		•
DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.		
Radio Equipment's	PAGE	Page 26 of 39
conforming to GMDSS -	MPV.	

- a) COTs Solution._(latest version)
- b) One (1) set of fleet broad band Inmarsat communication system shall be provided as follows for constant simultaneous access to voice and broad band data:-
- i. 01 (One) number of PC printer normal standard (maker supply).
- ii. 01 (One) number of Main unit with operation panel and telephone.
- iii. 01 (One) number of Remote telephone set in Captain's Cabin.
- iv. 01 (One) number of Remote telephone in the communication room for private call service.
- v. 01 (One) number of Facsimile transceiver in radio space and 01 (One) number of Parabolic antenna on compass deck.
- vi. Installation material (cable, connectors, Connection Box ,shock mounts etc)
 - c) Data transmission connection shall be provided.
 - d) DGPS signal shall be sent to Fleet Broad Band Inmarsat system.
 - e) Auto telephone shall be connected to this system.
 - f) Installation material (cable, connectors, shock mounts etc)
 - g) E mail and web mail
 - h) Real time electronic charts and weather updates.
 - i) Remote Internet and Internet access.
 - i) Secure communication.
 - k) Larger file transfer
 - i) SMS and instant messaging.
 - m) Sim card for the System will be provided by Supplier till the time of trails.
 - n) Supply of Approved HATs & SATs document of the system: vetting by DNV Class of Society.
 - o) Class Qualification: Type Approve Certificate from Authorized Organization/ Society.
- 3.6 <u>Two way VHF Radio Telephone</u> (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.):-

Following are the minimum required Configuration and Features of Two way VHF Radio Telephone. However Supplier should supply complete package.

- a) Three sets of Duplex Communication two way VHF Radio Telephone with battery Chargers shall be provided in radio Space Compartment
- b) It should have Transreceiver with charging unit.
- c) The transreceiver should have high quality audio ensuring that all parties can hear loud and clear even when working in noisy and windy environment/weather.
- d) It should have an excellent grip even with gloves.
- e) It should have large tactile buttons.
- f) Rechargeable battery with each.
- g) Shelf Life of batteries should be two years.



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Dockyard Road, Mumbai –400 010. 🖰

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 27 of 39

h) Eight-hours operation in emergency situations

 Supply of Approved Ops Check document of the system: - vetting by DNV Class of Society.

j) Class Qualification: - MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.

C) The Survival Aircraft System consist of:-

3.7 <u>Satellite Emergency Position Indicating Radio Beacon</u> (EPIRB 406 MHz) (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)

Following are the minimum required Configuration and Features of Survival Aircraft Equipment:-

- a) One (1) set of float free type satellite emergency position indicating radio beacon (406 MHz) shall be provided at bridge wing/deck.
- b) It should have following features:
 - i) GMDSS Compliant.
 - ii) Global distress alerting
 - iii) Satellite location
 - iv) Small and lightweight
 - v) Fully enclosed housing
 - vi) 5-vear shelf life
 - vii) COTs equipment.
- c) It should be slimline fully enclosed float free housing which allows selftesting of the EPIRB in question.
- d) It should have bulkhead mounting bracket for carry-off situations.
- e) EPIRB should be compatible with Cospas- sarsat and GMDSS regulation and it should meet requirements of International Maritime Organisation (IMO).
- f) Battery Life :- 5 years storage then 48 hours operation.
- g) Frequency 406.025MHz
- i) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.

3.8 AIS - Search & Rescue transponder (9 GHz) (Make

Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)

Following are the minimum required Configuration and Features of Survival Aircraft Equipment:-

- a) Two (2) sets of Radar Transponder (9 GHz) shall be provided, each one in wheelhouse port and starboard side.
- b) COTs Solution



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 28 of 39

- c) SART should respond on 9 GHz, self-contained, waterproof radar transponder intended for emergency use at sea.
- d) It should have following features:
 - i. Ship or survival craft options
 - ii. Waterproof to 10 m
 - iii. Maintenance free.
 - iv. Replaceable, 5 years battery pack.
 - v. AudioNisual indication of operation.
 - vi. Built-in test facility.
 - vii. Mounting Option internal/external.
- e) Duration of Operation 96 hours in standby condition followed by a minimum 8 hours. of transmission while being continually interrogated with a pulse repetition frequency of 1 kHz.
- f) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.

D) Security Alert System :-

Following are the minimum required Configuration and Features of Security Alert System:-

- 3.9 <u>Ship Security Alert System (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.)</u>
- a) The system shall be provided for sending a covert signal from a ship, which will not be obvious to anyone on the ship who is not aware of the alert mechanism.
- b) It is of use therefore in the circumstances where a ship wishes to inform a person ashore of a problem with a minimum of persons onboard aware of the action.
- c) The system shall be fully compliant with SOLAS Regulation XI-2/6 adopted by the Conference of Contracting Governments to the SOLAS Convention, 1974(7-13 December 2002) or the latest regulation.
- d) One (1) set of ship security alert system shall be provided as follows:
 - i. 01 number of Main unit
 - ii. 02 number of Panic button boxes with a normal closed contact (Suitable locations shall be decided by the Owner of Vessel).
- e) Class Qualification: MED B & D Certificate with valid expiry date from DNV Class or valid IACS certificate proving its Class Qualification or Compliance with IMO.
- 3.10 Portable U.H.F Transceiver (Make Eekels/Alphatron/Radio Holland/Wartsila/Kongsberg/Furuno Japan with valid IACS Type Approval certificate.):-

Following are the minimum required Configuration and Features of Portable U.H.F Transceiver :-



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 29 of 39

- a) 03 number of Portable transceivers of UHF (400 MHz 5W) for all channel.
- b) 03 number of Battery charger for three (3) portable transceivers in wheelhouse.
- c) Class Qualification: Type Approval or Manufacturer Certificate or IACS Certificate proving its Class Qualification or Compliance with IMO.

4. Ship station Radio licence: -

- a) A ship station radio licence in accordance with the ITU Radio Regulations should be issued to the ship for the Systems mentioned at Para 3 above. The Supplier is responsible for applying for a radio licence in due time before the installation take place (if any).
- b) Note: The Maritime Mobile Service Identity (MMSI) stipulated in the radio licence should be coded into the DSC equipment.
- c) Activation of satellite equipment The supplier is also responsible for registration and service activation of satellite Equipment's of Section II (if any).
- 5. <u>Deliverables: -</u> Above mention Configuration are minimum required. However Supplier should offer equivalent or higher configuration as per TSP. Any Item/software/license/simcard (till trials) require for Commissioning of above mentioned System is in scope of Supplier

6. <u>SERVICES OF ENGINEERS :-</u>

Requirement of services of engineers for following tasks would form part of the order and therefore cost for the same should be catered in offer:

- a) Connectorization, Installation, Assistance and supervision as and when required for the System.
- b) The complete system of the equipment shall be installed on board the vessel under the complete responsibility of the suppliers and for this purpose, suppliers shall depute their competent service engineers to supervise the installation work.
- c) The suppliers Service Engineers shall test and commission the equipment.
- d) Assistance and supervision in finalization of installation drawings by the shipyard.
- e) Availability of service of engineers (OEM reps) to be provided by the firm for MPV Project at MDL.
- f) Availability of service of engineers during Surveyor Inspection on-board or at harbour trails for the above mentioned products.
- g) Supervision in preparatory work for installation of the system on board ship and Supervision during installation of the system on board ship to be provided by the Supplier.
- h) Glanding of the cables & Complete Connectorization/check wire of all system cables (Power Cables, Ethernet, RF Cables) has to be carried out by Supplier.
- i) Deputation of Engineers for the referred services should be done as per schedule indicated by the yard.
- j) Carrying out the Receipt Inspection, STW and present the system to Surveyor for Inspection in standalone mode as well as in integrated mode.
- k) For GMDSS Radio equipment, the service engineer shall present the installation before sea trials and after sea trials for the survey by the concerned authorities for the purpose of granting Safety Radio Certificate.



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL & WEAPON DEPT.	T.S.P. NO.	DR/EL/MPV/5009
MDL YARD NO 21001 to	DATE	09 Sep 25
21006. Radio Equipment's	PAGE	Page 30 of 39
conforming to GMDSS - MPV.		

I) Supplier's Service Engineer shall attend the sea trails of the vessel (as required) and during that period, the complete equipment shall be demonstrated to the Ship Officers' / Surveyor/ Class representative satisfaction.

7. DELIVERY TIMELINES

The delivery timeline for GMDSS, satellite Communication, Survival Craft and Ship Security System for all the Six yards are as follows:-

Sr. No	Activity	Yard 21001	Yard 21002	Yard 21003	Yard 21004	Yard 21005	Yard 21006	
	Placement of Order		Р					
1	Submission of Binding Data & Drawings (BD) along with other relevant document to MDL, SED's & Buyer as per TSP.	P + 1 Months						
2	Approval of Binding Data (BD) along with other relevant document from MDL & SEDs.	P + 2 Months						
3	Delivery of Installation Material	P + 3 Months	P + 5 Months	P + 7 Months	P + 9 Months	P + 11 Months	P + 11 Months	
4	Delivery of Main Equipment	P + 3 Months	P + 5 Months	P + 7 Months	P + 9 Months	P + 11 Months	P + 11 Months	
5	Installation, Connectorization & Setting to Work	P + 4 Months	P + 6 Months	P + 8 Months	P + 10 Months	P + 12 Months	P + 12 Months	
6	Delivery of Documents	P + 3 Months	P + 5 Months	P + 7 Months	P + 9 Months	P + 11 Months	P + 11 Months	
7	Ops Check / HATs	P + 5 Months	P + 7 Months	P + 9 Months	P + 11 Months	P + 13 Months	P + 13 Months	



(A Govt. Of India Undertaking)

Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 31 of 39

APPENDIX - 1

(Refer Para No. 1.4)

DEVIATION LIST

The Supplier shall fill in this form for the deviations of their bid from the requirements as stated in the Material Requisition. If no deviation is required Supplier shall fill in "NIL" in the 'Deviation column. Supplier shall sign/date and affix their company seal.

SR. No.	DOCUMENT No./ CLAUSE No.	REQUIREMENT	DEVIATION WITH REASONS	ICG/ MDL REACTIONS
				8
				, 100

SUPPLIER'S COMPANY SEAL

SUPPLIER'S SIGNATURE & DATE

A-ACCEPTED

N-NOT ACCEPTED C-CONDITIONAL ACCEPTANCE (SEE ATTACHED SHEET)

ICG's COMMENT ON DEVIATION.



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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL &	T.S.P. NO.	DR/EL/MPV/5009
WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 32 of 39

APPENDIX- 2 (Refer Para No. 2.1)

CERTIFICATE OF CONFORMITY

(To be	filled in by the SUPPLIER& su		
	M/s	12: -	
	Dated	ong with the MDL Inquiry and our QUC	
1. REGISTRATION W			
	gistered / already REG pply of following items	ISTERED (*) with	for
(a)(b)	*/		
The relevant Order (a)			the past.
We ARE NOT / AF	AWINGS / SPECIFICATIORE (*) fully aware of the recommendation and the related	relevant Drawings / Specifications /	TSP etc.
	in compliance with the Req in the attached format (*).	uisition <u>WITHOUT any deviation / EX</u>	CEPT for
Details / Bolting ENCLOSED / NOT	Plan, Connection / Interf	ATA such as Overall Dimensions, Stace Details, Face to Face Dimerr. We have noted that any change in the transport of transport of the transport of tra	nsions is
6. DOCUMENTS / DA The following Techr (a) (To be specifie	nical Documents / DATA SH	HEETS are enclosed herewith	· · · · · · · · · · · · · · · · · · ·
	Signature:	Date :	
	Stamp:	*	
,	(*) Strike out which is NOT	APPLICABLE.	



LTD.,

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Dockyard Road, Mumbai -400 010.

DESIGN ELECTRICAL & T.S.P. NO. DR/EL/MPV/5009
WEAPON DEPT. REV. NO. 4
MDL YARD NO 21001 to 21006.
Radio Equipment's conforming to GMDSS - MPV.

APPENDIX- 3 (Refer Para No. 31.5)						
	1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	VEIGHT CONTROL	DATA SHEET			
EQUIPMENT DESCRIPTIO	N		EQUIP	EQUIPMENT NO.		
COMPARTMENT		11	LOCAT	LOCATION		
	RELIMINARY ST.	DESIGN EST.	M.T.O (CALC)	WEIGHED	TOLERANCE ± %	
1. WEIGHT (Kg.)						
(a) DRY		Kg <u>+</u>	%			
(b) FLUID	22	Kg <u>+</u>	%	¥1		
(c) OPERATING		Kg <u>+</u>	%	1		
(d) TEST	11	Kg <u>+</u>	%			
(e) TOTAL	30	Kg <u>+</u>	%			
2. EQUIPMENT DIM	ENSIONAL D	DATA (mm) & C	o-ordinates of	CoG		
B' PLAN	•	B Y PLAN		.B. A.	©G.	
C' Z' OG.	•	C. G. C. G. ELEVAT	ON	'C'	€LEVATION	
				E S		
	OVERALL SIZ	E	CENTRE C	F GRAVITY		

NOTE:

- ALL OFFERS SHALL INCLUDE THIS DATA SHEET DULY FILLED IN BY THE SUPPLIER (SIGNED, DATED & SEAL AFFIXED).
- ALL FINISHED ITEMS SHALL BE WEIGHED & A CERTIFICATE SHALL BE PROVIDED AS PER ATTACHED SHEET.
- SEPARATE SHEETS SHALL BE COMPLETED FOR EACH INSTALLED EQUIPMENT.
- ORIGIN OF 'X', 'Y' AND 'Z' TO BE INDICIATED.

'B'

SUPPLIER'S SEAL

SUPPLIER'S SIGNATURE & DATE



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WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's	PAGE	Page 34 of 39

· · · · · · · · · · · · · · · · · · ·		APPENDIX - 4 (Refer Para No. 4.2.1)		
	v	VEIGHT CERTIFICATE		
EQUIPMENT DESCRIPTION:		9)	EQUIPMENT NO. :	
The	form shall be completed by	Supplier & shall be supp	olied along with the equipmen	t.
SUPPLIER'S NAME			Ref. Drg. No.	ğ.
ADDRESS			Kei. Dig. No.	2
TELEPHONE NO.			Part No.	
ORDER NO.			EQPT. NO.	
METHOD OF WEIGHING:				
Supplier shall prescribe Method	d & Equipment Used:			
	DATE OF LAS	ST CALIBRATION	SPECIFIED ACCURAC	Y REQUIREMENT
· · · · · · · · · · · · · · · · · · ·				
	NOTE :-			
	NOTE :-			· ,
				· ,
RESULT OF WEIGHING TOTA	AL EQUIPMENT DRY WEI	GHT		
RESULT OF WEIGHING TOTA (Excluding packing, temporary	AL EQUIPMENT DRY WEIG	GHT		
(Excluding packing, temporary ALLOCATED WEIGHT	AL EQUIPMENT DRY WEIG	GHT		
(Excluding packing, temporary	AL EQUIPMENT DRY WEIG protection etc.)	GHT		
(Excluding packing, temporary ALLOCATED WEIGHT (Weight estimate agreed by pu	AL EQUIPMENT DRY WEIG protection etc.) rchaser ecs).		D WEIGHT:	
(Excluding packing, temporary ALLOCATED WEIGHT (Weight estimate agreed by pure and supplier based on order sp	AL EQUIPMENT DRY WEIG protection etc.) rchaser ecs).		D WEIGHT:	
(Excluding packing, temporary ALLOCATED WEIGHT (Weight estimate agreed by pure and supplier based on order sp	AL EQUIPMENT DRY WEIG protection etc.) rchaser ecs).		D WEIGHT:	
(Excluding packing, temporary ALLOCATED WEIGHT (Weight estimate agreed by pure and supplier based on order sp	AL EQUIPMENT DRY WEIG protection etc.) rchaser ecs).	VEIGHT AND CERTIFIE	WITNESSED BY	
(Excluding packing, temporary ALLOCATED WEIGHT (Weight estimate agreed by pure and supplier based on order sports) REASONS FOR VARIATION E	AL EQUIPMENT DRY WEIG protection etc.) rchaser ecs).	VEIGHT AND CERTIFIE	WITNESSED BY	PURCHASER
(Excluding packing, temporary ALLOCATED WEIGHT (Weight estimate agreed by pure and supplier based on order sports) REASONS FOR VARIATION E	AL EQUIPMENT DRY WEIG protection etc.) rchaser ecs).	VEIGHT AND CERTIFIE	WITNESSED BY	PURCHASER



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WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to	DATE	09 Sep 25
21006.		-
Radio Equipment's	PAGE	Page 35 of 39
conforming to GMDSS - MPV.		

APPENDIX - 5

CABLE FORM LIST

		FROM		то			CON /		CABLE
SR NO	CABLE NO	UNIT	CON /GLAND NO	UNIT	CON / GLAND NO	CABLE PAT NO	GLAND TYPE	NO OF PINS	OUTER
1									
2									
3									
4									
5									
6									
7									
8									
9									
10				,					
11									
12									
13									
14									
15		-							
16									



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WEAPON DEPT.	REV. NO.	4 .
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 36 of 39

APPENDIX - 6 MANUFACTURER'S RECOMMENDED LIST OF SPARES TOOLS AND SOFTWARE (MRL-OBS)

VESSEL/ EQUIPMENT: 06 MPV

S r N o	Eqpt Part No./ Model no./SI No.	Eqpt Descripti on	OEM Name	Vend or Name	Illustrated Spare Part List (ISPL) Referance/ Part No. of	Desc of Spare	Count ry of Origin	Unit Pric e	Seller Order No. & Date	Curre ncy Code	Tot al Qty	V E D* C at eg or	Reco mme nded scale for 01 Traini ng Ship	Re mar ks
										-				

MANUFACTURER'S RECOMMENDED LIST OF SPARES

VESSEL/ EQUIPMENT: 06 MPV

6 1 1	Part No./ Model	Eqpt Descripti on	OEM Name	Vend or Name	Illustrated Spare Part List (ISPL) Referance/ Part No. of Spare	Desc of Spare	Count ry of Origin	Unit Pric e	Seller Order No. & Date	Curre ncy Code	Tot al Qty	V E D* C at eg or y	Reco mme nded scale for 01 Traini ng Ship	Re mar ks

*VED- VITAL / ESSENTIAL/ DESIRABLE analysis of spares	to I	be carried	out by	OEM
prior to submission to the Buyer.				

Original Equipment Manufacturer (OEM): (Complete Address)

- 1. Data regarding maintenance spares/stores like lubricants, sealing compound, gases should be given separately giving source of supply.
- 2. Data furnished as spares should also include software backups, as applicable
- 3. In "Remarks" column following information (if applicable) be given:
 - a) If an item has a shelf/operational life it be marked as 'G' and life be indicated
 - b) Matching set of components be indicated.
 - c) Item which can be locally manufactured in India should be marked 'LM'.
 - d) Items which cannot be manufactured in India due to sophisticated design/ technology may be marked as 'SI' (Special Item).
 - e) If a component/assembly is common to other similar equipment offered by the OEM earlier, these should be marked 'CM' and Name of the equipment be indicated.
- 4. Spares list should be drawn out of the 'Part List' of the equipment, which should be separately given as part of Technical Manuals.
- 5. If the main equipment consists of other equipment, then Spares list should be prepared for them under proper heads. Spares list is to be prepared as per the maintenance concept of the customer.



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WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 37 of 39

- 6. Items provided along with the equipment as spares should also be included in Spares list
- 7. Modules/ Shop Replaceable Unit (SRU) / assemblies should be listed and their components should be included under them so as to relate each item of spare to their module / SRO / assembly.
- 8. Spares list for test equipment should also be provided on the similar format.
- 9. Cost to be indicated in Price bid only.



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WEAPON DEPT.	REV. NO.	4 05 - 1
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 38 of 39

APPENDIX - 7 TABLE OF CONNECTIONS FORMAT

SR NO	CABLE NO	CABLE TYPE	NO: OF CORES	FROM DEVICE	CONN REF	TERMINAL / PIN NO	TO DEVICE	CONN	TERMINAL / PIN NO	SIGNAL
		xxx	1			1	DEV-B	J1 .	1	
1	CAB-1	3 CORE CABLE	2	DEV-A	P1	2			2	
		CABLE	3			3			3	¥0
			÷2							
									·	



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WEAPON DEPT.	REV. NO.	4
MDL YARD NO 21001 to 21006.	DATE	09 Sep 25
Radio Equipment's conforming to GMDSS - MPV.	PAGE	Page 39 of 39

APPENDIX-8

TABLE-1 FORMAT FOR PROVIDING DIMENSIONAL DETAILS

SR NO	DEVICE	DIMENSIONS (WXHXD)	Wt IN KG	HEAT DATA	DISSIPATION	POWER CONSUMPTION
	7,					

TABLE-2 DETAILS OF SHOCK MOUNTS USED

SL No.	Type of shock mounts	Part Number	Used In	Qty.
	11	e e		
±	2			ă)

TABLE-3 DIMENSIONAL DETAILS OF SHOCKMOUNTS

SR NO	SHOCK MOUNT TYPE	PART NO	DIMENSIONS
			·

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