


## **INVITATION OF EXPRESSION OF INTEREST (EoI) FOR NDRF EQUIPMENT**

1. NDRF is the lead federal force responsible for responding to all types of natural and man-made disasters NDRF acknowledge the importance of having reliable equipment to enhance the efficiency and effectiveness of rescue operations.
2. NDRF now intends to procure Disaster Management equipment for each of its 16 Units/Academy Accordingly, NDRF has prepared a draft technical specification for the following NDRF equipment required to enhance the efficiency and effectiveness of rescue operations: -

S/No	Equipment Name
a.	Bore well Camera with cable
b.	Remote controlled Lifebuoy
c.	Rope throwing bags
3. The draft specifications are appended as **Appendix- A**.
4. In this context, NDRF invites Expressions of Interest (EoI) from eligible manufacturers, suppliers and vendors to submit their comments and suggestions. In case these specifications do not match with the available equipment in the market, the same may be highlighted and the specification of the equipment available in the market may kindly be provided with the same functionality. The purpose of the EoI document is to provide necessary information to NDRF so that genuine and generalized specifications can be framed and finalized for further procurement, and no gap exists in the specifications of the items available in the market out the specifinness floated in the bid by NDRF.
5. This EOI is not an offer by NDRF or a tender document but it is an invitation to receive responses from eligible manufacturers, suppliers, and vendors in the industry the draft specification framed by NDRF.
6. Eligibility Criteria: The minimum eligibility criteria for an entity to participate in the EoI is as follows: -
  - i. The entity must be a manufacturer or vendor/supplier/dealer registered in India under relevant applicable Acts and Laws.
  - ii. The entity must have some experience in the supply of such equipment.
  - iii. NDRF may call manufacturers, suppliers and vendors to conduct the demonstration/field trial of such equipment if needed before finalizing the specification
7. Documents to be submitted: The following documents are required to be submitted as part of the response to this EoI.
  - i. Documents supporting Eligibility Criteria as mentioned above.
  - ii. List of equipment catalogue with detailed technical specifications along with estimated cost if possible.
7. Eligible manufacturers, suppliers and vendors who have the competence and experience to carry out such work are requested to submit the suggestion/comments (EoI) along with supporting documents within 21 days.

**-Important timelines-**

Event	Timeline
Last date of submission of responses	Within 21 Days Email:- <a href="mailto:rd-cell.ndrf@gov.in">rd-cell.ndrf@gov.in</a> , <a href="mailto:dcproccell-ndrf@gov.in">dcproccell-ndrf@gov.in</a>

  
(Harvinder Singh)  
Second-In-Command (R&D)  
HQ NDRF

No. 1-17018/R&D/2622/SRC//HQ NDRF/2014/55

Dated 11 /02/2025

**Copy to:-**

- |  |   |
|--|---|
| 1. PS to DG NDRF   | : For kind info to DG NDRF, please                |
| 2. PA to IG, NDRF  | : For kind info to IG NDRF, please                |
| 3. PA to DIG (Proc.), HQ NDRF  | : For kind info to DIG (Proc.) NDRF, please       |
| 4. Proc. Branch, HA NDRF   | : For kind info, please.                          |
| 5. IT Cell, HQ NDRF  | : For kind info & request upload the EoI document |
| Email:- <a href="mailto:website.ndrf@gov.in">website.ndrf@gov.in</a> | along with the draft specification on NDRF        |
|  | website for 21 Days.                              |

### Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	04-03-2025 16:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	04-03-2025 16:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	30 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Home Affairs
Department Name/विभाग का नाम	Central Armed Police Forces
Organisation Name/संगठन का नाम	National Disaster Response Force (ndrf)
Office Name/कार्यालय का नाम	Hq Ndrf New Delhi
क्रेता ईमेल/Buyer Email	rd-cell.ndrf@gov.in
Total Quantity/कुल मात्रा	1
Item Category/मद केटेगरी	Eol for 03 Nos NDRF DM Equipment
GeMARPTS में खोजी गई स्ट्रिंग / Searched Strings used in GeMARPTS	Eol for 03 Nos NDRF DM Equipment
GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS	Category not available on GeM for the text string uploaded by the buyer
अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification	<ul style="list-style-type: none"> <li>• Remote Controlled Lifebuoy</li> <li>• Bore Gauge With Its Accessories (BHEL)</li> <li>• Monkey rope</li> </ul>
MSE Exemption for Years Of Experience/अनुभव के वर्षों से एमएसई छूट/ and Turnover/टर्नओवर के लिए एमएसई को छूट प्राप्त है	Yes
Startup Exemption for Years Of Experience/अनुभव के वर्षों से स्टार्टअप छूट/ and Turnover/ टर्नओवर के लिए स्टार्टअप को छूट प्राप्त है	Yes
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	<p>Past Performance,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate,Additional Doc 1 (Requested in ATC)</p> <p>*In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer</p>

Bid Details/बिड विवरण	
Do you want to show documents uploaded by bidders to all bidders participated in bid?/	No
Past Performance/विगत प्रदर्शन	10 %
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	No
Type of Bid/बिड का प्रकार	Single Packet Bid
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	5 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation
Arbitration Clause	No
Mediation Clause	No

#### EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
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#### ePBG Detail/ईपीबीजी विवरण

Required/आवश्यकता	No
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#### MII Purchase Preference/एमआईआई खरीद वरीयता

MII Purchase Preference/एमआईआई खरीद वरीयता	No
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#### MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes
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1. If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.
2. If the bidder is a Startup, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to their meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of



quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

3. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

4. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 10% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

#### Pre Bid Detail(s)

Pre-Bid Date and Time	Pre-Bid Venue
19-02-2025 15:00:00	HQ NDRF, NDCC-II Building, Jai Singh Road, New Delhi

#### EoI For 03 Nos NDRF DM Equipment ( 1 the number pi )

#### Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	<a href="#">Download</a>
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#### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Harvinder Singh	110001,HQ DG, NDRF, 6TH FLOOR, NDCC-II BUILDING, JAI SINGH ROAD, NEW DELHI	1	15

## Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

### 1. Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 % of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be  $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$ , subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

### 2. Turnover

OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria. In case of bunch bids, the OEM of CATEGORY RELATED TO primary product having highest bid value should meet this criterion.

## Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the

case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

**All GeM Sellers / Service Providers are mandated to ensure compliance with all the applicable laws / acts / rules including but not limited to all Labour Laws such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972 etc. Any non-compliance will be treated as breach of contract and Buyer may take suitable actions as per GeM Contract.**

[This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।

**---Thank You/धन्यवाद---**


## INVITATION OF EXPRESSION OF INTEREST (EoI) FOR NDRF EQUIPMENT

1. NDRF is the lead federal force responsible for responding to all types of natural and man-made disasters NDRF acknowledge the importance of having reliable equipment to enhance the efficiency and effectiveness of rescue operations.
2. NDRF now intends to procure Disaster Management equipment for each of its 16 Units/Academy Accordingly, NDRF has prepared a draft technical specification for the following NDRF equipment required to enhance the efficiency and effectiveness of rescue operations: -

S/No	Equipment Name
a.	Bore well Camera with cable
b.	Remote controlled Lifebuoy
c.	Rope throwing bags
3. The draft specifications are appended as **Appendix- A**.
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**-Important timelines-**

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Second-In-Command (R&D)  
HQ NDRF

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| Email:- <a href="mailto:website.ndrf@gov.in">website.ndrf@gov.in</a> | along with the draft specification on NDRF        |
|  | website for 21 Days.                              |

### 1. Draft Specifications for Borewell Camera with Cable

SL No	Proposed Specification		Trial Directives	Remarks of the Board
01	Camera type	High-resolutions, waterproof and ruggedized colour camera system		
02	Camera Censor	High-sensitivity CCD or CMOS sensor with low-light enhancement		
03	Resolution	Minimum 720p (1280x720) resolution, preferably, 1080p (1920x720) or higher with autofocus capabilities	Output quality of video should be checked as per specifications.	
04	Field of view	Wide-angle lens (minimum 90°) to capture more area		
05	Illumination	Build in LED lights or infrared illumination for low-light environments	Borewell camera should be checked for desired result in low light or night condition	
06	Cable length	Minimum 300 meters (900 feet) probe length to reach deep borewells		
07	Camera Casing Diameter	Compact probe diameter (less than 25mm) to navigate narrow borewell		
08	Waterproof Rating	IP68 or higher rating for protection against water and dust		
09	Temperature Range	Operating temperature range of -10°C to 50°C		
10	Impact Resistance	Can withstand drop from 1 meter (3.3 feet) or more		
11	Corrosion resistance	Resist corrosion from exposure to water, soil and other environmental		



		factors		
12	Power Source	Rechargeable battery with minimum 6-hour battery life.		
13	Power Consumption	Power consumption to minimize heat generation and prolong battery life.		
14	Video Output	HD-SDI, HDMI or USB output for connecting to monitors, recorders or computers	Check video output by connecting into HDMI or USB ports	
15	Communication Interface	Wired along with Optional wireless communication interface (e.g., Wi-Fi, Bluetooth) for remote monitoring and control	Check remote control functions are working over Wi-fi or Bluetooth	
16	Electrical Safety	Protection against electrical shock and short circuits		
17	Mechanical Safety	Protection against mechanical hazards (e.g., entanglement, crushing)		
18	User Manual	Comprehensive user manual with instructions for operation, maintenance and troubleshooting.	User Manual and maintenance guide shall be provided by the supplier.	
19	Technical support	Dedicated technical support team for assistance with system operation, maintenance and repair	Supplier shall provide on hand training to the end user.	
20	Warranty	Minimum 2-year warranty with optional extended warranty and maintenance contracts	-	
21	Protection	SS casing	-	
22	Communication	Speaker along with mic, two way communication system	Two way communication system shall be checked in controlled environment.	
23	Recording Capability	Shall be able to record videos.	-	
24	Data transfer	Yes	-	
25	Carrying case	Carrying case for whole system	-	
26	Display	Fix along with one 13" display that can be taken with 2-4 meter wire	-	
27	Proximity Sensor	Camera may be fitted with proximity sensor	-	
28	Night vision	Can be operate in complete darkness by using infrared lights or thermal imaging to detect heat.	Check thermal and infrared capabilities of cameras as specified	
29	360 degree rotation	Allow the camera to rotate horizontally and vertically, complete view of the well or borewell interior.	-	
30	Video Streaming	Directly to rescuers and command post to monitor the situation continuously.	Check whether borewell, feed could be video streamed to command centre.	
31	Data Storage	Extendable storage with SD card	-	
32	GPS tracking	Yes	-	
33	User friendly control	Easy to operate to rescuers.	-	

- Availability on GeM Portal : Not available
- Number of firms : Nil
- Names of Firm Available : Nil
- No of firms in the open market : 1. Orwind Electronics, New Delhi 2. Pro EnginneersMaharashtra, India (Quotation from 2 OEM suppliers available as of now)
- Tentative Cost: Rs.2,00,000 to 4,30,000/-

**2. Draft Specifications for Remote Controlled lifebuoy**


SL No	Proposed Specification		Trial Directives	Remarks of the Board
	General Specifications			
1.1	Buoy Type	Inflatable life buoy	--	
1.2	Size	Diameter : 60-80 cm, thickness :10-15 cm	--	
1.3	Material	Durable, Glass Fibre reinforced polyester, marine-grade materials (e.g., PVC, polyurethane)	--	
1.4	Weight	Approximately 10-15 kg (22-33 lbs)	Check weight of the object to be in specified range.	
1.5	Color	High-visibility color (e.g., orange)	--	
2	Remote Control Features		--	
2.1	Control Systems	Wireless remote control system (e.g., radio frequency, Wi-Fi), remote control should have buttons to set a home position and return remote operated Lifebuoy to a designated home position.	--	
2.2	Range	Minimum 2 Km range for remote control.	Check Range of the remote controlled lifebuoy in still and open waters for range estimation.	
2.3	Speed	Adjustable speed control (Minimum 17-20Km/h on water)	Check speed of the remote controlled lifebuoy in still waters.	
2.4	Directional Control	Ability to control direction (e.g., forward, backward, left, right)	Check maneuverability of the lifebuoy in still as well as flowing water	
2.5	Emergency Stop	Emergency stop feature to immediately halt the buoy's movement	--	
3	Safety features			
3.1	Floatation	Sufficient floatation to tow a person weighing a minimum of 100 kg and should be able to keep two person weighing a minimum of 100 kg each, afloat during the rescue.	Check floatation capacity of the lifebuoy as specified in specifications	
3.2	Stability	Stable and balanced design to prevent capsizing	-	
3.3	Visibility	High-visibility color and reflective materials for enhanced visibility	-	
3.4	Alarm	Audible alarm to alert nearby personnel in emergency situations	-	
3.5	Lighting	Integrated with minimum 2 Led flash lights for increased visibility in low-light conditions on power and seaboard sides.	-	
3.6	Self-Recovery	Should be capable of self-	Check self-recovery function	


		recovery from capsizing due to high waves		
3.7	Home Position	Should be possible to set a home position for Remote Operated Lifebuoy and should be able to return to home position automatically in case of loss of communication	Set home position before deploying the lifebuoy. Check whether lifebuoy is returning to its home position in case of communication loss or when commanded	
4	Power and Battery		-	
4.1	Power Source	Rechargeable battery (e.g., lithium-ion)	-	
4.2	Battery Life	Minimum 8 hours of continuous operation	Check whether lifebuoy is operating as per specified limits when under no load	
4.3	Charging time	Approximately 2-4 hours charging time with battery management system and battery level indicator	-	
4.4	Power indicator	LED indicator for battery level and charging status.	-	
5	Communication and Integration		-	
5.1	Communication protocol	Compatible with standard communication protocols (e.g., RS-232, TCP/IP)	-	
5.2	Integration	Ability to integrate with existing emergency response systems (e.g., GPS, AIS)		
6	Environmental and Durability			
6.1	Operating Temperature	-20°C to 50°C (-4°F to 122°F)	-	
6.2	Water Resistance	IP68 or higher rating for water resistance	-	
6.3	UV Resistance	Resistance to UV degradation and discoloration	-	
6.4	Impact Resistance	Ability to withstand impacts and drops without damage	-	
7	Other Specifications			
7.1	Water Jet Inlets	Should be present on both sides protected with grids and powered by DC brushless motors.	-	
7.2	Front Protection	Should have stock absorbing barrier at the front	-	
7.3	Handles	Should have embedded handles and nylon ropes for individuals to hold in the water.	-	
7.4	Drop and Go function	Remote Operated Lifebuoy shall have drop & go function & switch on automatically when dropped in water.	-	
7.5	Propulsion	High grade aluminium metal impeller and metal pump	-	
7.6	Certifications	All necessary certifications regarding Salt spray test, EMI/EMC test, 96/98 Marine equipment Directives and Make in India	All related certificates to be supplied by supplier	

## 7.7 Warranty


Minimum 2 years warranty after purchase.


- Availability on GeM Portal : Available
- Number of firms : 16
- Names of Firm Available : Saif Seas, Mybuoy, USAFE, HAVOSPARK,IL, Airbiox, Fasty
- No of firms in the open market : NA
- Tentative Cost: Rs.4,79,000 to 8,00,000/-

  
SI/Tech Amit Kundu  
Co-Opted Member

  
Insp/Gd Balender Sahu  
Member-III

  
Insp/Gd Govardhan Raiger  
Member-II

  
Shri. Yogesh Kumar Meena, A/C  
Member-I

  
Shri. Anupam, 2I/C, 06 Bn NDRF.  
Presiding Officer

## DRAFT SPECIFICATION FOR PROPOSED OF ROPE THROWING BAGS

S/N	Proposed Specification		Trial Directive	Remark of board
(I) ROPE SPECIFICATIONS-			<p>(i) Verify the total length of the rope in the throwing bag and assess its usability in different scenarios</p> <p>(ii) The rope should be thick enough to support the required weight load without significant stretching or breaking.</p> <p>(iii) The thickness should offer a balance between strength and ease of handling.</p> <p>(iv) The weight should be light enough for quick deployment but still carry enough rope to be effective in rescue scenarios.</p> <p>(v) The bag should have sufficient reflective material (such as reflective tape or stitching) to be clearly visible from a distance.</p> <p>(vi) Reflective properties should work effectively in various lighting conditions.</p> <p>(vii) The bag should be made from durable, weather-resistant materials.</p> <p>(viii) The rope should be abrasion-resistant and capable of withstanding environmental conditions.</p> <p>(ix) The rope and bag should maintain their integrity when exposed to UV light and extreme temperatures.</p> <p>(x) There should be no significant degradation in material strength or flexibility.</p>	
1.	Length	20 mtr		
2.	Thickness	10mm Dia		
3.	Weight	1.5 kg		
4.	Reflective	a) Highly Reflective throw line b) Integrated silver strip for reflectivity		
5.	Material	a) Red/Orange poly Propylene (PP) Cored-rope b) Braided nylon sheath		
6.	Resistance	Wear and tear resistant		
7.	Buoyancy	The rope itself is made of floating materials to stay afloat on water		
(I) ROPE SPECIFICATIONS-				
1.	Throw line Bag material	Durable, Water- resistant Cordura Nylon.		
2.	Dimensions	Approximately 8-10 inches in height and 4-6 inches in diameter.		
3.	Buoyancy	Foam inserts for flotation		
4.	Handle	Sturdy throwing handle		
5.	Closure	Drawstring or Velcro		
6.	Color	Bright colors (red, yellow, orange) with reflective strips for visibility		
7.	Attachment	Carbineer loops or D-rings for secure attachment.		



		<p>(xi) The bag should float for easy retrieval after being thrown into water.</p> <p>(xii) The rope should not sink or drag heavily, as this could hinder the efficiency of the rescue operation and make it difficult to retrieve or control the rope in water-based scenarios.</p>	
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## Appendix- B

## Other information as asked by HQ NDRF-

i	Availability on GeM Portal	At present 01 firm is available on GeM portal
ii	Number Of firm available,	01
iii	Names of available firms,	Reseller, OEM is not available on GeM Portal ( copy attached)
iv	Number of firms in the open Market (If Not available on GeM , Provide details of minimum 03 OEMs along with their catalogues),	01 firm ( Reseller) is available on GeM portal. However many of the best OEM manufacturers of rope throwing bags are located outside of India. However, authorized dealers and resellers are available online, making these products accessible in India.
V	Tentative Cost	As per cost available on GeM portal Rs. 3,000/-

Co-Opted M-III [Signature]  
(CT/GD Swapnil Pathare) (Insp/GD Rishab Sharma)

M-II [Signature]  
(Sh. Nikhil Dilip Mudholkar, AC 5<sup>th</sup> Bn NDRF)

PO:- [Signature]  
14/12/24  
(Sh. Ashok Kumar, Comdt. 5th Bn NDRF)



### 1. Draft Specifications for Borewell Camera with Cable

SL No	Proposed Specification		Trial Directives	Remarks of the Board
01	Camera type	High-resolutions, waterproof and ruggedized colour camera system		
02	Camera Censor	High-sensitivity CCD or CMOS sensor with low-light enhancement		
03	Resolution	Minimum 720p (1280x720) resolution, preferably, 1080p (1920x720) or higher with autofocus capabilities	Output quality of video should be checked as per specifications.	
04	Field of view	Wide-angle lens (minimum 90°) to capture more area		
05	Illumination	Build in LED lights or infrared illumination for low-light environments	Borewell camera should be checked for desired result in low light or night condition	
06	Cable length	Minimum 300 meters (900 feet) probe length to reach deep borewells		
07	Camera Casing Diameter	Compact probe diameter (less than 25mm) to navigate narrow borewell		
08	Waterproof Rating	IP68 or higher rating for protection against water and dust		
09	Temperature Range	Operating temperature range of -10°C to 50°C		
10	Impact Resistance	Can withstand drop from 1 meter (3.3 feet) or more		
11	Corrosion resistance	Resist corrosion from exposure to water, soil and other environmental		

		factors		
12	Power Source	Rechargeable battery with minimum 6-hour battery life.		
13	Power Consumption	Power consumption to minimize heat generation and prolong battery life.		
14	Video Output	HD-SDI, HDMI or USB output for connecting to monitors, recorders or computers	Check video output by connecting into HDMI or USB ports	
15	Communication Interface	Wired along with Optional wireless communication interface (e.g., Wi-Fi, Bluetooth) for remote monitoring and control	Check remote control functions are working over Wi-fi or Bluetooth	
16	Electrical Safety	Protection against electrical shock and short circuits		
17	Mechanical Safety	Protection against mechanical hazards (e.g., entanglement, crushing)		
18	User Manual	Comprehensive user manual with instructions for operation, maintenance and troubleshooting.	User Manual and maintenance guide shall be provided by the supplier.	
19	Technical support	Dedicated technical support team for assistance with system operation, maintenance and repair	Supplier shall provide on hand training to the end user.	
20	Warranty	Minimum 2-year warranty with optional extended warranty and maintenance contracts	-	
21	Protection	SS casing	-	
22	Communication	Speaker along with mic, two way communication system	Two way communication system shall be checked in controlled environment.	
23	Recording Capability	Shall be able to record videos.	-	
24	Data transfer	Yes	-	
25	Carrying case	Carrying case for whole system	-	
26	Display	Fix along with one 13" display that can be taken with 2-4 meter wire	-	
27	Proximity Sensor	Camera may be fitted with proximity sensor	-	
28	Night vision	Can be operate in complete darkness by using infrared lights or thermal imaging to detect heat.	Check thermal and infrared capabilities of cameras as specified	
29	360 degree rotation	Allow the camera to rotate horizontally and vertically, complete view of the well or borewell interior.	-	
30	Video Streaming	Directly to rescuers and command post to monitor the situation continuously.	Check whether borewell, feed could be video streamed to command centre.	
31	Data Storage	Extendable storage with SD card	-	
32	GPS tracking	Yes	-	
33	User friendly control	Easy to operate to rescuers.	-	

- Availability on GeM Portal : Not available
- Number of firms : Nil
- Names of Firm Available : Nil
- No of firms in the open market : 1. Orwind Electronics, New Delhi 2. Pro EnginneersMaharashtra, India (Quotation from 2 OEM suppliers available as of now)
- Tentative Cost: Rs.2,00,000 to 4,30,000/-

**2. Draft Specifications for Remote Controlled lifebuoy**


SL No	Proposed Specification		Trial Directives	Remarks of the Board
	General Specifications			
1.1	Buoy Type	Inflatable life buoy	--	
1.2	Size	Diameter : 60-80 cm, thickness :10-15 cm	--	
1.3	Material	Durable, Glass Fibre reinforced polyester, marine-grade materials (e.g., PVC, polyurethane)	--	
1.4	Weight	Approximately 10-15 kg (22-33 lbs)	Check weight of the object to be in specified range.	
1.5	Color	High-visibility color (e.g., orange)	--	
2	Remote Control Features		--	
2.1	Control Systems	Wireless remote control system (e.g., radio frequency, Wi-Fi), remote control should have buttons to set a home position and return remote operated Lifebuoy to a designated home position.	--	
2.2	Range	Minimum 2 Km range for remote control.	Check Range of the remote controlled lifebuoy in still and open waters for range estimation.	
2.3	Speed	Adjustable speed control (Minimum 17-20Km/h on water)	Check speed of the remote controlled lifebuoy in still waters.	
2.4	Directional Control	Ability to control direction (e.g., forward, backward, left, right)	Check maneuverability of the lifebuoy in still as well as flowing water	
2.5	Emergency Stop	Emergency stop feature to immediately halt the buoy's movement	--	
3	Safety features			
3.1	Floatation	Sufficient floatation to tow a person weighing a minimum of 100 kg and should be able to keep two person weighing a minimum of 100 kg each, afloat during the rescue.	Check floatation capacity of the lifebuoy as specified in specifications	
3.2	Stability	Stable and balanced design to prevent capsizing	-	
3.3	Visibility	High-visibility color and reflective materials for enhanced visibility	-	
3.4	Alarm	Audible alarm to alert nearby personnel in emergency situations	-	
3.5	Lighting	Integrated with minimum 2 Led flash lights for increased visibility in low-light conditions on power and seaboard sides.	-	
3.6	Self-Recovery	Should be capable of self-	Check self-recovery function	


		recovery from capsizing due to high waves		
3.7	Home Position	Should be possible to set a home position for Remote Operated Lifebuoy and should be able to return to home position automatically in case of loss of communication	Set home position before deploying the lifebuoy. Check whether lifebuoy is returning to its home position in case of communication loss or when commanded	
4	Power and Battery		-	
4.1	Power Source	Rechargeable battery (e.g., lithium-ion)	-	
4.2	Battery Life	Minimum 8 hours of continuous operation	Check whether lifebuoy is operating as per specified limits when under no load	
4.3	Charging time	Approximately 2-4 hours charging time with battery management system and battery level indicator	-	
4.4	Power indicator	LED indicator for battery level and charging status.	-	
5	Communication and Integration		-	
5.1	Communication protocol	Compatible with standard communication protocols (e.g., RS-232, TCP/IP)	-	
5.2	Integration	Ability to integrate with existing emergency response systems (e.g., GPS, AIS)		
6	Environmental and Durability			
6.1	Operating Temperature	-20°C to 50°C (-4°F to 122°F)	-	
6.2	Water Resistance	IP68 or higher rating for water resistance	-	
6.3	UV Resistance	Resistance to UV degradation and discoloration	-	
6.4	Impact Resistance	Ability to withstand impacts and drops without damage	-	
7	Other Specifications			
7.1	Water Jet Inlets	Should be present on both sides protected with grids and powered by DC brushless motors.	-	
7.2	Front Protection	Should have stock absorbing barrier at the front	-	
7.3	Handles	Should have embedded handles and nylon ropes for individuals to hold in the water.	-	
7.4	Drop and Go function	Remote Operated Lifebuoy shall have drop & go function & switch on automatically when dropped in water.	-	
7.5	Propulsion	High grade aluminium metal impeller and metal pump	-	
7.6	Certifications	All necessary certifications regarding Salt spray test, EMI/EMC test, 96/98 Marine equipment Directives and Make in India	All related certificates to be supplied by supplier	

## 7.7 Warranty


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- Names of Firm Available : Saif Seas, Mybuoy, USAFE, HAVOSPARK,IL, Airbiox, Fasty
- No of firms in the open market : NA
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Presiding Officer

## DRAFT SPECIFICATION FOR PROPOSED OF ROPE THROWING BAGS

S/N	Proposed Specification		Trial Directive	Remark of board
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2.	Thickness	10mm Dia		
3.	Weight	1.5 kg		
4.	Reflective	a) Highly Reflective throw line b) Integrated silver strip for reflectivity		
5.	Material	a) Red/Orange poly Propylene (PP) Cored-rope b) Braided nylon sheath		
6.	Resistance	Wear and tear resistant		
7.	Buoyancy	The rope itself is made of floating materials to stay afloat on water		
(I) ROPE SPECIFICATIONS-				
1.	Throw line Bag material	Durable, Water- resistant Cordura Nylon.		
2.	Dimensions	Approximately 8-10 inches in height and 4-6 inches in diameter.		
3.	Buoyancy	Foam inserts for flotation		
4.	Handle	Sturdy throwing handle		
5.	Closure	Drawstring or Velcro		
6.	Color	Bright colors (red, yellow, orange) with reflective strips for visibility		
7.	Attachment	Carbineer loops or D-rings for secure attachment.		



		<p>(xi) The bag should float for easy retrieval after being thrown into water.</p> <p>(xii) The rope should not sink or drag heavily, as this could hinder the efficiency of the rescue operation and make it difficult to retrieve or control the rope in water-based scenarios.</p>	
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## Appendix- B

## Other information as asked by HQ NDRF-

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iv	Number of firms in the open Market (If Not available on GeM , Provide details of minimum 03 OEMs along with their catalogues),	01 firm ( Reseller) is available on GeM portal. However many of the best OEM manufacturers of rope throwing bags are located outside of India. However, authorized dealers and resellers are available online, making these products accessible in India.
V	Tentative Cost	As per cost available on GeM portal Rs. 3,000/-

Co-Opted M-III [Signature]  
(CT/GD Swapnil Pathare) (Insp/GD Rishab Sharma)

M-II [Signature]  
(Sh. Nikhil Dilip Mudholkar, AC 5<sup>th</sup> Bn NDRF)

PO:- [Signature]  
14/12/24  
(Sh. Ashok Kumar, Comdt. 5th Bn NDRF)