Appendix- 'A'

TECHNICAL SPECIFICATIONS FOR IRB WITH OBM

S/No	Parameters	Specifications
IRB		
Constructional		
1.	Exterior Size of Boat, Min (Length X Breadth in mm)	4500 x 1900
2.	Interior Size of Boat, Min (Length X Breadth in mm)	3200 x 1000
3.	Carrying capacity, considering per person weight of 825/10 Kgs, Speed	10 Persons, Speed at light load with three persons not less than 15 Knots and at full load not less than 6 Knots
4.	Floor Board (no's & Size) interlocked together to form a rigid platform (mm x mm x mm)	3250 X 1170 X 12
5.	Total Min Inflatable Chambers including inflatable Keel	5
6.	Diameter of Buoyancy tube, Min (mm)	480 millimeters
7.	Inflatable Mechanism of Boat	Foot Pump as well as Electric Pump (12 V DC)
8.	The Hull, Air Tube (buoyancy Chambers), floor, and Keel must made of composite fabric consisting Hypalon (outside layers) and Neoprene (inside layers) with 1670 Dtex, 1500 GSM as per ISO 15372	Yes
9.	Transom - FRP Coated marine plywood as per IS 710 to form waterproof Cocoon as per ISO, OBM mount on transom should of marine grade aluminium alloy plate	Yes
10.	Over lapping of seam of Boat	Quadruple
11.	5/8" Grab line nylon braided (as per IS 4227) all along the side for safety	Yes
12.	Inflatable Keel of suitable Diameter for rigidity & stability during operation and swift water rescue	Yes
13.	Two nos drain valve akin to NRV on the lower most part of the transom board near the rear end fitment of the keel close to the center line	Yes
14.	Air Valve one way type Conforming to International Standards (Inflation/Deflation Valve) for each compartment	Yes
OBM		
15.	Make of Out Board Motor Engine (OBM); OBM make should have proven Indigenous product support throughout India	--
16.	Out Board Motor	An outboard motor is a propulsion system for rescue boats, consisting of a self-contained unit that includes engine, gearbox and propeller or jet drive, designed to be affixed to the outside of the transom with accessories

S/No	Parameters	Specifications
17.	Model No of Out Board Motor Engine (OBM)	--
18.	Fuel	Petrol
19.	No of Strokes	Two Stroke
20.	Engine	40 HP 02 Stroke Petrol
21.	No of Cylinders	2 or 3
22.	Fuel Capacity; The OBM shall be provided with OEM supplied standard fuel tank, connecting fuel hoses	25 liters
23.	Power (HP)	40 HP
24.	Fuel Delivery System	EFI
25.	Engine Starting;	Manual recoil
26.	Trim method position	Manual
27.	Engine Stopping Switch	Yes
28.	Fuel Injection System (write NA if not applicable)	NA
29.	Start-in gear protection	YES
30.	Engine Cooling System	Water Cooled
31.	Engine Lubrication	Premix with petrol in two-stroke engine
32.	Engine Exhaust	Through Propeller
33.	Type of Steering System	Tiller Handle
34.	Length of Engine Shaft suitable for transom (in cm)	In accordance with height of transom of IRB.
35.	TRANSOM HEIGHT	As per OBM engine
36.	Dry Weight	Max 76 kg
37.	Gear Shift	FNR
38.	Thermostat-controlled cooling system	Yes
39.	Dual water intake	Yes
40.	Through prop hub exhaust	Yes
41.	Water pump housing	Yes
42.	Fuel tank	1
43.	Emergency stop switch (lanyard)	Yes
44.	Propeller material	Aluminum Alloy
45.	Full throttle operating range (rpm)	5000-6000
46.	Drive protection	Rubber hub
47.	Engine model number	As per OEM
48.	Gear ratio	1.8 to 2.3
49.	Propellor dimensions	As per OEM
50.	Fuel attachment	1 set
51.	2 paddles for Emergency Rowing	Yes
52.	Floor Board shall be interlocking type of High Strength Tempered Anodized marine grade aluminum alloy/ Marine plywood encapsulated in FRP coating Polygon (Al alloy) & U Channel (Al alloy) for fitment of floorboard - as per offered design	Yes
53.	Boat Shall have Round/ Conical ends for Rapid Planning	Yes (round)
54.	Built in oarlocks for easy Rowing	Yes
55.	Two Stainless Steel SS 316 "D " Rings for Towing	Yes

S/No	Parameters	Specifications
56.	Two Layer of Material on Lower Tubes for better Puncture resistance and abrasion	Yes
57.	Standard Tool Kit including Open Spanner, Socket, T Handle, Extension for Socket, Screw Driver , Feeder Gauge, Box Spanner, and Torque Spanner of Required Numbers and Sizes	Yes
58.	Mandatory Fittment on Collar including 100 mm Rubbing Stake of Vinyl/urethane/EPDM/ Neoprene, Anti chafing strip of 2" inch under keelson, Chafing patch for coxswain's position, Bow rubbing strip 4", Drings, Anti-Skid Coating etc. as per standards	Yes
59.	Minimum Four Carrying handles shall be provided, two on each side and one front lifting handle One additional handle to be provided near Coxwain to provide grip to helmsman while operating OBM	Yes
60.	Additional Fitment on Collar including 2 paddle blade Pocket, 2 rope Stowage pocket, 4 securing Rings SS 316,1 bow Ring SS 316 etc.	Yes
67.	Lifesaving Equipment in a wooden Box Carrying First Aid Kits	Yes
68.	Instruction Manual	Yes
69.	No of Life jackets	10
70.	No of Life Buoys	2
71.	Repair Kit	fabric patches 05, adhesive tube (Dendrite) 500 gm, roughing tool 1 set
72.	PVC coated nylon fabric Valises and Store bags	(i) Heavy duty storage bag for Hull – 01 (ii) Heavy duty storage bag for Floorboard – 01 (iii) Storage bag for oars & other accessories – 01
73.	Additional spares	(i) Inflation/ Deflation Valves - 10 Nos (ii) (ii) Pressure guage - 01 No (iii) Plugs for Water Drain - 04 Nos (iv) NRV for Water Drain - 10 Nos (v) Electric Inflation pump - 01 No (vi) Bellow Inflation Foot Pump - 2 Nos (vii) Patching material with adhesive to repair leak/ damage in buoyancy tube.
74.	OBM Spares	1.1 Engine oil filter - 03 nos. 1.2 Fuel Filter - 06 nos. 1.3 Air Filter - 02 nos. 1.4 Fuel line with priming valve and connectors – 01 no. 1.5 Propeller - 01 No. 1.6 Water pump repair kit – 01 set 1.7 Water pump impeller – 01 no. 1.10 Gear

S/No	Parameters	Specifications
		oil drawn screw washer – 06 nos. 1.8 Lubrication oil drain plug washer – 02 nos. 1.9 Fuses of all systems complete - 02 set 1.10 OBM Shall be provided with suitable tank with facility to store fresh water for pre – use and post use stowage, maintenance and upkeep of OBM: - as per NDRF requirement. 1.11 Any other spare recommended by OEM.
75.	Test & trials	As per IRS rules and norms
76	Marking on builder's plate fitted on inner side of the transom	Boat General purpose Inflatable No., Date of supply, Name of manufacturer, Max load carrying capacity (Kg), Max motor rating (KW), Max No. of persons, recommended working pressure
Generic		
77.	Functions performed	The inflatable boat shall perform the following tasks: - (a) Search & Rescue during flood (b) Transport men and material
78.	Conformity to Standards for Boat Accordance with IRS Classification Society Rules and Norms issued and ISO 6185-3	Yes
Performance		
79.	Conformity to Standards for Rubberized Inflated Boat As per ISO 6185-3	4.5 m (For 10 Persons)
80.	Weight of Boat without OBM	Max 145 kilograms
81.	Weight of Boat max with passengers without OBM	Max 970 kilograms
82.	Availability of approved Drawing from IRS/ Govt of India (DG Shipping) approved	Yes
83.	Availability of Test Report including Environmental test as per ISO 6185-3 latest amendment from IRS/Govt of India (DG Shipping) approved to prove conformity to specification for declared parameters	Yes
84.	After Sales and Service	OEM of IRB and OBM should have adequate facilities in India for providing after-sales service / Technical Support and spares including electronic equipment for min. period of 10 years (after delivery of the last equipment) including electronic equipment
85.	Standard for OBM	CE or EN or equivalent BIS standard.
86	Inspection Authority	The inspection authority for the boat will be IRS or Equivalent IACs (International Association of Classification Societies) member.