

RFP No: DYT/OUT/15-16/106(a)/PL-INCOD/IN SHPS - RCTB/219 Dated 28 Jan 2016

RFP FOR REPAIRS/REFURBISHMENT OF PROPULSION, NAVIGATION, COMMUNICATION AND REMOTE CONTROL SYSTEM OF RADIO CONTROLLED TARGET BOAT (RCTB)

INSTRUCTIONS TO BIDDERS

1. Quotations in sealed cover are invited for Repairs/Refurbishment of Propulsion, Navigation, Communication and Remote Control System of Radio Controlled Target Boat (RCTB), as per the work package listed in enclosed Schedule of Requirement (SOR) at Enclosure II of RFP.

2. General Information about the tender:-

(a) Tender Reference No: **DYT/OUT/15-16/106(a)/PL-INCOD/IN SHPS - RCTB/219**

(b) Last date and time for Receipt of Tenders: **29 Feb 2016 / 1425 Hrs**

(c) Date and Time for Opening of Tenders: **29 Feb 2016 / 1430 Hrs**

(d) Place of Opening of Tenders: **Tiger Gate, Naval Dockyard, Mumbai**

(e) Pre-Bid Conference on: **22 Feb 2016, 1000 Hrs at SMOUT Office,
Tel No. 22751430, 22751449**

(f) The address and contact numbers for sending Bids or seeking clarifications regarding this RFP are given below: -

**The Admiral Superintendent
(for SMOUT)
Naval Dockyard
Mumbai 400023
Senior Manager (OUT)
Tele:- 022 22751430, 22751449,
Fax:- 022 22752440**

3. The tender shall be submitted in **single stage two - bid system**, the Technical and Commercial bids. The following enclosures are forwarded along with this enquiry to assist you in preparing your technical and commercial offer: -

- | | |
|--------------------------------------------------|------------------|
| (a) Request for Proposal | - Enclosure I |
| (b) Schedule of Requirements | - Enclosure II |
| (c) Standard Conditions of Contract | - Enclosure III |
| (d) Guidelines for Preparation of Technical Bid | - Enclosure IV |
| (e) Guidelines for Preparation of Commercial Bid | - Enclosure V |
| (f) Summary Sheet for Costing | - Enclosure VI |
| (g) EMD format | - Enclosure VII |
| (h) MOQ format | - Enclosure VIII |

4. Quotation shall remain valid up to **180** days from the date of opening of Technical Bid.

Submission/Opening of Tenders

5. **PLEASE QUOTE OUR RFP NO AND DATE OF TENDER OPENING ON SEALED COVER. FAILURE TO DO SO WILL RENDER YOUR OFFER INVALID.**

6. The Technical and Commercial bids are to be submitted in two separate sealed envelopes, duly marked as "Technical Bid for RFP No **DYT/OUT/15-16/106(a)/PL-INCOD/IN SHPS - RCTB/219 Dated 28 Jan 2016**" and "Commercial Bid for RFP No **DYT/OUT/15-16/106(a)/PL-INCOD/IN SHPS - RCTB/219 Dated 28 Jan 2016**". The quotes are to be super-scribed with your firm's name, address, and official seal and ink signed by an authorised representative of the Tenderer. Sealed Bids addressed to "**The Admiral Superintendent (For DGM-Commercial), Naval Dockyard, Mumbai- 400 023**" should be dropped in tender box marked as "TENDER BOX NO. "INCOD" located at **Tiger Gate, Naval Dockyard, Mumbai**, or to be sent by registered post so as to reach this office by **1425 hrs on 29 Feb 2016**. No responsibility will be taken for postal delay or non-delivery/non-receipt of tender documents.

7. Sealed Quotations (only Technical Bid in case of Two Bid System) will be opened by a committee on the date and time mentioned above. Your authorised representative from the Company can attend the Bids opening. If due to any exigency, the due date for opening of Bids is declared as closed holiday, in such cases, the Bids will be opened on next working day at the same time or any other day/time as intimated by the customer. The date of opening of Commercial Bid will be intimated after acceptance of Technical Bids. Commercial Bids of only those firms will be opened, whose Technical Bids are found compliant/suitable after Technical evaluation is done by the Buyer.

8. Tenders sent by FAX/E-Mail

Tenders found in sealed box marked INCOD at Tiger Gate will only be considered. To avoid any complications with regard to Late Receipt/Non-receipt of Tenders, it may please be noted that responsibility rests with the tenderer to ensure that tenders reach this office before due date. Late quotes will be rejected outright. Tenders sent by FAX/E-Mail will not be considered. Further, Tenders dropped in the wrong tender box will be rendered invalid.

9. In case your firm is not willing to quote due to any reasons, your regret should be sent well before the due date, failing which your firm can be de-listed from the Contractor's list.

10. Commercial offers will be opened only of those firms, who's Technical Offers have been found suitable after technical evaluation. Further negotiations will be made only with the lowest bidder (L1) as determined by the committee. The date, time and venue fixed for this purpose will be intimated separately.

11. Payment of Cost of Tender (OTE) A sum of Rs. 1000/- (Rupees One Thousand only) is to be enclosed in the form of a DD payable to the "PCDA, Navy, Mumbai" as cost of the tender document. This amount is not refundable. Bids that are received without this amount will be disqualified. Cost of Tender is exempted for MSMEs (Micro Small and Medium Enterprises) registered with NSIC under its single point registration scheme in accordance with Para 2.5.2 of DPM 09. Please note that a firm registered with ND(MB) or any other defence organization is not exempted unless it meets above criterion.

12. (a) Earnest Money Deposit. The bidders are to furnish EMD for a sum of Rs 20,00,000/- (Rupees Twenty Lakhs Only) in the name of "PCDA, Navy, Mumbai" with a validity of 45 days beyond the final bid validity period, in the form of an Account Payee Demand Draft or Banker's Cheque (including IDBI Bank) or Bank Guarantee as per Form DPM-13 (Enclosure VII to RFP) from any of the public sector banks or a private sector bank authorized to conduct government business viz. Axis / ICICI / HDFC Banks only, will be acceptable. EMDs from any other bank (including Co-op & Scheduled Banks) will not be accepted and bids will be liable for disqualification. EMD is not required to be submitted by those Bidders who are registered with Naval Dockyard (Mumbai)/NSIC/Central Purchase Organisations for the same item/range of products/goods or services. These firms must however submit a valid registration certificate with the 'T' bid, failing which their offers will be rejected.

(b) PBG. Bidders may note that that submission of PBG by L1 firm irrespective of their registration with any organization viz. MOD / NSIC is compulsory. Standing **PBG @ 10%** of the contract value valid up to 60 days after warranty period is to be submitted in the form of Bank Guarantee through a public sector bank or ICICI / HDFC / AXIS Bank within 30 days of issue of work order covering letter and prior to collecting the work order ink signed copy.

13. Evaluation Criteria

(a) Loading of Cost for Items "Not Quoted" The bidder is to quote for all the sections/sub-sections mentioned in the SOW/SOR as per the Mode of Quotation placed at Annexure 2 to Encl II to RFP. Any omissions/deviations to the SOW/SOR/Mode of Quotation are to be recorded in the Record of Deviations and submitted along with the 'T' Bid. In case a bidder fails to quote for a certain item/Defect List Serial, their bid will be loaded by the amount quoted by the highest bidder for that particular Item/ Defect List serial and this loading will be considered for determining the L1. CUSTOMER reserves the right to determine the qualification of a firm on this account.

(b) Discrepancy in quoted price If there is a discrepancy between the unit price and the total price the unit price shall prevail. If there is a discrepancy between words and figures, the amount in words shall prevail. If a supplier does not accept the correction of the errors, his bid will be rejected and the bid security may be forfeited.

Finalising of L1 Firm

14. The evaluation and comparison of responsive bids and finalisation of L-1 Firm shall be done on the prices of the goods offered and other charges such as Packing & Forwarding, Freight and Insurance, AMC, etc, as indicated in the price schedule of the Bid Document but excluding levies, taxes and duties such as excise duty, VAT, Service tax, Octroi/entry tax, etc on final product, which are to be paid extra as per actuals, wherever applicable.

15. Payment Terms. The Payment Terms for the Contract Price shall be as follows :-

<u>Sl.No.</u>	<u>Activity Definition</u>	<u>Stage Payment</u>
		<p>Stage 1: 30% after providing engine ,steering gear and propulsion system post repairs</p> <p>Stage 2 : 30% after proving Navigation ,Communication and remote control systems post repairs.</p> <p>Stage 3 : 30% post successful completion of harbor Acceptance Trials</p> <p>Stage 4 : 10% post successful completion of Sea Acceptance Trials</p>

16. Standard Conditions of Contract (SCOC)

(a) Firm shall be required to accept the SCOC. A Contract will be signed between the Contract Operating Authority, **Integrated Commercial Department (INCOD), Naval Dockyard, Mumbai** and the shipyard/firm incorporating the SCOC at Enclosure III of this RFP, which will form an integral part of the Contract.

(b) The firms is requested to indicate acceptance of above in T-bid, as per format at Enclosure IV of RFP in absence of which, the bid will be **disqualified**.

Special Conditions of RFP.

17. The special conditions of RFP have been enumerated at Sl 3(n) and 3(z) of Annexure 2 to Encl 2 of this RFP. Bidders are to ensure that they submit relevant documents, with the T-bid, to confirm eligibility with regard to the special conditions.

Pre-Bid Conference

18. The SOR (**Enclosure II**) and SCOC (**Enclosure III**) should be carefully considered while preparing the bids. All clarifications are to be resolved in the Pre-Bid Conference scheduled on **22 FebE 2016, 1000 hrs at, SMOUT, Tel No. 22751430, 22751449** prior submission of bids. No revision of Commercial Bid would normally be permitted after opening of the Technical Bid.

(Note: Pre Bid Conference may be held depending on the nature of the work and this clause may be included as applicable. The detail of personnel attending the pre-bid meeting is to be intimated to the **User Manager** at least one day prior to the pre-bid meeting.)

19. **Commercial Bid**

(a) The Commercial bid is to be submitted strictly in accordance with Enclosure -V to this tender enquiry. The bidder, while preparing Q-bid, is to strictly adhere to Mode of Quotation (MOQ) format indicated at Annexure 2 to Encl – II to RFP. No deviation from the MOQ format is expected. The Bidder is to avoid making any changes to the MOQ format and in case of any discrepancy, seek clarification during the pre-bid meeting.

(b) A **soft copy of Quote/MoQ in excel format on a CD is to be submitted in sealed manner along with the 'Q' Bid. Non adherence to this may render the bid invalid.**

(c) The Commercial bid once opened, will not be subjected to unilateral revision by the firm, unless the firm is called for price negotiations specifically and asked to justify the rates. **(Total Nos of pages in the Q-bid are to be mentioned on the first page of the Q-bid. Further each page to be numbered. For example if there are 20 pages in Q bid, first page to be numbered as 1/20 and last page to be numbered as 20/20).**

(d) **Foreign Exchange Content. Foreign Exchange content, if any, is to be clearly specified along with the specific items on which customs duty would be applicable clearly indicating the rates of customs duty applicable. Master list of spares requiring customs duty exemption is to be provided separately with the quotation indicating cost and applicable customs duty. A period of ten working days is required to process requests for Customs duty exemption certificate subsequent to receipt of Airway Bill of Materials. In the absence of complete unambiguous details, following actions will be taken:-**

(i) Loading custom duty at the rate of 25% on entire material cost, when 'Foreign Exchange' content is not specified in the Q bid.

(ii) Loading custom duty at the rate of 25% when applicable rate of customs duty is not specified in Q bid.

(iii) Further, customs duty exemption certificate will be issued only if the above mentioned particulars are provided unambiguously.

(e) **Exemption Certificates.** All bidders are to specify the list of items for which Customs/ Excise/ Octroi exemption certificates are sought. The list is to be forwarded alongwith the T bid for evaluation by the TEC. Exemption certificates if sought by the firms will be issued only for the list of items specified in the T Bid of the firm in the following format:-

For Issue of Customs Duty Exemption

S No	Q bid reference serial no	Description	Part No	Qty

For Issue of Octroi Duty Exemption

S No	Q bid reference serial no	Description	Part No	Qty

20. **Registration with the Yard**

(a) Following documents are required to be submitted by vendors not registered with Naval Dockyard, Mumbai alongwith the Technical Bid, which will be referred to as part of the evaluation process:-

- (i) State Sales Tax Certificate
- (ii) Central Sales Tax Certificate
- (iii) Incorporation Certificate/Shop & Establishment Certificate
- (iv) Bank Solvency Certificate (Taken within last one year)
- (v) Valid Financial rating Certificate from M/s CRISIL/SMERA/D&B or any organization of similar repute
- (vi) Partnership deed, if any.
- (vii) Purchase Order Copies (Latest)
- (viii) Copy of last three years Balance Sheet attested by C. A.”

(b) The L1 bidder will have to obtain a temporary registration from Quality Assurance (QA) Department of ND (MB), if not already registered for the same item/range of products/goods or services. Work order will be placed on the L1 bidder only after confirmation from QA Dept that registration formalities are in order.

21. **Service Tax.** Government of India, Ministry of Finance (Department of Revenue) Notification No. 12/2012 – ‘Service Tax’, dated 17 Mar 2012 exempts ‘Service tax’ for repair of ships or boats or vessels belonging to the Government of India. Therefore the firms are requested not to quote for service tax.

22. **Security** Workforce /personnel of the contractor will be permitted entry into Naval Dockyard only on production of Police Verification Certificate and address proof and Navy shall not be liable for any delay whatsoever caused in execution of contract ,due to non – production of Police Verification Certificate of labourers /workers.

Conditions under which this RFP is issued

23. This RFP is being issued with no financial commitment and Customer reserves the right to change or vary any part thereof at any stage. The Customer reserves the right to reject any or all of the offers without assigning any reason whatsoever. The Customer also reserves the right to withdraw the RFP should it be so necessary at any stage. Successful bidders will have to be registered with Naval Dockyard Mumbai prior to opening of Q bids/ finalization of order.

24. Please acknowledge receipt.

Thanking you,

Yours faithfully,

Sd/-
(VK Prasad)
Captain
SM Commercial
For Admiral Superintendent

SCHEDULE OF REQUIREMENTS (SOR)

(Note: The Schedule of Requirements is a technical document and specific to the Project/ Service and is part of the RFP)

Annexure 1 - Particulars of Vessel/Asset on which work is required to be carried out.

Annexure 2 - Quantified Work Package (**comprehensive scope of work** that contains break-up of individual jobs to be completed including survey, dismantling and inspection, routines and repair to be carried out, consequent repair, trials and **comprehensive list of services** required such as dry docking, berthing, jetty services (electricity, accommodation, phone, fresh water, fire main), cranes facilities, tugs and pilot charges.

Annexure 3 - Quality Inspection Schedules/QAP (minimum and essential parameters that are required to be achieved for the scope of work to be deemed as satisfactorily completed).

SCHEDULE OF REQUIREMENTS (SOR)

**REPAIRS/REFURBISHMENT OF PROPULSION, NAVIGATION, COMMUNICATION AND REMOTE CONTROL SYSTEM OF
RADIO CONTROLLED TARGET BOAT (RCTB)**

SI	Description	Remarks of Indenter
1	Department initiating the SOC	Fleet Maintenance Unit (Mumbai)/RCTB
2	Name of the item(s)/services being procured	Refurbishment of 03 RCTBs as per NCD.
3	Summary of case for procurement	
	Name of ship/equipment	RCTB's
	Broad purpose of items/services being procured	The remote control target Boat Squadron (RCTB) maintains and operates RCTBs which are under administrative control of FMU (MBI) vide WENGO 15/2001 dated 15 May 01. The Boat is used by Western Fleet/K22 squadron for tracking and firing practice during Fleet exercises. The squadron has one boat of 1990 vintage, which is on life extended period for one year (till Feb 16) The other two boats Reg no.5000 and 5001 have been surveyed vide survey no. 20092262G0176 dated 22/04/2009 and 20102262G0088 dated 06/03/2010 respectively.
	a Location where work is to be undertaken	ND(MBi)
	b Type of Work	Repair / Refurbishment of Propulsion, Navigation, Communication and Remote Control System of Radio Controlled Target Boat (RCTB)
	e Start Date of Work	On placement of order / Clearance from the yard
	f Estimated Duration of Work	1 st RCTB – 06 months, after placement of WO or date of clearance by ND (Mbi) , whichever is later. 2 nd and 3 rd RCTB – 02 months each after completion of 1 st RCTB.

	g	Earnest Money Deposit	Rs. 20,00,000/-
	h	Test Specification :-	As per OEM Technical Manual
	j	Technical Acceptance Criteria :-	As per OEM Technical Manual
	k	Acceptance Agency	WCC by SMOUT; I-Note by AGM(QA)/Rep
	l	Inspection stages	As Per Approved QAP
	m	Ability to give support at country wide locations (required/not required). If required locations to be indicated.	NA
	n	<p>Past experience in undertaking (required/not required)</p> <ul style="list-style-type: none"> - Similar jobs in marine field - Similar jobs 	<p>Yes,</p> <p>(a) The firm should be an OEM or integrator of electronic systems of marine communication, navigation, auto pilot and remote control. WCCs to prove the same are to be submitted.</p> <p style="text-align: center;">OR</p> <p>The firm should be a boat builder having MoU with an OEM or integrator of electronic system of marine communication, navigation, auto pilot and remote control. WCCs and copies of MoU to prove the same are to be submitted.</p> <p style="text-align: center;">OR</p> <p>Experience of having successfully completed works in the field of Remotely Piloted Vehicles for Marine Environment during last 07 years. In order to corroborate this, Work Completion Certificates (WCCs) and respective Work Orders are to be attached with the T-bid.</p> <p>(b) Average annual financial turnover during the last 3 years, ending 31st Mar of the previous financial year, should be at least Rs 1,51,38,000/-. Details showing annual turnover separately for last three years is to be attached with T-bid on firm's letter head.</p>

			“Audited Balance Sheet” and “IT returns” for the last three years (As on 31 Mar 2013. As on 31 Mar 2014 and as on 31 Mar 2015) of the firm to be attached with the T-bid in support.
	p	<p>Details of Dockyard facilities that will be made available to the Contractor (such as crane, electricity, compressed air, crane, staging etc)</p> <p>Note for user department:-</p> <p>1. Details of services that will be provided need to be elaborated.</p> <p>2. Necessary confirmation from the concerned department providing the service that the same will be made available needs to be placed on file.</p>	Crane and Electricity will be made available by Dockyard to the contractor. Requirement of crane is to be intimated one working day in advance.
	q	Suggested stages of completion and terms of payment	<p>Stage 1: 30% after providing engine ,steering gear and propulsion system post repairs</p> <p>Stage 2 : 30% after proving Navigation ,Communication and remote control systems post repairs.</p> <p>Stage 3 : 30% post successful completion of harbor Acceptance Trials</p> <p>Stage 4 : 10% post successful completion of Sea Acceptance Trials</p>
	r	List of Specifications/drawings, as applicable (Specifications and drawings to be attached if applicable)	Scope of Work placed at Annexure 2 to Encl – II to RFP.
	s	Technical details with technical parameters (Scope of Work(SOW) to be attached)	
	t	Requirement of training/on-job training	NA
	u	Requirement of installation/commissioning	NA
	v	Requirement of Factory Acceptance Trials (FAT), Harbor Acceptance Trails (HAT) and Sea Acceptance Trials (SAT)	As Applicable.
	w	List of Technical documentation to be provided by the vendor	NA
	x	Duration of Warranty Period Recommended and nature of assistance required after completion of warranty	As per Para 21 of SOW placed at Annexure 2 to Encl – II to RFP.
	y	Requirement of pre-site/equipment inspection	Yes, Site may be inspected to

			establish Scope of Work placed at Annexure 2 to Encl – II to RFP.
	z	Any other details, as considered necessary	Access to Drawings will be provided during tendering stage to establish Scope of Work placed at Annexure 2 to Encl – II to RFP.
	aa	Disposal of Scrap/Debris to be responsibility of Vendor (Yes/No). If yes indicate where and how the scrap/debris is to be disposed.	The scrap will be collected, loaded/ unloaded by the contractor on his own transport and landed at the Survey yard for survey. Balance debris (including lagging material, rubber sheets, scrap generated by contractor) if any, are to be cleared to designated dumping areas outside the yard by the contractor.
	bb	Indicate who will be the owner scrap/debris	Metal scrap generated by cutting, welding of plates and degutted cables will be yard's property
	cc.	Is de-gutting and re-gutting the responsibility of vendor (Yes/NO). If yes indicate the details of items (such as cables/pipes etc to be degutted/re-gutted)	Yes as per hot work requirement. Details are indicated in the SOW placed at Annexure 2 to Encl – II to RFP.

SCOPE OF WORK
TECHNICAL SPECIFICATIONS FOR REPAIRS/REFURBISHMENT OF PROPULSION,
NAVIGATION, COMMUNICATION AND REMOTE CONTROL SYSTEM OF RADIO
CONTROLLED TARGET BOAT (RCTB)

1. SCOPE

1.1. This specification relates to the detailed requirements for the Refurbishment and Repairs of Propulsion, Navigation, Communication and Remote control system of RCTB. The RCTB is an unmanned surface vehicle, which is autonomous and remotely controlled to conduct a wide spectrum of critical missions, while eliminating unnecessary risk to personnel and equipment. The existing RCTB is defective and is to be repaired/ refurbished so as to meet the performance criteria as brought out in the succeeding paragraphs.

1.2. If during the refurbishment/repairs it appears that:-

(a) A deviation from the specification or drawing appears desirable,

OR

(b) A characteristic has been omitted or is not sufficiently specified,

OR

(c) A specified characteristic cannot be attained or can be attained with penalties in other directions.

The contractor/firm shall inform user manager immediately of the circumstances together with his proposed alternatives and shall proceed with the alternative only after return approval to this effect. Experience in similar jobs in marine field is required and supported by relevant documents (to be submitted in technical bid). Pre site inspection of the RCTB and attending Pre bid meeting is mandatory.

2. FUNCTION OF RCTB

2.1 The boat performs as high speed manoeuvring targets for surface firing practices. The RCTB is a realistic target for gun firing exercises and also facilitates performance evaluation of weapon system.

2.2 The Radio Controlled Target Boat (RCTB) is to autonomously and remotely control and conduct a wide spectrum of critical missions, while eliminating unnecessary risk to personnel and equipment.

3. TECHNICAL PARAMETERS

3.1 **Main Particulars**

(a)	Length Overall	7.0 ± 1m.
(b)	Beam (max)	2.75m
(c)	Draught	Not to exceed 1m
(d)	Height of Mast	3.5m - 4.0m
(e)	Weight	Not exceeding 2.0T
(f)	Speed Max	Not less than 35 Knots
(g)	Cruising Speed	15-20 Knots
(h)	Endurance	Not less than 6 Hrs at cruising speed
(j)	Operating Sea State	3-4
(k)	Reserve of buoyancy	Unsinkable even when freely flooded with min 10% reserve of buoyancy

3.2 **Arrangement for Crew** : The RCTB has an arrangement for easy access and sufficient space on board for 2 crew to sit and manually operate the RCTB. The boat has hand holds/ stops to provide support for the crew.

3.3 **Fittings** :

3.3.1 **Mast** : 'A' frame stern mounted lightweight antenna mast of approximately 4.0 metres in height and adequately strengthened to support the radio command antenna, visual flags, radar reflectors and navigational lights. The Mast has a provision for easy removal and fitment.

3.3.2 **Rubber Fenders**: Fixed 'D' type good quality rubber fender all round the hull to prevent damage while transporting, lowering/hoisting and mooring alongside. In addition the boat has four in no. portable pneumatic fenders with lifting arrangements to facilitate lowering/hoisting as and when required. Additional fendering is provided at fore peak to absorb the impact of direct collision with jetty/ship while coming along side.

3.3.3 **Deck fittings** : Four stainless steel bollards, one towing hook, six S.S. fairleads (one each fitted on the centre line at fore and aft ends) and four in number S.S. Cleats. All these fittings are fastened through GRP onto a S.S. backing plate with S.S. fasteners. The backing plate is laid up with GRP.

3.3.4 **Fixtures and Fasteners** : The RCTB and all its fixtures and components have sufficient strength to withstand a bodily fall into water from up to 3 meters height, in full load condition. All components and fixtures are fitted with firm securing arrangements.

3.3.5 **Lifting Points** : The boat is provided with four in number sling plates in the gunwale for bridle lifting. These sling plates are strongly connected with backing plates and the load coming on them is suitably transferred to the hull.

3.3.6 **WT Openings** All the openings on the weather deck are Water Tight openings. The equipment, machinery and fittings inside the compartment is protected from sea spray up to sea state 3.

3.4 **Fire fighting System**: Automatic fire detection and extinguishing system is fitted in all the WT compartments. The compartment is fitted with smoke/heat sensors for detection and CO2 drenching system for fire fighting.

4. **PROPULSION AND STEERING SYSTEM**

The propulsion system develops a speed not less than 35 knots under test conditions. The engine is centrally placed and the cooling system is connected to stern drive and propeller system and aluminum chequered stepping floor is provided. The engine room has sufficient space to accommodate the machinery and associated systems. The engine room houses the rectifier and batteries. The engine room is accessed through a hatch on the deck, fitted on a bolted soft patch of suitable dimensions to facilitate engine removal as well as the WT opening fitted on the aft bulkhead of the console compartment.

The engine also has an electronic governor for smooth speed control and an electronic start/stop capability, which is integrated with the Remote Control System for remote starting /stopping, throttle control and steering.

4.1 **The specifications for associated equipments are as follows:**

4.1.1 **Intake /Exhaust and Transmission System**: .The drives are equipped with Cathodic protection system on the drives. The drives are capable of lifting/lowering for cruising in shallow waters. The engine exhaust system is placed in a manner that there is no restriction on the operation of the engines. The boat also operates in reverse direction with only one engine without sea water entering the exhaust system of the idle engine. Two in number automatic battery (12v) operated bilge pump of 120 LPM (approx) capacity and two in number hand operated double acting bilge pump of 60 LPM are also held with the boat. These pumps can take suction from any of the WT compartment in the RCTB.

4.1.2 **Ventilation System** : The forced extraction of battery gas has been provided in the engine room. Extraction of hot air from the engine room is through the openings fitted on the transom with a blower fan. The engine room shall have sufficient air supply, so that at any point of time the difference between the ambient temperature and compartment temp shall not exceed 12⁰ C. The ventilation openings have been provided with isolation flaps for natural air supply.

4.1.3 **Fuel System**: The fuel system consists of a stainless steel integral fuel tank of with sounding scale and level indicator. Stainless steel fuel-lines, suitable water separator, dual fuel filters and remote shut off valves are fitted. Stainless steel tank with manual reserve and inspection/cleaning access is fitted under the deck.

4.1.4 **Cooling system** : The engine cooling is achieved by utilizing two cooling circuits, a closed fresh water system and an open sea water system. The fresh water cooling system includes an engine driven fresh water pump, expansion tank and sea water cooled heat exchanger. The sea water pump is also engine driven.

4.1.5 Two in number sea chests exists with cross connections (port & stbd) at accessible locations.

5. **Engine Instrumentation** : The instrument panel is mounted in front of the helmsman position and contains engine instrumentation and switching. This panel is insulated to operate in heavy seas (up to sea state 3). Cable wiring is loomed inside the console and fed through ducting to the engine compartment of the various services. All instruments and switches fitted on command console are weather proof. All buttons are rubber sealed. Meter illumination and warning lights are fitted with dimmers. All the gauges are to be fitted symmetrical to the wheel, easily visible to the helmsman. The maximum permissible operating parameter is to be indicated on each gauge by a red mark. The instrumentation fitted on control panel includes the following:-

- (a) Engine oil pressure gauge.
- (b) Turbo boost pressure gauge.
- (c) Lub oil temp gauge.
- (d) Fresh water temp gauge.
- (e) Engine exhaust temp gauge.
- (f) Steering position indicator.
- (g) Ammeter, Voltmeter.
- (h) Lamp test switch.
- (j) Tachometer – to show engine rpm.
- (k) Fuel level gauge.
- (l) Speedometer – to show speed in knots calibrated from 0 to 35 kt at a fraction of 0.5 kn. The range of economic speed is to be indicated with green background.
- (m) Electronic Vessel Control (EVC) display.
- (n) Trim/list indicators.

6. **Electrical system specifications**

6.1 **Electrical equipment and cables** : The existing electrical system is fully water proof with alternator, suppressed to prevent electromagnetic interface as per NECP-500. The auxiliary electric equipment does not exceed the power limitations of the installed platform. 4 water tight lighting fittings with glass shade and lamp 12v, 18W of ISI approved quality are fitted in the Engine compartment.

6.2 **Electrical Installation** : Complete electrical installation is compact and of light weight construction. The electrical equipment is so installed that the space in their vicinity is adequate

to allow for operation, inspection and maintenance without dismantling other equipment. The positions chosen for installation of electrical equipments are such that there exist no possibility of spray or dripping of water.

6.3 **Suppression of Electromagnetic Interference**: The alternator – rectifier (dynamos) and the starter motors and all machinery likely to cause radio interference are adequately suppressed to prevent electromagnetic interference as per NECP-500.

6.4 **Power Supply** : The system is equipped with a suitable power supply arrangement for operation of all onboard systems for 6 Hrs. RCTB also has an alternate source of supply to provide for at least 30 Min. of operation in case of main supply failure.

6.5 **General Illumination** : 4 Nos. Water Tight lighting fittings with glass shade and lamp 12V, 18W of Classification society approved quality have been provided in the Engine Room. Four in Nos. similar W.T. light fittings in wheel house and one in fore peak compartment are provided.

6.6 **Batteries** : Suitable battery pack 12 volt (min), 100Ah (min) maintenance with free sealed batteries are fitted with an isolator and emergency link in case of individual battery failure. The battery is ventilated together with the engine compartment with free air and aided by a fan.

6.7 **Battery charger**: During sailing with the boat engine running, the batteries are charged by the alternator fitted on the engine. When the boat is in stowed position, the batteries are charged by means of Battery charger installed in the craft. For this charger 220-110 volt 50/60 is provided from one power supply cable to the boat.

7. **NAVIGATION, COMMUNICATION AND REMOTE CONTROL SYSTEM**

7.1 **Navigation** : The boat is fitted with a GPS and a flux gate compass for navigation. The boat has programmable autopilot to facilitate the following:-

- (a) Setting up to 100 way points
- (b) Steer the boat as per command from remote controller.
- (c) Steer the boats through prescribed way points, according to the mission plan, in autonomous mode.
- (d) Steer the boat to bring it back to a preset position, in case of loss of command link with remote controller.
- (e) The system has a battery operated portable unit, with display, to facilitate entering of mission plan.

7.2 **Navigation Light** : Navigational lights are fitted as per the International Regulation for Prevention of Collision at Sea (1977) are provided (light range for vessels under 12m LOA).

8. **Remote Control System**

8.1 **Remote Control Station** : The remote control station is located onboard a ship from where the RCTB is operated and controlled. The following status of the RCTB is continuously available to the control station, at the RCTB control ship, on a display, via telemetry:-

- (a) Relative position in bearing and range, with respect to the control station
- (b) Course and speed of RCTB
- (c) Engine RPM and motion (Ahead/Astern/Neutral)
- (d) Fuel Status and endurance remaining

8.2 **Control Unit** : The receiver station of the radio command link and other control system is housed in the boat to have the facility to be controlled both locally and in remote. The control unit is fully weather protected and marinised.

8.3 **Radio Control**: There is a FM modulated VHF TX/RX to control steering, speed, engine starting and stopping. The boat is controlled by radio link, up to a range of 20-25Km. The radio control is not affected in any way by RADAR or radio transmission or ships stationed within its operating range.

8.4 **Remote Station** : Remote control system has two main units viz. Remote Station (RS) and Boat Station (BS). The sub-units of RS are listed below

8.4.1 **Sub- units of Remote Station.**

Sl. No.	Description of Sub Units
a.	VHF Tx/Rx with inbuilt Modem, antenna and antenna base unit.
b.	Portable Master Computer (MC) loaded with Navigation & Control (N&C) Software including Display
c.	GPS with antenna.
d.	Command and Control Unit(CCU)
e.	Power Supply Unit(PSU)

8.4.2 **The functions and technical specifications of the above sub units are as follows:**

(a) **VHF Tx/Rx** : VHF Tx/Rx transmits and receives string of data to/from the BS onboard RCTB in as specified frequency range within VHF Band and is housed in RS unit. The boat shall be controlled by radio link, up to a range of 20-25Km. The radio control is operable, in all latitudes of North and southern hemispheres and is not affected in any way by RADAR or radio transmission or ships stationed within its operating range.

(b) **MC**: Acquires commands from CCU such as Engine Start/Stop, Shift Gear Ahead/ Astern/Neutral, Increase Speed, Steer Port/ Starboard, Normal/Auto/ Home Mode etc. and data from GPS such as position in Lat and Long, speed and course of the ship. These are processed using navigation and control software to from a string of data for transmission to BS (Boat Station) Unit. Further it processes Data received from BS and displays the same graphically.

(c) **GPS**: Provides standard GPRMC data apart from other information.

(d) **CCU**: Is used for issuing various commands to control the boat

- (e) **Power Supply Unit:** Power Supply Unit accepts power from any one of the following sources and generates 12 V and 5V DC.
- (i) 12 V DC (20A source) or.
 - (ii) 230V AC+10%, single phase, 50/60 Hz (5A source).

8.5 **Boat Station :** The other significant unit other than RS is the Boat Station (BS). The BS has following sub units:

8.5.1 **Sub-units of Boat Station.**

Sl. No.	Description of Sub Units
a.	VHF Tx/Rx with inbuilt Modem , antenna and antenna base unit.
b.	Boat Computer(BC)
c.	Auto Pilot
d.	Fluxgate Compass
e.	Course Computer
f.	Control Head
g.	GPS with antenna.
h.	Hand Held Terminal (HHT)

8.5.2 **The functions and technical specifications of the above sub units are as follows:**

- (a) **VHF Tx/Rx:** VHF Tx/Rx transmits and receives string of data to/from the RS onboard the ship RCTB in as specified frequency range within VHF and is housed in BS unit.
- (b) **BC:** Various controls like Engine On/Off, Shift gear. Throttle and Steering etc are carried out by the BC in accordance with various commands received from the RS. It also monitors various Engine alarms and other status. The Engine On/Off, Throttle, Ahead/ Neutral and controls etc Engine On/Off is a Push Button Control which is wire controlled by the BC. The BC is also able to manipulate the Shift and Throttle controls.
- (c) **Auto Pilot :** Ensures steady course of the boat by making use of Flux Gate Compass., Control, Head and Core Pack. The boat has a programmable autopilot to facilitate the following:-
- (i) Setting up to 100 way points
 - (ii) Steer the boat as per command from remote controller.
 - (iii) Steer the boats through prescribed way points, according to the mission plan, in autonomous mode.
 - (iv) Steer the boat to bring it back to a preset position, in case of loss of command link with remote controller.
 - (v) The system has a battery operated portable unit, with display, to facilitate entering of mission plan.

- (d) **Fluxgate Compass**: Provides the current heading of the Boat to Autopilot system.
- (e) **Course Computer**: Displays course, speed and Rudder angle of the Target Boat.
- (g) **GPS**: Provides standard GPRMC data apart from other information.
- (h) **Power Supply**: The BS receives its supply (12V DC) from the main and emergency battery pack fitted in the boat.

9 **Engine Control** : The control system, the receiver station of the radio command link and other control system is housed in the boat to have the facility to be controlled both locally and in remote. The control unit is fully weather protected and marinised. The Engine On/Off, Throttle, Ahead/ Neutral and controls etc are carried out by the BC in accordance with various commands received from the RS. Engine On/Off is a Push Button Control which is wire controlled by the BC. The BC is also able to manipulate the Shift and Throttle controls. The BC is interfaced with the Engine control panel in order to monitor Engine RPM and motion (Ahead/Astern/Neutral), Fuel Level and Endurance remaining, Alarm status such as Low Lub oil Pressure, Over speed, High Cooling water temperature etc. These signals would then be passed on the RS through Radio Link.

10. **Steering Control** :

The Autopilot system is provided with the Course Computer, Control Head and the Flux Gate Compass and is able to provide:

- (a) Relative position in bearing and range, with respect to the control station
- (b) Course and speed of RCTB

The Course Computer used for repairs is an integrated Rate Gyro and operates on the latest Advanced Steering Technology standard which adapts the system to various boats types and sea conditions. The system is NMEA 0183 and NMEA 2000 compatible enabling easy and seamless integration with several Instruments. The proven Control Head should provide intuitive autopilot controls and simplify calibration and is to enable the Autopilot to automatically adapt to changing sea condition. The BC is interfaced to this proven system through wire control and on the NMEA 0183/NMEA 2000 providing both Remote and local operation of the autopilot. Features incorporated in the RCTB Control system are

- (i) Auto Mode
- (ii) Home Mode
- (iii) Local Mode

11. **Data Communication Break Mechanism** : If RS does not receive data communication from BS for approximately 30 sec, then colour of the 'In Contact' indicator on the Display turns red. When the data communication between RS & BS breaks down for more than 2 min, the control of the target boat is transferred to Home mode and the target boat proceeds to the preset Home position.

12. **Communication** : The following communication aids are on the RCTB to communicate with the control station when operated locally by the crew.

12.1 **VHF MMB Sets** : A hands-free battery operated VHF MMB set shall be mounted on the Console. A portable VHF set compatible with existing Motorola sets is provided.

12.2 Two Motorola GP 338 with accessories including battery charger and hands free

13. **Route Map Logger** : Whilst in Auto Mode or in any other mode, the route taken by the boat is able to be logged and stored in the system for offline analysis after completion of the exercise. Such logging of data with respect to failures and commands exchanged is also stored in the Boat Computer for offline analysis.

14. **Passive Beacon** : The RCTB has passive orange/red beacon with reflectors and transparent cover for visual tracking and indications, whether its engine is running/stopped.

15. **Enclosure for electronic equipment** : The complete electronic package of the system is housed in splash proof rugged cabinets and is completely portable. The boat fitted electronics is housed in a single cabinet and wired to various boat controls services. The flux gate compass is mounted on the fore and aft line at an appropriate lower level. The Course Computer and the Control Head are mounted vertically in the Wheel House. The Remote with the Master Computer, Radio and Power Supply Unit is housed in the bottom half of the Enclosure and the Display Panel is fitted on the lid of the Cabinet.

16. **System Hardware & Software** : the Boat Computer possesses a Micro-controller with suitable embedded programming. The computer uses Digital and Analog I/Os apart from providing serial and other suitable bus protocol which is used for monitoring of Engine parameters. The Computer also employs digital pot meters for effective control of Throttle & Shift. The Application Software is designed in accordance with IEEE 122507/DOD-2107.

17. SCOPE OF WORK FOR DEFECT RECTIFICATION

S No	Reference from Tech Specs	Defect Description
1	3.2	Hand holds/ strops & Seating Arrangement
2	3.3.1	MAST (Length 3-8 mts, Mat – Aluminium)
3	3.3.2	All rubber fenders (D type fenders) and securing brackets
4	3.3.2	04 pneumatic fenders (Length 60cms by 30cm dia)
5	3.3.3	04 stainless steel bollards (as per sample)
	3.3.3	01 towing hook
6	3.3.3	All S.S fairleads and four in number S.S. Cleats as per sample
7	3.3.5	04 in number sling plates. The lifting points SWL in this arrangement is to be computed by assuming the boat to be suspended on a four legged sling with single suspension point. All four sling plates are to take the greatest load found. Expected load at each strap – 0.8 tons
8	3.3.6	Weather deck Water Tight openings and fitment of rubber beading total length -20 mts
9	5	Following defective instrumentation to be replaced along with the panel and associated audio visual alarm view defective/ perished:-
		(a) Engine oil pressure gauge.
		(b) Turbo boost pressure gauge.
		(c) Lub oil temp gauge.
		(d) Fresh water temp gauge.
		(e) Engine exhaust temp gauge.
		(f) Steering position indicator.
		(g) Ammeter, Voltmeter.
		(h) Lamp test switch
		(j) Tachometer – to show engine rpm
		(k) Fuel level gauge
		(l) Speedometer – to show speed in knots calibrated from 0 to 50 kts at a fraction of 0.5 kn. The range of economic speed is to be indicated with green background.
(m) Electronic Vessel Control (EVC) display		

		(n) Trim/list indicators.
		Note - All instruments and switches fitted on command console shall be weather proof in marine environment. All buttons shall be rubber sealed. Meter illumination and warning lights shall be fitted with dimmers. All the gauges are to be fitted symmetrical to the wheel, should be easily visible to the helmsman. The maximum permissible operating parameter is to be indicated on each gauge by a red mark.
10	17	System test equipment defective and beyond economical repair. Following test equipment to be replaced:- (a) Standard Mechanical tool box (b) Multimeter (c) Oscilloscope (d) Power supply (DC) (e) Soldering / Desoldering station.
11	4	4 Cylinder Diesel Engine, Engine Type - D170S, Output - 125KW Max RPM - 4200
12	4	Electric governor control Starting mechanism (gear), engine propeller driver, trim-lift mechanism, Throttle control and steering Speed control system of the engine to electronic governor control to achieve faster response time and reliable operation, with remote electronic start/ stop facility and capability to be integrated with throttle control and steering.(Mat MS pipe). 1 pipe to be lagged (Length – 04 mtr)
13	4.1.1	All pipe of exhaust system alongwith associated fittings, while ensuring that the exhaust system would not cause any restriction on operation of the engine, as per the design of the boat.
14	4.1.3	All fuel system pipes Mat – SS Total length – 10 mts
15	4.1.3	Stainless steel integral fuel tank with sounding scale and level indicator with one with manual reserve and inspection/cleaning access. The tank is to be fitted under the deck and fuel capacity is to be commensurate with endurance and 10% reserve.
16	4.1.3	Fuel tank venting system such that water splashed does not enter the fuel tank through the vent
17	4.1.4	Closed fresh water system and an open sea water system(engine cooling systems).
18	4.1.4	Engine driven fresh water pump and sea water pump . Both seawater and fresh water pump are to be revitalized with telltale hole for indicating the failure of pump seal.
19	4.1.4	Expansion tank and sea water cooled heat exchanger
20	4.1.4	All sea water system pipes of 90/10 Cu/Ni and externals to be painted with Chlorinated rubber paint. Length 08 mts
21	4.1.4	Zinc corrosion plugs on sea water sides of the heat exchanger.
22	4.1.5	Two in number sea chest and cross connected (port & stbd).
23	6.1	Electrical cables of approx length 1.5 kms. Main body of alternator. Electrical fitting , Cables and electrical fittings with marine specs equivalent. Alternator and alignment with the prime mover. EMI/EMC shielding to be undertaken.

24	6.4/6.6	Back up power supply batteries which ensures backup up to 6 hrs. Inverter to be provided and load trial proved.
25	6.5	Four in number water tight light fittings .
26	6.7	Battery charger 220-110 V 50/60 Hz to be provided and load trial proven.
27	7.2	Navigation light panel and fitting as per navigation regulations in force.
28	15	Water tight Enclosure for housing electronic equipment
29	4.1.1	02 in nos Bilge Pumps of 60 LPM capacity, capable of taking suction from all WT compartments of the RCTB along with associated components.
30	4.1.1	Two in number automatic battery (12v) operated bilge pump of 120 LPM capacity with all electrical connections.
31	4.1.2	Forced extraction system of battery gas and associated blowers .
32	3.4	Automatic fire detection and extinguishing system .
33	3.4	Smoke/heat sensors and CO ₂ drenching system defective.
34	7.1	GPS and flux gate compass.
35	8.5	VHF set to be provided with MODEM for data communication
36	13	Route map logger
37	8	Complete Remote Control station hardware and software. System to be repaired with following capability:- (a)Ability to communicated and control with updated auto pilot software. (b) Facility to monitor and control the navigational and engine parameters (c) Event recording facility and replaying for offline analysis (d) Continuous monitoring of data link and alarm in case of failure, connected up and proved as a complete system. (e) Engine start / stop, throttle, ahead/ asteren/ neutral
38	7.1	Software of remote controlled capable auto pilot to cater for following:- (a) Setting up of 100 way points. (b) Facility for remote control steering and transit through set way points. (c) Navigation to preset position on loss of data link. (d) Facility for recording and replay of the route during the sortie for analysis.
39	9 &10	Engine and steering control system linked with Software
40	16	All application software developed to be compliant with IEEE 122507 std and back up copy to be provided with training and associated hardware for porting of application.
41	8.4	A separate GPS available available at the Controlling Ship and integrated to the Control System and Display alongwith NMEA Diaplay Unit on RCTB connected with GPS. (Range between RCTB and controlling ship should be readily available at Remote Control Work station) With necessary software coding for position and range display in dynamic mode

42		Voice Communication Set enabling voice communication between boat and Controlling Ship
43		Toggle Switch be provided on boat (easily accessible for operator) for switching to manual mode from remote control mode in case of emergency.
44	-	Integration of all electrical, electronic and mechanical system and proving of all the systems for satisfactory operation of RCTB.
45	12.2	02 in number Motorola GP 338. Both set to be provided with batteries.
46	14	Passive radar beacon
47	3.3.1	Radar Reflector installed on the main Mast. Radar reflector may be detachable which can easy be replaced in case of damage firing serial
48	3.3.5	Boat Lifting Slings as per Load requirements

18 ACCEPTANCE CRITERIA/ TESTS AND TRIALS

18.1 Post repairs/refurbishment, the boat should be capable of accomplishing all the jobs as per para 3 to para 16 of the technical specifications. All the materials, workmanship and finish to be used for refurbishment/repairs is to be of a high standard and to the satisfaction of the Inspecting agency. Any article or material to be fitted, or worked, into the boats, for which Naval Patterns or specifications are not in existence, are to conform to the relevant IS/BS specifications. All fittings are to be of stainless steel conforming to AISI 316 until otherwise specified.

18.2 All engineering, electrical and electronic equipment are to be marinised and should be capable of withstanding salt water spray.

18.3 High quality marine tinned cables are to be used for repairs/refurbishment of all electrical connections including lighting supply. The cabling should have the following characteristics:

- (a) Tinned conductors
- (b) Multi-stranded conductors with type-3 stranding
- (c) Heavy-duty ,moisture & oil resistant ,high heat rated PVC insulation.
- (d) Tin plated, annealed copper terminals with a rugged nylon insulator designed to be double crimped.
- (e) Heavy-wall ,glue –lined heat shrunk tubing to seal connectors against salt intrusion.

18.4 Post refurbishment/repairs, the boat shall be stable, resistant to capsize and float upright even after free flooding. The refurbishment/repairs should be carried out in such a way so as to achieve zero heel and zero trim post installation of all items. It is to be ensured by the contractor that all fittings/equipment used for repairs/refurbishment are to be lightweight, marinised/weather proof and should not affect the overall tonnage of the boat.

18.5 The propulsion system should be capable of developing a speed not less than 35 knots under specified conditions by the user manager. Post repairs, the engine should have an electronic governor for smooth speed control and an electronic start/stop

capability, which is integrated with the Remote Control System for remote starting /stopping, throttle control and steering

18.6 Training:

(a) On job training for 12 Naval personnel on maintenance and repair aspects for at least two weeks during repairs and refurbishment, setting to work and trials at ND (MBI).

(b) Training of Manpower (12 in nos.) for maintenance and operation of Remote Control workstation handling.

18.7 Drawings and Documentation : A complete set of documentation as follows is to be provided post refurbishment/repairs .In addition to the above, instruction Manual/ User Handbook, Third Party Equipment Manuals supplied by Manufacturers, Certifications and all other related documentation as stated in the tender shall be provided in three sets . Complete inventory of spares and relevant documentation of equipments and machinery shall be provided. The document shall also include the navigation and control application software source code and the design details must adhere to JSS-0251 specification. Firm is to also provide 03 sets of Operators manual, list of Spare parts, Technical manuals and List of softwares used

18.8 Machinery & Systems Drawings

- (a) Layout and Installation Drawings of Propulsion System and Propulsion Hydraulic System.
- (b) Calibration Data for Machinery.
- (c) Corrosion protection system.
- (d) Engine seating drawing.
- (e) Installation plan and as fitted drawing of propulsion and auxiliary machinery console arrangement.
- (f) Engine room layout and as fitted plan.
- (g) Detail drawing of drives and transom shield.
- (h) Machinery piping arrangement.
- (j) As fitted drawing for stern-gear.
- (k) Engine room mechanical ventilation arrangement.
- (l) Main engine holding down bolting arrangement.
- (m) Equipment and gauges complete with installation details.
- (n) As fitted drawing of bilge system.
- (p) As fitted drawing of fuel oil piping system and lubricating oil system.
- (q) As fitted drawing of sea water cooling piping system and fresh water system.
- (r) Controls and alarms – Main Engines.
- (s) As fitted drawing for electrical wiring and routine of operational and domestic system complete.
- (t) Electrical plans.
- (u) Remote control system schematic diagram
- (v) Layout diagram of remote control system

18.9 Certifications : All tests as applicable are carried out post refurbishment/repairs in accordance with JSS 55555 and are to be certified prior Final Trials of the boat. All units such as Radios, Autopilot, and Display etc. are to be suitably supported by manufactures certifications.

18.10. **Product Support**: All the systems repaired/refurbished must be supported for a minimum period of 07 years to be reckoned from the date of delivery. A commitment to this effect would be offered by the firm on behalf of all the third party manufacturers as well. This shall include the following:-

- (a) Offering alternate solutions in the event of obsolescence of components/ technology, for both bought out and sub contracted components
- (b) Continuous up gradation of programme
- (c) Continuous supply of amendments to documentation.

18.11 **On Board Spares**:

The following anticipatory spares are to be supplied as On Board Spares for each System:

- a. Boat Computer CPU Board, Qty. 01
- b. Boat Computer I/O Board, Qty. 01
- c. Boat Computer Power Supply Boat, Qty. 01d
- d. VHF Radio with in-built Modem, Qty.01
- e. Master Computer CPU Board, Qty.01
- f. Master Computer Power supply Unit Qty.01
- g. Master Computer CCU Qty.0

18.12 **Environmental Specification** : The RCTB and its remote control station's operation shall adhere to Environment Specification JSS 55555 and EMC requirement in accordance with MIL-STD 461C Part 5.

18.13 **Maintenance Routine** : The manufacturer shall provide a comprehensive maintenance schedule for Planned Preventive Maintenance of RCTB. The maintenance schedule shall include occasional, daily, monthly, quarterly, and annual routine of all the hull, machinery, equipment and electronic devices as applicable.

19. **TEST AND TRIALS**

19.1 The firm is to submit a comprehensive draft QAP, complying with specifications stipulated in NCD 7000 Issue 1 of 2008, for refurbishment/repairs get it approved by MQC/ND (MBI). Following inspections/trials/tests would be conducted

- (a) Material Inspection on receipt as applicable (FATs)
- (b) Setting to Work (STW)
- (c) Harbour Acceptance Trials (HATs)
- (d) Sea Acceptance Trials (SATs)

(e) Joint Receipt Inspection (JRI)

20. **PROGRESS MONITORING**

20.1 **Comprehensive Action Plan (CAP)**: Within two weeks after placement of order, the contractor is to forward a Comprehensive action plan/ PERT chart of all the repair/refurbishment activities after mutual agreement with the user manager consisting of detailed description of material /specifications/procedures/ weights/time lines conforming to the delivery schedule, indicating all stages of inspection and tests/trials.

20.2 **Quality Assurance Plan (QAP)**: The firm is to submit a comprehensive draft QAP for refurbishment/repairs and get it approved by MQC/ ND (MBI). The QAP shall include a diagrammatic representation (flow chart) of each process in sequence showing various controls and checks employed.

20.3 **Monthly Progress Report** : Monthly reports highlighting progress / slippages corresponding to cardinal date programme should be forwarded to the user manager and inspecting agency.

21. **WARRANTY**

The boat re-engined/refurbished against this specification is deemed to bear a warranty of the firm against defective material, equipment, machinery, workmanship and performance for a period of 2 years and product support for a minimum of 07 years from the date of receipt of boat post repairs by the consignee. If during this period the boat ,its material ,machinery or equipment supplied are found by the consignee to be defective/substandard, the same shall be replaced/repared within a period of 15 days from reporting , free of charges at site (any where in India) by the firm. In case the reported warrantee defect is not rectified within 15 days, the total delay caused in rectification will be added to the Warrantee Period. In case of Foreign OEM maintenance facility shall be setup in India to avoid the delay of rectification of the defects.

22. **SECURITY**

The contractor will have to make necessary arrangements (such as ID cards, PVC, safe to work certificates etc.) and obtain security passes from concerned agencies for unescorted entry to work premises and will have to obtain permission of competent authority for working on off working hours / during night / on holidays/in case of enhanced security states. The entire process is to be completed within one week of the order placement. The contractors shall strictly adhere to the existence rules/policies of Naval Dockyard (MBI) in all security states.

Guide line QAP will be given on placement of order

**STANDARD CONDITIONS OF CONTRACT FOR PARTIAL/COMPLETE
REFIT/ REPAIRS OF SHIPS/SUBMARINES/MARINE AND SERVICE ASSETS**

(Forms an integral part of the Contract, to be sent as Enclosure III of RFP)

TABLE OF CONTENTS

ARTICLE NO. / DESCRIPTION

ARTICLE 1 - DEFINITION AND ABBREVIATION
ARTICLE 2 - EFFECTIVE DATE AND OPERATION OF CONTRACT
ARTICLE 3 - SCOPE OF CONTRACT
ARTICLE 4 - CONTRACT PRICE AND TERMS OF PAYMENT
ARTICLE 5 - TAXES AND DUTIES
ARTICLE 6 - ADVANCE BANK GUARANTEE
ARTICLE 7 - PERFORMANCE BOND
ARTICLE 8 - DURATION AND DELIVERY
ARTICLE 9 - LIQUIDATED DAMAGES
ARTICLE 10 - RISK AND EXPENSE CLAUSE
ARTICLE 11 - QUALITY AND INSPECTION
ARTICLE 12 - WARRANTY & WARRANTY BOND
ARTICLE 13 - GENERAL TERMS AND CONDITIONS
ARTICLE 14 - INDEMNITY & INSURANCE
ARTICLE 15 - SECURITY
ARTICLE 16 - FORCE MAJEURE
ARTICLE 17 - TERMINATION OF CONTRACT
ARTICLE 18 - LAW
ARTICLE 19 - ARBITRATION
ARTICLE 20 - PENALTY FOR USE OF UNDUE INFLUENCE
ARTICLE 21 - AGENTS/AGENCY COMMISSION
ARTICLE 22 - ACCESS TO BOOKS OF ACCOUNT
ARTICLE 23 - NON DISCLOSURE OF CONTRACT DOCUMENTS
ARTICLE 24 - NOTICES
ARTICLE 25 - AMENDMENTS
ARTICLE 26 - FREE SERVICES BY NAVY
ARTICLE 27 - NOTICES & COMMUNICATIONS
ARTICLE 28 - INTERPRETATION
ARTICLE 29 - ENVIRONMENTAL POLICY
ARTICLE 30 - LABOUR REGULATIONS
ARTICLE 31 - REMOVAL OF METAL SCRAP & DEBRIS
ARTICLE 32 - PROVISION OF SERVICES BY CUSTOMER
ARTICLE 33 - PROVISION OF SERVICES BY CONTRACTOR.
ARTICLE 34 - UTILISATION OF CUSTOMER'S FACILITIES BY CONTRACTOR.
ARTICLE 35 - THIRD PARTY INSPECTION.
ARTICLE 36 - APPROVAL OF DRAWINGS, SPECIFICATIONS AND STANDARDS.
ARTICLE 37 - SPECIAL CONDITIONS OF CONTRACT FOR RRC/AMC
ARTICLE 38 - ANY AGREEMENT ARRIVED AT DURING CNC
ARTICLE 39 -
ARTICLE 40 - SIGNATURE AND WITNESSING BY PARTIES

ANNEXURE No./ DESCRIPTION

ANNEXURE 1 : FORMAT OF CERTIFICATE OF ACCEPTANCE
ANNEXURE 2 : SCOPE OF WORK (DEFECT LIST WITH ITEMISED COST)
ANNEXURE 3 : FORMAT OF PROMULGATING CHANGE IN SCOPE OF WORK
ANNEXURE 4 : BREAKDOWN OF CONTRACT PRICE
ANNEXURE 5 : FORMAT OF WORK COMPLETION CERTIFICATE
ANNEXURE 6 : FORMAT FOR COMPLETION OF HANDING OVERALL DATA BY CONTRACTOR RELATED TO WORK (such as 'As Fitted Drawings', Record of Hull survey/ Renewal of Hull Plates / Clearances / Alignment / Testing and Tuning / Weight Change/ Grouping of Shock Mounts etc. (to be formulated on case to case basis, if applicable and part of RFP).

Contract No. _____

Date : _____

PREAMBLE

THIS Contract is made and entered into at (Name of Place), on this ____ day of the Month of _____ in the year _____ (specify the year in words),

BETWEEN

The President of India represented by ADMIRAL SUPERINTENDENT, NAVAL DOCKYARD, MUMBAI (hereinafter referred to as the **CUSTOMER**), which terms, unless excluded by the context, shall be deemed to include his successor or successors and permitted assignees, ON THE FIRST PART

AND

M/s _____ (Name of the Firm/Shipyard including the address), hereinafter referred to as the **CONTRACTOR**, which expression shall include their Administrator, Executors, Successors and Assignees, ON THE SECOND PART

And whereas the CUSTOMER agrees to deliver /permit (Name of the Vessel/Asset) to the CONTRACTOR for undertaking _____(Title of the Work) and to take delivery of (Name of the Vessel/Asset) from the CONTRACTOR after successful _____(Title of the Work undertaken)

The **CUSTOMER** and the **CONTRACTOR** being hereinafter referred to as “**Party**” or “**Parties**”.

It is now agreed by and between both the parties hereto as follows:

ARTICLE 1 - DEFINITIONS AND ABBREVIATIONS

1.1 DEFINITIONS

The following words and expressions in this Contract including its Annexes shall have the meanings as hereinafter defined unless the context requires otherwise:-

Actuals: The term Actuals, related to payment, shall mean all expenses, inclusive of those incurred towards associated cost elements such as all taxes, duties & levies, freight, insurance and clearance charges incurred by the CONTRACTOR and computed at the prevailing exchange rate wherever applicable, at the time of release of payments by the CONTRACTOR to the OEMs.

Article : Any Article of this Contract or partial Article with separate Marginal number as referred to anywhere in the wording of this Contract and / or its Annexes.

Certificate of Acceptance: The Certificate to be signed jointly by the representatives of the CONTRACTOR and the CUSTOMER on the Date of Delivery of the Ship as set out in Article 8.1.1 and **Annex 1** of this Contract.

Contract: Shall mean this Contract including its Preamble, Articles ___ to ___ and Annexes ___ to ___ herein, and all amendments, changes, alterations and modifications made to this Contract.

Material : The term Material shall mean all equipment, fittings, finished / semi finished products, spares, consumables, Yard material, items, sub-assemblies / assemblies, documentation etc. required for the removal, repair & refurbishment, refit/installation and testing of any part of the work being undertaken by the CONTRACTOR (and/or by his Subcontractors on his behalf) as per scope of his work defined in this Contract, upto completion of the guarantee period and liquidation of his outstanding liabilities. COA Agency assigned by the Competent Financial Authority on behalf of the President of India to conclude the contract and operate in accordance with Article 2.1.

Month : Any calendar month, as defined in the Gregorian Calendar, or any period of 30 consecutive Days.

Year : Year starting from the 1st January and ending on 31st December or any period of 12 consecutive Months, as the case may be.

1.2 ABBREVIATIONS

The following words and abbreviations in this Contract including its Annexes shall have the meanings as hereinafter defined unless the context requires otherwise:

B & D Spares	: Base & Depot Spares
DCD	: Dockyard Completion Date
FAT	: Factory Acceptance Trials
HAT	: Harbour Acceptance Trials
SAT	: Sea Acceptance Trials
MoD	: Ministry of Defence
OBS	: On Board Spares
PAC	: Proprietary Article Certificate
OEM	: Original Equipment Manufacturer/ Firm accorded PAC
TEC	: Technical Evaluation Committee
CNC	: Contract Negotiation Committee
R & R	: Remove and Refit
STW	: Setting To Work
COA	: Contract Operating Authority
ABER	: Anticipated Beyond Economical Repairs
A's & A's	: Additions and Alterations
QAP	: Quality Assurance Plan

(**Note:** All Abbreviations pertaining to the case, which require clarification are to be listed here and should form part of RFP)

ARTICLE 2 - EFFECTIVE DATE AND OPERATION OF CONTRACT

2.1 It is hereby agreed and declared that the powers and functions of the CUSTOMER under this Contract, shall be exercised by Integrated Commercial Department, NAVAL DOCKYARD, MUMBAI.

2.2 The Effective Date of Contract is the **Date of clearance by the User Manager or Date of signing of the contract, whichever is later**. The Contract commences from the Effective Date of Contract.

ARTICLE 3 - SCOPE OF CONTRACT

3.1 Work & Services Contracts

3.1.1 It is expressly understood and agreed between the CUSTOMER and the CONTRACTOR that this is a repair, refit and services Contract.

3.2 Scope of Work

3.2.1 The _____ (Title of work) is to be completed in accordance with the terms, conditions and provisions of this Contract, as detailed in the following Articles.

3.2.2 The Scope of Work is placed at **Annex 2** of this Contract.

3.3 Removal and Refitting of Items

3.3.1 In the event of the requirement to remove the existing machinery /equipments, switch-boards / control panels, electronic & communication equipments, light fittings, piping, trunking, valves, electrical cables, junction boxes, lagging, paneling, obstructions, protrusions, foundations, etc. falling in the way of repairs, **temporarily to facilitate completion of Scope of Work**, the CONTRACTOR shall reinstall the same as per drawings, amendments thereto and to the satisfaction of the CUSTOMER. All work associated with this Article forms an integral part of Scope of Work specified in Article 3.2.

3.3.2 Electrical cables in way of repairs, if required, are to be covered adequately for protection against accidental mechanical / fire damage, by the CONTRACTOR. Damages caused during the execution of the work by the CONTRACTOR or his Sub Contractors are to be made good by the CONTRACTOR at his cost.

3.3.3 All pipe lines, machinery, equipment and fittings which are not required to be taken out of the Ship are to be properly covered / secured to ensure they are not damaged during the course of the refit. Damages caused during the execution of the work by the CONTRACTOR or his Sub Contractors are to be made good by the CONTRACTOR at his cost.

3.4 Change in Scope of Work

3.4.1 Notwithstanding the scope of work specified in Article 3.2 and 3.3.1, the CUSTOMER shall have the right to modify the Scope of Work during the execution of the Contract. The necessity for repairs/renewals/replacements other than those presently included in the Scope of Work may arise during the inspection/survey/repair. All such work as also consequential work (rework) required to be done by the CONTRACTOR along with work arising out of items/drawings supplied by the CUSTOMER shall be treated as Scope of Work.

3.4.2 Such changes in the scope of work and the cost and time implications thereof shall be mutually agreed upon on priority, in writing, before undertaking such changes in the scope of work. The resultant increase in cost as well as any extension in project duration will be intimated by the CONTRACTOR and shall be agreed and accepted by the CUSTOMER through mutual negotiations prior to undertaking such changes in Scope of Work. Format for promulgating of Change in Scope of Work is placed at **Annex – 3** of this Contract.

3.4.3 In case promulgation of such change in Scope of Work affects the Initial Scope of Work as per Article 3.2 and 3.3 and/or additional Scope of Work as per article 3.4.1, the cost and time implications due to such changes, shall also be taken in to consideration by both the Parties, while promulgating the change in Scope of work in accordance with Article 3.3.

3.5 Procurement of Material by the CONTRACTOR

3.5.1 A list of items procured, indicating landed cost which includes cost of materials, freight, insurance, packing/forwarding taxes, duties, clearing charges etc (handling charges not exceeding 7.5 %) will be furnished along with the bill raised by the CONTRACTOR on the basis of Third Party Invoice.

3.5.2 All material and items procured by the CONTRACTOR for Scope of Work, except where specifically indicated that such items are CUSTOMER supplied, are to conform to the relevant approved and applicable specification (in accordance with Article 10).

3.6 Sub-Contracting

3.6.1 The CONTRACTOR may subcontract any part of Scope of Work on mutual agreement with the CUSTOMER. The CONTRACTOR can under no circumstance sub-contract the complete Scope of Work to a Third Party.

3.6.2 The CONTRACTOR would be entirely responsible for quality / standard and timely execution of the sub-contracted work. The CONTRACTOR is to draw up a suitable Quality Assurance (QA) Plan with the Sub-Contractor and a copy of the same along with Record of Inspection in accordance with such QA Plan shall be submitted to the CUSTOMER.

3.6.3 The supervision of work for the sub-contracted jobs is to be done by the CONTRACTOR. The CONTRACTOR is not permitted to seek any extension of Completion Date citing delay on the part of Sub-Contractors or re-work arising out of Sub-Contracted work.

3.7 **Employment of Service Personnel.** The CONTRACTOR shall not employ any service personnel of the Indian Navy or on his own take any assistance either directly or indirectly from any of the workshops / facilities of the Naval Dockyard in the form of men or material for Scope of Work.

ARTICLE 4 - CONTRACT PRICE AND TERMS OF PAYMENT

4.1 CONTRACT PRICE

4.1.1 This is a Fixed Price Contract for completion of Work specified in Article 3.2 and 3.3. The Contract price is **Rs. _____/- (Rupees)** inclusive of applicable taxes. A detailed breakdown of the Contract price, **including applicable taxes and duties** (calculated as per the existing rate) is placed at **ANNEX – 6** of this contract.

4.1.2 Notwithstanding the provisions contained in Article 4.1.1, the price is subject to revision upon mutual agreement, as and when scope of work is changed as per Article 3.4, ERV, Changes in Tax Rate, etc.

4.2 Change In Contract Price Due To Procurement Of Additional / NA Spares. Notwithstanding the Contract Price specified in Article 4.1 and as amended vide Article 4.2, the CUSTOMER shall pay for any additional/NA Spares procured by the CONTRACTOR for Scope of Work based on mutual agreement. Payment shall be made under this Article on the bill raised by the CONTRACTOR on the basis of Third Party Invoice accompanied by list of items procured, indicating landed cost which includes cost of materials, freight, insurance. The Contract Price specified in Article 4.1 and as amended vide Article 4.2, shall further stand amended to include payment towards such additional/NA Spares.

4.3 PAYMENT TERMS. The Payment Terms for the Contract Price specified in Article 4.1 shall be as per sl 3(q) of Annexure 1 to Encl-II to RFP.

ARTICLE 5 - TAXES AND DUTIES

5.1.1 The Contract price indicated in Article 4.1 of this Contract is exclusive of all taxes, duties, levies of Central / State authorities, as applicable at prevailing rates under the extant Government policy for all Materials and services procured by the CONTRACTOR for the Scope of Work. Any increase on rates during the period of contract shall be paid extra at the time of invoicing. The same shall be reimbursed by the CUSTOMER to the CONTRACTOR at actual on submission of documentary proof of payment. The CUSTOMER reserves the right to deny any increase in taxes, duties, levies, etc. if the delivery period is extended beyond the period specified in Article 8.1.1.

5.1.2 Contract Operating Authority or his nominated representative shall issue appropriate tax exemption/concession certificate(s) on behalf of the CUSTOMER, to avail tax exemption/ concession, where applicable, as per existing Government policy, rules and regulations in force.

5.2 “END USER” CERTIFICATE. Contract Operating Authority or his nominated representative shall issue the appropriate “End User Certificate” on behalf of the CUSTOMER, for import of material and services, wherever required by the concerned manufacturer /supplier of equipment material and services / governmental agency.

ARTICLE 6 - ADVANCE BANK GUARANTEE

The Bidder will be required to furnish an Advance Bank Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to 100% of the advance payment prior to collection of the confirmed order. Advance Bank Guarantee should be valid up to 60 days beyond the date of work completion. The specimen of advance bank guarantee is given below:-

FORMAT FOR BANK GUARANTEE FOR ADVANCE PAYMENT

From :
Bank _____

To
The President of India

Sir,
With reference to contract No. _____
dated _____ concluded between the President of India, hereinafter referred to as ‘the Purchaser’ and M/s _____ hereinafter referred to as the “the contractor” for the development and supply of _____ as detailed in the above contract

which contract is hereinafter referred to as "the Said Contract" and in consideration of the Purchaser having agreed to make an advance payment in accordance with the terms of the Said Contract to the said contractor, we the _____ bank, hereinafter called 'the Bank' hereby irrevocably undertake and guarantee to you that if the Said Contractor would fail to develop and supply the stores in accordance with the terms of the Said Contract for any reason whatsoever or fail to perform the Said Contract in any respect or should whole or part of the said on account payments at any time become repayable to you for any reason whatsoever, we shall, on demand and without demur pay to you all and any sum upto a maximum of Rs. _____ (Rupees _____ only) paid as advance to the Said Contractor in accordance with the provisions contained in Clause _____ of the Said Contract.

2. We further agree that the Purchaser shall be the sole judge as to whether the contractor has failed to develop and deliver the stores in accordance with the terms of the Said Contract or has failed to perform the said contract in any respect or the whole or part of the advance payment made to Contractor has become repayable to the Purchaser and to the extent and monetary consequences thereof by the Purchaser.

3. We further hereby undertake to pay the amount due and payable under this Guarantee without any demur merely on a demand from the Purchaser stating the amount claimed. Any such demand made on the Bank shall be conclusive and binding upon us as regards the amounts due and payable by us under this Guarantee and without demur. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs _____ Rupees _____ only).

4. We further agree that the Guarantee herein contained shall remain in full force and effect for a period of 12 months from the date the last advance payment was made or for a period of 90 days from the date on which final delivery of the stores after development was made and accepted by the Purchaser whichever falls later unless the Purchaser in his sole discretion discharges the Guarantee earlier.

5. We further agree that any change in the constitution of the Bank or the constitution of the contractor shall not discharge our liability hereunder.

6. We further agree that the Purchaser shall have the fullest liberty without affecting in any way our obligations hereunder with or without our consent or knowledge to vary any of the terms and conditions of the Said Contract or to extend the time of development/delivery from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser against the contractor and either to forbear or enforce any of the terms and conditions relating to the Said Contract and we shall not be relieved from our liability by reason of any such variation or any indulgence or for bearance shown or any act or omission on the Purchaser or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so relieving us.

7. We lastly undertake not to revoke the Guarantee during the currency of the above said contract except with the prior consent of the Purchaser in writing.

Yours faithfully,
for _____ Bank
(Authorised Attorney)
Place : _____
Date : _____
Seal of the Bank

ARTICLE 7 - PERFORMANCE BOND

The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to 10% of the contract value within 30 days of issue of work order covering letter and prior to collecting the work order ink signed copy. Performance Bank Guarantee should be valid up to 60 days beyond the date of warranty. The specimen of PBG is given below:-

Performance Bank Guarantee Format

From:
Bank _____
To,

The President of India
Ministry of Defence,
Government of India
New Delhi

Dear Sir,

Whereas you have entered into a contract No. _____ dated _____ (hereinafter referred to as the said Contract) with M/s _____, hereinafter referred to as the "seller" for supply of goods as per Part-II of the said contract to the said seller and whereas the Seller has undertaken to produce a bank guarantee for (%) of total Contract value amounting to _____ to secure its obligations to the President of India.

We the _____ bank hereby expressly, irrevocably and unreservedly undertake and guarantee as principal obligors on behalf of the seller that, in the event that the President of India declares to us that the goods have not been supplied according to the Contractual obligations under the aforementioned contract, we will pay you, on demand and without demur, all and any sum up to a maximum of _____ Rupees _____ only. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. We undertake to effect payment upon receipt of such written demand.

2. We shall not be discharged or released from this undertaking and guarantee by any arrangements, variations made between you and the Seller, indulgence to the Seller by you, or by any alterations in the obligations of the Seller or by any forbearance whether as to payment, time performance or otherwise.

3. In no case shall the amount of this guarantee be increased.

4. This guarantee shall remain valid for months from the date of JRI acceptance of test consignment in India or until all the store, spares and documentation have been supplied according to the contractual obligations under the said contract.

5. Unless a demand or claim under this guarantee is made on us in writing or on before the aforesaid expiry date as provided in the above referred contract or unless this guarantee is extended by us, all your rights under this guarantee shall be forfeited and we shall be discharged from the liabilities hereunder.

6. This guarantee shall be a continuing guarantee and shall not be discharged by and change in the constitution of the Bank or in the constitution of M/s _____.

ARTICLE 8 - DURATION OF THE DELIVERY

8.1 Duration of Work

8.1.1 The CONTRACTOR shall complete his scope of work specified in Article 3.1 and 3.2 in _____ (duration in months/days/date for completion of Scope of Work) from the Effective date specified in Article 2.1. Delivery by the CONTRACTOR shall be treated as complete on satisfactory HATs/SATs and upon signing of Delivery Acceptance Certificate (applicable in the case of complete Refit/Repairs of Ships/ Submarines only) OR Completion of Scope of Work and Trails (applicable in case of Refit/Repairs of Yard/Service Assets and partial Refits of Ships / Submarines).

8.1.2 The said duration of Refit specified in Article 8.1.1 may be extended on mutual agreement only, with the CUSTOMER shall accept the vessel/asset without imposition of any sort of Penalty / Reduction in Contract Price.

8.2 Incomplete Work

8.2.1 The CONTRACTOR and the CUSTOMER shall mutually agree on the quantum of incomplete and unsatisfactory work. Cost of such incomplete work shall be withheld, except where such incomplete work is not attributable to the CONTRACTOR. Payment thus withheld will be made on completion of such incomplete work, which should in any case be completed within __ days (**to be indicated in the RFP**). If such work is incomplete beyond the specified date, the same shall be deleted from Scope of Work specified in Article 3.2 with corresponding amendment to Contract Price specified in Article 4.1. The CUSTOMER reserves the right to levy LD on the entire value of the contract as per Article 9 in such cases.

8.2.2 The CONTRACTOR shall be paid for completion of work specified in Article 8.4.1 only on satisfactory completion and trials.

ARTICLE 9 - LIQUIDATED DAMAGES

9.1 The CONTRACTOR shall be liable to pay to the CUSTOMER Liquidated Damages (LD), and not by way of Penalty, a sum equivalent to 0.5% (zero point five percent) of the Contract for each week of delay beyond duration of Work specified in Article 8.1, subject to a maximum of 10% (Ten percent) of the total value of goods/services delayed beyond the original date of delivery/completion of supplies/service indicated in the contract/supply order (completion of entire work per ship will be considered as completion of service).

ARTICLE 10 - RISK AND EXPENSE

10.1 Should the stores or any installment thereof not be delivered within the time or times specified in the contract documents, or if defective delivery is made in respect of the stores or any installment thereof, the Buyer shall after granting the Seller 45 days to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.

10.2 Should the stores or any installment thereof not perform in accordance with the specifications / parameters provided by the SELLER during the check proof tests to be done in the BUYER's country, the BUYER shall be at liberty, without prejudice to any other remedies for breach of contract, to cancel the contract wholly or to the extent of such default.

10.3 In case of a material breach that was not remedied within 45 days, the BUYER shall, having given the right of first refusal to the SELLER be at liberty to purchase, manufacture, or procure from any other source as he thinks fit, other stores of the same or similar description to make good:-

(a) Such default.

(b) In the event of the contract being wholly determined the balance of the stores remaining to be delivered thereunder.

10.4 Any excess of the purchase price, cost of manufacturer, or value of any stores procured from any other supplier as the case may be, over the contract price appropriate to such default or balance shall be recoverable from the SELLER.

ARTICLE 11- QUALITY AND INSPECTION

11.1 Quality Assurance & Quality Control

11.1.1 In order to assure the quality of repair/refit and exercise effective control, the work executed by the CONTRACTOR will be in accordance with CUSTOMERS inspection schedule as applicable followed by preliminary, stage and final inspection. The repair work will be undertaken as per **specified Standards** and quality norms. Ensuring and maintaining quality will be the responsibility of the Shipyard.

11.1.2 The CONTRACTOR shall submit a Quality Assurance (QA) Plan as applicable to the scope of work for approval of the CUSTOMER. The approved QA plan will form the basis for inspection and acceptance of work executed by the CONTRACTOR under this contract.

11.2 Overseeing and Inspection

11.2.1 Necessary tests and inspections of the contracted job shall be carried out by COA/ or his nominated agency. The CONTRACTOR shall give reasonable notice to the above team reasonably in advance of the date and place of such tests / inspections. COA shall also carry out joint receipt inspection of the equipment and material procured by the CONTRACTOR/ supplied by CUSTOMER. The CUSTOMER's representative shall,

during the repairs / refit invariably attend such tests and inspections as per the QA Plan/Quality Inspection Schedule.

11.2.2 Any non-conformity discovered by CUSTOMER Representative and intimated in writing co-relating relevant documents where necessary, in Refit or material or workmanship shall be corrected by the CONTRACTOR at his cost, to the full satisfaction of Representative in accordance with the relevant drawings and specifications.

11.2.3 During the repairs / refit of the Ship, until the delivery thereof, the CUSTOMER's representatives shall be given free and ready access to the **Ship/Submarine/Asset** and to any other place where related work is being performed, or materials are being processed or stored, including the yards, workshops, stores and offices of the CONTRACTOR and premises of Subcontractors who are doing work or storing materials, in connection with the repairs / refit of the **Ship/Submarine/Asset**. Notwithstanding any provision in this Article or any other Article in this Contract, the responsibility for the repairs / refit as per the scope of work vide Article 3.2, 3.3 and 3.4 shall rest with the CONTRACTOR.

ARTICLE 12 - WARRANTY & WARRANTY BOND

12.1 Guarantee

12.1.1 The CONTRACTOR warrants that the repairs carried out under this Contract conform to specifications vide SOR.

12.1.2 The CONTRACTOR shall give **12 months guarantee** from the Contract Completion Date. The guarantee clause will also be applicable to the items repaired by the OEMs / sub contractor of shipyard. Any defects noticed during this guarantee period due to defective / poor workmanship or sub-standard material shall be rectified free of cost by the shipyard or by the OEMs / sub-contractors under arrangements by the shipyard.

12.1.3 If within the period of warranty, the repairs reported by the CUSTOMER to have failed to perform as per the specifications, the CONTRACTOR shall either replace or rectify the same free of charge, within ___ days of notification of such defect received by the CONTRACTOR provided that the equipment are used and maintained by the CUSTOMER as per instructions contained in the Operating Manual. Record of the downtime would be maintained by user in logbook. Spares required for warranty repairs shall be provided free of cost by CONTRACTOR.

12.1.4 CONTRACTOR hereby warrants that necessary service and repair backup, during the warranty period of the repair, shall be provided by the CONTRACTOR at the CUSTOMER'S premises.

12.2 Notice for Remedy/Rectification of Defects During Warranty Period shall be in writing and transmitted to each other by the fastest possible means.

ARTICLE 13 - GENERAL TERMS AND CONDITIONS

13.1 Safety of Men : The CONTRACTOR is to ensure adequate safeguards for personnel when employed on work where human risk of health/injury is involved. All personnel including supervisors employed for the work on the premises of the Yard will wear uniforms with firms name prominently printed on the front and back side. All employees of the firm should be provided with personal protective clothing such a shoes, gloves, cap, and Mayon etc.

13.2 First Aid: The CONTRACTOR is liable to provide immediate first aid/hospitalization in case of accident/sudden illness to personnel.

13.3 Gas Free & Man Entry Certificates, Fire Sentries, Administrative Support to OEMs, Pumping-out Facilities & Removal of Debris/Waste Material shall be as per Annexure 4 of SOR.

13.4 "In case of any accident/incident caused by the contractor or his personnel, which results in damage to government property or injury to any person, a show cause notice will be issued to the contractor. The contractor is

to reply to the show cause notice within 07 days. Thereafter, on completion of investigation of the case, if the blame is found to be attributable to the contractor or his personnel, the contractor would be liable for a tender holiday of one year.”

ARTICLE 14 - INDEMNITY & INSURANCE

14.1 Indemnity. The CONTRACTOR shall indemnify the CUSTOMER against all claims for death or injury caused to any person, whether workman or not, while engaged in any process connected with the CONTRACTOR'S work or for dues of any kind whatsoever, and the CUSTOMER shall not be bound to defend any claim brought under the Workmen's Compensation Act, 1923 or Payment of Wages Act 1936, or any other statutory Act or Law in force from time to time and applicable to the said work unless the CONTRACTOR first deposit with the CUSTOMER a sum sufficient to cover any liability which CUSTOMER may have to incur in relation to such proceedings.

14.2 Insurance. The vessel shall not be insured during the repairs period as it is the property of Government of India and no Insurance Policy is taken for Warship/Government vessel.

The items/work shall not be insured during the repair/refit period as it is the property of the Customer and no insurance policy is taken.

The Contractor is liable to pay for any damage that may be caused to the state property on account of negligence by his staff.

ARTICLE 15 – SECURITY

15.1 The CONTRACTOR is bound by the Official Secrets Act 1923 and, in its connection any other statutory Act / Law / Amendment in force and the information given is to be treated as strictly confidential and is not to be disclosed to any person or persons not concerned therein. The CONTRACTOR shall be responsible to ensure that all persons employed by him in the execution of any work in connection with this Contract are fully aware of the provisions of the Official Secrets Act 1923 / Law / Amendment in force and have undertaken to comply with the same.

15.2 The CONTRACTOR shall also ensure secrecy of design, construction, equipment and documentation and shall carry out all or any instructions given by the CUSTOMER in this respect. Should the CUSTOMER desire to check up the security measures which have been provided, or will be adopted to achieve security, the CONTRACTOR shall produce necessary evidence to establish the same.

15.3 In giving any information to the Sub-Contractors, the CONTRACTOR shall furnish to the Sub-Contractors only such information as may be necessary for carrying out the respective work entrusted to them.

15.4 The security of the Ship, men and material in the CONTRACTOR'S premises is the CONTRACTOR'S responsibility.

ARTICLE 16 - FORCE MAJEURE

(a) Neither party shall bear responsibility for the complete or partial nonperformance of any of its obligations (except for failure to pay any sum which has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after the conclusion of the present contract.

(b) In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.

(c) The party for which it becomes impossible to meet obligations under this contract due to Force Majeure conditions, is to notify in written form the other party of the beginning and cessation of the above

circumstances immediately, but in any case not later than 10 (Ten) days from the moment of their beginning.

(d) Certificate of a Chamber of Commerce (Commerce and Industry) or other competent authority or organization of the respective country shall be a sufficient proof of commencement and cessation of the above circumstances.

(e) If the impossibility of complete or partial performance of an obligation lasts for more than 6 (six) months, either party hereto reserves the right to terminate the contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of the intention to terminate without any liability other than reimbursement on the terms provided in the agreement for the goods received.

ARTICLE 17 - TERMINATION OF CONTRACT

The Buyer shall have the right to terminate this Contract in part or in full in any of the following cases :-

(a) The delivery of the material is delayed for causes not attributable to Force Majeure for more than 1 month after the scheduled date of delivery.

(b) The Seller is declared bankrupt or becomes insolvent.

(c) The delivery of material is delayed due to causes of Force Majeure by more than 1 month provided Force Majeure clause is included in contract.

(d) The Buyer has noticed that the Seller has utilised the services of any Indian/Foreign agent in getting this contract and paid any commission to such individual/company etc.

(e) As per decision of the Arbitration Tribunal.

ARTICLE 18 - LAW

The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.

ARTICLE 19 - ARBITRATION

19.1 All disputes or differences arising out of or in connection with the present contract including the one connected with the validity of the present contract or any part thereof should be settled by bilateral discussions.

19.2 Any dispute, disagreement or question arising out of or relating to this contract or relating to construction or performance (except as to any matter the decision or determination whereof is provided for by these conditions), which cannot be settled amicably, shall within sixty (60) days or such longer period as may be mutually agreed upon, from the date on which either party informs the other in writing by a notice that such dispute, disagreement or question exists, will be referred to a sole Arbitrator.

19.3 Within sixty (60) days of the receipt of the said notice, an arbitrator shall be nominated in writing by the authority agreed upon by the parties.

19.4 The sole Arbitrator shall have its seat in New Delhi or such other place in India as may be mutually agreed to between the parties.

19.5 The arbitration proceedings shall be conducted under the Indian Arbitration and Conciliation Act, 1996 and the award of such Arbitration Tribunal shall be enforceable in Indian Courts only.

19.6 Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration including the fees and expenses shall be shared equally by the parties, unless otherwise awarded by the sole arbitrator.

19.7 The parties shall continue to perform their respective obligations under this contract during the pendency of the arbitration proceedings except in so far as such obligations are the subject matter of the said arbitration proceedings.

(Note - In the event of the parties deciding to refer the dispute/s for adjudication to an Arbitral Tribunal then one arbitrator each will be appointed by each party and the case will be referred to the Indian Council of Arbitration (ICADR) for nomination of the third arbitrator. The fees of the arbitrator appointed by the parties shall be borne by each party and the fees of the third arbitrator, if appointed, shall be equally shared by the buyer and seller).

ARTICLE 20 - PENALTY FOR USE OF UNDUE INFLUENCE

The Seller undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the present Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offers by the Seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Seller to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

ARTICLE 21 - AGENTS/AGENCY COMMISSION

The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores/provider of the services referred to in this Contract and has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to the award of the contract to the Seller; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Seller agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Seller has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the Seller will be liable to refund that amount to the Buyer. The Seller will also be debarred from entering into any supply Contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LABOR rate. The Buyer will also have the right to recover any such amount from any contracts concluded earlier with the Government of India.

ARTICLE 22 - ACCESS TO BOOKS OF ACCOUNTS

In case it is found to the satisfaction of the Buyer that the Seller has engaged an Agent or paid commission or influenced any person to obtain the Supply Order as described in clauses relating to Agents/Agency Commission and penalty for use of undue influence, the Seller, on a specific request of the Buyer, shall provide necessary information/ inspection of the relevant financial documents/information.

ARTICLE 23 - NON DISCLOSURE OF CONTRACT DOCUMENTS

Except with the written consent of the Buyer, the Seller/ other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.

ARTICLE 24 - NOTICES

Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is sent.

ARTICLE 25 - AMENDMENTS

No provision of this Contract shall be changed or modified in any way(including this provision) either in whole or in part except by an instrument in writing made after the date of this Contract and signed on behalf of both parties and which expressly states to amend this Contract.

ARTICLE 26 - FREE SERVICES BY CUSTOMER

Generally ND(MB) provides electricity, water, compressed air and crane facilities free of cost. However the contractor shall be required to make own arrangement to tap electricity, water , compressed air from the point of supply point indicated and lifting appliances like ropes, slings shackles with draw gears etc.

ARTICLE 27 - NOTICES & COMMUNICATIONS

27.1 Address for Notice / Communication : The legal addresses of the Parties for the purpose of Notice/Communication are as follows :-

The Customer:	The Admiral Superintendent Naval Dockyard Lion Gate, Shahid Bhagat Singh Road, Mumbai - 400 023. Fax No. : 22660486
	[SMOUT 22751430] [GM(R) 22751409] [AGM (PL) 22751471] [AGM(COM) 22751476] [AGM (PR) 22751491] [SMCOM 22752066]
Telephone Nos:	

Copy of communication to the CUSTOMER is to be endorsed to:

**The Admiral Superintendent
(for User Manager)
Naval Dockyard
Mumbai 400023
(Name / Designation of the User Manager)
Tele: 022-22751430, 22751449
Fax: 022-22752440**

(Legal Address of Contractor)

27.2 Language. Any and all notices and communication in connection with this Contract shall be in English language.

ARTICLE 28 – INTERPRETATION

28.1 This Contract shall be governed by the laws of Republic of India.

28.2 In the event of any conflict or discrepancy between the provisions of any Article to this Contract and any Annex thereof, the Article of this Contract shall prevail.

28.3 This Contract constitutes the entire agreement between the CUSTOMER and the CONTRACTOR.

28.4 Any amendment to this Contract and its Annexes shall be in writing and signed by both Parties.

28.5 In the event of any conflict with respect to specification/drawing/existing practices, the order of precedence for acceptance would be as follows :-

- (a) THE CUSTOMER APPROVED DRAWING
- (b) SPECIFICATION VIDE SCHEDULE OF REQUIREMENTS
- (c) THE CUSTOMER'S DECISION.

28.6 The failure of either Party to enforce any provision of this Contract shall not be considered as a waiver of such provision or the right of such Party thereafter to enforce the same.

ARTICLE 29 - ENVIRONMENTAL POLICY

The yard is committed to continually improve upon environmental performance through pollution prevention and resource conservation. Contractors should strive to:-

- (a) Minimize the generation of dust and noise by improving on operational practices.
- (b) Have effective utilization of utilities like water and electricity by recycling and energy auditing.
- (c) Control generation and disposal of effluent water by appropriate effluent treatment methods, Educate, train and motivate employees to execute their tasks in an environmentally responsible manner.

ARTICLE 30 - LABOUR REGULATIONS

30.1 Contract Labour (R&A) Act. Contractor should obtain licence under section 12 and 13 of the contract labour (Regulation & Abolition) act and rules made there under and the same should be kept valid atleast until the expiry of contract with ND(MB). The licence should be shown as and when demanded by the concerned ND (MB) authorities. Failure to obtain the licence may lead to termination of the contract. The Contractor shall carryout his obligations and duties under the Contract labour (R & A) Act 1970 and the rules framed hereunder.

30.2 Minimum Wages Act. The contractor shall pay to the employee not less than the minimum wages and allowances applicable to the Engineering Industry as notified from time to time by the State Govt. under the Minimum Wages Act. Contractor shall be responsible for timely payment of wages of all employees engaged in ND(MB) not less than the prescribed minimum wages in each case and without any deductions of any kind except specified by Government of permissible under the Payment of Wages Act.

30.3 PF Act & Scheme. The contractor wherever applicable shall cover all his eligible employees engaged on ND(MB) jobs under the Employees Provident Fund Act & Scheme and Family Pension scheme and pay the contribution both in respect of his employees and his own. He shall submit all the necessary returns and other particulars periodically as prescribed under the said insurance scheme by filling requisite returns to concerned authorities and obtaining Code Number/Account Numbers. Contractor should remit employees and employers contributions directly to the concerned authorities with inspection and Administrative charges as per relevant provision of the concerning Acts and Schemes made there under within 15 days from the close of every month.

30.4 E.S.I. Act. Contractor should also cover all the contract labourers working on ND(MB) jobs, under the Employees State Insurance Act and Scheme by furnishing necessary returns to appropriate authority and pay both employees and employers contributions in respect of these employees to the concerned authorities within 20 days from the close of every month. Contractor should produce proof of such remittances to the contracting authority along with full details of contributions etc, as and when such details are sought. He shall also give us an undertaking that he will not engage any one on our work, who is not duly covered under the said Act Scheme.

30.5 Uniform All personnel including supervisors employed for the work on the premises of the Yard will wear uniform with firms name prominently printed on front side and back side. All employees of the firm should be provided with personal protective clothing such a shoes, gloves, cap, and Mayon etc.

ARTICLE 31 - REMOVAL OF METAL SCRAP & DEBRIS

Removal of Metal Scrap & Debris (While working inside Dockyard) :- Metal scrap generated by cutting, welding of plates will be yard's property. However the scrap will be collected, loaded/ unloaded by the contractor on his own transport and landed at the Survey yard for survey. The debris (including cement waste, broken pieces of bricks, mud, soot, rust, grit, broken tiles, urinals etc) if any, are to be cleared to designated dumping areas outside the yard by the contractor. The contractor is not to dump the scrap and debris at any place on the jetty without obtaining prior written permission of the Manager, Civil Maintenance. Such permission will ordinarily be granted only for a short duration to enable arrangement to be made for the transportation of the scrap and debris.

ARTICLE 32 - PROVISION OF SERVICES BY CUSTOMER. Customer will provide services in accordance with SI 3(p) of Annexure 1 to Encl II to RFP.

ARTICLE 33 - PROVISION OF SERVICES BY CONTRACTOR. The contractor will provide services in accordance with SOW mentioned at Annexure 2 to Encl II to RFP.

ARTICLE 34 - UTILISATION OF CUSTOMER'S FACILITIES BY CONTRACTOR. Utilization of customer's facilities will be in accordance with SI 3(p) of Annexure 1 to Encl II to RFP.

ARTICLE 35 – THIRD PARTY INSPECTION. Not Applicable.

ARTICLE 36 - APPROVAL OF DRAWINGS, SPECIFICATIONS AND STANDARDS. In accordance with SI 3(r) of Annexure 1 to Encl II to RFP.

ARTICLE 37. – SPECIAL CONDITIONS OF CONTRACT FOR AMC/RRC

ARTICLE 38 } Any other agreement arrived at during CNC.
ARTICLE 39. }

ARTICLE 40 - SIGNATURE AND WITNESSING BY PARTIES

This Contract is signed on _____ day of the month of in the Year, in two (2) originals of the same wording, one (1) for the CUSTOMER and one (1) for the CONTRACTOR. The Annexes listed in Table of Annexures (page 4) and forming an integral part of this Contract are signed under same circumstances.

FOR AND ON BEHALF OF M/s _____ THE CONTRACTOR	FOR AND ON BEHALF OF PRESIDENT OF INDIA THE CUSTOMER
(_____) REPRESENTATIVE OF CONTRACTOR Dated _____ 20...	(_____) REPRESENTATIVE OF CUSTOMER Dated _____ 20....
In the presence of 1. _____ Name _____ Designation _____ 2. _____ Name _____ Designation _____	In the presence of 1. _____ Name _____ Designation _____ 2. _____ Name _____ Designation _____

ii. **Distribution :**

Payment Authority (One Ink Signed Copy)

FA to CFA (One Ink Signed Copy)

FA to COA (One Ink Signed Copy)

CFA (One Ink Signed Copy)

PCDA(Navy), Mumbai (One Copy)

IHQ,MoD(N)/DFM (One Copy)

ANNEXURE - 1 to Encl – III to RFP DYT/OUT/15-16/106(a)/PL-INCOD/IN SHPS - RCTB/219
Dated 28 Jan 2016

FORMAT OF CERTIFICATE OF ACCEPTANCE

CERTIFICATE OF ACCEPTANCE

1. CERTIFIED THAT M/S _____, HAVE COMPLETED THE
(_____) OF **(NAME OF THE VESSEL/ASSET)** AS PER THE SCOPE OF WORK ASSIGNED TO
THEM AND HANDED OVER THE SAME TO **(NAME OF CUSTOMER)** AT _____ HOURS, ON THIS
_____ DAY OF THE MONTH _____ IN THE YEAR TWO THOUSAND AND _____.

2. THE LIST OF LIABILITIES AS ON DATE IS PLACED AT ANNEXURE TO THIS CERTIFICATE.
_____ COA/REP FOR AND ON BEHALF OF **THE PRESIDENT OF INDIA**
_____ REP OF M/S _____

SCOPE OF WORK

Reproduce the Text of SOR finalised and accepted during CNC

(Will be included in the document on approval of draft contract)

FORMAT OF PROMULGATION CHANGE IN SCOPE OF WORK

1. **NAME OF WORK :** _____
2. **D.L. NO :** _____ (Wherever applicable)
3. **Proposed by :** _____
4. **Reference:** _____
Drg. Document _____
5. **Details of additional work (if required use overleaf of the form / attach Annexures)**

NAME DESIGNATION SIGNATURE OF THE PROPOSER

6. (a) **Proposal No.**_____
- (b) **Effect on overall Schedule**
- (c) **Approved Cost**

REP OF FIRM/PROJECT MANAGER OF SHPYARD

7. **Approved / Not approved**

(Reasons if any)

COA/HEAD OF PROJECT MONITORING TEAM

BREAKDOWN OF CONTRACT PRICE

Ser Description of Work/Service Material/Spares/Tax Rate (in Rs)

- 1.—— Cost of all services indicated in the SOR
 - (a)—— Hull Work Package
 - (b)—— Engineering Work Package
 - (c)—— Electrical work Package
 - (d)—— Weapon Work Package
- 2.—— Cost of spares and material included in ser 2(a) to (d)
- 3.—— Cost of all other Services in the SOR (not covered under ser 1 and 2 including OEM charges etc)
- 4.—— Service Tax on ser 1, 2 and 3, excluding 2 (e)
- 5.—— Works Contract Tax (if applicable on ser 1, 2, and 3)
- 6.—— Cost of Yard Materials
- 7.—— Budgetary Cost of Spares
- 8.—— VAT/Sales Tax applicable on ser 6 and 7
- 9.—— Octroi/other local levies applicable on ser 6 and 7
- 10.—— Customs Duty/Amount of Customs Duty for which Exemption is sought on ser 6 and 7.
- 11.—— Excise Duty
- 12.—— Miscellaneous (not included in any of the serial above)
- 13.—— Applicable Tax/Duty/Levies on ser 12
- 14.—— Grand Total (ser 1 to 13)
- 15.—— Grand Total (excluding ser 10 and 11)

FORMAT OF CERTIFICATE OF COMPLETION OF DEFECT WORK
COMPLETION CERTIFICATE

CERTIFICATE No. ... / CC / DT

The under mentioned stage/Activity as per the Payment Terms have been completed :-

DESCRIPTION OF ACTIVITY/STAGE :

Rep Firm/Shipyard COA/REP

SIGNATURE

NAME

DESIGNATION /

RANK

DEPT/ORGANISATION

GUIDELINES FOR PREPARATION OF TECHNICAL BID

1. The Technical Bid should contain the following information and details so as to enable Naval Dockyard, Mumbai to assess the understanding, technical capability and infrastructure/resources of the ship repair yard to undertake the refit : -

(a) Indicate acceptance of the entire scope of work **(or)** Indicate acceptance of the entire scope of work except _____. (Indicate specific jobs not being undertaken as a Deviation List).

(b) Indicate acceptance of the QAP/QIS indicated in SOR **(or)** Indicate acceptance of the QAP/QIS indicated in SOR _____. (Indicate specific provisions not being undertaken as a Deviation List) **(or)** Forward a QAP/QIS for consideration of Technical Evaluation Committee.

(c) Indicate anticipatory list of spares, if applicable, required for undertaking the scope of work specified in SOR. Budgetary Estimate of all such spares is to be indicated in the Commercial Bid, if such a list of Anticipatory Spares is forwarded along with the Technical Bid.

(d) Indicate whether Earnest Money Deposit as per para 12 of the RFP has been attached.

(e) Indicate acceptance of Payment terms as indicated in para 15 of the RFP.

(f) Indicate acceptance of Standard Conditions of Contract (SCOC) and other terms and conditions given in the RFP.

(g) Indicate whether a License for undertaking contract work has so far been obtained from the ministry of Labour & Employment. If yes, indicate the license number and date, and details there of.

(h) Indicate the maximum number of supervisors and the maximum number of workers that are likely to be deputed for undertaking this contract work on any single day.

2. In order to facilitate quick processing of 'T' and 'Q' bids please fill up the 'T' bid compliance matrix on the next page.

'T' BID COMPLIANCE MATRIX
(TO BE SUBMITTED WITH THE 'T' BID)

<u>SL NO</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
1.	Accept the entire scope of work as per RFP	YES/NO
2.	If the answer to Question 1 above is NO, please list the specific jobs not being undertaken as a deviations list and attach with this matrix.	LIST OF DEVIATIONS FROM SCOPE OF WORK ATTACHED/NOT ATTACHED/NA
3.	Accept the QAP for the scope of work as per RFP	YES/NO/NA
4.	If the answer to Question 3 above is NO, please list the specific jobs not being undertaken as a deviations list and attach with this matrix. (as applicable)	LIST OF DEVIATIONS FROM QAP ATTACHED/NOT ATTACHED/NA
5.	Is the list of anticipatory spares attached with the 'T' bid (if applicable)? (List of anticipatory spares is required to be attached with the 'T' bid (where applicable) and the costs of such anticipatory spares attached with the 'Q' bid.)	YES/NO/NA
6.	EMD submitted in accordance with Para 12 of the RFP	YES/NO/NA
7.	Cost of Tender submitted in accordance with Para 10 of the RFP (for OTE cases only)	YES/NO/NA
8.	Payment terms as per Para 15 of the RFP acceptable?	YES/NO
9.	Standard terms and Conditions of the Contract as per Enclosure-III of the RFP acceptable?	YES/NO
10.	Itemised list for CDEC, EDEC, ODEC enclosed with T-bid	YES/NO
11.	Details of License for undertaking Contract work attached	YES/NO

DETAILS OF CONTRACTORS/SUPPLIERS/VENDORS

<u>S.No.</u>	<u>MANDATORY INFORMATION</u>	<u>DETAILS</u>
1	Name of the Beneficiary as per Bank Account	
2	Name of the authorised person/s for communication / notice	
3	Fax No. for sending notice / communication	
4	Legal postal address for notice / communication	
5	Telephone number for official communication	
6	E- mail ID for sending notice / communication	
7	Name of the Bank of Beneficiary	
8	Branch Name	
9	Branch Address	
10	Nature / Type of Account (SB/Current etc)	
11	Bank Account Number of the Beneficiary	
12	MICR Code (9 Digit Number printed on Cheque leaf)	
13	NEFT IFCS Code (4 Alphabets and 4 Numbers Code)	
14	Tin Details	
15	PAN Card Details	
16	VAT TIN No	
17	CST TIN No	
18	Service Tax TIN No	

GUIDELINES FOR PREPARATION OF COMMERCIAL BID

1. Summary Sheet at Annexure Encl VI of this RFP should be filled in all respects.
2. The enclosed Quantified Work Package at Annexure 2 of SOR is to be filled up in all respects. Unit cost/rate for each serial as also the total cost of repairs, e.g Rs X for One Pump (unit rate) and Rs. Y for 5 pumps (total cost) and budgetary cost of mandatory spares should be indicated against each Defect List Item. The cost of Anticipatory spares should be indicated in the MOQ and the same will be used for determining L1 firm.
3. Bidders must indicate separately the relevant Taxes/Duties likely to be paid in connection with delivery of completed goods specified in RFP. In absence of this, the total cost quoted by them in their bids will be taken into account in the ranking of bids.
4. The evaluation and comparison of responsive bids and finalisation of L-1 Firm shall be done on the prices of the goods offered and other charges such as Packing & Forwarding, Freight and Insurance, AMC, etc, as indicated in the price schedule of the Bid Document but excluding levies, taxes and duties such as excise duty, VAT, Service tax, Octroi/entry tax, etc on final product, which are to be paid extra as per actuals, wherever applicable.
5. Cost of yard materials such as steel plates, weld consumables, general nature cables, pipes and tubes should be indicated separately. Whereas, Ferrous scrap shall be the property of the Contractor, Non-ferrous items and unused spares shall be the property of the Customer. The cost of Ferrous Material indicated in the Bid should therefore be inclusive of discount for scrap value.
6. **In case the commercial bid is running into more than one page, the sub- total of costs on each page is to be indicated at the bottom of that page.**
7. Each page is to be authenticated (signed) by the Bidder.
8. Page numbering is a must to identify/locate missing/misplaced pages. ***(Total Nos of pages in the Q-bid are to be mentioned on the first page of the Q-bid. Further each page to be numbered. For example if there are 20 pages in Q bid, first page to be numbered as 1/20 and last page to be numbered as 20/20.)***
9. **Bid Validity**. The commercial bid is to be valid 180 days .

SUMMARY SHEET FOR COSTING / QUOTATION

<u>Ser</u>	<u>Description of Work/Service Material/Spares/Tax</u>	<u>Rate (in Rs)</u>
-1.	Cost of all services indicated in the SOR	
-2.	Cost of repairs mentioned in the SOR (MOQ) (a) Cost of material/spares (mandatory) (b) Cost of material/spares (anticipatory) (c) Cost of Services	
-3.	Cost of all other Services in the SOR (not covered under ser 1 and 2 including OEM charges etc)	
-4.	Service Tax, if applicable	
-5.	Works Contract Tax (if applicable on ser 1, 2, and 3)	
-6.	VAT/Sales Tax applicable on ser 6 and 7	
-7.	Octroi/other local levies applicable on ser 6 and 7	
-8.	Customs Duty/Amount of Customs Duty for which Exemption is sought on ser 6 and 7	
-9.	Excise Duty	
10.	Miscellaneous (not included in any of the serials above)	
11.	Applicable Tax/Duty/Levies on ser 12	
12.	Grand Total (ser 1 to 13)	
13.	Grand Total (excluding ser 10, and 11)	

EMD Bank Guarantee format

Whereas(hereinafter called the "Bidder") has submitted their offer dated.....for the supply of (hereinafter called the "Bid") against the Buyer's Request for proposal No. KNOW ALL MEN by these presents that WEof having our registered office at are bound unto (hereinafter called the "Buyer) in the sum offor which payment will and truly to be made to the said Buyer, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this..... day of20.....

The conditions of obligations are –

(1) If the Bidder withdraws or amends, impairs or derogates from the Bid in any respect within the period of validity of this tender.

(2) If the Bidder having been notified of the acceptance of his tender by the Buyer during the period of its validity.

(a) If the Bidder fails to furnish the Performance Security for the due performance of the contract.

(b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Buyer up to the above amount upon receipt of its first written demand, without the Buyer having to substantiate its demand, provided that in its demand the Buyer will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force upto and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

.....
(Signature of the authorized officer of the Bank)
Name and designation of the officer
Seal, name & address of the Bank and address of the Branch

MODE OF QUOTATION
REPAIR /REFURBISHMENT OF 3 RCTB

(To be strictly adhered to. Non-adherence to this format may result in disqualification)

1. Price Bid Format (For L-I determination):

The Price Bid Format in general is given below and Bidders are required to fill this up correctly with full details, as required under Part-II of RFP. This format should be filled up with items / requirements as mentioned in Part-II of RFP): -

S No	Reference from Tech Specs	Defect Description	Qty for 1 RCTB	Qty for 3 RCTB	Deno	Unit rate		Total Cost for 3 RCTB		Total Estimated
						Material	Service	Material	Service	
1	3.2	Hand holds/ strops & Seating Arrangement	2	6	Sets					
2	3.3.1	MAST (Length 3-8 mts, Mat – Aluminium)	1	3	Sets					
3	3.3.2	All rubber fenders (D type fenders) and securing brackets	30	90	Mtrs					
4	3.3.2	04 pneumatic fenders (Length 60cms by 30cm dia)	4	12	Sets					
5	3.3.3	04 stainless steel bollards (as per sample)	4	12	Nos					
		01 towing hook	1	3	Nos					
6	3.3.3	All S.S fairleads and four in number S.S. Cleats as per sample	4	12	Sets					

7	3.3.5	04 in number sling plates. The lifting points SWL in this arrangement is to be computed by assuming the boat to be suspended on a four legged sling with single suspension point. All four sling plates are to take the greatest load found. Expected load at each strap – 0.8 tons	4	12	Sets					
8	3.3.6	Weather deck Water Tight openings and fitment of rubber beading total length -20 mts	20	60	Mtrs					
9	5	Following defective instrumentation to be replaced along with the panel and associated audio visual alarm view defective/ perished:-			Nos					
					Nos					
		(a) Engine oil pressure gauge.	2	6	Nos					
		(b) Turbo boost pressure gauge.	1	3	Nos					
		(c) Lub oil temp gauge.	2	6	Nos					
		(d) Fresh water temp gauge.	2	6	Nos					
		(e) Engine exhaust temp gauge.	2	6	Nos					
		(f) Steering position indicator.	2	6	Nos					
		(g) Ammeter, Voltmeter.	2	6	Nos					
		(h) Lamp test switch	2	6	Nos					
		(j) Tachometer – to show engine rpm	2	6	Nos					
(k) Fuel level gauge	2	6	Nos							

		(l) Speedometer – to show speed in knots calibrated from 0 to 50 kts at a fraction of 0.5 kn. The range of economic speed is to be indicated with green background.	2	6	Nos					
		(m) Electronic Vessel Control (EVC) display	2	6	Nos					
		(n) Trim/list indicators.	2	6	Nos					
		Note - All instruments and switches fitted on command console shall be weather proof in marine environment. All buttons shall be rubber sealed. Meter illumination and warning lights shall be fitted with dimmers. All the gauges are to be fitted symmetrical to the wheel, should be easily visible to the helmsman. The maximum permissible operating parameter is to be indicated on each gauge by a red mark.								
10	17	System test equipment defective and beyond economical repair. Following test equipment to be replaced:- (a)Standard Mechanical tool box (b) Multimeter (c) Oscilloscope (d) Power supply (DC) (e) Soldering / Desoldering station.	1	3	Sets					
11	4	4 Cylinder Diesel Engine, Engine Type - D170S, Output - 125KW Max RPM - 4200	1	3	Sets					

12	4	Electric governor control Starting mechanism (gear), engine propeller driver, trim-lift mechanism, Throttle control and steering Speed control system of the engine to electronic governor control to achieve faster response time and reliable operation, with remote electronic start/ stop facility and capability to be integrated with throttle control and steering.(Mat MS pipe). 1 pipe to be lagged (Length – 04 mtr)	1	3	Nos					
13	4.1.1	All pipe of exhaust system alongwith associated fittings, while ensuring that the exhaust system would not cause any restriction on operation of the engine, as per the design of the boat.	4	12	Mtrs					
14	4.1.3	All fuel system pipes Mat – SS Total length – 10 mts	1	3	Set					
15	4.1.3	Stainless steel integral fuel tank with sounding scale and level indicator with one with manual reserve and inspection/cleaning access. The tank is to fitted under the deck and fuel capacity is to be commensurate with endurance and 10% reserve.	1	3	Sets					
16	4.1.3	Fuel tank venting system such that water splashed does not enter the fuel tank through the vent	1	3	Set					
17	4.1.4	Closed fresh water system and an open sea water system(engine cooling systems).	1	3	Set					
18	4.1.4	Engine driven fresh water pump and sea water pump . Both seawater and fresh water pump are to be revitalized with telltale hole for indicating the failure of pump seal.	2	6	Set					

19	4.1.4	Expansion tank and sea water cooled heat exchanger	1	3	Set					
20	4.1.4	All sea water system pipes of 90/10 Cu/Ni and externals to be painted with Chlorinated rubber paint. Length 08 mts	1	3	Set					
21	4.1.4	Zinc corrosion plugs on sea water sides of the heat exchanger.	6	18	Set					
22	4.1.5	Two in number sea chest and cross connected (port & stbd).	2	6	Set					
23	6.1	Electrical cables of approx length 1.5 kms. Main body of alternator. Electrical fitting, Cables and electrical fittings with marine specs equivalent. Alternator and alignment with the prime mover. EMI/EMC shielding to be undertaken.	1	3	Set					
24	6.4/6.6	Back up power supply batteries which ensures backup up to 6 hrs. Inverter to be provided and load trial proved.	1	3	Set					
25	6.5	Four in number water tight light fittings .	4	12	Set					
26	6.7	Battery charger 220-110 V 50/60 Hz to be provided and load trial proven.	1	3	Set					
27	7.2	Navigation light panel and fitting as per navigation regulations in force.	4	12	Set					
28	15	Water tight Enclosure for housing electronic equipment	1	3	Set					
29	4.1.1	02 in nos Bilge Pumps of 60 LPM capacity, capable of taking suction from all WT compartments of the RCTB along with associated components.	2	6	Sets					

30	4.1.1	Two in number automatic battery (12v) operated bilge pump of 120 LPM capacity with all electrical connections.	2	6	Sets					
31	4.1.2	Forced extraction system of battery gas and associated blowers .	1	3	Sets					
32	3.4	Automatic fire detection and extinguishing system .	1	3	Sets					
33	3.4	Smoke/heat sensors and CO ₂ drenching system defective.	1	3	Sets					
34	7.1	GPS and flux gate compass.	1	3	Sets					
35	8.5	VHF set to be provided with MODEM for data communication	1	3	Sets					
36	13	Route map logger	1	3	Sets					
37	8	<p>Complete Remote Control station hardware and software.</p> <p>System to be repaired with following capability:-</p> <p>(a) Ability to communicate and control with updated auto pilot software.</p> <p>(b) Facility to monitor and control the navigational and engine parameters.</p> <p>(c) Event recording facility and replaying for offline analysis</p> <p>(d) Continuous monitoring of data link and alarm in case of failure, connected up and proved as a complete system.</p>	1	3	Sets					

38	7.1	Software of remote controlled capable auto pilot to cater for following:- (a) Setting up of 100 way points. (b) Facility for remote control steering and transit through set way points. (c) Navigation to preset position on loss of data link. (d) Facility for recording and replay of the route during the sortie for analysis.	1	3	Sets					
39	9 &10	Engine and steering control system linked with Software	1	3	Sets					
40	16	All application software developed to be compliant with IEEE 12207 std and back up copy to be provided with training and associated hardware for porting of application.	1	3	Sets					
41		A separate GPS available available at the Controlling Ship and integrated to the Control System and Display. Range between RCTB and controlling ship should be readily available at Remote Control Work station (RCW) and NMEA Diaplay Unit on RCTB connected iwth GPS with software coding for position and range display in dynamic mode	1	3	Sets					
42		Voice Communication Set enabling voice communication between boat and Controlling Ship	1	3	Sets					
43		Toggle Switch be provided on boat (easily accessible for operator) for switching to manual mode from remote control mode in case of emergency.	1	3	Sets					

44	-	Integration of all electrical, electronic and mechanical system and proving of all the systems for satisfactory operation of RCTB.	1	3	RCT B					
45	7.3	02 in number Motorola GP 338. Both set to be provided with batteries.	1	3	Sets					
46	14	Passive radar beacon	1	3	Sets					
47		Radar Reflector installed on the main Mast. Radar reflector may be detachable which can easy be replaced in case of damage firing serial	1	3	Sets					
48		Boat Lifting Slings as per Load requirements	1	3	Sets					
49	Accessories									
50	Installation / Commissioning									
51	Training									
52	Technical Literature									
53	Tools									
54	Freight									
55	Insurance									
56	Packaging & Forwarding									
57	AMC									

58	Any Other Requirement								
TOTAL									

2. Additional information in Price Bid on Taxes and Duties (Not in scope of L-I determination):

a. Is Excise Duty extra?

b. If Yes, Mention the following:

- i) Total value of items on which Excise Duty is leviable
- ii) Rate of Excise duty (item-wise if different ED is applicable)
- iii) Surcharge on Excise duty, if applicable
- iv) Total value of excise duty payable

c. Is Excise Duty Exemption (EDE) required

d. If Yes, then mention and enclose the following:

- i. Excise notification number under which EDE can be given

e. Is VAT extra

f. If Yes, then mention the following:

- i) Total value on which VAT is leviable
- ii) Rate of VAT
- iii) Total value of VAT leviable

g. Is Service Tax extra

h. **If** Yes, then mention the following:

- i) Total value of Services on which Service Tax is leviable
- ii) Rate of Service Tax leviable
- iii) Total value of Service Tax leviable

j. Is Custom Duty Exemption (CDE) required

k. If Yes, then mention the following:

- i) Custom notification number under which CDE can be given (enclose a copy)
- ii) CIF value of stores to be imported
- III) Rate of Customs Duty payable
- IV) Total amount of Customs Duty payable

l. Octroi / Entry taxes

m. Any other Taxes / Duties

Note :

1. **"All material and services are to be supplied by the contractor unless specifically mentioned in the SOW."** (All requirements of Welding and Brazing will be in scope of supplier)
2. The bidder, while preparing Q-bid, is to strictly adhere to Mode of Quotation (MOQ) format. No deviation from the MOQ format is expected. The Bidder is to avoid making any changes to the MOQ format and in case of any discrepancy, seek clarification during the pre-bid meeting. A soft copy of Quote/MoQ in excel format on a CD is to be submitted in sealed manner along with the 'Q' Bid. Non adherence to this may render the bid invalid.
3. Bidders must indicate separately the relevant Taxes/Duties likely to be paid in connection with delivery of completed goods specified in RFP. In absence of this, the total cost quoted by them in their bids will be taken into account in the ranking of bids.
4. The evaluation and comparison of responsive bids and finalisation of L-1 Firm shall be done on the prices of the goods offered and other charges such as Packing & Forwarding, Freight and Insurance, AMC, etc, as indicated in the price schedule of the Bid Document but excluding levies, taxes and duties such as excise duty, VAT, Service tax, Octroi/entry tax, etc on final product, which are to be paid extra as per actuals, wherever applicable.
5. In case the Quote runs into more than one page subtotal on each page to be indicated.
6. Bids should be forwarded by Bidders under their original memo / letter pad inter alia furnishing details like TIN number, VAT/CST number, Bank address with EFT Account if applicable, etc and complete postal and e-mail address of their office.
7. Total Number of pages in the Q-bid are to be mentioned on the first page of the Q-bid. Further each page is to be numbered. For example if there are 20 pages in Q bid, first page to be numbered as 1/20 and last page to be numbered as 20/20.
8. Staging, if required, is to be undertaken in accordance with IS 4014 Part I & II (Code of practice for steel tubular scaffolding).
9. **Foreign Exchange Content.** *Foreign Exchange content, if any, is to be clearly specified along with the specific items on which customs duty would be applicable clearly indicating the rates of customs duty applicable. In the absence of complete unambiguous details, following actions will be taken:-*
 - (i) *Loading custom duty at the rate of 25% on entire material cost, when 'Foreign Exchange' content is not specified in the Q bid.*
 - (ii) *Loading custom duty at the rate of 25% when applicable rate of customs duty is not specified in Q bid.*
 - (iii) *Further, customs duty exemption certificate will be issued only if the above mentioned particulars are provided unambiguously.*
10. **Service Tax.** Government of India, Ministry of Finance (Department of Revenue) Notification No. 12/2012 – 'Service Tax', dated 17 Mar 2012 exempts 'Service tax' for repair of ships or boats or vessels belonging to the Government of India. Therefore the firms are requested not to quote for service tax.