



सत्यमेव जयते
Ministry of Defence
Government of India

भारत सरकार
भारत सरकार
भारत सरकार

**REQUEST FOR PROPOSAL
BY**

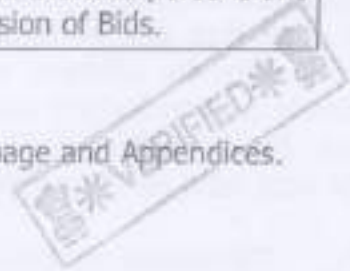
**MINISTRY OF DEFENCE
GOVERNMENT OF INDIA
FOR PROCUREMENT OF**

**50 NOS. OCEAN BOOMS AND 62 NOS. NEARSHORE BOOMS
FOR
MARINE POLLUTION RESPONSE FOR INDIAN COAST GUARD (ICG)**



This document is the property of Government of India/Ministry of Defence. The contents of this RFP must not be disclosed to unauthorised persons and must be used only for the purpose of submission of Bids.

This document contains **109** pages including cover page and Appendices.



Tele: 011-23011540
 Fax: 011-23017684
 E-mail: tmms-modacq@navy.gov.in

File No:TM(MS)/0025/CG/Booms
 Additional Director General
 Acquisition Technical (Maritime & System)
 Room No 05, D-II Wing
 Sena Bhawan, New Delhi-110 001

19 Feb 24

To

All Concerned

**REQUEST FOR TECHNICAL AND COMMERCIAL PROPOSAL FOR
 50 NOS. OCEAN BOOM AND 62 NOS. NEARSHORE BOOM FOR
 MARINE POLLUTION RESPONSE FOR INDIAN COAST GUARD
 CATEGORY: BUY (INDIAN)**

Dear Sir/Madam,

1. The Ministry of Defence, Government of India, intends to procure **50 Nos. Ocean booms and 62 Nos. Nearshore booms for Marine Pollution Response for Indian Coast Guard** under 'Buy (Indian)' category and seeks participation in the procurement process from prospective Bidders subject to requirements in succeeding paragraphs.

Synopsis

2. **Broad Description of Equipment/System.** Booms with air inflatable facility will be required for embarking onboard ICG ships view its compactness for stowing onboard. These booms should have inflatable air chambers to provide buoyancy. The floatation chambers are to be fixed with non-return valves. Ballast is to be provided by a chain that acts as tension member. Ocean booms will be required to be deployed from ships for offshore use. These booms have larger floatation members and can handle heavier ballast. Nearshore booms will be required at base units for near shore use. These booms have smaller floatation members and lighter weight ballast, suitable for light wind conditions and smaller wave heights.

3. The salient aspects and timelines of the acquisition are tabulated below. In case of any variation in the details furnished below or in any Annexure(s) with that mentioned in the RFP, information furnished in the main body of the RFP at referred Paragraph is to be followed:-

Ser.	Description	Details	Reference Para of the RFP
(a)	Equipment/System required	Ocean and Nearshore boom	Para 1 & 2 of this covering letter
(b)	Quantity Required	50 nos. Ocean boom and 62 nos. nearshore boom	Para 1 of this covering letter
(c)	Categorisation of Procurement	Buy (Indian)	Para 1 of this covering letter
(d)	Minimum IC required	In case of indigenous design $\geq 50\%$ Otherwise $\geq 60\%$	Para 7 of Part I of RFP
(e)	Place(s) of Delivery	List of places for delivery as per Annexure IV to Appendix F.	Para 9 of Part I of RFP
(f)	Warranty Period	From the date of final acceptance of equipment which shall continue for two (02) years from the date of final acceptance of last equipment of the 3 rd lot as per Annexure IV to Appendix F	Para 12 of RFP
(g)	CMC Period	Ten years	Para 34 of Part II of RFP
(h)	EMD Amount	30 lakhs	Para 8.1(a) of Annexure I to Appendix H
(j)	Last date for submission of Pre-bid queries	1200 hrs. 18 Mar 2024	Para 23 & 24 of Part I of RFP
(k)	Date and time for Pre-bid meeting	1100 hrs. 01 Apr 2024	Para 24 of Part I of RFP
(l)	Last date and time for Bid Submission	1200 hrs. 13 May 2024	Para 25 of Part I of RFP

4. This Request for Proposal (RFP) consists of following four parts: -

Ser. No.	Description	Page no.
(a)	Part I – General Requirements	7
(b)	Part II – Technical Requirements	14
(c)	Part III – Commercial Requirements	20
(d)	Part IV – Bid Evaluation and Acceptance Criteria	21

5. The Government of India invites responses to this request only from Original Equipment Manufacturers (OEM) or Authorized Vendors or Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEM) subject to the condition that in cases where the same equipment is offered by more than one of the aforementioned parties, preference would be given to the OEM.

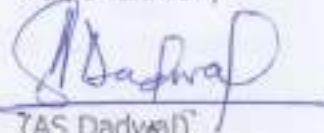
6. The end user of the equipment is Indian Coast Guard, Ministry of Defence, Government of India (GoI).

7. This RFP is being issued with no financial commitment and the Ministry of Defence reserves the right to withdraw the RFP and change or vary any part thereof or foreclose the procurement case at any stage. The Government of India also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.

8. This RFP is non-transferable.

9. In addition to various Appendices and their Annexure attached with this RFP, reference to various paragraphs of DAP-2020 has been made in the RFP. The DAP 2020 is an open domain document that is available at GoI, MoD website www.mod.gov.in.

Yours faithfully



(AS Dadwal)
Commodore
DDG Acq-Tech (M)
O/o ADG Acq Tech
(Maritime & Systems)

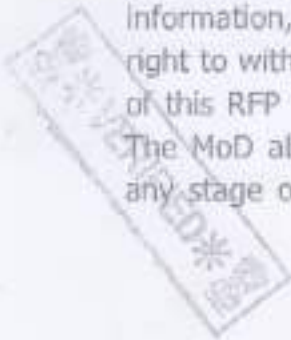
INDEX

	Description		Reference
	Disclaimer		Page 6
	Part I of RFP – General Requirements		Page 7
	Part II of RFP – Technical Requirements		Page 14
	Part III of RFP – Commercial Requirements		Page 20
	Part IV of RFP – Bid Evaluation and Acceptance Criteria		Page 21
Appendix A	Operational Characteristics and Features		Part II
	Annexure I	List of Deliverables in Ocean and Nearshore Booms	
Appendix B	Compliance Table		
Appendix C	Warranty Clause		Part I
Appendix D	Repair and Maintenance Philosophy		Part II
	Annexure I	List of SMT/STEs, Jigs, Fixture and Infrastructure	
	Annexure II	Technical Literature	
	Annexure III	Training Aggregates	
Appendix E	Trial Methodology		Part III
	Annexure I	Broad Trial Plan	
	Annexure II	Certificate of Conformance	
Appendix F	Commercial Clauses		Part III
	Annexure I	Bank Guarantee Format for Advance	
	Annexure II	Bank Guarantee Format for Performance-cum-Warranty	
	Annexure III	Format for extension of Delivery Period/Performance Notice	
	Annexure IV	Delivery Schedule and Stages of Payment	
Appendix G	Bid Evaluation and Acceptance Criteria		
Appendix H	Standard Conditions of RFP		
	Annexure J	Pre Contract Integrity Pact	
		Format of EMD	
Appendix J	Criteria for Vendor Selection/Pre-Qualification		Part I
Appendix K	Check-Off list – Documents to be submitted		Part IV
Appendix L	Glossary		



Disclaimer

1. This RFP is neither an agreement and nor an offer by the MoD to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in submitting their proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the MoD in relation to the Project. This RFP document and any assumptions, assessments and statements made herein do not purport to contain all the information that each Bidder may require. The Bidder shall bear all its costs associated with or relating to the preparation and submission of proposal pursuant to this RFP. Wherever necessary, MoD reserves the right to amend or supplement the information, assessment or assumptions contained in this RFP. The MoD reserves the right to withdraw the RFP or foreclose the procurement case at any stage. The issuance of this RFP does not imply that the MoD is bound to shortlist a Bidder for the Project. The MoD also reserves the right to disqualify any Bidder should it be so necessary at any stage on ground of National Security.



PART I - GENERAL REQUIREMENTS

1. This part consists of the general requirement of the Goods (also referred as equipment/systems/deliverables) and Services, hereafter collectively referred as 'Deliverables', the numbers required, the time frame for deliveries, conditions of usage and maintenance, requirement for training, Comprehensive Maintenance Contract (CMC), and warranty/guarantee conditions, etc. It includes the procedure and the date & time for submission of bids.

Non-Disclosure

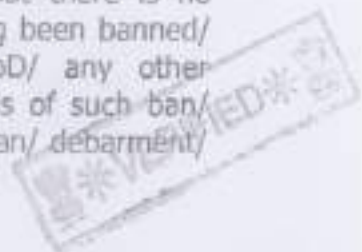
2. The Bidding documents, including this RFP and all attached documents provided by the MoD, are and shall remain or become the property of the MoD. These are transmitted to the Bidders solely for the purpose of preparation and the submission of a proposal in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their proposal. The provisions of this Para shall also apply mutatis mutandis to Bids and all other documents submitted by the Bidders, and the MoD will not return to the Bidders any proposal, document or any information provided along therewith (except unopened Commercial Bid and EMD as relevant).

3. Information relating to the examination, clarification, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process, or concerning the Bidding Process. The MoD will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. MoD may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or MoD or as may be required by law or in connection with any legal process.

4. **Confidentiality of Information**. No party shall disclose any information to any 'Third Party' concerning the matters under this RFP generally. In particular, any information identified as 'Proprietary' in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisors or the employees engaged by a party with equal force.

Business Eligibility

5(a). **Undertaking by Bidders**. The Bidder will submit an undertaking that they are currently not banned/ debarred/ suspended from doing business dealings with Government of India/ any other government organisation and that there is no investigation going on by MoD against them. In case of ever having been banned/ debarred/ suspended from doing business dealings with MoD/ any other government organization, in the past, the Bidder will furnish details of such ban/ debarment along with copy of government letter under which this ban/ debarment/



suspension was lifted/ revoked. The Bidder shall also declare that their sub-contractor(s)/ supplier(s)/ technology partner(s) are not Suspended or Debarred by Ministry of Defence. In case the sub-contractor(s)/ supplier(s)/ technology partner(s) of the Bidder are Suspended or Debarred by Ministry of Defence, the Bidder shall indicate the same with justification for participation of such sub-contractor(s)/ supplier(s)/ technology partner(s) in the procurement case.

5(b). Subsequent to submission of bids if any sub-contractor(s)/ supplier(s)/ technology partner(s) of the Bidder is Suspended or Debarred by Ministry of Defence, the Bidder shall intimate the Ministry of Defence regarding Suspension or Debarment of its sub-contractor(s)/ supplier(s)/ technology partner(s) within two weeks of such order being made public.

6. **Pre-Qualification Criteria {for multi-vendor cases in Buy (Indian- IDDM), Buy (Indian)}**. The detailed Pre-Qualification criteria for the Bidders for participation in the instant procurement case are placed at **Appendix J** to this RFP. All Bidders are to submit details as per the criteria along with the Technical Bids. These would be evaluated by the TEC.

7. **Indigenous Content**. For the purposes of this RFP and the acquisition contract (if any) signed by the Ministry of Defence with a successful Bidder, indigenous content shall be as defined under **Para 8 and 9 of Chapter I and Para 1 of Appendix B to Chapter I of DAP 2020**. In addition, reporting requirements for prime (main) Bidders (and for sub-contractors/suppliers/technology partners reporting to higher stages/tiers) shall be as prescribed under **Para 4 to 7 of Appendix B to Chapter I of DAP 2020**. The right to audit Bidder/ sub-contractors/ suppliers/ technology partners shall be exercised by Indian Coast Guard as per **Para 10 of Appendix B to Chapter I of DAP 2020**; and aspects of delivery, certification, payments, withholding of payments and imposition of penalties shall be as prescribed under **Para 11 to 16 of Appendix B to Chapter I of DAP 2020** thereof. Furthermore, Bidders in 'Buy (Indian IDDM)', 'Buy (Indian)', will be required to submit their indigenization plan in respect of indigenous content as stipulated in **Para 4 to 7 of Appendix B to Chapter I and Para 39 of Chapter II of DAP 2020**. The DAP 2020 is available at MoD, GoI website (www.mod.nic.in) for reference and free download.

8. **Year of Production**. Deliverables [platforms (including major equipment)/ equipment/ systems] supplied under the contract should be of latest manufacture i.e. manufactured after the date of Contract with unused components/assemblies/ sub-assemblies, conforming to the current production standard and should have 100% of the defined life at the time of delivery. Deviations, if any, should be clearly brought out by the Bidder in the Technical Proposal.

9. **Delivery Schedule**. The equipment (along with tools, documents and accessories) are required to be supplied to various locations in India from the date of signing of the contract (T₀) and the Joint Receipt Inspection (JRI) will be conducted at points of delivery. Thereafter, the equipment is required to be installed and proved by the supplier at various locations in India. The delivery schedule and stages of payment are placed at **Annexure IV to Appendix F**.

10. Once the contract is concluded and the delivery schedule is established, the Bidder shall adhere to it and ensure continuity of deliverables and their components under the contract.

11. **Preservation.** The deliverables for which the places of delivery and installation are different, are to be preserved for 06 months post-JRI (as per delivery schedule at Para 9). In case, JRI necessitates unpacking to the extent that the preserved life of the deliverables is affected, Bidder is to undertake re-packing to restore the preserved life to the specified period at his own cost. In cases of any delay in Installation/trials, attributable to the Buyer, and if preservation period expires during the storage prior installation/ post installation and prior trials (as applicable), the deliverables are to be re-preserved by the Bidder against payment of de-preservation/ re-preservation charges as per price quoted in the Price Bid. To facilitate this, the cost of in-storage/ in-situ de-preservation/ re-preservation, as applicable, is to be indicated in the Price Bid. This cost quoted by the Bidders at SI (G) of Price bid format at **Appendix G** would be counted towards determination of LI and will be paid as per the price quoted if the service is utilized for extending the preserved life. In cases where the delay for installation, trials and commissioning is not attributable to the Bidder, payment terms for the stage related to installation and commissioning will be in accordance with **Appendix F**.

Note: Applicable Scenarios and flowchart are given at Annexure III to Appendix C to Chapter II of DAP -2020.

12. **Warranty.** All equipment would be under warranty of the supplier on final acceptance of equipment with accessories by ICG and warranty for all deliverables shall continue for two years from the date of acceptance of the last equipment of the 3rd lot as per **Annexure IV** to **Appendix F**. The word equipment represents Ocean/ Nearshore Boom with all the deliverables. Warranty Clause is given at **Appendix C** to this RFP.

13. **In Service Life.** The In Service Life of the deliverables shall be fifteen years. The Bidder is required to give details of reliability model, reliability prediction and its validation by designer/ manufacturer to ensure reliability of stores throughout Service life. The efficacy of reliability model/ prediction/ validation would be verified during technical and environmental evaluation as indicated in Para 38 of this RFP.

14. **Product Support.** The Bidder would be bound by a condition in the contract that he is in a position to provide product support in terms of maintenance, materials and spares for a minimum period of fifteen (15) years. Even after the said mandatory period, the Bidder would be bound to give at least two years notice to the Government of India prior to closing the production line so as to enable a Lifetime Buy of all spares before closure of the said production line. This, however, shall not restrict the Buyer from directly sourcing sub-equipment/ sub-assembly and spares from their respective OEMs/ sub-vendors on completion of warranty. In case the sub-equipment/ sub-assembly/ parts require tuning/ calibration/ integration by the Bidder prior replacement, the same is to be undertaken by the Bidder at fair and reasonable cost, as mutually agreed between Buyer and Bidder.

15. **Obsolescence Management Plan.** An actionable obsolescence management plan is to be proposed by the Bidder along with the mechanism for intimation of notification of obsolescence. The modalities of the mechanism for intimation of notification would be deliberated during CNC. The mutually agreed mechanism for intimation would form an integral part of the contract. All upgrades and modifications carried out on the equipment during the next 15 years or during its life cycle must be intimated to the SHQ as per the agreed mechanism.

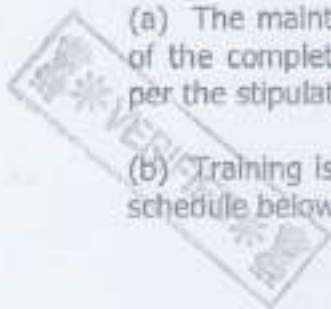
16. **Training of Crew and Maintenance Personnel.** A training package for training of operators, operator trainers and maintenance personnel to undertake operation and maintenance of equipment, along with tools and test jigs would be required to be carried out in English language. This training shall be designed to give the operators and maintainers necessary knowledge and skills to operate & maintain equipment (Unit, Field, Intermediate and Base Level Maintenance). The Block Syllabus and details of training to be conducted shall be decided by the Coast Guard and the vendor. The syllabus for maintenance personnel will be defined by the Bidder in consultation with the Buyer at the time of MET. The maintenance training will be imparted to the satisfaction of the Buyer and Bidder will ensure that the training content and period will be to impart working proficiency up to the required level. All training requirements such as training aids, projection system, complete equipment with accessories/ optionals, technical literature, spares, test equipment/test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc. will be catered by the Bidder.

17. The Bidder is required to provide training on operation and maintenance of Ocean and Nearshore booms to **five persons per 200 meters Boom Set** at different final places of installation as per **Annexure IV to Appendix F**. The offer should clearly indicate, whether the training shall be included in the contract or free of cost by the supplier. The training curriculum (is to be in physical form and not through virtual platforms) in consonance with the equipment supplied and should cover both operator and maintainer aspects. Necessary Platforms/ Vessels/ Jetties will be arranged by the buyer on request by the supplier. Any financial implication for training should be brought out in the commercial offer. The information on technical literature and training aggregates that is required to be provided as part of the offer is enclosed at **Annexure II and Annexure III to Appendix D**.

Note: -

(a) The maintenance training should meet the needs of repair and maintenance of the complete equipment, SMTs/STEs, test setup, assemblies/ sub-assemblies as per the stipulated repair philosophy.

(b) Training is to be undertaken for Coast Guard Officers and personnel as per the schedule below:



Ser	Type of Training	Duration (Working Days)	Place of training	No. of personnel x No. of places	Total No. of Personnel	
For Ocean Booms						
(a)	Operator Training	02	At place of installation as per Annexure IV to Appendix F (10 places)	10x10	100	
(b)	Maintenance Training (Field Level)	02		10x10	100	
(c)	Maintenance Training (Base Level)	05		6x10	60	
Total				-	260	260
For Nearshore Booms						
(d)	Operator Training	02	At place of installation as per Annexure IV to Appendix F (12 places) (*Training for Diglipur & Campbell Bay to be held at Port Blair, for Kavaratti at Kochi)	10x12	120	
(e)	Maintenance Training (Field Level)	02		10x12	120	
(f)	Maintenance Training (Base Level)	05		5x12	60	
Total				-	300	300

18. **Government Regulations.** It may be confirmed that there are no Government restrictions or limitations in the country of the Bidder or countries from which sub-components are being procured and/or for the export of any part of the deliverables being supplied.

19. It may be further confirmed that all national and international obligations relevant to transfer of conventional arms of the country of the supplier or countries from which parts and components are being procured, have been taken into account for the duration of the contract. Accordingly, thereafter there would be no review, revocation or suppression of Defence export license and other related clearance issues to the supplier for the contract that could impinge on the continuity of supply of items and their parts or components under the contract.

20. **Patent Rights.** The Bidder should confirm that there are no infringements of any Patent Rights in accordance with the laws prevailing in their respective countries and furnish a certificate to that effect along with the Technical Bid.

21. **Integrity Pact.** In the subject RFP, the Bidder is required to sign and submit Pre Contract Integrity Pact (PCIP), given at **Annexure I to Appendix H** to this RFP.

22. **Fall Clause.** If the equipment being offered by the Bidder has been supplied/ contracted with any organisation, public/ private in India, the details of the same may be furnished in the technical as well as commercial offers. The Bidders are required to give a written undertaking that they have not supplied/s not supplying the similar systems or subsystems at a price lower than that offered in the present bid to any other Ministry/ Department of the Government of India and if the similar system has been supplied at a lower price, then the details regarding the cost, time of supply and quantities be included as part of the commercial offer. In case of non-disclosure, if it is found at any stage that the similar system or subsystem was supplied by the Bidder to any other Ministry/ Department of the Government of India at a lower price, then that very price, will be applicable to the present case and with due allowance for elapsed time, the difference in the cost would be refunded to the Buyer, if the contract has already been concluded.

Bid Timelines

23. Any queries/ clarifications to this RFP may be sent to this office by 1200 hrs on 18 Mar.....2024. A copy of the same may also be sent to:-

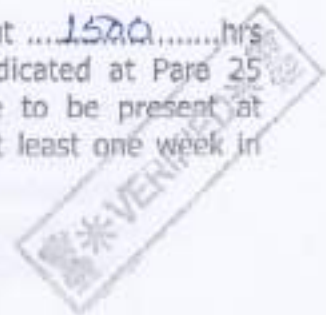
Principal Director (Fisheries & Environment)
Coast Guard Headquarters, National Stadium Complex,
New Delhi – 110 001
Phone No – 011-23115107
E-mail : dte-fe@indiancoastguard.nic.in

24. **Pre-Bid Meeting.** A pre-bid meeting will be organized by SHQ at 1100..... hrs on 01 Apr 2024..... at Coast Guard Headquarters, National Stadium Complex, Purana Quila Road, New Delhi - 110001 to answer any queries or clarify doubts regarding submission of proposals. The last date for submission of Pre-bid queries is 18 Mar 2024. The Bidder or his authorized representative is requested to attend. Necessary details may be sent a week in advance to Principal Director (FE), Directorate of Fisheries and Environment, Coast Guard Headquarters, National Stadium Complex, Purana Quila Road, New Delhi -110001, to facilitate obtaining of security clearance.

25. **Submission of Bids.** The Technical and Commercial proposals along with IP and EMD should be sealed separately in three separate envelopes clearly indicating Commercial/Technical/IP and EMD and any other Bank Guarantee as applicable, and then put in one envelope and sealed (all the envelopes should clearly state the letter No. of RFP and the name of equipment and Bidder Name) and submitted to the undersigned at the following address by 1200..... hours on 13 May 2024.

O/o ADG Acquisition Technical (Maritime & Systems)
Room No. 05, D-II Wing,
Ground Floor, Sena Bhawan
New Delhi – 110011

26. Offer opening by a Offer opening committee will be held at ...1500.....hrs on13 May 2024.....at the same venue as indicated at Para 25 above. The Bidder or his authorized representative is welcome to be present at the opening of the proposals. Necessary details may be sent at least one week in advance to facilitate obtaining of security clearance.



PART II - TECHNICAL REQUIREMENTS

27. The second part of the RFP incorporates the aspects of SQRs describing the technical parameters of the proposed equipment, and the environmental parameters for functioning. The operational characteristics and features that should be met by the equipment are elucidated at **Appendix A** to this RFP and the Compliance Table at **Appendix B** to this RFP.

28. **Operational Characteristics and Features.** The broad operational characteristics and features that are to be met by the equipment are elucidated at **Appendix A** to this RFP.

29. **Technical Offer.** The Technical Offer must enable detailed understanding of the functioning and characteristics of the equipment as a whole and each sub system independently. It must include the performance parameters as listed at **Appendix A** to this RFP and any other information pertaining to the technical specifications of the equipment considered important/ relevant by the Bidder. The technical proposal should also include maintenance schedules to achieve maximum life and expected life of each assembly/ subassembly {or Line Replaceable Unit (LRU)/ Shop Replaceable Unit (SRU)}, storage conditions/ environment condition recommended and the resultant guaranteed in-service life. The range and depth of SMTs/ STEs included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be evaluated during FET. Any Bidder found to be providing lesser SMTs/ STEs in terms of range and depth will have to make good the deficiency at no extra cost. The revised list of SMTs/ STEs to this effect is to be submitted prior Staff Evaluation.

30. If there is any associated optional equipment on offer that should also be indicated separately along with the benefit that are likely to accrue by procuring such optional equipment. Should the Bidder be contemplating any upgrades or modifications to the equipment being offered, the details regarding these should also be included in the Technical Proposal.

31. **Technical Details.**

(a) The technical details should be factual, comprehensive and include specifications of the offered system/ equipment against broad requirements listed in **Appendix A** to this RFP. In cases where a Bidder claims to have equipment meeting the EPP, details of the same will be provided in the technical bid. EPP details not provided in technical bid will not be allowed to be claimed subsequently. The list of deliverables is placed at **Annexure I** to **Appendix A**.

(b) Insufficient or incomplete details may lead to rejection of the offer. Mere indication of compliance may be construed as incomplete information unless system's specific technical details are available in the offer. A format of the compliance table for the technical parameters and other conditions of RFP is attached as **Appendix B** to this RFP.

32. The technical offer should have a separate detachable compliance table as per format given at **Appendix B** to this RFP stating specific answers to all the parameters as listed at **Appendix A** to this RFP. It is mandatory to append answers to all the parameters listed in **Appendix A** to this RFP. Four copies of the Technical Proposal should be submitted (along with one soft copy), however only one copy of the commercial proposal is required.

33. **Field Evaluation.** The Bidder is requested to confirm his willingness to provide the equipment for trial evaluation in India on "No Cost No Commitment" basis when so requested. The Buyer, at his own expense, will depute its representatives for the Field Evaluation trials (FETs). If any part of the FETs are conducted in the Buyer's facilities, the Bidder shall depute his personnel and equipment at his own expenses and bear the cost of all expenses of trials other than the cost of ranges, platform or facilities which the Buyer may choose to provide free of cost. Demonstration/Trial Methodology is given at **Appendix E** to this RFP.

34. **Product Support (CMC).** After induction, the equipment/ system would be repaired and maintained as per the repair and maintenance philosophy at **Appendix D** to this RFP. The information on Product Support Package that is required to be provided is enclosed at **Annexure I to III to Appendix D** to this RFP. To enable this process, an appropriate Comprehensive Maintenance Contract (CMC) for ten years, post completion of warranty period would be required to be provided by the supplier for the maintenance and repair of the equipment. The details of CMC proposal must also be submitted separately by the Bidder with technical aspects being included in the technical offer and commercial aspects being included in the commercial offer.

35. As brought out at Para 29, the range and depth of spares included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be evaluated during FET. Any Bidder found to be providing lesser product support package in terms of range and depth will have to make good the deficiency at no extra cost. The revised list to this effect is to be submitted prior Staff Evaluation. The Buyer would also have the option to amend the list of product support proposed by the Bidder within two (02) years of the expiry of the warranty period.

36. **Online Inventory Management System (OIMS).** To leverage information technology and ensure expeditious order placement as well as timely product support, the Bidder is required to provide an Online Inventory Management System (OIMS), as per mutually agreed format, to place repair Orders online. The OIMS shall also provide features to track the delivery status of the items. Further the OIMS should provide dashboard for intimation on obsolescence and offer of lifetime buy along with provision for user to interact with the OEM for technical assistance etc. The detailed scope and features of OIMS shall be finalized during the negotiations on CMC.

37. **Active technology Obsolescence Management.** Bidder is to indicate the methodology on how the Bidder intends to undertake Active Obsolescence Management through life cycle of equipment which would include upgradation of

system/ subsystem/ units on completion of its fair service life. The Bidder/OEM shall also intimate Buyer on likely technology obsolescence of various sub-assemblies/units/ modules of equipment through an Annual Bulletin. In case of impending obsolescence of components, bulletin should specify either alternate items or option for life-time buy as under:-

(a) The Bidder will notify the Buyer not less than two years before the closure of its production line about the intention to close production of equipment for provision of purchasing spare parts, before closure of the said production line.

(b) Three years to completion of design/ service life of equipment, the Bidder will submit techno-commercial proposal for upgradation of equipment, wherever applicable, to mitigate technology obsolescence and for ensuring product support for next 15 years.

Evaluation of Technical Offers

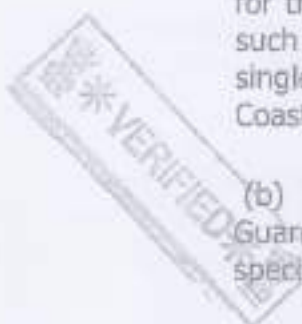
38. The Technical Offer submitted by the Bidder will be evaluated by a Technical Evaluation Committee (TEC) to confirm that the equipment being offered meets the Essential Parameters Thereafter, the Bidder of the short listed equipment would be asked to provide the equipment (**One Ocean Boom and Nearshore Boom each with all accessories**) for trial evaluation as per trial methodology given at **Appendix E** to this RFP, in India at 'No Cost No Commitment' basis.

Field Evaluation Trials

39. For an equipment to be introduced in service, it is mandatory that it successfully clears all stipulated tests/ trials/ evaluations as per RFP. The trial evaluation process comprises following phases:-

(a) **User Trials.** These will involve functional testing by user of the equipment in various specified conditions as per requirement and may be done in more than one phase. Trials will be conducted only pertaining to conditions where the equipment is most likely to be deployed. In other conditions where the probability of deployment is not high, appropriate vendor certifications confirming the functional effectiveness under such conditions can be given and simulations based testing can be resorted to wherever applicable. In case, equipment fielded requires any repairs/ modifications during the course of trials, these in situ servicing, repair, maintenance actions or modifications as requested by the vendor will be permitted. Towards this, Vendors shall ensure availability of requisite maintenance teams/ experts onsite during the conduct of trials. Permission for trial equipment to move out of the trial location for a defined period for such repairs or modifications can be permitted on a case to case basis. In single vendor cases permission for the above may be permitted by the Coast Guard Headquarters.

(b) **Technical Trials.** Technical trials will be conducted by Indian Coast Guard to assess conformance to the quality requirements, standards and specifications. Equipment/ assemblies/ sub- assemblies will be subjected to



environmental tests wherever applicable. As far as possible, physical evaluation will only be carried out of critical parameters and other parameters will be evaluated based on vendor certification duly supported by certification by NABL accredited laboratories/internationally recognized laboratories. Towards this, Bidder will submit the technical documentation and draft ATP as part of technical bid or at least one month before commencement of FET.

(c) **Maintainability Evaluation Trial (MET)**. The MET to address maintenance, repair and spares support aspects of acquisition, wherever feasible, will be undertaken through the OEM documentation concurrent to the User Trials. Essential tests towards establishing maintainability would be undertaken to establish adequacy of maintenance tools, test equipment and spares utilisation. Actual stripping of the equipment to establish adequacy of maintenance tools, test equipment and spares utilization will ideally be undertaken, where considered necessary by the Buyer. All MET aspects will be evaluated through physical assessment on equipment at location intimated by Buyer, to ascertain the maintainability of the equipment and adequacy of the Product Support Package offered, to include SMTs & STEs, Technical Literature and Training Aggregates. The vendor is also required to provide one set of technical literature as specified in **Annexure II of Appendix D** and one set of SMEs & STEs for MET.

40. Commercial offers will be opened only of Bidders whose equipment is shortlisted, after technical trials and evaluation and these have been accepted technically. In other words, the equipment would be required to be trial evaluated and found suitable prior to commencement of any commercial negotiations.

Quality Assurance Instructions & Technical Evaluation Plan

41. Bidder is to submit a Draft Acceptance Test Procedure (ATP) along with the Technical bid. Based on the draft ATP, the ATP will be finalized by the Coast Guard Headquarters with Bidder during Technical Trials. ATP shall be inducted in the contract at the time of finalization with successful bidder. ATP will lay down the test to be carried out during PDI and JRI. It shall be ensured that there are no repetitions of QA tests in PDI and JRI. The JRI would normally be restricted to quantitative checks only, except where checks proof is required to be carried out. In case PDI/JRI are planned to be conducted by authorized Third party Inspection(TPI) Agencies, the same will be spelt out in the QA instructions and the details included in the finalized ATP. QA of equipment will be carried out as per the finalized QA plan in the contract. For technical trials by Coast Guard Headquarters the bidder will arrange for requisite test facilities at OEM premises/ accredited laboratories for establishing conformance. The successful Bidder would also be required to provide those test facilities at OEM premises/ accredited laboratories for quality assurance, which are not available with QA agencies. Details of the same will be intimated to the Bidder during finalisation of ATP in Technical trials. Indian Coast Guard reserves the right to modify the ATP if necessary. The equipment supplied by the supplier would be accepted subject to evaluation and clearance by Indian Coast Guard. The details in this regard will be coordinated during the negotiation of contract.

COPY No. 5
VERIFIED

Post award of the contract:-

- (a) The firm is to submit equipment drawings along with Detailed Bill of Material (DBOM) for approval by the steering directorate and professional directorate for functionality and by DQA (WP) for quality related issues.
- (b) Post approval of the drawings, the firm is to submit the Quality Assurance Plan (QAP) to DQA (WP) in accordance with QAD-R02 available at DGQA website for approval.
- (c) Post approval of QAP, a nominated field unit of DQA (WP) will inspect the item for compliance of QAP.
- (d) ATP of each component/ accessory of the equipment is to be submitted along with QAP.

Marking and Packaging

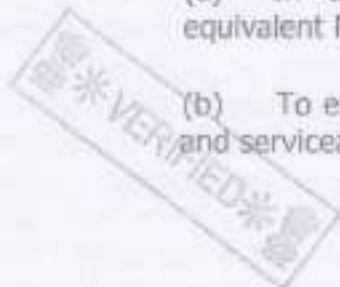
42. **Marking of Deliverables.** The Bidder shall ensure that each deliverable is marked clearly and indelibly, as follows: -

- (a) In accordance with the requirements specified in the RFP or if no such requirement is specified, with the indicated codification number or alternative reference number specified.
- (b) Ensure that any marking method used does not have a detrimental effect on the strength, serviceability or corrosion resistance of the deliverables.
- (c) Where the deliverables have a limited shelf life, with the cure date/ date of manufacture or expiry date expressed as months and years.

43. Where it is not possible to mark a deliverable with the required particulars, these should be included on the package in which the deliverable is packed.

44. **Packaging of Deliverables.** The Bidder shall pack or have packed the deliverables, as applicable:-

- (a) In accordance with DEFSTAN 81-041 (Part 1)/STANAG-4280 or equivalent Military Standard.
- (b) To ensure that each deliverable may be transported in an undamaged and serviceable condition.



45. The Bidder shall ensure that each package containing the deliverable is labeled to include:-

- (a) The name and address of the consigner and consignee including
 - (i) The delivery destination/ address if not of the consignee
 - (ii) Transit destination/ address (for aggregation/ disaggregation, onward shipment etc)
- (b) The description and quantity of the deliverables.
- (c) The full part number in accordance with codification.
- (d) The makers part, catalogue, serial, batch number, as appropriate.
- (e) The contract number.
- (f) Any statutory hazard markings and any handling markings including the mass of any package which exceeds 3 kgs.



PART III - COMMERCIAL REQUIREMENTS

46. The third part of the RFP consists of the commercial clauses and Standard clauses of contract. The bidders are required to give confirmation of their acceptance of these clauses.

Commercial Bid.

47. The Bidder is requested to take into consideration the **Commercial Clauses and Payment Terms** given at **Appendix F** to this RFP while formulating the Commercial Offers. The Bidders are required to quote their price in Price bid format given in **Appendix G** to this RFP.

48. Commercial offers will be opened only of the Bidder whose equipment is short-listed, after technical trials and staff evaluation. The Commercial Offer must be firm and fixed and should be valid for at least 18 months from the last date of bid submission.

Commercial Bid Opening

49. The Commercial Offers will be opened by the Contract Negotiation Committee (CNC) and if Bidder desires he may depute his representative, duly authorised in writing, to be present at the time of opening of the offers.

50. The date, time and venue fixed for this purpose will be intimated separately after the evaluations are completed.

51. The CNC will determine the lowest bidder (L1). The determination of L-1 shall be based on sum of the commercial bids of both Ocean Boom and Near shore Boom.

Additional Aspects

52. **Standard Conditions of RFP.** The Government of India desires that all actions regarding procurement of any equipment are totally transparent and carried out as per established procedures. The bidder is required to accept our standard conditions furnished at **Appendix H** to this RFP regarding Agents, penalty for use of undue influence and Integrity pact, access to books of accounts, arbitration and clauses related to Law. These conditions along with other clauses of the contract from the Standard Contract Document (as at Chapter VI of DAP 2020) indicates the general conditions of contract that would be the guidelines for all acquisitions. The draft contract would be prepared as per these guidelines.

PART IV: BID EVALUATION AND ACCEPTANCE CRITERIA

53. A list of documents/ details to be submitted along with the bids is placed at **Appendix K** as a reference to help in completeness of bid and meeting the procurement process schedule.

54. The bid shall be unconditional and unqualified. Any condition or qualification or any other stipulation contained in the bid shall render the bid liable to rejection as a non-responsive bid.

55. The bid and all communication in relation to or concerning the bidding documents shall be in English language.

56. **Evaluation and Acceptance Process.**

(a) **Evaluation of Technical Proposals.** The technical proposals forwarded by the Bidders will be evaluated by a Technical Evaluation Committee (TEC). The TEC will examine the extent of variations/ differences, if any, in the technical characteristics of the equipment offered by various Bidders with reference to the QRs and prepare a "Compliance Statement" for shortlisting the Bidders. The shortlisted Bidders shall be asked to send the desired units (one unit of each type of Boom with accessories i.e. Ocean and Nearshore Boom) of the equipment for Field Evaluation in varying climatic, altitude and terrain conditions. Field Evaluation would be conducted for operational characteristics and features as per **Appendix A**. A Staff Evaluation will be carried out, which will give out the compliance of the demonstrated performance of the equipment vis-a-vis the requirements. The compliance would be determined only on the basis of the parameters specified in the RFP. The Staff Evaluation will analyze the field evaluation results and shortlist the equipment recommended for procurement. Bidder should provide reference list of its past experience wherein the offered equipment/ item with matching specifications and SQRs as brought out in this RFP have been supplied, installed and commissioned to any agency/ organisation. Documentary proof for such supply, installation and commissioning of the equipment is to be submitted along with the Technical Bid.

(b) **Evaluation of Commercial Bid.** The Commercial bids of only those bidders will be opened, whose technical bids have been cleared by TEC; equipment has been shortlisted after Field Evaluation (Trials)-and Staff Evaluation. Comparison of bids would be done on the basis of Evaluation criteria given in **Appendix G** to this RFP. The L-1 bidder would be determined by Contract Negotiation Committee (CNC) on the basis of **Appendix G** to this RFP. Only L-1 bidder would be invited for negotiations by CNC.

(c) **Contract Conclusion.** The successful conclusion of CNC will be followed by contract conclusion.



Appendix A

(Refers to Para 27, 28, 29, 31, 32 & 38)

**OPERATIONAL CHARACTERISTICS AND FEATURES
OF OCEAN BOOM**

Operational Requirements

Ser.	Specifications/ Parameters	Ocean Boom
Operational Parameters		
(a)	Manufacture/ Fabric	<p>Boom fabric shall be made of hot vulcanized Neoprene or similar strong and durable fabric complying with ASTM test standard (ASTM F751-19)/ equivalent ISO standards that shall be able to withstand wear and tear, have tensile stress, withstand drag force and is resistant to abrasion, flex fatigue, hydrocarbons, weather, UV light, oil and shear stress. Weight of fabric - minimum 750g/m². The ballast chain should be without pocket (to prevent it from rusting and easy maintenance). Following tests certificate for fabric should be provided by supplier: -</p> <ul style="list-style-type: none"> (i) Dimensions and Mass Breaking Strength- Grab Test Method or Cut Strip Test Method (ii) Elongation (iii) Bursting Strength (iv) Puncture Resistance (v) Tearing Strength- Pendulum Method or Tongue Tear Method (vi) Trapezoidal Tear Hydrostatic Resistance - Mullen Type Tester or Rising Water Column Tester (vii) Adhesion Coating (to Fabrics) (viii) Strength of Coating (ix) Tack-Tear Resistance (x) Low Temperature Bend Test (xi) Low Temperature Impact Test (xii) Low-Temperature Crack Resistance (xiii) Seam Strength (xiv) Accelerated Heat Aging (Oven Method)



		(xv) Dead Load Seam Strength (xvi) Blocking Resistance at Elevated temperatures (xvii) Crush Resistance (xviii) Wicking of Coated Cloth
(b)	Length	Total length of boom is 200 mtrs and each boom section shall be 50m with ASTM F962/ equivalent ISO standard approved boom connectors.
(c)	Buoyancy Chambers	Boom shall have either Single Point Inflation (SPI) or Multiple Point Inflation (MPI) technology. MPI boom shall have individual and isolated buoyancy chambers of 3 - 4.5 mtrs in length. Each section of boom shall be fitted with handles or straps.
(d)	Floatation Method	Air Inflatable through multiple chambers in each section. The floatation chambers should be fixed with non-return valves.
(e)	Total Height	Total deflated height of boom should be between 1500-1800 mm.
(f)	Freeboard	Operational freeboard should be minimum 450 mm to prevent or reduce splash over.
(g)	Draught	Operational draught of the skirt should be minimum 750 mm to prevent or reduce entrainment losses.
(h)	Buoyancy to Weight Ratio	More than 10:1 (tested in accordance with ASTM F2682-07 (Reapproved 2018)/ equivalent ISO standards).
(j)	Tensile Strength	Minimum 250 N/mm. The boom should be tested for the tensile strength characteristics as per ASTM standard F1093-99 (Reapproved 2018) / equivalent ISO standards.
(k)	Weight of Boom	Maximum 14.0 kg/m.
(l)	Operation Ability	Boom should have good roll response and should be usable upto sea state 3 and wave height upto 2 mtrs.
(m)	Safe Towing Speed	Minimum 0.8 kN without entrainment failure.

VERIFIED

Technical Parameters		
(a)	Power Pack, air inflators and hoses	<p>(i) The power pack should be fitted with suitable diesel engine with rated capacity more than 7.5 kW to sustain required operations and compatible to boom. Engine should be low noise, air cooled with electric and hand start mode. It shall be provided with automatic over-speed shutdown valve and exhaust spark arrestor.</p> <p>(ii) Hydraulic motor with reduction gear box pump shall be integral to the boom reel or independently mounted on a steel frame fitted with wheels and collapsible handles for easy portability.</p> <p>(iii) Power pack shall incorporate variable speed control mechanism to control drum speed. Power pack should have safety shutdown feature.</p> <p>(iv) The air inflator if integral shall be provided on boom reel or on power pack with suitable belt driven drive. It shall be provided with minimum 15 mtrs hydraulic hoses with quick release couplings to reel and power pack.</p> <p>(v) If power pack not integral to boom reel, the control system for boom speed regulation shall be provided preferably on boom reels and alternatively on the boom power pack.</p> <p>(vi) The power pack shall have multitasking ability of powering hose reel for boom deployment and air inflator operation simultaneously/ independently. Variable speed controller to vary hydraulic oil pressure.</p> <p>(vii) Compatible Indian oil for hydraulic power pack (hydraulic system and diesel engine).</p>
(b)	Boom Reel	<p>(i) Shall be heavy duty, hydraulic operated and designed to store, deploy and retrieve boom.</p> <p>(ii) Reel frame should be made of 'A' grade steel with minimum thickness 5mm.</p> <p>(iii) Fork lift pockets, 4 point lifting eyes and slings be attached for facilitating lifting for easy storage and transportation. The boom reel shall be able to withstand the marine environment.</p> <p>(iv) Weight of boom reel not more than 1 ton.</p>



(c)	Anchoring System	<p>(i) The boom should be provided with complete anchoring system with pair of ASTM / equivalent ISO standard approved towing bridles, towing strops, towing line and navigation lights for marking and easy identification for night deployment (Indian Coast Guard to be written on marker buoys for visual identification).</p> <p>(ii) Four complete set of anchoring system should be provided with 200 mtrs boom.</p> <p>(iii) The anchor should be Danforth type. The weight of anchor should be between 40-50 kg.</p> <p>(iv) The length of anchor bridle should be 10 mtrs chain and 50 mtrs rope.</p> <p>(v) Towing adaptors should be provided taking tensile strength of the boom into account.</p>
(d)	Standards	<p>The boom and its accessories shall comply with following ASTM / equivalent ISO standards:-</p> <p>(i) D751-19 - Standard testing method for coated fabrics.</p> <p>(ii) F2682-07(2018) - Standard Guide for determining the buoyancy to weight ratio of oil spill containment boom.</p> <p>(iii) F1093-99(2018) - Standard Test methods for tensile strength characteristics of oil spill response boom.</p> <p>(iv) F818-16(2020) - Standard Terminology relating to spill response booms and barriers.</p>
(e)	Product Certification	<p>Following certificates should be provided :-</p> <p>(i) Tensile strength certificate of fabric and Ballast membrane.</p> <p>(ii) Mill Test Report (MTR) /Certified Mill Test Report for Aluminum/ Marine Grade Steel used in manufacturing of boom reel, connectors and container.</p> <p>(iii) Ozone test certificate for fabric.</p> <p>(iv) Brochure and technical specification sheet of equipment being offered.</p>

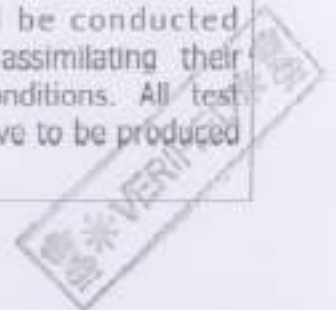


		<p>(v) Certificate Of Product Support For Period Of Minimum 15 Years From Date Of Completion Of Warrantee Period.</p> <p>(vi) OEM Certificate stating equipment being offered is manufactured by them at their facility.</p> <p>(vii) The performance and capacity test shall be Class certified like Bureau Varitas, DNV, Achilles JQS, LRS, IRS, BIS or equivalent. Performance shall include buoyancy to weight ratio test, Boom effectiveness test, deployment time and safe towing speed. Certificate to be submitted along with equivalent dispatch readiness report.</p> <p>(viii) The supplier shall also provide technical and operational manual.</p>
--	--	---

GENERAL REQUIREMENTS

Maintainability & Ergonomic Parameters		
(a)	Storage	<p>(i) A suitable container for stowing boom along with boom reel, Power pack with hoses (hydraulic and discharge) and air pack inflator with hoses.</p> <p>(ii) Container should have fork lift points and strong points facilitating lifting with help of lifting slings for easy storage and transportation.</p> <p>(iii) Container shall have locking arrangements for Boom Reel, Power Pack and Air Pack inflator and Securing arrangements for hoses(hydraulic and discharge).</p> <p>(iv) One each container should be provided for every 200 mtrs boom set. The container should be suitable for loading, e.g. by crane, through door sides (both on the larger side and smaller sides).</p>
(b)	Lifting Slings	Two sets of strong durable lifting slings (with approved load safety certification) to lift container, boom reel, power pack and accessories should be provided with each 200 mtrs boom set.
(c)	Fitment of Boom reel and power pack on board vessel.	<p>(i) Arrangement for fitment of Boom reel and power pack (Deck Shoe) should be fabricated. Twist lock to be provided.</p> <p>(ii) The power pack should have provision of wheel mounted with brakes and lashing points with fasteners.</p>

(d)	Jet Spray System	<p>(i) Electric driven high pressure jet-spray portable washer of 160 bar for boom washing should be provided with each 200 mtr boom set.</p> <p>(ii) Jet spray system should have heating system for heating water upto 700 Centigrade for washing the boom.</p>
(e)	Cover	Heavy Duty Cover for Boom Reel, Power Pack and Air Pack inflator for protection from marine environment.
(f)	Spare and Repair Kit	<p>(i) One spare and repair kit shall be provided for each 200 mtrs boom set.</p> <p>(ii) The kit shall include spares for emergency repair requirement for Boom, Boom Reel, Power Pack and Air Pack inflator along with tool kits.</p>
(g)	Paint System	<p>(i) All accessories other than the boom to be painted with internationally accepted standard paint scheme.</p> <p>(ii) An appropriate logo of Indian Coast Guard along with 'INDIAN COAST GUARD' in the center of each Boom section length with florescent reflector visual both during day and night.</p>
(h)	Product Support	The suppliers shall give at least 15 year product support. The equipment shall have warranty of two years from the date of acceptance by Coast Guard.
(j)	Repair and Maintenance Philosophy	<p>(i) The equipment shall have warrantee for two years from date of acceptance by the buyer.</p> <p>(ii) The boom and accessories are to be maintained for 10 Years through a Comprehensive Maintenance Contract (CMC).</p> <p>(iii) During CMC all consumable and spares will be supplied by the supplier.</p>
(k)	Training	Training should be provided for at least 05 (five) persons per 200 mtr boom set, at different locations in India at different final places of installation.
(l)	Field Evaluation Trial	The vendor, during the process of bidding will be required to offer the equipment for FET in India as mentioned in this RFP. Only products qualified during the FET will be finally shortlisted for deciding lowest bidder. The FET shall be carried out on NCNC basis. The trials to include deployment, operation and other relevant/ associated tests. The tests shall be conducted in different locations along the coast for assimilating their performance in the varied weather/ tidal conditions. All test certificates by the relevant agencies will also have to be produced during the FET.



**OPERATIONAL CHARACTERISTICS AND FEATURES
OF NEAR SHORE BOOM**

Operational Requirements

Ser.	Specifications/ Parameters	Nearshore Boom
Operational Parameters		
(a)	Manufacture/ Fabric	<p>Boom fabric shall be made of hot vulcanized Neoprene or similar strong and durable fabric complying with ASTM (ASTM F751-19) / equivalent ISO standards that shall be able to withstand wear and tear, have tensile stress, withstand drag force and is resistant to abrasion, flex fatigue, hydrocarbons, weather, UV light, oil and shear stress. Weight of fabric - minimum 750g/m². The ballast chain should be without pocket (to prevent it from rusting and easy maintenance). Following tests certificate for fabric should be provided by supplier:-</p> <p>(i) Dimensions and Mass Breaking Strength- Grab Test Method or Cut Strip Test Method</p> <p>(ii) Elongation</p> <p>(iii) Bursting Strength</p> <p>(iv) Puncture Resistance</p> <p>(v) Tearing Strength Pendulum Method or Tongue Tear Method</p> <p>(vi) Trapezoidal Tear Hydrostatic Resistance Mullen Type Tester or Rising Water Column Tester</p> <p>(vii) Adhesion Coating (to Fabrics)</p> <p>(viii) Strength of Coating</p> <p>(ix) Tack-Tear Resistance</p> <p>(x) Low Temperature Bend Test</p> <p>(xi) Low Temperature Impact Test</p> <p>(xii) Low-Temperature Crack Resistance</p> <p>(xiii) Seam Strength</p> <p>(xiv) Accelerated Heat Ageing (Oven Method)</p> <p>(xv) Dead Load Seam Strength</p> <p>(xvi) Blocking Resistance at Elevated Temperatures</p> <p>(xvii) Crush Resistance</p> <p>(xviii) Wicking of Coated Cloth</p>
(b)	Length	Total length of boom 200 mtrs and each boom section shall be 50 m with ASTM F962 / equivalent ISO standards boom connectors.
(c)	Buoyancy Chambers	Boom shall have either Single Point Inflation (SPI) or Multiple Point Inflation (MPI) technology. MPI boom shall have individual and isolated buoyancy chambers of 3 - 4.5 mtrs in length. Each section of boom shall be fitted with handles or straps.



(d)	Floatation Method	Air Inflatable through multiple chambers in each section. The floatation chambers should be fixed with non-return valves.
(e)	Total Height	Total deflated height of boom should be between 900-1050 mm.
(f)	Freeboard	Operational freeboard of the boom should be minimum 275 mm to prevent or reduce splash over.
(g)	Draught	Operational draught of the subsurface skirt should be minimum 400 mm to prevent or reduce entrainment losses.
(h)	Buoyancy to Weight Ratio	More than 10:1{To be tested in accordance with ASTM F2682-07 (Reapproved 2018)/ equivalent ISO standards}.
(j)	Tensile Strength	Minimum 250 N/mm. The boom should be tested for the tensile strength characteristics as per ASTM standard F1093-99 (Reapproved 2018)/equivalent ISO standards.
(k)	Weight of Boom	Less than 10 Kgs per mtrs.
(l)	Operation Ability	Boom should have good roll response and should be usable upto sea state 2 and wave height upto 1 mtrs.
(m)	Safe Towing Speed	Minimum 0.8 Kn without entrainment failure.

Technical Requirements

Technical Parameters		
(a)	Power Pack, air inflators and hoses	<p>(i) The power pack should be fitted with suitable diesel engine with rated capacity more than 7.5 kW to sustain required operations and compatible to boom. Engine should be low noise, air cooled with electric and hand start mode. It shall be provided with automatic over-speed shutdown valve and exhaust spark arrestor.</p> <p>(ii) Hydraulic motor with reduction gear box pump shall be integral to the boom reel or independently mounted on a steel frame fitted with wheels and collapsible handles for easy portability.</p>

VERIFIED

		<p>(iii) Power pack shall incorporate variable speed control mechanism to control drum speed. Power pack should have safety shutdown feature.</p> <p>(iv) The air inflator if integral shall be provided on boom reel or on power pack with suitable belt driven drive. It shall be provided with minimum 15 mtrs hydraulic hoses with quick release couplings to reel and power pack.</p> <p>(v) If power pack not integral to boom reel, the control system for boom speed regulation shall be provided preferably on boom reels and alternatively on the boom power pack.</p> <p>(vi) The power pack shall have multitasking ability of powering hose reel for boom deployment and air inflator operation simultaneously/ independently. Variable speed controller to vary hydraulic oil pressure.</p> <p>(vii) Compatible Indian oil for hydraulic power pack (hydraulic system and diesel engine).</p>
(b)	Boom Reel	<p>(i) Shall be heavy duty, hydraulic operated and designed to store, deploy and retrieve boom.</p> <p>(ii) Reel frame should be made of 'A' grade steel with minimum thickness 5mm.</p> <p>(iii) Fork lift pockets, 4 point lifting eyes and slings be attached for facilitating lifting for easy storage and transportation. The boom reel shall be able to withstand the marine environment.</p> <p>(iv) Weight of boom reel not more than 1 ton.</p>
(c)	Anchoring System	<p>(i) The boom should be provided with complete anchoring system with pair of ASTM / equivalent ISO standard approved towing bridles, towing strops, towing line and navigation lights for marking and easy identification for night deployment (Indian Coast Guard to be written on marker buoys for visual identification).</p> <p>(ii) Seven complete set of anchoring system should be provided with 200 mtrs boom.</p> <p>(iii) The anchor should be Danforth type. The weight of anchor should be between 30-40 kg.</p> <p>(iv) The length of anchor bridle should be 10 mtrs chain and 50 mtrs rope.</p>



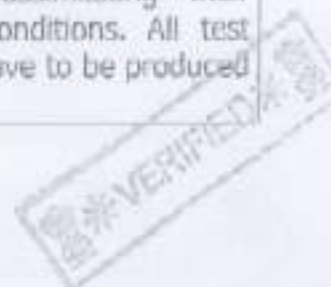
		(v) Towing adaptors should be provided taking tensile strength of the boom into account.
(d)	Standards	<p>The boom and its accessories shall comply with following ASTM / equivalent ISO standard:-</p> <p>(i) D 751-19 - Standard testing method for coated fabrics.</p> <p>(ii) F 2682-07 (2018) - Standard Guide for determining the buoyancy to weight ratio of oil spill containment boom.</p> <p>(iii) F 1093-99(2018) - Standard Test methods for tensile strength characteristics of oil spill response boom.</p> <p>(iv) F 818-16 (2020) - Standard Terminology relating to spill response booms and barriers.</p>
(e)	Product Certification	<p>Following certificates should be provided :-</p> <p>(i) Tensile strength certificate of fabric and Ballast membrane.</p> <p>(ii) Mill Test Report (MTR) /Certified Mill Test Report for Aluminium/ Marine Grade Steel used in manufacturing of boom reel, connectors and container.</p> <p>(iii) Ozone test certificate for fabric.</p> <p>(iv) Brochure and technical specification sheet of equipment being offered.</p> <p>(v) Certificate of product support for period of minimum 15 years from date of completion of warranty period.</p> <p>(vi) OEM certificate stating equipment being offered is manufactured by them at their facility.</p> <p>(vii) The performance and capacity tests shall be class certified like Bureau Veritas, DNV, Achilles JQS, LRS, IRS, BIS or equivalent. Performance shall include Buoyancy to Weight ratio test, Boom effectiveness test, Deployment time and Safe towing speed. Certificate to be submitted along with equipment dispatch readiness report.</p> <p>(viii) The vendor shall also provide technical and operational manual.</p>



GENERAL REQUIREMENTS

Maintainability & Ergonomic Parameters		
(a)	Storage	<p>(i) A suitable container for stowing boom along with boom reel, Power pack with hoses (hydraulic and discharge) and air pack inflator with hoses.</p> <p>(ii) Container should have fork lift points and strong points facilitating lifting with help of lifting slings for easy storage and transportation.</p> <p>(iii) Container shall have locking arrangements for Boom Reel, Power Pack and Air Pack inflator and Securing arrangements for hoses (hydraulic and discharge).</p> <p>(iv) One each container should be provided for every 200 mtrs boom set.</p>
(b)	Lifting Slings	Two sets of strong durable lifting slings (with approved load safety certification) to lift container, boom reel, power pack and accessories should be provided with each 200 mtrs boom set.
(c)	Fitment of Boom reel and power pack on board vessel.	<p>(i) Arrangement for fitment of Boom reel and power pack (Deck Shoe) should be fabricated. Twist lock to be provided.</p> <p>(ii) The power pack should have provision of wheel mounted with brakes and lashing points with fasteners.</p>
(d)	Jet Spray System	<p>(i) Electric driven high pressure Jet-spray portable washer of 160 bar for boom washing should be provided with each 200 mtr boom set.</p> <p>(ii) Jet spray system should have heating system for heating water upto 70⁰ Centigrade for washing the boom.</p>
(e)	Cover	Heavy Duty Cover for Boom Reel, Power Pack and Air Pack inflator for protection from marine environment.
(f)	Spare and Repair Kit	<p>(i) One spare and repair kit shall be provided for each 200 mtrs boom set.</p> <p>(ii) The kit shall include spares for emergency repair requirement for Boom, Boom Reel, Power Pack and Air Pack inflator along with tool kits.</p>
(g)	Paint System	<p>(i) All accessories other than the boom to be painted with internationally accepted standard paint scheme.</p> <p>(ii) An appropriate logo of Indian Coast Guard along with</p>

		'INDIAN COAST GUARD' in the centre of each Boom section length with florescent reflector visual both during day and night.
(h)	Product Support	The suppliers shall give at least 15 year product support. The equipment shall have warranty of two years from the date of acceptance by Coast Guard.
(j)	Repair and Maintenance Philosophy	(i) The equipment shall have warranty for two years from date of acceptance by the buyer. (ii) The boom and accessories are to be maintained for 10 Years through a Comprehensive Maintenance Contract (CMC). (iii) During CMC all consumable and spares will be supplied by the supplier.
(k)	Training	Training should be provided for at least 05 persons per 200 mtr boom set, at different locations in India at different final places of installation.
(l)	Field Evaluation Trial	The supplier, during the process of bidding will be required to offer the equipment for FET in India as mentioned in this RFP. Only products qualified during the FET will be finally shortlisted for deciding lowest bidder. The FET shall be carried out on NCNC basis. The trials to include deployment, operation and other relevant/ associated tests. The tests shall be conducted in different locations along the coast for assimilating their performance in the varied weather/ tidal conditions. All test certificates by the relevant agencies will also have to be produced during the FET.



Annexure I to Appendix A
{Refers to Para 31(a)}

LIST OF DELIVERABLES FOR OCEAN BOOMS AND NEARSHORE BOOMS

Ser.	ITEM DESCRIPTION	Qty
1.	Ocean booms Comprising following	50
	(a) Power Pack, Air inflators and Hoses	50 each
	(b) Boom Reel	50
	(c) Anchoring System	50 x 4
	(d) Container	50
	(e) Lifting Slings	100 sets
	(f) Jet Spray System	50
	(g) Heavy Duty Cover for boom reel, power pack and air inflator	50 each
	(h) Spare and Repair kit	50 each
2.	Nearshore Booms comprising following	62
	(a) Power Pack, Air Inflators and Hoses	62 each
	(b) Boom Reel	62
	(c) Anchoring System	62 x 7
	(d) Container	62
	(e) Lifting Slings	124 sets
	(f) Jet Spray System	62
	(g) Heavy Duty Cover for boom reel, power pack and air inflator	62 each
	(h) Spare and Repair kit	62 each

Note - Supplier may provide additional accessories as required for meeting complete functionality of the booms as considered necessary. **First fill of the hydraulic oils and flushing also if required are to be provided by the Vendor along with the equipment.**



Appendix B
(Refers to Para 27, 31(b) & 32)

COMPLIANCE TABLE

For Ocean Boom and Nearshore Boom

Ser No.	Requirement as per the RFP	Compliance/ Partial Compliance	Indicate references of Paras/Sub Paras of the Main Technical Document
General Conditions of RFP (Para 2 to 26)			
Technical Parameters as per Appendix A			
Commercial Parameters as per RFP			
	Performance-cum-Warranty Bank Guarantee as per para 2 of Appendix F of RFP		
	Advance Payment Bank Guarantee as per Para 1.4.1 of Appendix F of RFP		
	Earnest Money Deposit as per Para 8 of Annexure I to Appendix H of RFP (Rs. 30 Lakh)		

VERIFIED

Appendix C
(Refers to para 12)

WARRANTY CLAUSE

1. The **SELLER** warrants that the goods/services supplied under this contract conform to technical specifications prescribed and shall perform according to the said Technical Specifications.

2. All equipment would be under warranty of the supplier on final acceptance of equipment with accessories by ICG and warranty for all deliverables shall continue for two years from the date of final acceptance of the last equipment of the 3rd lot as per Annexure IV to Appendix F. The word equipment represents Ocean/Near shore Boom with all the deliverables. The goods/stores/services supplied under this contract and each component used in the manufacture thereof should be free from all types of defects/failures (including latent and patent defects).

3. If within the period of warranty, the goods/stores are reported by the **BUYER** to have failed to perform as per the specifications, the **SELLER** shall either replace or rectify the same free of charge, maximum within **07** days post 48 hrs of notification of such defect by the **BUYER** provided that the goods are used and maintained by the **BUYER** as per instructions contained in the Operating Manual. Warranty of the equipment would be extended by such duration of **downtime**. Record of the downtime would be maintained by user in log book. **Spares and all consumables** required for warranty repairs shall be provided free of cost by **SELLER**. The **SELLER** also warrants that the special oils and lubricants required for the warranty repair of the equipment shall be provided by the **SELLER** himself. **All activities including diagnosis, rectification, calibration, transportation etc. required for making equipment serviceable and available would be the SELLER's responsibility.** The **SELLER** also undertakes to diagnose, test, adjust, calibrate and repair/replace the goods/equipment arising due to accidents by neglect or misuse by the operator or damage due to transportation of the goods during the warranty period, at the cost mutually agreed to between the **BUYER** and the **SELLER**. The **SELLER** shall intimate the assignable cause of the failures.

4. **SELLER** hereby warrants that necessary service and repair backup during the warranty period, including routine maintenance beyond Unit Level, shall be provided by the **SELLER** and he will ensure that the **cumulative downtime period for each equipment does not exceed 05 % of the warranty period.** The term 'equipment' refers to boom along with power pack and all its accessories.

5. If a particular equipment/goods fails frequently and/or, the cumulative down time in its case exceeds 37 days or a **common defect is noticed in more than 10 % of the quantity of goods with respect to a particular item/component/sub- component, that complete item/equipment** shall be replaced free of cost by the **SELLER** within a stipulated period of **30** days of receipt of the notification from the **BUYER** duly modified/upgraded through design

improvement in all equipment supplied/yet to be supplied and ESP supplied/yet to be supplied.

6. SELLER shall associate technical personnel of maintenance agency and QA of BUYER during warranty repair and shall provide complete details of defect, reasons and remedial actions for averting recurrence of such defects.

7. In case the complete delivery of the Engineering Support Package is delayed beyond the period stipulated in this contract, then the **SELLER** undertakes that the warranty period for the goods/stores shall be extended to that extent.

8. The SELLER warrants that the goods supplied will conform to the Temperature and Humidity conditions as mentioned at **Appendix A** to RFP.



PRODUCT SUPPORT : REPAIR AND MAINTENANCE PHILOSOPHY

1. **Maintenance Philosophy.** Maintenance of the equipment is structured on three different levels. The Maintenance philosophy can be categorized into 'O', 'I' & 'D' levels depending upon the technological complexity of the equipment as under:-

(a) **'O' Level** Includes Unit and Field Repairs (1st & 2nd Level).

(i) **Unit Repairs.** Repairs, carried out within the unit holding the equipment using tools supplied by the manufacturer as per scaling. These repairs generally pertain to cleaning, lubrications, minor repairs and replacement of components and minor assemblies including Line Replaceable Units (LRUs) etc. carried out without any sophisticated tools or test equipment. The manufacturer is required to provide the following as per provisions in the RFP for carrying out such repairs:-

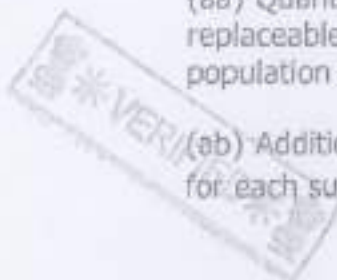
(aa) Table of Tools and Equipment (TOTE) with each equipment including operators manual.

(ab) Scaling of Special Maintenance Tools (SMT), Special Test Equipment (STE) and Special Equipment (SE) as required.

(ii) **Field Repairs.** Repairs carried out at field/flotilla/station level or equivalent service organization by technicians specially trained for the purpose, requiring special tools and spares provided additionally for the class of the equipment. These repairs comprise replacement of common Line Replaceable Units (LRUs), sub-modules, other components beyond the holding of units and repairs undertaken beyond a unit level. Normally, a field/station workshop covers such repairs of a group of units holding the said class of equipment and their number will be stated based on equipment deployment pattern. The manufacturer in addition to the basic unit level SMTs/STEs/SE, is required to provide the following:-

(aa) Quantity and specification of spares up to sub-Module level, other replaceable components that need to be stocked for a specified population and class of the equipment.

(ab) Additional Special Maintenance Tools and Test Equipment needed for each such field/flotilla/station work shop.



(b) **'Y' Level.** Includes 3rd level Intermediate Repairs by Corps Zone workshop/ Dockyard/Base Repair Depot or other similar service organization. These are extensive or special repairs carried out to include component level repairs. This level of repair envisages special diagnosis and repairs of the repairable inventory up to Printed Circuit Board (PCB) level, major assemblies, interface equipment/software and other components beyond the scope of field/fleet/station level repairs. These repairs are carried out in the designated workshops by technicians specially trained for this purpose requiring special tools and spares and the number of such facilities will be stated based on equipment deployment pattern. The manufacturer is required, among others, to provide the following:-

- (i) Quantity and specification of spares up to PCB level that need to be stocked for a population of the equipment.
- (ii) Special Maintenance Tools and Test Equipment that has to be provided to each of these workshops.
- (iii) Oils and lubricants necessary for Servicing.
- (iv) All necessary technical literature.
- (v) Calibration facilities for test equipment, where applicable.

(c) **'D' Level.** These repairs include 4th level extensive Base Overhauls (BOH)/ Depot level Repairs which are either routine and planned or necessitated due to major repairs/renewal requirements requiring stripping and rebuilding of equipment. Extensive repairs of components / sub-assemblies and overhaul of the complete equipment is carried out by this facility and due to the complexity requires specific technical knowledge, infrastructure, related documentation, experience and proper quality control. Post such repairs, detailed trials are conducted usually by the overhauling agency, prior to handing over of the equipment to the unit for operational exploitation. Depending on the population of the equipment, such facilities may be established in the country. For this, the manufacturer is required to provide the following:-

- (i) All Special Maintenance Tools, jigs, fixtures and test equipment for carrying out repairs up to component / PCBs/ module level.
- (ii) Oils and lubricants necessary for overhaul.
- (iii) All necessary technical literature.
- (iv) Calibration facilities for test equipment.



2. To sustain and support platform/equipment through its operational life-cycle, Product Support requirements for at least 10 years beyond the warranty period will be procured along with the main equipment. The equipment are to be provided product support through Comprehensive Maintenance Contract (CMC). The Adequacy clause as below will be applicable:-

(a) **Adequacy Clause**

The Bidder will confirm to the Buyer the Range and depth of Accompanied Accessories/ User Replaceable Parts/Expendable and SMT/STE/Test Jigs being supplied are complete and adequate for carrying out repairs on the equipment up to the specified level as per this appendix. Any Bidder found to be providing lesser Product Support Package in terms of range and depth will have to make good the deficiency at no extra cost (Para 29 of RFP refers).

3. Special Maintenance Tools / Special Test Equipment and Test Jigs (SMTs/STEs/Test Jigs). SMTs, STE and Test Jigs are essential tools/Jigs/fixtures required to undertake effective engineering support / repairs on the equipment and its systems, based on the Maintenance Philosophy, for maintaining operational serviceability of the equipment and sustain it for the period as stipulated in the RFP. You are requested to provide SMTs/STEs/Test Jigs to sustain the equipment for a period of 15 years. This would be formulated in a similar manner as explained for MRLS including adequacy clause in Para 4 of Appendix K to Schedule I to Chapter II in DAP 2020 and the details are to be included in both Technical and Commercial Proposals as per suggested format at **Annexure I** to this **Appendix**. SMTs, STEs and Test Jigs will be provided by the Seller, as per the list prepared by the Buyer on completion of MET, where applicable. The list of equipment required to be supplied will incorporate Adequacy Clause, as elaborated above. Bidder will supply SMT/STEs at the premises of the Buyer as mentioned at **Annexure IV** to **Appendix F**.

4. **Technical Documentation.** The Bidder will be required to provide the technical literature preferably in IETM (Interactive Electronic Training Manuals) in Level 4 format or higher. The details of technical literature to be supplied with the system should be listed as per the suggested format at **Annexure II** to this Appendix. This should be provided with both Technical and Commercial Proposals. The cost column may be left blank in the Technical Proposal. An illustrated list of documents which are to be submitted by the bidder is enumerated at para 6 of **Appendix K to schedule I to Chapter II of DAP 2020**.

5. **Details of OEMs.** For major / complex equipment, a large number of other OEMs may also be involved in manufacture of various systems/sub systems / support equipment. Details of such OEMs will also be intimated by the Bidder as per table below:-

Table - Format for Submitting Details of OEMs

Ser No	Equipment	Part No	OEM	Contact Details (Tel/Fax/Email)	Details of Government License to OEMs

6. **Training.** A training package for operators, operator trainers and maintenance personnel to undertake operation and maintenance of equipment (level 'O' / 'I' / 'D') as stipulated in respective contract, along with tools and test jigs training would be required to be carried out in English language. Requirements such as training aids, projection system, complete equipment with accessories, technical literature, spares, test equipment, test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc. will be provided by the Seller for the conduct of training. The Seller will provide the Operator and Maintenance & Repair training, for the duration, strength and locations specified in the RFP and Contract. The following may also be noted:

- (a) The costs for aggregates and training must only be indicated in the commercial proposal.
- (b) **Sufficiency clause.** Bidder will give an undertaking regarding the sufficiency of installation material, Technical Literature and Training Aggregates under the provisions of this clause.

7. **Comprehensive Maintenance Contract (CMC).** Comprehensive Maintenance Contracts are concluded for a pre-determined period in multiples of Annum. The scope of CMC, in addition to services of the Specialists as mentioned for AMC, include provisioning of spares, tools and equipment as required for Maintenance and Repair of the equipment. In this arrangement, the bidder will ensure that the downtime of the equipment does not exceed the minimum period stipulated in the CMC. CMC will include all corrective and preventive maintenance of the systems, equipment and machinery in satisfactory working order and 'Planned Preventive Maintenance' (PPM), repairs, servicing, calibration, replacement of defective parts, sub-assemblies, equipment, preservation /de-preservation as applicable. All equipment supplied under the proposed contract will be maintained on site by the Seller. CMC will ensure performance of the equipment in the range and accuracies as set in equipment Technical Manual. The equipment proposed to be under CMC would be listed along with their locations. An equipment repair Log book will be maintained to keep a record of the equipment downtime during defect rectification. The scope of work would also involve the following:-

- (a) **Preventive Maintenance.** The maintenance of the equipment is to be carried out by the Seller at the Buyer premises. The equipment will be maintained as per the OEM specified maintenance schedules and equipment manuals. However, the number of visits by the supplier to the customer premises should be at least once a quarter or as agreed to in the contract. The preventive maintenance team visiting the unit should be composite and possess sufficient expertise and spares to carry out preventive maintenance activities and resolve any pending unserviceability issues of the equipment.
- (b) **Breakdown Maintenance.** In addition to preventive maintenance, the supplier will also be responsible to undertake breakdown maintenance of the equipment. Defects on the equipment as and when observed, will be intimated to the Seller by telephone/ fax. The Seller will depute a team for undertaking repairs of

* VERIFIED *

the equipment within two working days from the reporting of the defect, in order to make the equipment operational. The supplier will need to diagnose, test, adjust, calibrate and repair / replace the goods/equipment during the CMC period. However, defective hard disks, strong devices, if any, of the equipment, will not be returned to the supplier and would be retained for destruction / safe custody. The downtime of the equipment will commence after 48 hours from the time a defect is reported by the user and the log of the same would be maintained.

(c) **Calibration.** Periodic inspection and calibration services as set forth in the equipment manual shall be provided by the Bidder, to ensure operational availability of the equipment. Requisite certificates may be rendered whenever major repairs/maintenance on equipment is undertaken.

(d) **Spares.** Supply of all parts (spares sourced from the OEM/OEM authorized vendor), including consumables, if any and material required for the optimal performance of the equipment as per the designed specifications mentioned in the equipment manual would be the responsibility of the Bidder.

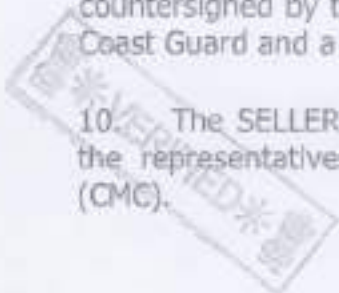
(e) **Obsolescence Management.** The obsolescence management for the equipment delivered under the scope of contract would form part of CMC Services. The obsolescence management will include providing "Form, Fit and Function" replacement of any system/sub system rendered obsolete during the period of CMC.

Scope of Comprehensive Maintenance Contract (CMC)

8. The CMC will include supply of all consumable and non-consumable spares by the firm during CMC period including all costs such as labor, transportation and logistics. Any defect occurring in the system will be required to be rectified within 7 days post 48 hours from the time of notification. Towards this, the SELLER will be required to place sufficient stock of spares at their service centers for early repairs. The BUYER will not procure and hold any Onboard/B&D spares. Record of downtime due to failure/ defects during CMC period would be maintained by the user in a log book, which will also be signed by representative of the supplier. The downtime of the equipment will commence after 48 hours from the time a defect is reported by the user on any of the accessories rendering the equipment non-operational. The cumulative downtime for each Boom should not exceed 07 days in six months CMC period.

9. The SELLER shall maintain a consolidated log book at its central location and also at each ship/ unit (to be kept with Coast Guard) wherein the corrective preventive maintenance undertaken by the SELLER shall be entered and the same shall be countersigned by the BUYER. Replacement of any part shall be done with the approval of Coast Guard and a record is to be maintained with the system-in-charge.

10. The SELLER shall bear all expenditure towards travelling, boarding and lodging for the representatives incurred while executing the Comprehensive Maintenance Contract (CMC).



Annexure I to Appendix D
(Refers to Para 3 of Appendix D)

LIST OF SMT/STEs, JIGS, FIXTURE AND INFRASTRUCTURE

EQUIPMENT: (Ocean Boom, Nearshore Boom) – Separate sheet for each equipment

Original Equipment Manufacturer (OEM): _____

Ser No	Manufacturer's Part No	Designation	Unit Cost	Nos Required				Brief Purpose	Remarks
				Unit Repair	Field Repair	Intermediate Repair	Base Repair		

Note:

- (i) Prepare separate sheet for each type of equipment.
- (ii) Specify in remarks column whether the Special Test Equipment (STE)/Special Maintenance Tools (SMTs) can be used as general purpose equipment on any other kind of equipment.
- (iii) For Nodal Repairs/Base repairs quantity required should be for repair of 10 equipment at a time.
- (iv) If test equipment is commercially available ex India, the source of supply be specified.
- (v) Test equipment for calibrating the STEs should be included in the list above.
- (vi) Test equipment which are required to be provided by the customer should also be included in the list above.

* VERIFIED *

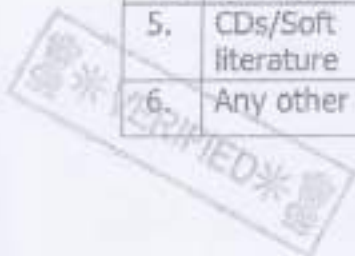
Annexure II to Appendix D
(Refers to Para 16 of RFP & Para 4 of Appendix D)

TECHNICAL LITERATURE

Equipment: 50 Ocean Boom and 62 Nearshore Boom

Original Equipment Manufacturer (OEM): _____

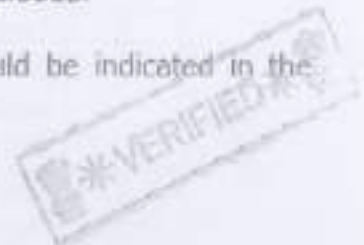
Ser	Technical Literature	Unit Cost	Qty	Total Cost	Remarks
Ocean Boom					
1.	User Handbook/Operator's Manual		50		
2.	Design Specifications		50		
3.	(a) <u>Part I.</u> Tech description, specifications, functioning of various Systems. (b) <u>Part II.</u> Inspection/Maintenance tasks, Repair procedures, materials used, fault diagnosis and use of Special Maintenance Tools (SMTs)/Special Test Equipment (STEs). (c) <u>Part III.</u> Procedure assembly/disassembly, repair up to component level, safety precautions. (d) <u>Part IV</u> (i) Part list with drawing reference (ii) List of SMTs/STEs with Test Bench		50		
4.	Technical Manual on STE with drawing		50		
5.	CDs/Soft copy on the above Tech literature		50		
6.	Any other (specify)				



Ser	Technical Literature	Unit Cost	Qty	Total Cost	Remarks
Nearshore Boom					
1.	User Handbook/Operator's Manual		62		
2.	Design Specifications		62		
3.	(a) <u>Part I.</u> Tech description, specifications, functioning of various Systems. (b) <u>Part II.</u> Inspection/Maintenance tasks, Repair procedures, materials used, fault diagnosis and use of Special Maintenance Tools (SMTs)/Special Test Equipment (STEs). (c) <u>Part III.</u> Procedure assembly/disassembly, repair up to component level, safety precautions. (d) <u>Part IV</u> (i) Part list with drawing reference (ii) List of SMTs/STEs with Test Bench		62		
4.	Technical Manual on STE with drawing		62		
5.	CDs/Soft copy on the above Tech literature		62		
6.	Any other (specify)				

Total Cost:**Notes:**

1. In case any additional equipment is used, their tech literature will be included.
2. If certain technical literature is being provided free of cost, it should be indicated in the remarks column.
3. Cost: To be indicated in Price Bid only.



Annexure III to Appendix D
 (Refers to Para 16 of RFP &
 Para 6(a) of Appendix D)

TRAINING AGGREGATES

EQUIPMENT:

OEM: _____

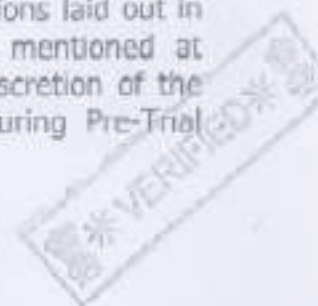
Ser. No.	Description of Training Aggregate	Scale for (qty) Eqpt.	Unit Cost	Total cost	Remarks
1.	Complete Equipment				
2.	Sectionised Equipment				
3.	Shop Replaceable Units (SRU)/PCB/Modules/Assemblies as under: (a) (b) (c)				
4.	Computer based training package based on interactive multimedia to include (a) Full graphics, animation, text and sound (b) Symptoms-fault correlation (expert system).				
5.	Training Aids to include (a) Charts (b) Slides (c) Training Brochures (d) Training Work models (e) Blow up diagram (f) Video films				
6.	Cost of training operators and technicians in country of OEM				
7.	Any other				

Total Cost:



TRIAL METHODOLOGY

1. **General.** Field Evaluation Trials by ICG trial team will be conducted on a 'No Cost No Commitment' (NCNC) basis. The broad trial plan for evaluation along with evaluating agencies is given at **Annexure** to this methodology.
2. **Pre-Trial Meeting.** Pre-Trial meeting, to intimate broad schedule and modalities of trials, will be organized at a place, which will be intimated to vendors by the Buyer. The meeting will include representatives of Bidders whose equipment has qualified in the TEC, representatives of all stakeholders and agencies involved in conduct of trials.
3. **Evaluation Methodology.** The methodology for evaluation of each parameter of the **Appendix A** of RFP is highlighted at **Annexure to this Appendix**. However, the decision to carry out physical evaluation for parameters wherein certification is sought, or to seek certification for parameters wherein physical evaluation has been laid down, rests with ICG Trial Team depending on conditions existing during the Field Evaluation Trials. Such decisions will be communicated during the Pre-Trial Meeting.
4. **Deposition of Trial Equipment.** All bidders are to be prepared to deposit the equipment for trials on intimation of qualifying the TEC. The final date for fielding the equipment for trials will be intimated only to TEC compliant bidders. Quantity one (01) set each of Ocean and Nearshore booms with complete accessories will be submitted by the bidders at the designated trial location for conduct of the Field Evaluation Trials.
5. **Deposition of Technical Documents.** Each vendor should provide two complete sets of technical literature (User Hand Book, Technical Manuals & Design/Technical Specifications, as applicable) along with one CD containing the soft copy of the same for Ocean and Nearshore booms respectively. The technical literature and all documents should be provided by the vendor within one week of qualifying the TEC. NABL/ Government Lab Certificate accompanied by test results for equipment, wherever applicable, shall be submitted by the bidder along with the equipment before commencement of trials. Failure to do so shall be construed as non-submission of equipment for trials. The ICG trial team will carry out a check of all applicable certification including **Certificate of Conformance (CoC)**, prior to commencement of physical trials. The bidder certification will be accompanied by internal QC report of the bidder. Format of CoC is placed at **Annexure II** to this Appendix.
6. These trials will be conducted strictly in accordance with the provisions laid out in DAP 2020 and the trial equipment will be tested against parameters mentioned at **Appendix A**. Any change in methodology of evaluation will be at the discretion of the Coast Guard Headquarters and will be communicated to the bidder during Pre-Trial



Meeting. In situ repairs/modifications of the trial equipment may be allowed with due permission. However, the trial equipment will not be allowed to be changed after the trial equipment has been taken over by the trial team. The trial equipment may be allowed to move out of the trial location for a defined period for repairs/modifications after due permission from Coast Guard Headquarters on a case to case basis.

7. **Optional Equipment.** Optional equipment may be provided by the vendor along with the equipment for trials. The optional equipment will be trial evaluated during the trials and compliance/ non-compliance will be mentioned in the trial report but without having any bearing on overall compliance/non-compliance of the equipment.

8. **Terrain and Crew.** Terrain/place for trials will be selected at the discretion of the Indian Coast Guard. Crew for operating the trial equipment will be provided by the bidder. Feasibility of demonstration at any location will be decided by the Coast Guard Headquarters/ICG Trial Team as per weather conditions. The equipment will be tested/trials conducted at various places in India in varying sea/weather/wind conditions to establish the compliance of essential parameters as brought out in this RFP.

9. **Transportation of Equipment.** Whenever movement of trial stores is being undertaken by the vendors from one trial location to another, the equipment will be suitably sealed to prevent tampering. Being NCNC trials, all charges for transportation including freight, insurance, custom, Octroi duties and any other local taxes shall be borne by the vendors. A representative of vendor shall accompany the equipment being transported at all times.

10. **Test Facility.** In case facilities to conduct test are not available in any Government Laboratories (including DGQA/DRDO laboratories/other Government establishments) test will be conducted in private laboratories in India.

11. **Test Charges.** The participating bidders may be required to pay for the tests conducted in the labs.

12. **Additional Tests.** There may be some additional tests that may be required to be carried out at the locations identified by ICG Trial Team and would be informed during the Pre-Trial Meeting as mentioned at Para 2 above.

13. **Qualified Vendor Representatives.** The representatives of vendors present during trials should have adequate knowledge about the equipment to give the complete details of the equipment including stripping and assembling, testing procedures, SMTs/STEs etc. Observations and recommendations will be conveyed to respective vendors and the vendors will sign for the same.

14. **Debriefing to Vendors.** After each stage of trials, debriefing of all vendors to inform them about the performance of all equipment (against the RFP parameters) being trial evaluated will be organized, in accordance with provisions of DAP 2020. Vendor representatives will be briefed about the performance of their equipment against the RFP parameters by the OIC ICG Trial Team. These points will also be

communicated to them in writing by the OIC Trial Team.

15. **Representations/ Requests.** Vendors will be required to forward observations, if any, on this communication, to OIC ICG Trial Team and Coast Guard Headquarters, within one week of receipt of the same. All queries, representations and requests related to the trial will be addressed in writing to the OIC ICG Trial Team and will be replied to by the OIC ICG Trial Team in writing. Both parties will endorse a copy of the correspondence to Coast Guard Headquarters.

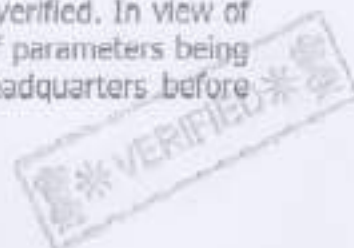
16. **Security Clearance.** A maximum of eight (08) representatives per bidder will be allowed to witness the trials. Vendors will intimate relevant details of their representatives who will attend the Pre-Trial Meeting at Coast Guard Headquarters, on intimation of compliance in TEC. For trials, information is to be sent minimum 30 days in advance of commencement of the trials for obtaining security clearance. The details of representatives who would attend the trials will be forwarded to OIC Trial. Non-receipt of details may result in delays in security clearance and will lead to non-attendance of the OEM representative during the Pre-Trial Meeting and Trials.

17. **Retention and Returning of Equipment.** The equipment of all the bidders, whether compliant or otherwise, will be retained under the custody of the Trial unit/evaluating agency, till the commencement of CNC. Equipment of bidders found non-compliant in General Staff Evaluation would be returned thereafter. On finalization of contract, equipment of other participating vendors may be returned, but equipment of the bidder with whom contract is concluded will be retained till the first lot of delivery, for purposes of comparison.

18. **Trial Directives.** Any parameter which cannot be trial evaluated may be accepted based on certification by Government Accredited laboratory/NABL laboratory/OEM certification/ Vendor Certification, as decided by Trial Team. The above trial methodology is only a broad based guideline. There may be some additional test that may be required to be carried at the locations identified by OIC Trial Team and would be informed during the Pre-Trial Meeting. The detailed trial directives/trial plan will be issued during the Pre-Trial Meeting.

19. Evaluating Agency will be Coast Guard Headquarters nominated ICG Trial Team.

20. **Conclusion.** This document may be considered only as a guideline for demo team from Vendor side/ ICG Trial Team for conduct of Demo/Trial. The OIC ICG Trial Team/Coast Guard Headquarters may modify/change/add any aspects for validating the equipment to ensure all aspects of operational requirements have been verified. In view of the limited quantity of equipment being fielded for the demo, specifics of parameters being verified will be given out in Trial Directives Issued by Coast Guard Headquarters before demonstration.



Annexure I to Appendix EBROAD TRIAL PLAN – OCEAN BOOMS

Ser.	Parameter	Requirement	Methodology/Remarks
1.	Operational Parameters		
	(a) Manufacture/ Fabric	<p>Boom fabric shall be made of hot vulcanized Neoprene or similar strong and durable fabric complying with ASTM (ASTM F751-19) / equivalent ISO standards that shall be able to withstand wear and tear, have tensile stress, withstand drag force and is resistant to abrasion, flex fatigue, hydrocarbons, weather, UV light, oil and shear stress. Weight of fabric - minimum 750g/m².</p> <p>The ballast chain should be without pocket (to prevent it from rusting and easy maintenance).</p>	<p>(i) Physical verification by ICG Trial Team</p> <p>(ii) It should be ASTM (ASTM F751-19) / equivalent ISO standards compliant and following test certificates to be produced by Vendor at least 15 days prior to scheduled trials: -</p> <p>(aa) Dimensions and Mass Breaking Strength- Grab Test Method or Cut Strip Test Method</p> <p>(ab) Elongation</p> <p>(ac) Bursting Strength</p> <p>(ad) Puncture Resistance</p> <p>(ae) Tearing Strength- Pendulum Method or Tongue Tear Method</p> <p>(af) Trapezoidal Tear Hydrostatic Resistance - Mullen Type Tester or Rising Water Column Tester</p> <p>(ag) Adhesion Coating (to Fabrics)</p> <p>(ah) Strength of Coating</p> <p>(aj) Tack-Tear Resistance</p> <p>(ak) Low Temperature Bend Test</p>



		<p>(al) Low Temperature Impact Test</p> <p>(am) Low-Temperature Crack Resistance</p> <p>(an) Seam Strength</p> <p>(ap) Accelerated Heat Aging (Oven Method)</p> <p>(aq) Dead Load Seam Strength</p> <p>(ar) Blocking Resistance at Elevated Temperatures</p> <p>(as) Crush Resistance</p> <p>(at) Wicking of Coated Cloth</p>
(b) Length	Total length of boom is 200 mtrs and each boom section shall be 50 m with ASTM F962 / equivalent ISO standard boom connectors.	<p>(i) Physical verification by ICG Trial Team</p> <p>(ii) It should be ASTM (ASTM F962) / equivalent ISO standards compliant and certificate in this regard to be produced by Vendor at least 15 days prior to scheduled trials</p>
(c) Buoyancy Chambers	Boom shall have either Single Point Inflation (SPI) or Multiple Point Inflation (MPI) technology. MPI boom shall have individual and isolated buoyancy chambers of 3 - 4.5 mtrs in length. Each section of boom shall be fitted with handles or straps.	<p>(i) Physical verification by ICG Trial Team,</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
(d) Floatation Method	Air Inflatable through multiple chambers in each section. The floatation chambers should be fixed with non-return valves.	
(e) Total Height	Total deflated height of boom should be between 1500-1800 mm	
(f) Freeboard	Operational freeboard should be minimum 450 mm to prevent or reduce splash over.	

(g) Draught	Operational draught of the skirt should be minimum 750 mm to prevent or reduce entrainment losses.	
(h) Buoyancy to Weight Ratio	More than 10:1 (tested in accordance with ASTM F2682-07 (Reapproved 2018)/ equivalent ISO standards).	(i) Physical verification by ICG Trial Team. (ii) To be demonstrated (iii) It is should be ASTM (ASTM F751-19) / equivalent ISO standards compliant and certificate in this regard to be produced by Vendor at least 15 days prior to scheduled trials
(j) Tensile Strength	Minimum 250 N/mm. The boom should be tested for the tensile strength characteristics as per ASTM standard F1093-99 (Reapproved 2018) / equivalent ISO standards.	(i) Physical verification by ICG Trial Team. (ii) To be demonstrated (iii) It is should be ASTM standard F1093-99 (Reapproved 2018) / equivalent ISO standards compliant and certificate in this regard to be produced by Vendor at least 15 days prior to scheduled trials
(k) Weight of Boom	Maximum 14.0 kg/m.	(i) Physical verification by ICG Trial Team.
(l) Operation Ability	Boom should have good roll response and should be usable upto sea state 3 and wave height upto 2 mtrs.	(ii) To be demonstrated (iii) Vendor certification
(m) Safe Towing Speed	Minimum 0.8 kn without entrainment failure.	



2.	Technical Parameters	
	<p>(a) Power Pack, air inflators and hoses</p> <p>(i) The power pack should be fitted with suitable diesel engine with rated capacity more than 7.5 kW to sustain required operations and compatible to boom. Engine should be low noise, air cooled with electric and hand start mode. It shall be provided with automatic over-speed shutdown valve and exhaust spark arrestor.</p> <p>(ii) Hydraulic motor with reduction gear box pump shall be integral to the boom reel or independently mounted on a steel frame fitted with wheels and collapsible handles for easy portability.</p> <p>(iii) Power pack shall incorporate variable speed control mechanism to control drum speed. Power pack should have safety shutdown feature.</p> <p>(iv) The air inflator if integral shall be provided on boom reel or on power pack with suitable belt driven drive. It shall be provided with minimum 15 mtrs hydraulic hoses with quick release couplings to reel and power pack.</p> <p>(v) If power pack not integral to boom reel, the control system for boom speed regulation shall be provided preferably on boom reels and alternatively on the boom power pack.</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>

	<p>(vi) The power pack shall have multitasking ability of powering hose reel for boom deployment and air inflator operation simultaneously/ independently. Variable speed controller to vary hydraulic oil pressure.</p> <p>(vii) Compatible Indian oil for hydraulic power pack (hydraulic system and diesel engine).</p>	
(b) Boom Reel	<p>(i) Shall be heavy duty, hydraulic operated and designed to store, deploy and retrieve boom.</p> <p>(ii) Reel frame should be made of 'A' grade steel with minimum thickness 5mm.</p> <p>(iii) Fork lift pockets, 4 point lifting eyes and slings be attached for facilitating lifting for easy storage and transportation. The boom reel shall be able to withstand the marine environment.</p> <p>(iv) Weight of boom reel not more than 1 ton.</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
(c) Anchoring System	<p>(i) The boom should be provided with complete anchoring system with pair of ASTM / equivalent ISO standard towing bridies, towing strops, towing line and navigation lights for marking and easy identification for night deployment (Indian Coast Guard to be written on marker buoys for visual identification).</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>



	<p>(ii) Four complete set of anchoring system should be provided with 200 mtrs boom.</p> <p>(iii) The anchor should be Danforth type. The weight of anchor should be between 40-50 kg.</p> <p>(iv) The length of anchor bridle should be 10 mtrs chain and 50 mtrs rope.</p> <p>(v) Towing adaptors should be provided taking tensile strength of the boom into account.</p>	
(d) Standards	<p>The boom and its accessories shall comply with following ASTM / equivalent ISO standards:-</p> <p>(i) D 751-19 - Standard testing method for coated fabrics</p> <p>(ii) F 2682-07 (2018) - Standard Guide for determining the buoyancy to weight ration of oil spill containment boom</p> <p>(iii) F 1093-99 (2018) - Standard Test methods for tensile strength characteristics of oil spill response boom</p> <p>(iv) F 818-16 (2020) - Standard Terminology relating to spill response booms and barriers.</p>	<p>Certificates to be provided by vendor at least 15 days prior to conduct of trials.</p>
(e) Product Certification	<p>Following certificates should be provided :-</p> <p>(i) Tensile strength certificate of fabric and Ballast membrane.</p>	<p>Certificates to be provided by vendor at least 15 days prior to conduct of trials.</p>



		<p>(ii) Mill Test Report (MTR) /Certified Mill Test Report for Aluminum/ Marine Grade Steel used in manufacturing of boom reel, connectors and container.</p> <p>(iii) Ozone test certificate for fabric.</p> <p>(iv) Brochure and technical specification sheet of equipment being offered.</p> <p>(v) Certificate of product support for period of minimum 15 years from date of completion of warranty period.</p> <p>(vi) OEM certificate stating equipment being offered is manufactured by them at their facility.</p> <p>(vii) The performance and capacity tests shall be class certified like Bureau Veritas, DNV, Achilles JQS, LRS, IRS, BIS or equivalent. Performance shall include Buoyancy to Weight ratio test, boom effectiveness test, Deployment time and Safe towing speed. Certificate to be submitted along with equipment dispatch readiness report.</p> <p>(viii) The supplier shall also provide technical and operational manual.</p>	
3.	Maintainability & Ergonomic		
	(a) Storage	<p>(i) A suitable container for stowing boom along with boom reel, Power pack with hoses (hydraulic and discharge) and air pack inflator with hoses.</p>	<p>(i) Physical verification by ICG Trial Team to ascertain and decide upon suitability</p> <p>(ii) To be demonstrated</p>

	<p>(ii) Container should have fork lift points and strong points facilitating lifting with help of lifting slings for easy storage and transportation.</p> <p>(iii) Container shall have locking arrangements for Boom Reel, Power Pack and Air Pack inflator and Securing arrangements for hoses(hydraulic and discharge).</p> <p>(iv) One each container should be provided for every 200 mtrs boom set.</p> <p>(v) The container should be suitable for loading, e.g. by crane, through door sides (both on the larger side and smaller sides).</p>	(iii) Vendor certification
(b) Lifting Slings	Two sets of strong durable lifting slings (with approved load safety certification) to lift container, boom reel, power pack and accessories should be provided with each 200 mtrs boom set.	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
(c) Fitment of Boom reel and power pack on board vessel.	<p>(i) Arrangement for fitment of Boom reel and power pack (Deck Shoe) should be fabricated. Twist lock to be provided.</p> <p>(ii) The power pack should have provision of wheel mounted with brakes and lashing points with fasteners.</p>	
(d) Jet Spray System	(i) Electric driven high pressure jet-spray portable washer of 160 bar for boom washing should be provided with each	



	200 mtr boom set. (ii) Jet spray system should have heating system for heating water upto 70° Centigrade for washing the boom.	
(e) Cover	Heavy Duty Cover for Boom Reel, Power Pack and Air Pack inflator for protection from marine environment.	
(f) Spare and Repair Kit	(i) One spare and repair kit shall be provided for each 200 mtrs boom set. (ii) The kit shall include spares for emergency repair requirement for Boom, Boom Reel, Power Pack and Air Pack inflator along with tool kits.	(i) Physical verification by ICG Trial Team. (ii) To be demonstrated (iii) Vendor certification
(g) Paint System	(i) All accessories other than the boom to be painted with internationally accepted standard paint scheme.	(i) Physical verification by ICG Trial Team. (ii) To be demonstrated (iii) Vendor certification



BROAD TRIAL PLAN – NEARSHORE BOOMS

Ser.	Parameter	Requirement	Methodology/Remarks
1.	Operational Parameters		
	(a) Manufacture/ Fabric	<p>Boom fabric shall be made of hot vulcanized Neoprene or similar strong and durable fabric complying with ASTM (ASTM F751-19) / equivalent ISO standards that shall be able to withstand wear and tear, have tensile stress, withstand drag force and is resistant to abrasion, flex fatigue, hydrocarbons, weather, UV light, oil and shear stress. Weight of fabric - minimum 750g/m².</p> <p>The ballast chain should be without pocket (to prevent it from rusting and easy maintenance).</p>	<p>(i) Physical verification by ICG Trial Team</p> <p>(ii) It should be ASTM (ASTM F751-19) / equivalent ISO standards compliant and following test certificates to be produced by Vendor at least 15 days prior to scheduled trials: -</p> <p>(aa) Dimensions and Mass Breaking Strength- Grab Test Method or Cut Strip Test Method</p> <p>(ab) Elongation</p> <p>(ac) Bursting Strength</p> <p>(ad) Puncture Resistance</p> <p>(ae) Tearing Strength- Pendulum Method or Tongue Tear Method</p> <p>(af) Trapezoidal Tear Hydrostatic Resistance - Mullen Type Tester or Rising Water Column Tester</p> <p>(ag) Adhesion Coating (to Fabrics)</p> <p>(ah) Strength of Coating</p> <p>(aj) Tack-Tear Resistance</p> <p>(ak) Low Temperature Bend Test</p> <p>(al) Low Temperature Impact Test</p>



			<p>(am) Low-Temperature Crack Resistance</p> <p>(an) Seam Strength</p> <p>(ap) Accelerated Heat Aging (Oven Method)</p> <p>(aq) Dead Load Seam Strength</p> <p>(ar) Blocking Resistance at Elevated Temperatures</p> <p>(as) Crush Resistance</p> <p>(at) Wicking of Coated Cloth</p>
(b) Length	Total length of boom is 200 mtrs and each boom section shall be 50 m with ASTM F962 / equivalent ISO standard boom connectors.		<p>(i) Physical verification by ICG Trial Team</p> <p>(ii) It should be ASTM (ASTM F962) / equivalent ISO standards compliant and certificate in this regard to be produced by Vendor at least 15 days prior to scheduled trials</p>
(c) Buoyancy Chambers	Boom shall have either Single Point Inflation (SPI) or Multiple Point Inflation (MPI) technology. MPI boom shall have individual and isolated buoyancy chambers of 3 - 4.5 mtrs in length. Each section of boom shall be fitted with handles or straps.		<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
(d) Floatation Method	Air Inflatable through multiple chambers in each section. The floatation chambers should be fixed with non-return valves.		
(e) Total Height	Total deflated height of boom should be between 900-1050 mm.		
(f) Freeboard	Operational freeboard should		



		be minimum 275 mm to prevent or reduce splash over.	
	(g) Draught	Operational draught of the skirt should be minimum 400 mm to prevent or reduce entrainment losses.	
	(h) Buoyancy to Weight Ratio	More than 10:1{tested in accordance with ASTM F2682-07 (Reapproved 2018)/ equivalent ISO standards}.	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) It is should be ASTM F2682-07 (Reapproved 2018)/ equivalent ISO standards compliant and certificate in this regard to be produced by Vendor at least 15 days prior to scheduled trials</p>
	(j) Tensile Strength	Minimum 250 N/mm. The boom should be tested for the tensile strength characteristics as per ASTM standard F1093-99 (Reapproved 2018) / equivalent ISO standards.	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) It is should be ASTM standard F1093-99 (Reapproved 2018) / equivalent ISO standards compliant and certificate in this regard to be produced by Vendor at least 15 days prior to scheduled trials</p>
	(k) Weight of Boom	Less than 10 Kgs per mtrs.	(i) Physical verification by ICG Trial Team.
	(l) Operation Ability	Boom should have good roll response and should be usable upto sea state 2 and wave height upto 1 mtrs.	<p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
	(m) Safe Towing Speed	Minimum 0.8 kn without entrainment failure.	
2.	Technical Parameters		



	<p>(a) Power Pack, air inflators and hoses</p>	<p>(i) The power pack should be fitted with suitable diesel engine with rated capacity more than 7.5 kW to sustain required operations and compatible to boom. Engine should be low noise, air cooled with electric and hand start mode. It shall be provided with automatic over-speed shutdown valve and exhaust spark arrestor.</p> <p>(ii) Hydraulic motor with reduction gear box pump shall be integral to the boom reel or independently mounted on a steel frame fitted with wheels and collapsible handles for easy portability.</p> <p>(iii) Power pack shall incorporate variable speed control mechanism to control drum speed. Power pack should have safety shutdown feature.</p> <p>(iv) The air inflator if integral shall be provided on boom reel or on power pack with suitable belt driven drive. It shall be provided with minimum 15 mtrs hydraulic hoses with quick release couplings to reel and power pack.</p> <p>(v) If power pack not integral to boom reel, the control system for boom speed regulation shall be provided preferably on boom reels and alternatively on the boom power pack.</p> <p>(vi) The power pack shall have</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
--	---	--	--



	<p>multitasking ability of powering hose reel for boom deployment and air inflater operation simultaneously/ independently. Variable speed controller to vary hydraulic oil pressure.</p> <p>(vii) Compatible Indian oil for hydraulic power pack (hydraulic system and diesel engine).</p>	
(b) Boom Reel	<p>(i) Shall be heavy duty, hydraulic operated and designed to store, deploy and retrieve boom.</p> <p>(ii) Reel frame should be made of 'A' grade steel with minimum thickness 5mm.</p> <p>(iii) Fork lift pockets, 4 point lifting eyes and slings be attached for facilitating lifting for easy storage and transportation. The boom reel shall be able to withstand the marine environment.</p> <p>(iv) Weight of boom reel not more than 1 ton.</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
(c) Anchoring System	<p>(i) The boom should be provided with complete anchoring system with pair of ASTM / equivalent ISO standard towing bridles, towing strops, towing line and navigation lights for marking and easy identification for night deployment (Indian Coast Guard to be written on marker buoys for visual identification).</p> <p>(ii) Seven complete set of anchoring system should be provided with 200 mtrs boom.</p> <p>(iii) The anchor should be</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>



	<p>Danforth type. The weight of anchor should be between 30-40 kg.</p> <p>(iv) The length of anchor bridle should be 10 mtrs chain and 50 mtrs rope.</p> <p>(v) Towing adaptors should be provided taking tensile strength of the boom into account.</p>	
(d) Standards	<p>The boom and its accessories shall comply with following ASTM / equivalent ISO standards:-</p> <p>(i) D 751-19 - Standard testing method for coated fabrics</p> <p>(ii) F 2682-07 (2018) - Standard Guide for determining the buoyancy to weight ration of oil spill containment boom</p> <p>(iii) F 1093-99(2018) - Standard Test methods for tensile strength characteristics of oil spill response boom</p> <p>(iv) F 818-16 (2020) - Standard Terminology relating to spill response booms and barriers.</p>	<p>Certificates to be provided by vendor at least 15 days prior to conduct of trials.</p>
(e) Product Certification	<p>Following certificates should be provided :-</p> <p>(i) Tensile strength certificate of fabric and Ballast membrane.</p> <p>(ii) Mill Test Report (MTR) /Certified Mill Test Report for Aluminum/ Marine Grade Steel used in manufacturing of boom reel, connectors and container.</p>	<p>Certificates to be provided by vendor at least 15 days prior to conduct of trials.</p>



		<p>(iii) Ozone test certificate for fabric.</p> <p>(iv) Brochure and technical specification sheet of equipment being offered.</p> <p>(v) Certificate of product support for period of minimum 15 years from date of completion of warranty period.</p> <p>(vi) OEM certificate stating equipment being offered is manufactured by them at their facility.</p> <p>(vii) The performance and capacity tests shall be class certified like Bureau Veritas, DNV, Achilles JQS, LRS, IRS, BIS or equivalent. Performance shall include Buoyancy to Weight ratio test, boom effectiveness test, Deployment time and Safe towing speed. Certificate to be submitted along with equipment dispatch readiness report.</p> <p>(viii) The supplier shall also provide technical and operational manual.</p>	
3.	Maintainability & Ergonomic		
	(a) Storage	<p>(i) A suitable container for stowing boom along with boom reel, Power pack with hoses (hydraulic and discharge) and air pack inflator with hoses.</p> <p>(ii) Container should have fork lift points and strong points facilitating lifting with help of lifting slings for easy storage and transportation.</p>	<p>(i) Physical verification by ICG Trial Team to ascertain and decide upon suitability</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>



	<p>(iii) Container shall have locking arrangements for Boom Reel, Power Pack and Air Pack inflator and Securing arrangements for hoses (hydraulic and discharge).</p> <p>(iv) One each container should be provided for every 200 mtrs boom set.</p> <p>(v) The container should be suitable for loading, e.g. by crane, through door sides (both on the larger side and smaller sides).</p>	
(b) Lifting Slings	<p>Two sets of strong durable lifting slings (with approved load safety certification) to lift container, boom reel, power pack and accessories should be provided with each 200 mtrs boom set.</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
(c) Fitment of Boom reel and power pack on board vessel.	<p>(i) Arrangement for fitment of Boom reel and power pack (Deck Shoe) should be fabricated. Twist lock to be provided.</p> <p>(ii) The power pack should have provision of wheel mounted with brakes and lashing points with fasteners.</p>	
(d) Jet Spray System	<p>(i) Electric driven high pressure jet-spray portable washer of 160 bar for boom washing should be provided with each 200 mtr boom set.</p> <p>(ii) Jet spray system should have heating system for heating water upto 70⁰ Centigrade for washing the boom.</p>	



	(e) Cover	Heavy Duty Cover for Boom Reel, Power Pack and Air Pack inflator for protection from marine environment.	
	(f) Spare and Repair Kit	<p>(i) One spare and repair kit shall be provided for each 200 mtrs boom set.</p> <p>(ii) The kit shall include spares for emergency repair requirement for Boom, Boom Reel, Power Pack and Air Pack inflator along with tool kits.</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>
	(g) Paint System	<p>(i) All accessories other than the boom to be painted with internationally accepted standard paint scheme.</p>	<p>(i) Physical verification by ICG Trial Team.</p> <p>(ii) To be demonstrated</p> <p>(iii) Vendor certification</p>



Annexure II to Appendix 'E'
(Refers to Para 5 of Appendix 'E')

(To be printed on Company Letter head)

CERTIFICATE OF CONFORMANCE

1. Bidder's Name and Address
2. Bid ID _____
3. Source /OEM Details _____
4. Manufacturer's Part No. _____
5. Manufacturer's Lot No. _____
6. Date of Manufacture _____

This is to certify that the equipment offered has been manufactured, processed, inspected, tested in accordance with all requirements of the buyer and specified on referenced documents. Furthermore, inspection and test results signify that the equipment being offered are fully acceptable and in complete conformance to each parameter of the **Appendix A** specified in the RPF.

Other data, with respect to the specifications/functionality/performance/material specifications of the equipment offered will be made available upon request.

Signature _____

Date _____



COMMERCIAL CLAUSES

1. Payment Terms

1.1 INCOTERMS for Delivery

1.1.1 The delivery of goods will be based on DDP INCOTERMS-2020 with ultimate consignee as described at Annexure IV to this Appendix.

1.2 Currency of Payment

1.2.1 Indian bidder should submit their bids in Indian Rupees.

1.3 Contract Price and Requirement of Bank Guarantees

1.3.1 **Total Contract Price.** The Total Contract price will be final price negotiated by CNC including taxes and duties applicable at the time of signing of Contract.

1.3.2 **Base Contract Price.** The Base Contract Price will be considered as Total Contract price excluding taxes and duties applicable at the time of signing of Contract and excluding the Total CMC cost.

1.3.3 **Bank Guarantee(s)** For the purpose of payment of Advances to the Bidder and submission of various Bank Guarantees by the Bidder i.e Advance Payment Bank Guarantee (APBG) and Additional Bank Guarantee (ABG), as applicable, Base Contract price will be considered. For performance cum Warranty Bank Guarantee (PWBG), Total Contract Price including taxes and duties is to be considered.

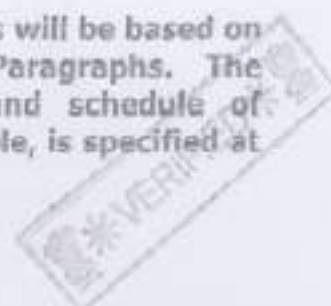
1.3.4 For orders with CMC an additional Performance Bank Guarantee (PBG) is to be submitted by the Bidder for which the Total Price of CMC for contracted duration will be considered.

1.3.5 All Bank Guarantee(s) requirements viz Advance Payment Bank Guarantee

(APBG), Performance-cum-Warranty Bank Guarantee (PWBG), Additional Bank Guarantee (ABG), Performance Bank Guarantee (PBG) etc are to be submitted as per following:-

1.3.5.1 Indian Bidder. In case of Indian Bidders, the Bank Guarantee(s) shall be from any Indian Public or Private Scheduled Commercial Bank.

1.4 **Payment to Indian Bidders.** The schedule for payments will be based on the Buyers requirements, enumerated at succeeding Paragraphs. The summary of delivery schedule, payments to be made and schedule of submission/release of Advance Bank guarantee(s), as applicable, is specified at Annexure IV to Appendix F.



1.4.1 Advance Payment. Fifteen (15) % of the Base Contract Price of basic equipment and cost of operator manual and technical literature (excluding CMC cost, Installation and Commissioning cost and cost of training) as specified at Sl. A to E of the price bid format (Para 2 of Appendix G to this RFP) shall be paid within thirty (30) days of submission of claim and a Bank Guarantee for the equivalent amount, subject to correction and acceptability of the documents submitted. The prescribed format of the Advance Payment Bank Guarantee (APBG) is placed at **Annexure I to Appendix F**. The Advance Payment Bank Guarantee (APBG) will be deemed to be proportionately and automatically reduced until full extinction along with and prorata to value of each delivery, as evidenced by corresponding copy of document proving delivery and invoices of goods/services supplied/provided. The date of delivery would be reckoned from the date of release of Advance payment by the Buyer to the Seller (T_0), provided the Seller submits the documents mandated by the DAP for release of advance by the Buyer within 45 days of signing of contract. In the event of the Seller not submitting the said documents within 45 days of signing of contract, the period between the 45th day and actual submission of documents will be excluded from the actual date of advance payment to arrive at the delivery date. In case, no advance is to be paid, the date for reckoning date of delivery would be the date of signing of contract.

1.4.2 In case of failure of the Seller to deliver the deliverables to the Buyer or inordinate delay in the said delivery leading to Termination of the Contract in accordance with Article 22.1 of SCD, the SELLER will be liable to return payments received against dispatch.

1.4.3 On Delivery. 60% of the contract price of deliverables shall be paid on completion of JRI post delivery and issue of JRI Certificate/Certified Receipt Voucher (CRV) issued by the Buyer.

1.4.4 On Final Acceptance. The remaining amount including taxes of the Contract Price of deliverables shall be paid within thirty (30) days of submission of the Acceptance Certificate & Certified Receipt Voucher (CRV) issued by the Buyer and other relevant documents as mentioned above for final payment, but such payments will be subject to the deductions of such amounts as the Seller may be liable to pay under the agreed terms of the Contract. The concerned PCDA/CDA will release the payment through cheque/EFT.

1.4.5 Part-dispatch or part-shipment of goods is not permitted.

1.4.6 CMC Payments. Comprehensive Maintenance Charges (CMC) would be paid half yearly, at the end of half year period, against the Performance Cum Guarantee which is to be submitted before the commencement of CMC period and shall be equivalent to 5% of the total amount of entire CMC of 10 years. Half-yearly payments will be made by PCDA/CDA R K Puram, New Delhi on submission of User clearance certificate through issue of cheque/ECS/DBT.

1.4.6 **Payment of Taxes and Duties.** Payment of taxes, duties and statutory levies will be made on submission of requisite documentary proof to Paying authority. Reimbursement of taxes and duties will be as per rates and amounts indicated in the commercial bid/contract or as per actual whichever is lower.

2. **Performance-cum-Warranty Bank Guarantee Clause.** A Performance - cum- Warranty Bank Guarantee (PWBG) of 5% of value of the Total contract price including taxes and duties would be furnished by the Bidder in the form of a Bank Guarantee to sequentially act as Performance Bank Guarantee till the delivery and as Warranty Bank Guarantee on delivery. The PWBG shall be submitted by the Bidder within one month of signing of contract and shall be valid for a period, until three months beyond the warranty period, as specified in the RFP. If at any stage, the Performance Guarantee is invoked by the Buyer either in full or in part, the Bidder shall make good the shortfall in PWBG within 30 days by an additional Bank Guarantee for equivalent amount. In the event of failure to submit the required Bank Guarantee against invoked Performance Guarantee, equivalent amount will be withheld from the next stage payment till the shortfall in the Bank Guarantee is made good by the Bidder. The prescribed format of the performance -cum- Warranty Bank Guarantee is placed at **Annexure II to Appendix F.**

3. **Performance Bank Guarantee for CMC.** The Bidder will be required to furnish a Performance Guarantee by the way of a Bank Guarantee of a sum equal to 5% of the Total Price of CMC for contracted duration prior to expiry/return of the PWBG of the Main Contract. Performance Bank Guarantee should be valid for 03 months beyond the period of the CMC. The format of the Performance Bank Guarantee is to be as per **Annexure II to Appendix F.**

4. **Inspection.** Pre Dispatch Inspection would be at the discretion of Buyer I.a.w para 6 of Appendix M to Schedule I to Chapter II of DAP 2020. Joint Receipt Inspection (JRI) will be carried out at points of delivery as per details mentioned at Annexure IV to this Appendix. The representatives of the Seller are to be present for inspection after the equipment reaches the concerned destination. The Seller would be informed of the date for JRI.

5. **Liquidated Damages (LD).** In the event of the Bidder's failure to submit the Documents, supply the stores/ goods, perform services, conduct trials, training and MET as per schedule specified in this contract, the BUYER may, at his discretion withhold cost of the specific lot/batch or 1% of the Project cost, whichever is higher, until the completion of the contract. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of 1/100 of the delay percentage {Delay percentage = (Period of Delay in Delivery in Weeks) x 100 / (Delivery Period in weeks as per contract)} of the Base Contract Price of the delayed/ undelivered stores/ services mentioned above for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than 10% of the contract

price of the value of delayed stores/ services (Any extension given by the Buyer for delay attributable to Buyer or Force Majeure Clause to be factored in delivery period).

6. **Payment Deductions and Damages for Shortfalls in CMC Services.**

The BUYER may also deduct from the SELLER as agreed, liquidated damages in case the cumulative downtime exceeds 07 working days for each boom in each six monthly period of the CMC. The total downtime will be calculated at the end of each six months period of the CMC per equipment and payments will be deducted at the end of each six months period. Modalities towards calculation of total downtime will be finalized with L1 Bidder prior finalization of contract. The total payments to be deducted will be calculated as follows:-

(a) Payments would be deducted on pro-rate basis for the duration, by which cumulative downtime exceeds 07 (working days) per equipment, as follows:-

(i) Per year CMC = 'X1' (per equipment)

(ii) Period by which cumulative downtime exceeds the specified cumulative

Downtime in six months (i.e. beyond seven days for each equipment), in days = 'Y1'

(iii) Payment Deduction = 'Z1' ;

Where $Z1 = [(X1 / \text{Number of days in the year}) * Y1]$

(b) In addition, damages would be deducted to the sum of 0.5 % of the per annum CMC cost per day, for the duration, by which cumulative down time exceeds the maximum permissible cumulative downtime per half-year/, subject to the maximum value of this damages not being higher than 5% of the six monthly CMC cost.

7. **Denial Clause.** In case the delay in delivery is attributable to the Seller or a Non-force majeure event, the Buyer may protect himself against extra expenditure during the extended period by stipulating a denial clause (over and above levy of LD) in the letter informing the Seller of extension of the delivery period. In the denial clause, any increase in statutory duties and/or upward rise in prices due to the Price Variation Clause (PVC) and/or any adverse fluctuation in foreign exchange are to be borne by the Seller during the extended delivery period, while the Buyer reserves his right to get any benefit of downward revisions in statutory duties, PVC and foreign exchange rate. Thus, PVC, other variations and foreign exchange clauses operate only during the original delivery period. The format for extension of delivery period/performance notice under the Denial clause is at **Annexure III to Appendix F.**

Annexure I to Appendix F
(Refers to Para 1.4.1 of Appendix F)

BANK GUARANTEE FORMAT FOR ADVANCE

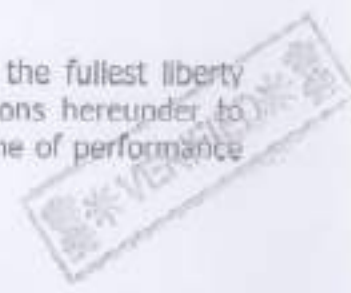
To

The _____
Ministry of Defence
Government of India

_____ (complete postal address of the beneficiary)



1. "Whereas President of India represented by the Deputy Director General (Ops & CS), Indian Coast Guard, Ministry of Defence, Government of India (hereinafter referred to as BUYER) have entered into a Contract No. _____ No. of Contract dated (Date of Contract) with M/s _____ (Name of SELLER) (referred to as SELLER) and whereas according to the said Contract the BUYER has undertaken to make an advance payment of Rs. being payment of 15% of the total value of Rs. _____ of the said Contract, against issuance of an advance guarantee by a bank."
2. We _____ (indicate the name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the BUYER intimating that the SELLER is in breach of the Contractual obligations stipulated in the said Contract. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our total liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.
3. We undertake to pay to the BUYER any money so demanded notwithstanding any dispute or disputes raised by the SELLER in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the SELLER shall have no claim against us for making such payment.
4. We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the BUYER under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged or till _____ office / Department / Ministry of _____ certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said SELLER and accordingly discharges this guarantee.
5. We, further agree with the BUYER that the BUYER shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance



by the said SELLER from time to time or to postpone for any time or from time to time any of the powers exercisable by the BUYER against the said SELLER and 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, Amendment Issued vide MoD ID No. 4(50)/D(Acq)/08 dated 20.06.2016 or extension being granted to the said SELLER or for any forbearance, act or omission on the part of the BUYER or indulgence by the BUYER to the said SELLER or by any such matter or thing whatsoever which under law relating to sureties would, but for this provision, have effect of so relieving us.

6. The amount of this guarantee will be progressively reduced by (percentage of advance.....of total value of each part shipment/services against the stage payment released by the BUYER for that shipment/services made by the SELLER and presentation to us of the payment documents.

7. This guarantee will not be discharged due to the change in the constitution of the bank or the BUYER/SELLER.

8. We, undertake not to revoke this guarantee during the currency except with the previous consent of the BUYER in writing.

9. Notwithstanding anything contained herein above:-

(a) Our liability under this Guarantee shall not exceed Rs. _____ (in words)

(b) This Bank Guarantee shall remain valid until _____ (hereinafter the expiry date of this guarantee) the Bank Guarantee will cease to be valid after _____ irrespective whether the Original Guarantee is returned to us or not.

(c) We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before _____ (Expiry Date).

Dated the _____ day of _____ (month and year)

Place :

Signed and delivered by _____ (Name of the bank)

Through its authorised signatory

(Signature with seal)



Annexure II to Appendix F
(Refers to para 2 of Appendix F)

BANK GUARANTEE FORMAT FOR PERFORMANCE-CUM-WARRANTY

To

The _____
Ministry of Defence
Government of India
_____ (complete postal address of the beneficiary)

Dear Sir,

1. Whereas President of India represented by the Deputy Director General (Ops & CS), Indian Coast Guard, Ministry of Defence, Government of India (hereinafter referred to as BUYER) 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 Contract to the said BUYER and whereas the SELLER has undertaken to produce a bank guarantee amounting to Rs. _____ is 5% of the Total Contract Price (including taxes and duties) to cover 5% of Total Contract Price (including taxes and duties) each for Performance and Warranty in sequence, to secure its obligations towards Performance-cum- Warranty to the BUYERS.

2. We, the _____ bank hereby expressly, irrevocably and unreservedly undertake the guarantee as principal obligors on behalf the SELLER that, in the event that the BUYER declares to us that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the BUYER by reason of breach/failure to perform by the said SELLER of any of the terms and conditions in the Contract related to Performance and Warranty clauses, we will pay you, on demand and without demur, all and any sum up to {5% of Total Contract Price (including taxes and duties)} Rs. _____ (Rupees _____ only) at any instance under this Guarantee. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said Contract. We shall not be entitled to ask you to establish your claim or claims under this guarantee but will pay the same forthwith without any protest or demur. We undertake to effect payment upon receipt of such written demand.

3. We shall not be discharged or released from the 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.

4. We further agree that any such demand made by the BUYER on the Bank shall be conclusive, binding, absolute and unequivocal notwithstanding any difference or dispute or controversy that may exist or arise between you and the SELLER or any other person.



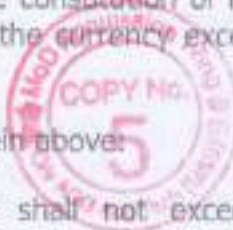
5. In no case shall the amount of this guarantee be increased.
6. This Performance-cum-Warranty guarantee shall remain valid for a period until three months beyond the warranty period as specified in the Contract i.e. up to__ .
7. Subject to the terms of this Bank Guarantee, the issuing bank hereby irrevocably authorizes the beneficiary to draw the amount of up to Rs/ US \$/Euro/PS £/Yen/AUD/SGD {5% of Total Contract Price (including taxes and duties)} for breach/failure to perform by the SELLER of any of the terms and conditions of the Contract related to performance and warranty clause. Partial drawings and multiple drawings under this Bank Guarantee are allowed within the above stated cumulative amount subject to each such drawing not exceeding 5% of the Total Contract Price (including taxes and duties) (Rs/ US \$/Euro/PS £/Yen/AUD/SGD only) (Mention BG amount).
8. This guarantee shall be continuing guarantee and shall not be discharged by any change in the constitution of the Bank or in the constitution of M/s _____. We undertake not to revoke this guarantee during the currency except with previous consent of BUYER in writing.
9. Notwithstanding anything contained herein above:
- (a) Our liability under this Guarantee shall not exceed Rs. _____ {(Rupees _____ only (in words))}.
- (b) This Bank Guarantee shall remain valid until 3 months from the date of expiry of warranty period of the Contract, i.e. up to _____ (mention the date) which is 3 months after expiry of the warranty period and the BG shall cease to be valid after irrespective whether the Original Guarantee is returned to us or not.
- (c) We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before _____ (Expiry Date).

Dated the _____ day of _____ (month and year)

Place :

Signed and delivered by _____ (name of the bank)

Through its authorised signatory
(Signature with seal)



Annexure III to Appendix F

(Refers to Para 7 of Appendix F)

FORMAT FOR EXTENSION OF DELIVERY PERIOD/PERFORMANCE NOTICE

Name of the Procuring Entity

Extension of Delivery Period/Performance Notice

To

M/s (name and address of firm)

Sub: Contract No.....datedfor the supply of

Ref: Your letter no dated:

Dear Sir,

1. You have failed to deliver {the (fill in qty.) of Stores/the entire quantity of Stores} within the contract delivery period [as last extended up to] (fill in date). In your letter under reply you have asked for [further] extension of time for delivery. In view of the circumstances stated in your said letter, the time for delivery is extended from (fill in date) to (fill in date).

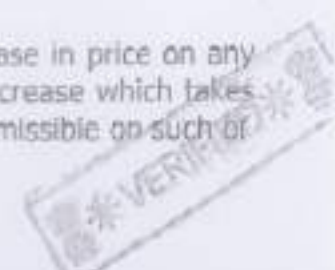
2. Please note that notwithstanding the grant of this extension in terms of Clause (fill in clause number) of the subject contract an amount equivalent to% (..... per cent) of the delivered price of the delayed goods for each week of delay or part thereof (subject to the ceiling as provided in the aforesaid clause) beyond the original contract delivery date/the last unconditionally re-fixed delivery date (as & if applicable), viz., (fill in date) will be recovered from you as liquidated damages. You may now tender the Stores for inspection [balance of the Stores] in terms of this letter. Stores if any already tendered by you for inspection but not inspected will be now inspected accordingly.

3. You are also required to extend the validity period of the performance guarantee for the subject contract from (fill in present validity date) to (fill in required extended date) within 15 (fifteen) days of issue of this amendment letter.

4. The above extension of delivery date will also be subject to the following Denial Clause:-

(a) That no increases in price on account of any statutory increase in or fresh imposition of customs duty, GST or on account of any other taxes/duty, including custom duty), leviable in respect of the Stores specified in the said contract which takes place after (insert the original delivery date) shall be admissible on such of the said Stores, as are delivered after the said date; and,

(b) That notwithstanding any stipulation in the contract for increase in price on any other ground including foreign exchange rate variation, no such increase which takes place after (insert the reckoning date as per DAP 2020) shall be admissible on such of



the said Stores as are delivered after the said date.

(c) But nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, GST or on account of any other Tax or duty or on any other ground as stipulated in the price variation clause or foreign exchange rate variation which takes place after (insert the original delivery date).

5. All other terms and conditions of the contract remain unaltered. This is without any prejudice to Buyer's rights under the terms and conditions of the subject contract.

6. Please intimate your unconditional acceptance of this amendment letter within 10 (ten) days of the issue of this letter failing which the contract will be cancelled at your risk and expense without any further reference to you.

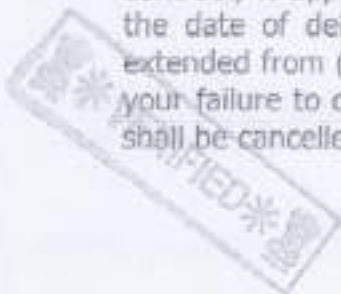


Yours faithfully, (Authorised Officer) Duly authorised, for and on behalf of The President of India

Note: Select one option within { } brackets; delete portion within [] brackets, if not applicable; fill in () brackets. Brackets and this note are not to be typed.

Substitute following first para instead of first para in format above, for issuing a performance notice.

1. You have failed to deliver {the (fill in qty.) of Stores/the entire quantity of Stores} within the contract delivery period [as last extended up to] (fill in date). In spite of the fact that the time of delivery of the goods stipulated in the contract is deemed to be of the essence of the contract, it appears that (fill in the outstanding quantity) are still outstanding even though the date of delivery has expired. Although not bound to do so, the time for delivery is extended from (fill in date) to (fill in date) and you are requested to note that in the event of your failure to deliver the goods within the delivery period as hereby extended, the contract shall be cancelled for the outstanding goods at your risk and cost.



Annexure IV to Appendix F

(Refers to Para 9, para 3 of Appendix D and 1.4 of Appendix F)

DELIVERY SCHEDULE AND STAGES OF PAYMENT**1. Stage-wise Payment for Delivery in Lots/ Batches**

Sl	Activity	Delivery Timelines (T ₀ + Wks)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
(a)	Signing of contract		15% of the base contract price	APBG of equivalent amount to be submitted	
(b)	On Delivery of all equipment/ system / Completion of JRI				
(i)	1 st Lot/ Batch	T ₀ + 24 Wks	60% of the cost of Equipment / System of the Lot	APBG is to be returned on pro-rata basis on delivery of each lot/batch. APBG pertaining to documentation and training can be returned on delivery of a particular lot/batch. In case delivery of documentation and/or training can be completed only on commissioning of the equipment	
(ii)	2nd Lot/ Batch	T ₀ + 36 Wks	60% of the cost of Equipment / System of the Lot		

* VERIFIED *

(iii)	3 rd Lot/ Batch	T ₀ + 48 Wks	60% of the cost of Equipment / System of the Lot	and cost of documentation/training is substantial (5%-8%, as specified), then APBG is to be returned on pro-rata basis as per completion of delivery of equipment, Documentation and training.	
(c)	Delivery of Documentation	--	90% of the cost of Documentation		
(d)	Completion of Training	--	90% of the cost of Training		
(e) On Installation/Commissioning and Final Acceptance					
(i)	1 st Lot/ Batch	T ₀ + 24 Wks	10 to 25% of the cost of Equipment / System of the Lot		Remaining 10% of the cost of training and documentation to be released on final acceptance.
(ii)	2 nd Lot/ Batch	T ₀ + 36 Wks	10 to 25% of the cost of Equipment / System of the Lot		
(iii)	3 rd Lot/ Batch	T ₀ + 48 Wks	25% of the cost of Equipment / System of the Lot		



2. The details of time schedule and delivery in Batches along with location for supply / JRI and installation are mentioned as below:-

**TIME SCHEDULE FOR DELIVERY/JRI FOR SUPPLY OF
OCEAN BOOMS**

Ser	Batch	Delivery	Location of supply / JRI		Place of Installation	
			Place	Nos	Place	Nos
(a)	I st	T ₀ +24 Weeks	Mumbai	04	Mumbai	04
			Goa	04	Goa	04
			Chennai	10	Chennai	10
			Port Blair	04	Port Blair	04
Total			22	22		
(b)	II nd	T ₀ +36 Weeks	Porbandar	06	Porbandar	06
			New Mangalore	04	New Mangalore	04
			Paradip	04	Paradip	04
Total			14	14		
(c)	III rd	T ₀ +48 Weeks	Visakhapatnam	04	Visakhapatnam	04
			Kochi	06	Kochi	06
			Tuticorin	04	Tuticorin	04
Total			14	14		
Grand Total			50	50		



**TIME SCHEDULE FOR DELIVERY/JRI FOR SUPPLY OF
NEARSHORE BOOM**

Ser	Batch	Delivery	Location of supply/ JRI		Place of Installation	
			Place	Nos	Place	Nos
(a)	I st	T ₀ +24 Weeks	Mumbai	05	Mumbai	05
			Goa	04	Goa	04
			Port Blair	11	Diglipur	05
					Campbell Bay	03
					Port Blair	03
Total			20		20	
(b)	II nd	T ₀ +36 Weeks	Porbandar	05	Porbandar	05
			Okha	03	Okha	03
			New Mangalore	04	New Mangalore	04
			Paradip	04	Paradip	04
			Haldia	05	Haldia	05
Total			21		21	
(c)	III rd	T ₀ +48 Weeks	Visakhapatnam	05	Visakhapatnam	05
			Kochi	08	Kochi	03
					Kavaratti	05
			Puducherry	05	Puducherry	05
Tuticorin	03	Tuticorin	03			
Total			21		21	
Grand Total			62		62	

VERIFIED

COPY 1/10
5

Appendix G
(Refers to Para 47 and 56)

EVALUATION CRITERIA AND PRICE BID FORMAT

1. **Evaluation Criteria.** The guidelines for evaluation of Bids will be as follows:-

1.1. Only those Bids will be evaluated, which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially. The bidder, whose price is arrived as lowest as per Evaluation criteria given in this Appendix, will be declared as L-1 bidder by Buyer. L-1 shall be determined on the basis of sum of bids quoted for Ocean Boom and Nearshore Boom along with Net Present Value (NPV) for Comprehensive Maintenance Contract (CMC).

1.2. While carrying out evaluation of bids to determine L1 (including where DCF Technique is applicable), the following criteria would be followed:-

In 'Buy (Indian)' Cases.

1.2.1. In Case of Indian Bidders including Defence PSUs/OFs. All costs, taxes (including GST) and duties quoted by the supplier at Serials A to K of Para 2 below would be considered for purpose of comparison of various bids.

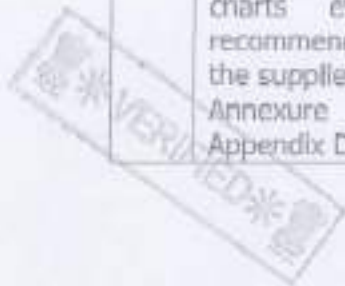
1.2.2. Discounted Cash Flow (DCF) technique will be applied including taxes and duties to ascertain the NPV which would be used for determining L1 bidder.

1.3 Custom duty on Input materials shall not be loaded by the Indian Bidders in their price bids, if they are exempted under the existing Notifications. In such cases, necessary Custom Duty Exemption Certificate (CDEC) shall be issued by the Buyer. In cases where Custom Duty is not exempted, Basic Custom Duty on Input material is to be included in the cost of Basic Equipment, Installation/Commissioning/Integration, BNE, SMT, STE, ESP and any other item listed at Column (ii) of Para 2 below.

1.4 If there is discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected based on indicative rates of taxes and duties at columns(vi) and(vii) of para 2 below. If there is a discrepancy between words and figures, the amount in words prevails for calculation of price.

2. **Price Bid Format.** The Price Bid Format is subsequently mentioned and Bidders are required to fill this correctly with full details for both Ocean Boom and Nearshore Boom separately. No column of the Bid format has to be left blank. The clubbing of serials/sub serials to indicate a consolidated cost is not acceptable. Columns of 'quantity', 'unit cost', 'total cost (including all taxes and duties)', 'GST/IGST (%) and Custom Duty (%) are to be filled up with '0', 'positive numerical values' or 'Not Applicable' at every row as applicable. If any column is not applicable and intentionally left blank, the reason for the same has to be clearly indicated in the remarks column.

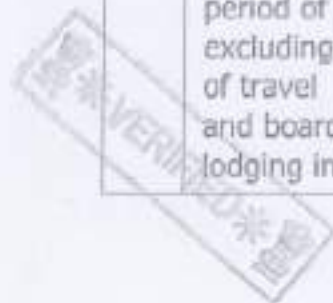
Ser	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) + (vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
OCEAN BOOMS								
A ₁	Cost of Basic Equipment . Full break-up details may be given.							
B ₁	Cost of Installation / Commissioning / Integration (where applicable)							
C ₁	Cost of Special Maintenance Tools and Special Test Equipment as per format given at Annexure I to Appendix D							
D ₁	Cost of Operator's Manual and Technical Literature (in English Language) including							
E ₁	Cost of Training Aids such as simulators, cut out models, films, charts etc. as recommended by the supplier as per Annexure III to Appendix D							



F ₁	Cost of recommended period of Training excluding the cost of travel and boarding and lodging in India.						
G ₁	Cost of Preservation/De-preservation (if applicable)						To be paid as in the contract, if utilized
H ₁	Any other cost (to be specified).						
J ₁	Freight and Transit Insurance Cost (where applicable).						
K ₁	CMC Cost giving year-wise break-up						
L ₁	Total Cost (Total of Serial A to K)					#	# This will be used in determining L1 vendor (duly applying provisions of Para 1 above).
M ₁	Foreign Exchange component of the proposal. (for Indian Vendors only)						This will be with reference to Para 1.2.1 of Appendix F
N ₁	CDEC (if applicable), its authority and amount for which required.						

VERIFIED

Ser.	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) + (vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
NEARSHORE BOOMS								
A ₂	Cost of Basic Equipment. Full break-up details may be given.							
B ₂	Cost of Installation / Commissioning / Integration (where applicable)							
C ₂	Cost of Special Maintenance Tools and Special Test Equipment as per format given at Annexure I to Appendix D.							
D ₂	Cost of Operator's Manual and Technical Literature (in English Language) including							
E ₂	Cost of Training Aids such simulators, cut out models, films, charts etc. as recommended by the supplier as per Annexure III to Appendix D							
F ₂	Cost of recommended period of Training excluding the cost of travel and boarding and lodging in India.							



G ₂	Cost of Preservation/De-preservation (if applicable)							To be paid as in the contract
H ₂	Any other cost (to be specified).							
J ₂	Freight and Transit Insurance Cost (where applicable).							
K ₂	CMC Cost giving year-wise break-up							
L ₂	Total Cost (Total of Serial A to K)					#		# This will be used in determining L1 vendor (duly applying provision 5
M ₂	Foreign Exchange component of the proposal. (for Indian Vendors only)							This will be with reference to Para 1.2.1 of Appendix F.
N ₂	CDEC (if applicable), its authority and amount for which required.							
P	Grand Total (CMC cost for both equipment) (K ₁ + K ₂)							
Q	Grand Total (excluding CMC Cost) of both equipment (L ₁ + L ₂ - P)							

Note: Taxes and Duties. All Indirect Taxes and Duties will be paid at actuals or as indicated in the Commercial bid by the Bidder, whichever is lower. In case of any change in the tax structure/rates by BUYER's Government, only incremental/decremented change will be paid.

3. Evaluation of Bids by DCF Technique

(Note: This clause is to be included only if there is AMC/CMC/PBL/LCSC clause or any other condition in RFP, resulting in different cash outflows in successive years) -

3.1 **Net Present Value (NPV)** is a variant of DCF method, which will be used by the Buyer for evaluation of Bids. The Net Present Value of a Bid will be equal to the sum of the present values of all the cash flows associated with it. The following formula will be used for calculating NPV of a bid -

$$NPV_n = \sum_{t=1}^n \frac{At}{(1+r)^t}$$

Where,

NPV = Net Present Value

At = Expected cash flow occurring at the end of year 't' as mentioned in the Payment schedule of Bid

n = Duration of cash flow stream

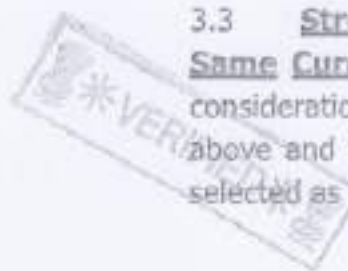
r = Discounting Rate (Note-This will be the Government of India's lending rate on loans given to state governments, as notified by Budget Division of Ministry of Finance annually)

t = The period after which payment is done

The bid with the lowest NPV would be selected. The final amount to determine L-1 shall be arrived at on the basis of summation of bids for Ocean Boom and Nearshore Boom.

3.2 The Discounting rate to be considered is 8 % as on date as per last 2017 GoI notification. The latest GoI lending rate as notified by Budget Division of Ministry of Finance will be applicable at the time of L1 determination.

3.3 Structuring Cash Flows for Tenders/ Bids Received in the Same Currency. The cash outflows as shown in price bids will be taken into consideration. NPV of different bids will be calculated using the formula given above and the one having lowest NPV (Ocean Boom + Nearshore Boom) will be selected as L-1.



Appendix H

(Refers to Para 21 and 52)

STANDARD CONDITIONS OF RFP LAW

1. The present Contract shall be considered and made in accordance to the laws of Republic of India.

ARBITRATION

(For Indian Private Vendors)



2.1 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, shall be settled by bilateral discussions.

2.2 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 the Arbitration Tribunal consisting of three arbitrators.

2.3 Within sixty (60) days of the receipt of the said Notice, one arbitrator shall be nominated in writing by SELLER and one arbitrator shall be nominated by BUYER.

2.4 The third arbitrator, shall be nominated by the parties within ninety (90) days of the receipt of the notice mentioned above, failing which the third arbitrator may be nominated under the provision of Indian Arbitration and Conciliation Act, 1996 (as amended from time to time) or by dispute resolution institutions like Indian Council of Arbitration or ICADR, at the request of either party, but the said nomination would be after consultation with both the parties. The arbitrator nominated under this Clause shall not be regarded nor act as an umpire.

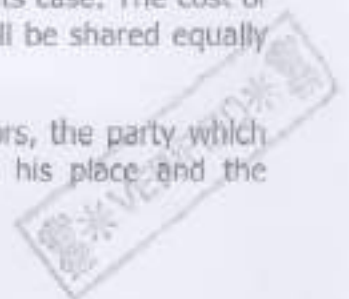
2.5 The Arbitration Tribunal shall have its seat in New Delhi or such other place in India as may be decided by the arbitrator.

2.6 The Arbitration Proceedings shall be conducted in India under the Indian Arbitration and Conciliation Act, 1996 (as amended from time to time) and the award of such Arbitration Tribunal shall be enforceable in Indian Courts only.

2.7 The decision of the majority of the arbitrators shall be final and binding on the parties to this contract.

2.8 Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration including the fees and expenses of the third arbitrator shall be shared equally by the SELLER and the BUYER.

2.9 In the event of a vacancy caused in the office of the arbitrators, the party which nominated such arbitrator shall be entitled to nominate another in his place and the



arbitration proceedings shall continue from the stage they were left by the retiring arbitrator.

2.10 In the event of one of the parties failing to nominate its arbitrator within sixty (60) days as above or if any of the parties does not nominate another arbitrator within sixty (60) days of the place of arbitrator falling vacant, then the other party shall be entitled after due notice of at least thirty (30) days to request dispute resolution institutions in India like Indian Council of Arbitration and ICADR to nominate another arbitrator as above.

2.11 If the place of the third arbitrator falls vacant, his substitute shall be nominated according to the provisions herein above stipulated.

2.12 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.



ARBITRATION
(For Central & State PSEs)

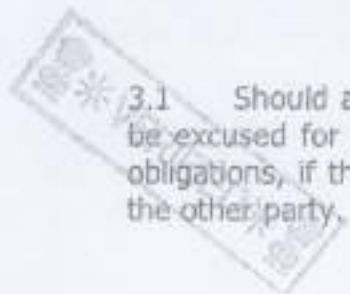
2.13 In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 (as amended from time to time) shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorised by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

ARBITRATION
(For Defence PSUs)

2.14 In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party to the Arbitrator(s) appointed by Defence Secretary. The award of the Arbitrator(s) shall be binding upon the parties to the dispute.

FORCE MAJEURE

3.1 Should any force majeure circumstances arise, each of the contracting party shall be excused for the non-fulfillment or for the delayed fulfillment of any of its contractual obligations, if the affected party within (days) of its occurrence informs in a written form the other party.



3.2 Force majeure shall mean fires, floods, natural disasters or other acts such as war, turmoil, strikes, sabotage, explosions, beyond the control of either party.

3.3 Provided the acts of the Government or any state parties of the seller which may affect the discharge of the Seller's obligation under the contract shall not be treated as Force Majeure.

PENALTY FOR USE OF UNDUE INFLUENCE

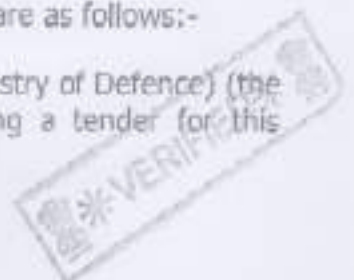
4.1 The Seller undertakes that he has not given, offered or promised to give, directly or indirectly any gift, consideration, reward, commission, fees brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or for borne to do any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government. 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 offence 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, 1988 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.

4.2 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.

INTEGRITY PACT

5.1 Further signing of an 'Integrity Pact' would be considered between government department and the bidder for schemes exceeding Rs **20 Crores**. The Integrity Pact is a binding agreement between the agency and bidders for specific contracts in which the agency promises that it will not accept bribes during the procurement process and bidders promise that they will not offer bribes. Under the IP, the bidders for specific services or contracts agree with the procurement agency or office to carry out the procurement in a specified manner. The essential elements of the IP are as follows:-

- (a) A pact (contract) between the Government of India (Ministry of Defence) (the authority or the "principal") and those companies submitting a tender for this specific activity (the "bidders");



- (b) An undertaking by the principal that its officials will not demand or accept any bribes, gifts, etc., with appropriate disciplinary or criminal sanctions in case of violation;
- (c) A statement by each bidder that it has not paid and will not pay, any bribes;
- (d) An undertaking by each bidder that he shall not pay any amount as gift, reward, fees, commission or consideration to such person, party, firm or institution (including Agents and other as well as family members, etc., of officials), directly or indirectly, in connection with the contract in question. All payments made to the Agent 12 months prior to tender submission would be disclosed at the time of tender submission and thereafter an annual report of payments would be submitted during the procurement process or upon demand of the MoD.
- (e) The explicit acceptance by each bidder that the no-bribery commitment and the disclosure obligation as well as the attendant sanctions remain in force for the winning bidder until the contract has been fully executed;
- (f) Undertakings on behalf of a bidding company will be made "in the name and on behalf of the company's chief executive officer";
- (g) The following set of sanctions shall be enforced for any violation by a bidder of its commitments or undertakings:
- (i) Denial or loss of contract;
 - (ii) Forfeiture of the Guarantee for Performance-cum-Warranty Bond (after signing of contract).
 - (iii) Payment to the Buyer of any such amount paid as gift, reward, fees or consideration along with interest at the rate of 2% per annum above LIBOR rate.
 - (iv) Refund of all sums already paid by the Buyer along with interest at the rate of 2% per annum above LIBOR rate.
 - (v) Recovery of such amount, referred to in (iii) and (iv) above, from other contracts of the Seller with the Government of India.
 - (vi) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities.
- (h) Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

(i) The draft Pre-Contract Integrity Pact is attached as **Annexure I to this Appendix**. The vendors are required to sign them and submit separately along



with the technical and commercial offers.

5.2 In respect of bids from DPSUs, the concerned DPSU shall enter in to a Pre-Contract Integrity Pact, on the same lines with their sub-vendors individually, in case the estimated value of each sub-contract(s) exceed Rs. 20 Crore and such subcontract(s) are required to be entered in to by the DPSU with a view to enable DPSU to discharge the obligations arising out of their bid in question in response to this RFP.

AGENTS

6. The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores referred to in this contract. The Seller confirms that he has not engaged any person, party, firm or institution as an Agent including his Agents already intimated to MoD; to, influence, manipulate or in any way to recommend to any functionaries of the Government of India, whether officially or unofficially, to the award of the contract to the Seller, or to indulge in corrupt and unethical practices. The Seller has neither paid, promised nor has the intention to pay to any person, party, firm or institution in respect of any such intervention or manipulation. 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 Seller has engaged any such person, party, firm or institution and paid, promised or has intention 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 for any or all of the following actions:-

- (a) To pay to the Buyer any such amount paid as gift, reward, fees or consideration along with interest at the rate of 2% per annum above LIBOR rate.
- (b) The Buyer will also have a right to put on hold or cancel the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such 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 LIBOR rate
- (c) The Buyer will also have the right to recover any such amount referred in (a) and (b) above from other contracts of the Seller with the Government of India.
- (d) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities.

7. 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 contract as described in clauses relating to Agents and clauses relating to Penalty for Use of Undue Influence, the SELLER, on demand of the BUYER shall provide necessary information/inspection of the relevant financial documents/ information, including a copy of the contract(s) and details of payment terms between the vendors and Agents engaged by him.

Annexure I to Appendix H
(Refers to Para 21 of RFP & Para 5.1(j)
of Appendix H)

PRE-CONTRACT INTEGRITY PACT

General

1. Whereas the PRESIDENT OF INDIA, represented by DDG(Ops & CS), Coast Guard, Ministry of Defence, Government of India, hereinafter referred to as the Buyer and the first party, proposes to procure (Name of the Equipment), hereinafter referred to as Defence Stores and M/s _____ represented by _____ Chief Executive Officer (which term, unless expressly indicated by the contract, shall be deemed to include its successors and its assignees), hereinafter referred to as the Bidder/Seller and the second party, is willing to offer/has offered the Defence stores.
2. Whereas the Bidder is a private company/public company/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the Buyer is a Ministry of the Government of India performing its functions on behalf of the President of India.

Objectives

3. Now, therefore, the Buyer and the Bidder agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

3.1 Enabling the Buyer to obtain the desired defence stores at a competitive price in conformity with the defined specifications of the Services by avoiding the high cost and the distortionary impact of corruption on public procurement

3.2 Enabling Bidders to abstain from bribing or any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also refrain from bribing and other corrupt practices and the Buyer will commit to prevent corruption, in any form, by their officials by following transparent procedures.

Commitments of the Buyer

4. The Buyer commits itself to the following:-

4.1 The Buyer undertakes that, no official of the Buyer, connected directly or indirectly with the contract will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Bidder, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or

* VERIFIED *

implementation process related to the Contract.

4.2 The Buyer will, during the pre-contract stage, treat all Bidders alike and will provide to all Bidders the same information and will not provide any such information to any particular Bidder which could afford an advantage to that particular Bidder in comparison to other Bidders.

4.3 All the officials of the Buyer will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

5. In case of any such preceding misconduct on the part of such official(s) is reported by the Bidder to the Buyer with full and verifiable facts and the same is prima facie found to be correct by the Buyer, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Buyer and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Buyer the proceedings under the contract would not be stalled.

Commitments of Bidders

6. The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of his bid or during any precontract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commits himself to the following:

6.1 The Bidder will not to offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer, connected directly or indirectly with the bidding process, or to any person, organisation or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.

6.2 The Bidder further undertakes that he has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government.

6.3 The Bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

6.4 The Bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

6.5 The Bidder further confirms and declares to the Buyer that the Bidder is the



original manufacturer/integrator/authorised government sponsored export entity of the Defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Buyer or any of its functionaries, whether officially or unofficially to the award of the contract to the Bidder, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company or Agent in respect of any such intercession, facilitation or recommendation.

6.6 The bidder would not enter into conditional contract with any Agents, brokers or any other intermediaries wherein payment is made or penalty is levied, directly or indirectly, on success or failure of the award of the contract. The bidder while presenting the bid, shall disclose any payments he has made during the 12 months prior to tender submission or is committed to or intends to make to officials of the buyer or their family members, Agents, brokers or any other intermediaries in connection with the contract and the details of such services agreed upon for such payments. Within the validity of PCIP, bidder shall disclose to MoD any payments made or has the intention to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution as an annual report during the procurement process.

6.7 The Bidder shall not use improperly, for purposes of competition or personal gain or pass on to others, any information provided by the Buyer as part of the business relationship regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder also undertakes to exercise due and adequate care lest any such information is divulged.

6.8 The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts. Complaint will be processed as per **Guidelines for Handling of Complaints** in vogue. In case the complaint is found to be vexatious, frivolous or malicious in nature, it would be construed as a violation of Integrity Pact.

6.9 The Bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

7. Previous Transgression

7.1 The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India.

7.2 If the Bidder makes incorrect statement on this subject, Bidder can be disqualified from the tender process or the contract and if already awarded, can be terminated for such reason.



8. **Bid Security: Earnest Money Deposit**

8.1 Every bidder, while submitting commercial bid, shall submit Bid Security in the form of Earnest Money Deposit (EMD), in cases where applicable (as provided in Clause 8 herein).

(a) To safeguard against a bidder(s) withdrawing or altering its bid during the bid validity period, Bid Security (also known as EMD) is to be obtained from all bidders except for cases upto 100 Crores (i.e, all cases upto Rs. 100 crores of AoN will be exempted from payment of EMD) as follows:-

EMD Table

Estimated Cost of Procurement Scheme(Crore)		EMD Amount
Above (Not including)	To (Including)	
-	100	Nil
100	150	30 Lakh
150	300	70 Lakh
300	1000	2 Crore
1000	2000	5 Crore
2000	3000	10 Crore
3000	5000	15 Crore
5000	-	25 Crore

(b) EMD is not required from Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department or Startups as recognised by Department of Industrial Policy & Promotion (DIPP), in accordance with the Ministry of Finance office memorandum bearing No.F.20/2/2014-PPD (Pt.) dated July 25, 2017 (as amended from time to time).

(c) **Format of EMD.** The Bid Security may be accepted in the following forms, safeguarding the Buyer's interest in all respect:-

(i) Bank Guarantee from any Indian Public or Private Scheduled Commercial Bank notified by RBI or first-class banks of international repute. The format of the Bank Guarantee for Bid Security is provided at **Annexure I to Appendix H.**

(ii) Insurance Surety Bond - The format and guidelines pertaining to the same shall be issued / notified by the Ministry of Defence.

(iii) Account Payee Demand Draft, Fixed Deposit Receipt, Banker's



Cheque shall be payable in an acceptable form. The Beneficiary Bank Details for furnishing the same are as follows:

(IFSC Code - SBIN0000691)
 State Bank of India New Delhi Main Branch
 C Block, 11 Parliament Street
 New Delhi, Pin: 110001

(d) **Validity of EMD.** The EMD will be valid for eighteen months or till signing of contract, whichever is later. The EMD shall be extended from time to time as required by the Buyer and agreed by the Bidder. No interest shall be payable by the Buyer to the Bidder(s) on the EMD for the period of its currency. For unsuccessful bidders EMD will be returned on declaration of successful bidder(s).

(e) **Instances of Forfeiture of EMD.**

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

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

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

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

(iii) In case of violation of Pre-Contract Integrity Pact, EMD will be forfeited besides other legal penalties as may be decided by the Ministry of Defence.

8.2 In the case of successful bidder a clause would also be incorporated in the Article pertaining to Performance-cum-Warranty Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

8.3 The provisions regarding Sanctions for Violation in Integrity Pact include forfeiture of Performance-cum-Warranty Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of Integrity Pact.

8.4 No interest shall be payable by the Buyer to the Bidder(s) on the Earnest Money Deposit (EMD) for the period of its currency.

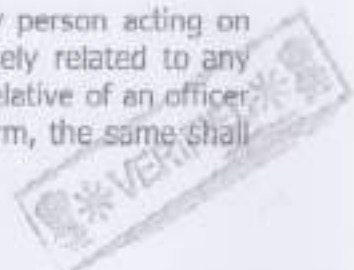
9. **Company Code of Conduct**

9.1 Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

10. **Sanctions for Violation**

10.1 Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one 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 1988 or any other act enacted for the prevention of corruption shall entitle the Buyer to take all or any one of the following actions, wherever required:

- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder(s) would continue.
- (ii) EMD for pre-contract period, performance-cum-warranty bond post signing of contract shall stand forfeited either fully, partially as decided by the Buyer and the Buyer shall not be required assigned any reason therefore.
- (iii) To immediately cancel the contract, if already signed, without any compensation to the Bidder.
- (iv) To recover all sums already paid by the Buyer, in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Base Rate of SBI and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other defence stores, such outstanding payment could also be utilised to recover the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and Performance-cum-Warranty Bond if furnished by the Bidder, in order to recover the payments, already made by the Buyer, along with interest.
- (vi) To cancel all or any other Contracts with the Bidder.
- (vii) To Put on Hold or Suspend or Debar the bidder as per the extant policy.
- (viii) To recover all sums paid in violation of this Pact by Bidder(s) to any Agent or broker with a view to securing the contract.
- (ix) If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall



be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to debar the Bidder from the bid process or rescind the contract without payment of any compensation to the Bidder. The term 'close relative' for this purpose would mean spouse whether residing with the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependent upon Government servant.

(x) The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Buyer and if he does so, the Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Buyer resulting from such rescission and the Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.

(xi) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the Buyer with the Bidder, the same shall not be opened.

10.2 The decision of the Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the Bidder can approach the Independent Monitor(s) appointed for the purposes of this Pact.

11. Fall Clause

11.1 The Bidder undertakes that he has not supplied/is not supplying the similar products, systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India and if it is found at any stage that the similar system or sub-system was supplied by the Bidder to any other Ministry/Department of the Government of India at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Buyer, even if the contract has already been concluded.

11.2 The Bidder shall strive to accord the most favoured customer treatment to the Buyer in respect of all matters pertaining to the present case.

12. Independent Monitors

12.1 The Buyer has appointed Independent Monitors for this Pact in consultation with the Central Vigilance Commission. The names and addresses of nominated Independent Monitors (at the time of issue of RFP) are as follows (however the

vendor must refer to the MoD website at www.mod.nic.in to check for changes to these details):-

- (a) Shri Ravikant, IAS/Bihar (1984) (Retd)
Apartment No. 502, Tower- 1 M3M Merlin, Sector – 67,
Gurugram- 122001 (Haryana), Mob: 9953555566,
E-mail – 84ravikant@gmail.com
- (b) Dr. Prabhat Kumar, IAS/UP (1985) (Retd)
C-120, sector – 39, Noida-201301, Gautam Budh nagar
(Uttar Pradesh) Mob: 9810530048, E-mail – prabhatfamily@gmail.com
- (c) Shri Chet Ram, IRS(1985) (Retd)
Flat No. A-203, Building Gemini, Gladys Alwares Marge,
Hiranandani Meadows, Off Pokhran Road no. 2
Thane(W), Maharashtra - 400610
Mob: 9869479987, E-mail – cr_koli@yahoo.com

12.2 All communications to Independent Monitors will be copied to Director (Vigilance). The Designation and Contact details of Director (Vigilance) are as follows:-

Shri KV Ajith
Deputy Secretary (Vigilance)
Room No. 340, B Wing,
Sena Bhawan
New Delhi 110011
Tel No.- 011 – 23012304



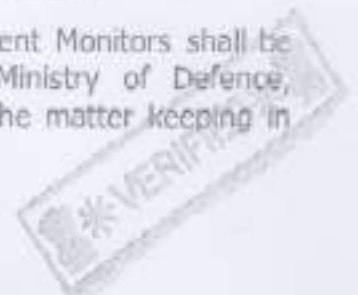
12.3 After the Integrity Pact is signed, the Buyer shall provide a copy thereof, along with a brief background of the case to the Independent Monitors, if required by them.

12.4 The Bidder(s), if they deem it necessary, may furnish any information as relevant to their bid to the Independent Monitors.

12.5 If any complaint with regard to violation of the IP is received by the buyer in a procurement case, the buyer shall refer the complaint to the Independent Monitors for their comments/enquiry.

12.6 If the Independent Monitors need to peruse the relevant records of the Buyer in connection with the complaint sent to them by the Buyer, the Buyer shall make arrangement for such perusal of records by the Independent Monitors.

12.7 The report of enquiry, if any, made by the Independent Monitors shall be submitted to the head of the Acquisition Wing of the Ministry of Defence, Government of India for a final and appropriate decision in the matter keeping in view the provision of this Pact.



13. Examination of Books of Accounts

In case of any allegation of violation of any provisions of this Integrity Pact or payment of commission, the Buyer or its agencies shall be entitled to examine the Books of Accounts of the Bidder and the Bidder shall provide necessary information of the relevant financial documents in English and shall extend all possible help for the purpose of such examination.

14. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the Buyer i.e. New Delhi.

15. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

16. Validity

16.1 The validity of this Integrity Pact shall be from date of its signing and extend up to 5 years or the complete execution of the contract to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later.

16.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

17. The Parties hereby sign this Integrity Pact at _____ on

BUYER

MINISTRY OF DEFENCE,
GOVERNMENT OF
INDIA

BIDDER

CHIEF EXECUTIVE OFFICER

Witness

1. _____
2. _____

Witness

1. _____
2. _____



Refers to Para 8.1 of
Annexure I to Appendix H

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.
- (3) If the bidder violates Pre-Contract Integrity Pact.

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 above mentioned conditions, specifying the occurred condition or conditions.

This guarantee will remain in force upto and including 45 days after the period of 18 months/ contract signing whichever is later 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



Appendix J
(Refers to Para 6)

CRITERIA FOR VENDOR SELECTION / PRE-QUALIFICATION
FOR - RFP ISSUE / INCLUSION IN RFP REQUIREMENTS
(Only For Multi Vendor Cases. Not applicable to DPSUs/PSUs.)

1. The following parameters may be used, as a guideline for the Collegiate to adopt, for inclusion in the RFP.

Ser.	Parameter	
1	Financial	
a	Insolvency	The entity should not be under insolvency resolution as per IBC at any stage of procurement process from the issuing of RFP to the signing of contract
2	Technical	
a	Nature of Business	Manufacturing entity or System Integrator of Defence equipment and not a trading company, except in cases where OEM participates only through its authorized vendors
b	Experience in related field	Min 02 Yrs. experience in broad areas like manufacturing / engineering / electronics etc. as applicable in the instant case. If not, then cumulative experience of at least 03 years in above areas, resulting in gaining competence for manufacturing the proposed product. Bidder should provide reference list of its past experience wherein the offered equipment/item with matching specifications and SQRs as brought out in this RFP have been supplied, installed and commissioned to any Oil Handling agency/organization. Documentary proof for such supply, installation and commissioning of the equipment is to be submitted along with the Technical Bid.
c	Quality control	Compliance with ISO/ASTM standards
3	Others	
a	Industrial License	Posses or be in the process of acquiring a license,

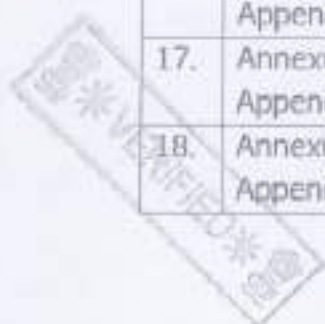
		If the product under project requires license as per DIPP licensing policy.
b	Registration	Registered for Min 02 years, 01 years for MSMEs



**DOCUMENTS TO BE SUBMITTED BY THE BIDDER ALONG WITH THEIR
TECHNO-COMMERCIAL PROPOSALS**

The list of documents which needs to be mandatorily submitted by the Bidders as part of Technical Proposal is placed below. Non-submission of the documents may result in disqualification of the Bidder from the bidding process.

Ser	Reference	Document Description
1.	Para 5 of RFP	Declaration by Bidder : Debarment of vendors
2.	Para 7 of RFP	Indigenization Plan
3.	Para 15 of RFP	Obsolescence Management Plan
4.	Para 18 of RFP	Declaration by Bidder : Government Regulation
5.	Para 19 of RFP	Declaration by Bidder : Obligations Relevant to Transfer of Conventional Arms
6.	Para 20 of RFP	Declaration by Bidder : Patent Rights
7.	Para 22 of RFP	Declaration by Bidder : Fall Clause
8.	Para 29 of RFP	Technical document covering performance parameters
9.		
10.	Para 35 of RFP	Reliability & Prediction Model
11.		
12.	Para 41 of RFP	Draft Acceptance Test Procedure
13.	Para 56(a) of RFP	Documentary proof of past supply, installation and commissioning of the equipment
14.	Appendix B	Compliance Table
15.	Appendix C	Warranty Clause
16.	Para 6(c) of Appendix D	Sufficiency Clause Undertaking
17.	Annexure I to Appendix D	List of SMT/STEs, Jigs, Fixture and Infrastructure
18.	Annexure II to Appendix D	Technical Literature



19.	Annexure III to Appendix D	Training Aggregates
20.	Appendix G	Price Bid
21.	Annexure I to Appendix H	Pre-Contract Integrity Pact and EMD Bank Guarantee
22.	Appendix A to Chapter I of DAP-2020	Undertaking to comply with indigenous design (for Buy Indian (IDDM) category)



GLOSSARY

AoN	Acceptance of Necessity
ATP	Acceptance Test Procedure
CMC	Comprehensive Maintenance Contract
CKD	Completely Knocked Down
CNC	Contract Negotiation Committee
DAC	Defence Acquisition Council
DGQA	Director General of Quality Assurance
DPB	Defence Procurement Board
DAP	Defence Acquisition Procedure
DRDO	Defence Research and Development Organisation
EMC	Electro Magnetic Compatibility
EMI	Electro Magnetic Interference
EPP	Enhanced Performance Parameters
ESP	Engineering Support Package
FET	Field Evaluation Trials
GoI	Government of India
IC	Indigenous Content
ICG	Indian Coast Guard
IDDM	Indigenously Designed & Developed Manufactured
IM	Indigenously Manufactured
IP	Integrity Pact
LRU	Line Replaceable Unit
MET	Maintainability Evaluation Trial
EMD	Earnest Money Deposit

MoD	Ministry of Defence
NCNC	No Cost No Commitment
OEM	Original Equipment Manufacturer
OTE	Open Tender Enquiry
PA	Production Agency
PCIP	Pre Contract Integrity Pact
QA	Quality Assurance
RFP	Request for Proposal
SPB	Services Procurement Board
SHQ	Service Headquarters
SKD	Semi Knocked Down
SRU	Shop Replaceable Unit
TEC	Technical Evaluation Committee

