



सत्यमेव जयते
Ministry of Defence
Government of India

**REQUEST FOR PROPOSAL
BY
MINISTRY OF DEFENCE
GOVERNMENT OF INDIA FOR PROCUREMENT OF
CONTAINERISED SMALL ARMS FIRING RANGE
CATEGORY: BUY (INDIAN-IDDM)**

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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 132 pages including cover page and Appendices.

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File No: TM (M)/0045/DSR/CSAFR

Additional Director General
Acquisition Technical (M&S)
Room No 5, D-II Wing
Ground Floor, Sena Bhawan
Rajaji Marg
New Delhi 110011

29 May 24

To

All concerned

REQUEST FOR TECHNICAL AND COMMERCIAL PROPOSAL FOR
PROCUREMENT OF 20 X CONTAINERISED SMALL ARMS
FIRING RANGES (CSAFRs)
CATEGORY: BUY (INDIAN – IDDM)

Dear Sir/ Madam,

1. The Ministry of Defence, Government of India, intends to procure twenty (20) x Containerised Small Arms Firing Ranges (CSAFRs) under 'Buy (Indian-IDDM)' categorisation (with minimum 50% IC) and seeks participation in the procurement process from prospective Bidders subject to requirements in succeeding paragraphs.

Synopsis

2. **Broad Description of Equipment/ System.** Containerised Small Arms Firing Range (CSAFR) comprises of container modules assembled to form a fully operational firing range for undertaking live firing of small arms in all weather conditions, at both day and night. CSAFR will provide capability of training in various combat scenarios as well as generating custom maritime scenarios for IN's Boarding and FPM teams to undertake Operational Rehearsals of missions. CSAFRs will require to be installed and

operationalised at designated sites of Indian Navy. Details of CSAFRs required by Indian Navy are as follows:-

Ser	Equipment	Quantity	Remarks
(a)	CSAFR	20	50m CSAFR 14
			25m CSAFR 06
(b)	Technical documentation	20	One set per CSAFR.
(c)	Installation and Services	-	For complete quantity.
(d)	Operator and maintainer training	Package for 20 CSAFRs	Training for 03 each operators and maintainers for each CSAFR at respective installation site.
(e)	CMC for five years	-	Post completion of warranty.

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 Annexures(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	CSAFR	Para 1
(b)	Quantity Required	(i) 50 m CSAFR – 14 (ii) 25 m CSAFR – 06 (iii) CMC – 05 years	Para 2
(c)	Categorisation of Procurement	Buy (Indian-IDDM)	Para 1 of Covering Letter, Para 7 of Part I
(d)	Minimum IC Content required	50%	Para 7 of Part I
(e)	Place(s) of Delivery	At /IN designated locations	Para 1.1 of Appendix G
(f)	Warranty Period	03 years	Para 11 of Part I, Para 2 of Appendix C
(g)	CMC Period, if any	05 years	Para 31 of Part II, Para 7 of Appendix E
(h)	EMD Amount	₹ 70 Lakh	Para 8 of Annexure I to Appendix J

<u>Ser</u>	<u>Description</u>	<u>Details</u>	<u>Reference Para of the RFP</u>
(j)	Last date for submission of Prebid queries	19 Jun 24	Para 21 of RFP
(k)	Date and time for Pre-bid meeting	26 Jun 24 / 1100H	Para 22 of RFP
(l)	Last date and time for Bid Submission	21 Aug 24 / 1200H	Para 23 of RFP

4. **Special features of the RFP.** The quantity of CSAFRs will be split between L1 (first lowest bidder) and L2 (second lowest bidder) as follows subject to provision of Para 26, Chapter II of DAP-2020:-

<u>Ser</u>	<u>Lot</u>	<u>Qty of CSAFR</u>		<u>Vendor</u>
		<u>50 m</u>	<u>25 m</u>	
(a)	Lot 1	05	02	L1
(b)	Lot 2	02	01	L2
(c)	Lot 3	02	01	L2
(d)	Lot 4	05	02	L1

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

<u>Ser</u>	<u>Description</u>	<u>Page No.</u>
(a)	Part I – General Requirements	8
(b)	Part II - Technical Requirements	15
(c)	Part III – Commercial Requirements	20
(d)	Part IV – Bid Evaluation and Acceptance Criteria	22

6. The Government of India invites responses to this request only from Indian vendors comprising Original Equipment Manufacturers (OEM) or Authorised Vendors 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.

7. The end user of the equipment is Indian Navy.

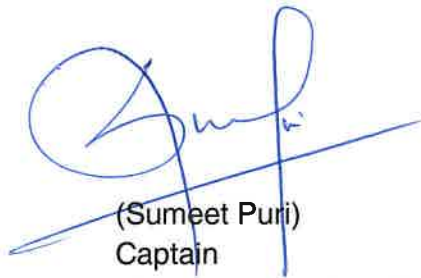
8. This RFP is being issued with no financial commitment; and the Ministry of Defence reserves the right to withdraw the RFP and change or vary any part thereof or foreclose the procurement case at any stage. The Government of India also reserves the right to disqualify any Bidder should it be so necessary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

9. This RFP is non-transferable.

10. In addition to various Appendices and their Annexures, 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.nic.in.

11. The receipt of the RFP may please be acknowledged.

Yours faithfully



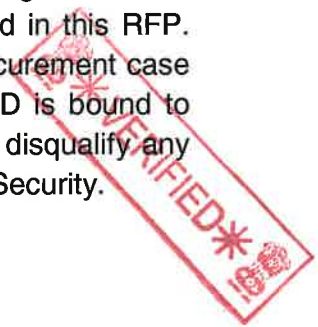
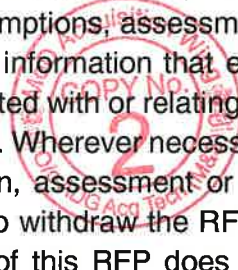
(Sumeet Puri)
Captain
DDG Acq Tech (Maritime)
O/o ADG Acq – Tech (M&S)

INDEX

	<u>Description</u>	<u>Reference</u>
	Disclaimer	
	Part I of RFP – General Requirements	
	Part II of RFP – Technical requirements	
	Part III of RFP – Commercial Requirements	
	Part IV of RFP – Bid Evaluation and Acceptance Criteria	
Appendix A	Operational Characteristics and Features	Part II
Appendix B	Compliance Table	
Appendix C	Warranty Clause	Part I
Appendix D	Certificate: Malicious Code	
Appendix E	Repair and Maintenance Philosophy	
	Annexure I Technical Literature	
	Annexure II Training Aggregates	
Appendix F	Trial Methodology	
	Annexure Trial Plan	
Appendix G	Commercial Clauses	Part III
	Annexure I Bank Guarantee Format for Advance	
	Annexure II Guidelines for protecting ERV in contracts	
	Annexure III Bank Guarantee Format for Performance – cum Warranty	
	Annexure IV Format for extension of Delivery Period/ Performance Notice	
	Annexure V Delivery Schedule and Stages of Payment	
Appendix H	Bid Evaluation and Acceptance Criteria	
Appendix J	Standard Conditions of RFP	Part III
	Annexure I Pre Contract Integrity Pact	
	Format for EMD	
Appendix K	Criteria for Vendor Selection/ Pre-Qualification	Part I
Appendix L	Format for QAP	Part II
Appendix M	Check-Off list – Documents to be submitted	Part IV
Appendix N	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 grounds 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, 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 Bidders 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 organisation, 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.** The detailed Pre-Qualification criteria for the Bidders for participation in the instant procurement case are placed at **Appendix K** 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.** Indigenous content of minimum 50% will be applicable under Buy (Indian - IDDM) category. Minimum 50% of overall IC is to be in form of material/ components/ software that are manufactured in India. The Cost of CMC shall be excluded from IC as well as Base Contract Price for arriving at IC percentage. Bidders are to specify the Indigenous Content envisaged in the Technical Proposal. 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 to 12 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 vest in the Ministry of Defence as prescribed under **Para 10**; and aspects of delivery, certification, payments, withholding of payments and imposition of penalties shall be as prescribed under **Para 11 to 15** thereof. Furthermore, Bidders will be required to submit their indigenisation plan in respect of indigenous content for Buy (Indian - IDDM)

categorisation as stipulated in **Para 4 to 7 of Appendix B to Chapter I** and **Para 39 of Chapter II** of DAP 2020. Also refer **Amendment to DAP-2020 promulgated vide MoD ID No. 1(8)/D (Acq)/21 dated 18 Mar 24**. The DAP 2020 is available at MoD, Gol website (www.mod.nic.in) for reference and free download.

8. **Year of Production.** Deliverables 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 at the time of delivery. Deviations, if any, should be clearly brought out by the Bidder in the Technical Proposal.

9. **Delivery Schedule.** The delivery schedule of equipment and services along with the relevant payment stages is specified at **Annexure V to Appendix G**. Twenty (20) CSAFRs will be delivered in Lots/ batches as follows:-

<u>Ser</u>	<u>Lot</u>	<u>Qty of CSAFR</u>		<u>Vendor</u>	<u>Delivery Time (Months)</u>	<u>Remarks</u>
		<u>50 m</u>	<u>25 m</u>			
For Delivery by L1 and L2						
(a)	Lot 1	05	02	L1	T ₀ + 06	
(b)	Lot 2	02	01	L2	T ₀ + 09	
(c)	Lot 3	02	01	L2	T ₀ + 12	
(d)	Lot 4	05	02	L1	T ₀ + 15	
For Delivery by L1 only						
(e)	Lot 1	02	03	L1	T ₀ + 06	
(f)	Lot 2	04	01	L1	T ₀ + 12	
(g)	Lot 3	04	01	L1	T ₀ + 18	
(h)	Lot 4	04	01	L1	T ₀ + 24	
<u>Note.</u>						
T ₀ is effective date of contract.						
The supply of CSAFRs will be split between L1 (first lowest bidder) and L2 (second lowest bidder) vendors provided L2 vendor accepts the price and terms and conditions quoted by/ negotiated with the L1 (Refers to Para 44 of Part III of RFP).						

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

11. **Warranty.** The deliverables supplied shall carry a minimum warranty for 03 (three) years. Commencement of warranty of each CSAFR will be from the date of installation and commissioning. There shall be no void between expiration of warranty and commencement of CMC for each CSAFR. Warranty Clause is given at **Appendix C** to this RFP.

12. **In Service Life.** The In-service life of CSAFR shall be at least 15 years as specified in Operational Characteristics (Appendix A of RFP) and shall be stipulated in the offer. 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.

13. (a) **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 **15 (fifteen) 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.

13 (b) **Codification.** The Bidder agrees to provide existing NATO Stock Numbers (NSNs) of OEM for each item supplied under the contract as per part list (including MRLS). In case, the NSNs are not available, the bidder agrees to codify using basic technical characteristics as required for codification in consultation with MoD/Directorate of Standardisation. In case of IPR issues, codification will be undertaken as Type IV codification (where only the manufacturer details and part number are to be provided).

14. **Training of Crew and Maintenance Personnel.** The Bidder would provide adequate training for both operators and maintainers at location of installation. 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 and training of QA personnel for Quality Assurance of equipment 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 to 'O' level. The syllabus will be defined by the Bidder in consultation with the Buyer at the time of CNC. 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, etc will be catered by the Bidder.

15. The Bidder would provide the following training to the personnel of the Buyer based on agreed terms of contract:-

(a) **Operator Training.** Operator training for 03 days duration (in working days), 03 operators strength for each CSAFR is to be provided at Buyer premises at respective location of CSAFR.

(b) **Repair and Maintenance/ QA Course.** Maintenance training for 03 days duration (in working days), 03 personnel for each CSAFR at Buyer premises at respective location is to be undertaken.

(c) The above training should meet the needs of repair & maintenance of the complete equipment, SMTs/STEs, test set up, assemblies/sub-assemblies as per the stipulated repair philosophy.

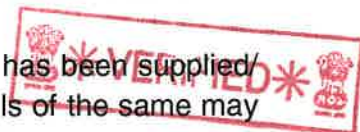
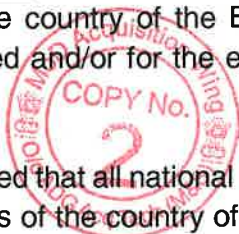
16. **Government Regulations.** It may be confirmed that there are no Government restrictions or limitations in the country of the Bidder or countries from which sub-components are being procured and/or for the export of any part of the deliverables being supplied.

17. 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.

18. **Patent Rights.** The Bidder should confirm that there are no infringements of any Patent Rights.

19. **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 J** to this RFP.

20. **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/ is 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.

21. **Bid Timelines.** Any queries/ clarifications to this RFP may be sent to this office by 19 Jun 24.

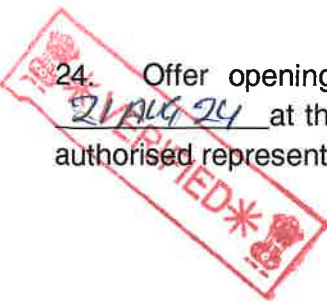
The Commodore (Staff Requirements)
Directorate of Staff Requirements
Room No 206, D Block
Defence Offices Complex
Africa Avenue
New Delhi 110023
Tel 011-26771553; Fax 011-26771320

22. **Pre-Bid Meeting.** A pre-bid meeting will be organised at 1100 hrs on 26 Jun 24 at Conference Hall, NHQ/ DSR, New Delhi to answer any queries or clarify doubts regarding submission of proposals. The Bidder or his authorised representative is requested to attend.

23. **Submission of Bids.** The Technical and Commercial Proposal 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 21 Aug 24:-

The Commodore (Staff Requirements)
NHQ/ Dte of Staff Requirements
Room No 206, D Block
Defence Offices Complex
Africa Avenue
New Delhi 110023
Tel 011-26771553; Fax 011-26771320

24. Offer opening by Offer opening committee will be held at 1500 h on 21 AUG 24 at the same venue as indicated at Para 23 above. The Bidder or his authorised representative is welcome to be present at the opening of the proposals.



PART II – TECHNICAL REQUIREMENTS

25. 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.

26. **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.

27. **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/ shelf life.

28. **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.

(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.

29. 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.

30. **Malicious Code Certificate.** The Bidder is required to submit a '**Malicious Code Certificate**' (*only for Electronic items and Software*) along with the Technical Proposal. The format is placed at **Appendix D** to this RFP.

31. **Product Support (CMC).** After induction, the equipment/ system would be repaired and maintained as per the repair and maintenance philosophy at **Appendix E** to this RFP. The details of CMC proposals 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.

32. **Evaluation of Technical Offers.** 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 as elaborated at **Appendix A**. Thereafter, the Bidder of the short listed equipment would be asked to offer the equipment (one 25m/ 50 m CSAFR) for trial evaluation as per trial methodology given at **Appendix F** to this RFP, in India at 'No Cost No Commitment' basis.

33. **Field Evaluation Trials.** 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 of the following:-

(a) **User Trials.** These will involve functional testing by user of the equipment in various specified conditions as per requirement. 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.

(b) The Bidder is requested to confirm his willingness to provide the equipment for trial evaluation in India on "No Cost No Commitment" basis. 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.

(c) Bidders shall undertake all administrative arrangements, including any authorisation required from government authorities/ local bodies for undertaking all trial serials of FET at the proposed site.

(d) Expenditure by *IN* towards conduct of small arms firing as part of FET, if required, would be reimbursed by the vendor within eight weeks of completion of FET.

(e) **Technical Trials.** Technical trials will be conducted by QA agency as per Technical Evaluation Plan (to be specified iaw Para 34 below) to assess conformance to the quality requirements, standards and specifications. Equipment/ assemblies/ subassemblies 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 recognised 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. QA agencies will finalise ATP in respect of all Bidders during Technical trials.

(f) **Maintainability Evaluation Trial (MET).** 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.

Quality Assurance Instructions & Technical Evaluation Plan

34. Acceptance Test Procedure and Quality Assurance Plan.

(a) Bidder is to submit draft Acceptance Test Procedure (ATP) and draft Quality Assurance Plan (QAP) along with the Technical Bid, as per the QA instructions and Technical Evaluation Plan. Based on the draft ATP and draft QAP, the ATP and QAP will be approved by NHQ and DQA(N), respectively with Bidder during Trials. Draft QAP should be submitted in the DQA (N) approved format at **Appendix L.**

(b) ATP and QAP shall be included in the contract at the time of finalisation with successful bidder. ATP will lay down the tests to be carried out during PDI, JRI and On-Site Acceptance Trials (O-SAT). It shall be ensured that there are no repetition of QA tests in PDI and JRI. The JRI would normally be restricted to quantitative checks only, except where check proof is required to be carried out. In case PDI/ JRI is planned to be conducted by authorised Third Party Inspection (TPI) Agencies, the same will be spelt out in the QA instructions and the details included in the approved ATP. QA of equipment will be carried out as per approved QA Plan in the contract by following:-

(i) Inspection Authority: Directorate of Quality Assurance (Naval)

West Block V, RK Puram
New Delhi 110066

(ii) Inspection Agency : DQA (N) Nominated Field Unit

(c) Approved QAP and approved ATP shall be the basis for undertaking QA checks of equipment by DQA (N) nominated Inspection agency. For technical trials by QA agencies, 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.

Marking and Packaging

35. **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.

36. 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.

37. **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.

38. 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 details.
- (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.
- (g) The Packaging Label (military J, N or P, special H, commercial A, C etc) (specify reference to DEFSTAN 81-041 (Part 1)/ STANAG-4280 or equivalent Military Standard).



PART III - COMMERCIAL REQUIREMENTS

39. 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

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

41. Commercial offers will be opened only of the Bidder whose equipment is short-listed after FET 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

42. 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.

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

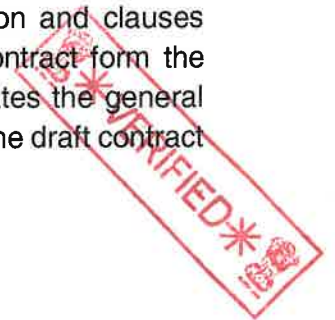
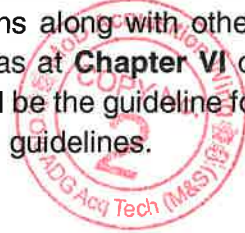
44. The CNC will determine the first lowest bidder (L1) and second lowest Bidder (L2). The supply of CSAFRs will be split between (first lowest bidder) L1 and (second lowest bidder) L2 vendors as follows, provided L2 vendor accepts the price and terms and conditions quoted by/ negotiated with the L1:-

Ser	Vendor	50 m CSAFR	25 m CSAFR	Total
(a)	L1	10	04	14
(b)	L2	04	02	06
	Total	14	06	20

Additional Aspects

45. **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 J** 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 form the Standard Contract Document (as at **Chapter VI** of DAP 2020) indicates the general conditions of contract that would be the guideline for all acquisitions. The draft contract would be prepared as per these guidelines.



PART IV: BID EVALUATION AND ACCEPTANCE CRITERIA

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

47. The bids 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 nonresponsive bid.

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

49. **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 offer CSAFR for Field Evaluation. Field Evaluation would be conducted for Essential Parameters-A. A Staff Evaluation will be carried out, which will give out the compliance of the demonstrated performance of the equipment vis-à-vis the requirements. The compliance would be determined only on the basis of the parameters specified in the RFP. The Staff Evaluation will analyse the field evaluation results the technical documents provided by the vendor and shortlist the equipment recommended for introduction into service.

(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/ Technical Trials and Staff Evaluation. Comparison of bids would be done on the basis of Evaluation criteria given in **Appendix H** to this RFP. The L1 and L2 Bidders would be determined by Contract Negotiation Committee (CNC) on the basis of **Appendix H** to this RFP.

(c) **Contract Conclusion.** The successful conclusion of CNC will be followed by conclusion of contract with L1 vendor or separate contracts with L1 and L2 vendors as per Para 44 above.

Appendix A

(Refers to Paras 12, 25-29 and 32 of RFP)

OPERATIONAL CHARACTERISTICS AND FEATURES**PART A - INTRODUCTION**

1. Operational characteristics and features for Containerised Small Arms Firing Range (CSAFR) to conduct firing of small arms are set forth in succeeding paragraphs.
2. **Definition.** Containerised Small Arms Firing Range (CSAFR) is a modular shooting range for undertaking indoor live firing of small arms at both day and night.
3. **Operational Philosophy.** CSAFR will be utilised for calibration of small arms employed in security of shore establishments and for undertaking accurate firing of small arms at sea during LIMO situations. Further, CASFR will provide capability to generate custom maritime scenarios for ship's Boarding and FPM teams to undertake Operational Rehearsals of missions. CSAFR will improve small arms accuracy against fast manoeuvring targets like high speed boats. It will also enhance response of FPM teams against attacks in night / low visibility
4. **Components.** CSAFR shall comprise of following sub-systems:-
 - (a) Firing Bay/ Live Firing Area.
 - (b) Control Room.
 - (c) Target Placement/ Retrieval System.
 - (d) Virtual Target System.
 - (e) Ventilation system.
 - (f) Acoustic reduction system.
 - (g) Electrical outfitting.
 - (h) Lighting system.
 - (j) Communication system.

- (k) Lead Contamination Control Unit.
- (l) Fire Fighting System.

PART B – ESSENTIAL PARAMETERS ‘A’

SECTION I – OPERATIONAL PARAMETERS

1. **Description.** Each CSAFR shall consist of container modules assembled into a fully operational firing range. The containers should be connected together by a technique resulting in a 100% ballistic envelope with zero Surface Danger Zone (SDZ) in entire range. The range shall be built to safely accommodate firing of 5.56 mm ball, 7.62 mm ball and 9 mm ball munitions. CSAFR shall have following variants based on firing distance:-

- (a) 25 m CSAFR (25 m shooting distance, three lanes).
- (b) 50 m CSAFR (50 m shooting distance, six lanes).

Physical Characteristics and Structural Requirements

2. **Dimensions and Lanes.**

Variant	External Dimensions (Not More Than)			Internal Dimensions (Not Less Than)			No of Shooting Lanes
	Length	Width	Height	Firing Distance	Width of Firing Lane	Height of Firing Bay	
	(m)	(m)	(m)	(m)	(m)	(m)	
50 m	65	10	4	50	1	2.2	06
25 m	37	4	4	25	1	2.2	03

3. **Foundation.** CSAFR in completely assembled state should be compatible with a foundation structure of standard RCC/ concrete plinth or compacted gravel/ asphalt. Design drawings shall be provided by the Seller based upon each site as determined by the user. Site preparations shall accommodate local site conditions.

4. **Architectural Standard.** The assembled CSAFR shall correspond to the colour characteristics of the location of installation which surround the initial site and shall be approved by the user.

5. **Site Requirements.** User shall provide flat compacted site (soil or gravel) for construction of foundation structure by Seller. User shall also provide access to site for installation.

Firing Bay/ Live Firing Area

6. **Ballistic Protection.**

(a) The range shall be designed to retain full structural integrity to support all ballistic treatment, ventilation equipment and accessories and must maintain 100% ballistic (projectile) containment.

(b) The Live Firing Area shall maintain ballistic integrity to floors, walls, ceiling, doors and across all joints. All joints will be connected not abutted. Containment integrity shall be coordinated with the design and installation of ventilation system, ballistic criteria, and general construction. In addition, exposed equipment of the target system and rails including roof mounted rail should have suitable bullet protection to prevent damage by direct bullet hit or ricochet.

(c) The CSAFR shall be designed and constructed with interior walls and a bullet trap to eliminate the possibility of directed projectiles from ricocheting towards the shooting stalls and shooters.

(d) Each lane shall have one bullet absorbing Shooting Stall at the firing line. Each Shooting Stall shall have a cantilevered support barricade for strong hand/weak hand training exercises.

(e) CSAFR shall be designed to protect overhead items (lights, cables, etc.) by overhead baffles consisting of AR 500/ AR 550 steel baffles. Rubber spatter protection and acoustic attenuation tiles shall be provided on all baffles.

7. **Shooting Lanes.** Design of 50 m and 25 m CSAFRs shall provide for six and three shooting lanes with minimum 50 m and 25 m shooting distance, respectively. Width of each firing lane should not be less than 1m. The lanes shall allow use of 7.62 mm, 5.56 mm and 9 mm calibre guns by both left and right-handed firers. Each shooting lane shall be equipped with bullet-absorbing interior shooting stall for shooter safety and a fold down shooting tray for firing.

8. **CCTV.** CCTV cameras shall be provisioned for day/ night video monitoring and recording of firing. The cameras shall provide complete coverage of Live Firing Area. Displays and recording equipment shall be housed in the Control Room.



Control Room

9. **Description.** A Control Room shall be provisioned inside CSAFR for centralised control of firing. The Control Room shall be manned by at least one operator and one Range Officer.

10. **Equipment.** Control Room shall house following equipment:-

- (a) Control panels for Virtual Target System, ventilation system and fire fighting system.
- (b) Centralised remote control of access system.
- (c) Central PA system to control movement and impart instructions to personnel inside the firing bay.
- (d) Two way discrete communication system with firer in each firing lane.
- (e) Displays and recording equipment of CCTV.

Target Placement/ Retrieval System

11. **Description.** CSAFR should have a wireless ceiling mounted system for target placement and retrieval from each firing lane.

12. **Specifications.** Specifications of Target Placement/ Retrieval system shall be as follows:-

- (a) Individual target should be provisioned with turning capability of 180° and 360°.
- (b) Every target should be programmed to stop at distances as required by the firer or controller. The controller should have master control to control target placement and retrieval for all lanes.
- (c) Individual controls shall be provided at respective firing stalls for target placement and retrieval.
- (d) Distance of target from firers should be indicated on the controller's master panel and each individual firer's control/ display panel.

Virtual Target System (VTS)

13. **Description.** CSAFR shall have a projection system that allows for live fire of weapons on video clips and computer-generated scenarios projected on a target screen, with at least 50 maritime scenarios.

14. **Target Screen.** The system shall utilise and include a live fire target screen which can be shot with live ammunition.

15. **Target Recording and Analysis.** VTS shall be capable of recording and displaying hits and misses, MPI, Group Size and X/Y coordinates of shot. Additionally, the target recording and analysis system should fulfil following requirements:-

- (a) Facility of defining target scoring by user and control station.
- (b) Facility of printing out report of shooter's performance as desired.
- (c) Feasibility of providing user defined interactive firearm qualification courses.
- (d) Facility to conduct zeroing of different weapons.
- (e) Provision of pause and replay of exercise scenario for debrief and analysis.

Lighting System

16. **Lighting.** Lighting system shall provide general downrange lighting for safety and clean-up purposes as well as for general range illumination. Lighting design should provide uniform intensity and should be free of glare. All lighting levels must be "flicker-free". The system should be installed with provision for the following:-

- (a) Low light training with multiple selectable spotlights including dimmer, as required for the training activity.
- (b) Spotlights should be selectable by users individually and by controller.
- (c) Lighting behind the firing line should not interfere with the shooter's view down range. Down range lighting should be baffled so that no direct lighting comes to the firing line and the lighting system is protected from misdirected shots.
- (d) Lighting shall be provided in the bullet trap area to facilitate maintenance.

17. **Range Safety Lights.** The CSAFR shall have a red light above the entrance when it is in use. Light is off when weapons are safe.

18. **Exit Lighting.** The CSAFR shall have low profile emergency exit lights for egress.

Communication System

19. **Public Address System.** The communication system should facilitate a wireless system using standard two way public address system in conjunction with headsets also serving as ear protection. The PA system shall allow the operator to address all firing lines simultaneously.

20. **Wireless Communication.** Two way wireless communication shall be provided from Control Room to individual firing lanes and to sentry outside the firing range.

SECTION II – TECHNICAL PARAMETERS

Firing Bay/ Live Firing Area

1. **Construction Material.** Walls, floors, ceilings, false ceilings, roofs and access points in/out of Firing Bay shall be manufactured of AR 500 grade steel (Brinell Hardness rating) or equivalent, having minimum 6 mm thickness on all sides. The AR 500 steel must be independently ballistically tested and certified as having Brinell 500 hardness.

(a) **Walls.** Walls shall be of AR 500 grade steel. A tactical/ ballistic rubber spatter protection shall extend from the bullet trap to the shooting stalls of all lanes.

(b) **Floors.** The floors shall be flat and manufactured from AR 500 grade steel. Control Room flooring, strong room flooring, vestibule flooring, and flooring between the shooting stalls and the Control Room wall shall be covered with ballistic rubber flooring.

(c) **Doors.** Doors that provide direct access to the Live Firing Area shall be constructed to provide containment integrity with ballistic AR 500 strength metal. They shall be equipped with industrial rated locking mechanisms without restricting ability to open the door internally.

2. **Bullet Traps.** The range shall be equipped with AR 500/ AR 550 or 550+ BHN grade steel or equivalent, vertical/ horizontal helical type bullet traps. The bullet traps shall meet specific requirements as follows:-

- (a) The bullet traps shall not use water, sand, or rubber and shall not have any electrical or pneumatic components.
- (b) The bullet traps shall be designed to direct rounds into a replaceable deceleration chamber. Plate joints shall be flush and either butt welded ground smooth or butted and bolted to a back plate on the rear with countersunk heads on the face. No joint should be horizontal or located directly behind a target. The main impact plates of the traps shall be easily replaceable with bolt in designs.
- (c) The traps shall be housed in a sealed area that shall provide easy access for removal and replacement of round collection. Suitable arrangements shall be provided to capture lead, frangible or other material created from rounds impacting the traps.

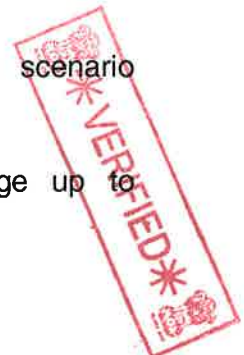
Virtual Target System (VTS)

3. **Video Scenarios.**

- (a) Shall be displayed with an accurate point of view of the scene of a life-size video projection screen included with the system.
- (b) Shall have been filmed in High Definition video with 1920 x 1080 or higher native pixel resolution and shall not be stretched/ warped/ resized to meet the required resolution.

4. **Interactive Computer Generated Scenarios.** The system shall include a minimum of 300 interactive scenarios on a variety of training topics and shall meet the following requirements:-

- (a) Video pixel resolution 1920 x 1080 or higher.
- (b) Video frame rate per screen 30 fps or higher.
- (c) Provision of a chronological, instructor selectable list of scenario sessions for review.
- (d) Software shall scale the target to simulate target range up to 500 m on screen.



(e) Option of zooming in/out and panning of target onscreen which could be controlled by Individual firers and controller.

(f) Software shall provide accurate external ballistics simulation at simulated distances greater than maximum physical shooting distance (50 m/ 25 m) on screen.

5. **Sound Effects.** The system shall provide 5.1 surround sound capability and shall also support standard stereo sound system.

6. **Software and IT Systems.** IT hardware should be supplied from an ISO certified firm and hardware should be readily available in India. All application software shall be made available to the Indian Navy.

Electrical Outfitting

7. **Power Supply.** All equipment should work on 220 V, 50 Hz power supply. A suitable noiseless generator from reputed Indian manufacturer that should take the operational load of the entire CSAFR shall be provided by the Seller.

Environmental and Military Specifications

8. The under mentioned or any other **equivalent standards** being followed in the country of origin would be applicable for respective equipment/ components/ sub-systems of CSAFR. The OEM would provide necessary test certificates of compliance with the above standards or equivalent along with the necessary test reports from authorised test agencies as applicable.

Ser	System	Standard Certificate Required
(a)	Target System	Certificate from Vendor/ OEM for target being capable of subject to more than 100 rounds without repairs
Structure		
(b)	Range Design & Construction	AR 500 steel
(c)	Fire Retardant Rating	Class A as per ASTM E84
(d)	Shock and Vibration Testing	Mil Std 810G or 810H
(e)	Water Proofing/withstanding salt/sea spray	Mil Std 810G or 810H
Firing Bay/ Live Firing Area/ Shooting Stall		
(f)	Ballistic Glass inter firer partition	NIJ Level 3 protection for glass/ transparent portion

Ser	System	Standard Certificate Required
(g)	Bulletproof Steel Frame	S275 compliant (class R@ for BS 5051, 1988 NIJ level 3 or FB6 for EN1522)
(h)	Ballistic Resistant Protective Material	NIJ Standard 0108.01-1985
Bullet Traps		
(j)	Bullet Trap Steel strength	AR 500/AR 550 or 550 + BHN
(k)	Surface Paint	SP 6 Paint
Side Walls/ Ceiling/ Roof/ Floor		
(l)	Tensile Strength of side walls	01 N/mm ² (ASTM 412 or DIN 53571 or DIN EN ISO 1798 2008-4)
(m)	FSR (Flame Spread Rating) of side walls/floor/roof	FSR 3 as per ASTM 94 (Class 1) or DIN 4102 (Class BZ) or BS 476 (Class 3: Part 7, 1997)
(n)	SSR (Smoke Spread Rating) of side walls/floor/roof	SSR 84 as per ASTM 94 (Class 1) or DIN 4102 (Class BZ) or BS 476 (Class 3: Part 7, 1997)
(p)	BHN (Brinell Hardness Number) of Baffle Plates	460 – 544 tested as per ENISO 6506
Ventilation System		
(q)	Exposure Limit of Lead in Air Assessment	< 50 microgram (Mg) /m ³ (Lead in air) on 8 hrs Time Weighted Average (TWA) iaw NIOSH
(r)	Air Flow	As per NIOSH 1975 - Apr 2009
Acoustic Reduction System		
(s)	Acoustic Insulation	As per ISO 717-2:2013
(t)	NRC (Noise Reduction Coefficient)	≥ 0.75 as per ASTM CU23-90a
(u)	Ear Muff	OEM certificate for sound level reduction to < 85 dB
(v)	FSR (Flame Spread Rating)	FSR 3/5 as per ASTM E84
(w)	SSR (Smoke Spread Rating)	SSR – 94/90 as per ASTM E84
Software/Equipment		
(x)	Software Development and Documentation	IEEE 12207
(y)	Design of Electronic Equipment	MIL HDBK 454 Rev A, IEC60068
(z)	Documentation	JSS-0251-2002 (Rev)/EED- S-048 and IETM Level 4
(aa)	Electromagnetic Effects	Not Applicable
(ab)	System Safety Program Requirements	MIL-STD 882 E

Ser	System	Standard Certificate Required
Miscellaneous (for all equipment)		
(ac)	Environmental Test Specifications	Mil Std 810G or 810H (for both imported and indigenous equipment)
(ad)	Microbial Growth	UL 1715 standard, UL 181 (section 11), ASTM G21
(ae)	Fungal Growth	Rating 0 as per ASTM G21
Ballistic Rubber Panel		
(af)	Skid Resistance	ASTM E 303-93 (2-13)
(ag)	Hardness Shore	ASTM D 2240
(ah)	Density	ASTM D792
(ai)	Ground Electrical Resistance	ASTM F 150
(aj)	Tensile Property	ASTM D 573/ASTM D 412
(ak)	Compression Strength	DIN 53577, Rate 4.39 MPa
(al)	Resistance Breaking Test	DIN 53504

SECTION III – MAINTAINABILITY AND ERGONOMICS PARAMETERS

Maintainability

1. **Life.** Life of CSAFR should be at least 15 years and the manufacturer should carry out routine software upgrade, if any, during warranty period and subsequently as part of CAMC.
2. **Maintenance.** Maintenance philosophy of CSAFR would be through long term CAMC towards ensuring seamless product support (hardware and software) post induction.
3. **Product Support.** CSAFR should be supported by the OEM / supplier, for a period of at least 15 years. Likely obsolescence of any component / module, should be intimated to Indian Navy by manufacturer. The manufacturer should also offer suitable substitutes for such components. In addition, up-gradation/ modifications to the equipment, resulting in enhancements to equipment performance should be intimated and offered to the Indian Navy. The manufacturer should also be willing to undertake CAMC (which would be contracted on expiry of the warranty period) either directly or through their authorised reps.

Ventilation System

4. **Recirculation Type Air Conditioning System.** CSAFR must be equipped with a recirculation type air-conditioned air delivery system with temperature control facility to protect firers from the hazards of breathing vapourised lead formed during

firing and to eliminate the smoke generated. The system should have dual controls with remote operation from the Control Room and local operation from the system.

5. **Air Flow and Distribution.**

(a) **Air Distribution.** The distribution of supply air should provide uniform, diffuse, non-turbulent air flow towards the firing line and a near laminar flow down range.

(b) **Air Flow.** Air flow of 75 ft per/min or 1.25 ft/sec (~22.86 m/min) across the firing line is recommended, and minimum acceptable air flow shall be 50 ft/min (~15.2 m/min). The flow should be evenly distributed past the shooter.

Acoustic Reduction System

6. **Acoustic Reduction Design.** The design should include Acoustic Insulation treatment to all exposed walls and surface.

7. **Ear Defenders.** 50 noise reduction ear defenders for sound reduction to <85 db with adjustable left and right arm and ear muffs should be provided for the firers.

Lead Contamination Control Unit

8. **Lead Contamination Control.** CSAFR should have suitable arrangements for ventilation, encapsulation and disposal of lead contained dust.

Fire Fighting System

9. **Fire Fighting System.** CSAFR should have suitable fixed fire suppression system and ten portable fire extinguishers to cater for any fire hazards in Firing Bay/Live Firing Area, Central Control Room (CCR) and Bullet Trap Area.

ESSENTIAL PARAMETERS – ‘B’

NIL

ENHANCED PERFORMANCE PARAMETERS

NIL

Appendix B

(Refers to Paras 25, 28 and 29 of RFP)

COMPLIANCE TABLE

For Containerised Small Arms Firing Range (CSAFR)

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			
Technical Parameters as per Appendix A			
	Essential Parameters 'A'		
Commercial Parameters as per RFP			
	Performance-cum-Warranty Bank Guarantee as per Para 2 of Appendix G		
	Advance Payment Bank Guarantee as per Paras 1.3.3 and 1.4.1 of Appendix G		
	Earnest Money Deposit of ₹70 Lakh as per Para 8 of Annexure I to Appendix J		

Appendix C

(Refers to Para 11 of RFP)

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. The **SELLER** warrants for a period of **03 (three)** years from the date of installation and commissioning, that 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). There shall be no void between expiration of warranty and commencement of CMC for each CSAFR.
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 **15** days 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 down time 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 the equipment does not exceed 5% of the warranty period.**
5. If a particular equipment/ goods fails frequently and/or, the cumulative down time exceeds **5%** of the warranty period **or a common defect is noticed in more than 10% of the quantity of goods with respect to a particular item/component/subcomponent, that complete item/equipment shall be replaced**

free of cost by the **SELLER** within a stipulated period of **90** 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. Warranty of the replaced item/equipment would start from the date of installation and commissioning of replaced item/ equipment.

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.**

Appendix D

(Refers to Para 30 of RFP)

CERTIFICATE: MALICIOUS CODE

(To be rendered on the Company Letter head)

1. This is to certify that the Hardware and the Software being offered, as part of the Contract, does not contain embedded malicious code that would activate procedures to:-

- (a) Inhibit the desired and designed function of the equipment.
- (b) Cause physical damage to the user or equipment during the exploitation.
- (c) Tap information resident or transient in the equipment/ networks.

2. The firm will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Rights (IPRs) are caused due to activation of any such malicious code in embedded software.

(Signed)

Designation/Name/Address of firm

Date:

Place:

Appendix E
(Refers to Para 31 of RFP)

PRODUCT SUPPORT

1. **Maintenance Philosophy.** The repair and maintenance philosophy for CSAFR is enumerated in succeeding paragraphs.

- (a) **'O' Level.** Includes Unit Repairs (1st Level).
- (b) **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 Table of Tools and Equipment (TOTE) with each equipment including operators manual as per provisions in the RFP for carrying out such repairs.

2. To sustain and support platform/equipment through its operational life-cycle, following Product Support requirements for at least 5 years beyond the warranty period will be procured along with the main equipment:-

- (a) Engineering Support Package (ESP)
- (b) Comprehensive Maintenance Contract (CMC)

Engineering Support Package (ESP)

3. ESP is the basic engineering support the Seller needs to provide to the Buyer for undertaking essential repairs and maintenance of the equipment during its exploitation. These repairs and maintenance would be in consonance with the Maintenance Philosophy enunciated above. ESP would constitute the following aspects:-

- (a) Technical Documentation.
- (b) Training.

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 I** 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 may be submitted by the Seller is as under:-

- (a) User Handbook/Operators Manual in English and Hindi.
- (b) **Technical Manuals.** (as per governing JSG/Guide for other technologies)
 - (i) **Part I.** Tech description, specifications, functioning of various systems.
 - (ii) **Part II.** Inspection/ Maintenance tasks repair procedures, materials used, fault diagnosis.
 - (iii) **Part III.** Procedure for assembly/ disassembly, repair up to component level, safety precautions.
 - (iv) **Part IV.** Part list with drawing reference.
 - (v) Rotable list, norms of consumption, mandatory/ non-mandatory spares list for each system.
- (c) Table of Tools & Equipment (TOTE) & carried spares.
- (d) Complete Equipment Schedule.
- (e) Repair and Servicing schedule.
- (f) Design Specifications.
- (g) Technical Manual on STE with drawing references.
- (h) Condemnation limits.
- (j) Packing specifications /instructions.
- (k) Any additional information suggested by the OEM.

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

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

6. **Training.** A training package for operators, and maintenance/ QA personnel to undertake operation and basic maintenance of 'O' level in respective contract, 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, 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 requirement of training and associated equipment must be clearly specified in Part I and details should be placed as per **Annexure II** to this Appendix.
- (b) The costs for training must only be indicated in the commercial proposal.
- (c) The Bidder will confirm to the Buyer that installation material and spares are complete and adequate for installing and operationalising the equipment. Any Bidder found to be providing lesser installation material/ spares will have to make good the deficiency at no extra cost.

7. **Comprehensive Maintenance Contract (CMC).** The Bidder is to provide **05 (five) years CMC** for CSAFRs post completion of warranty period. 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 OEM will ensure that the down time 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 down time 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 Bidder 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 Bidder 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 Bidder will also be responsible to undertake breakdown maintenance of the equipment. Defects on the equipment as and when observed, will be intimated to the Bidder by telephone/ fax. The Bidder will depute a team for undertaking repairs of the equipment within two working days from the reporting of the defect, in order to make the equipment operational. The Bidder will need to diagnose, test, adjust, calibrate and repair / replace the goods/equipment during the CMC period. However, defective hard disks, storage devices, if any, of the equipment, will not be returned to the Bidder and would be retained for destruction/ safe custody. The downtime of the equipment will commence 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 authorised 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) **Software**. The Bidder will provide support for maintenance of the software(s) during the period of CMC and would include the following:-
- (i) Upgrades, patches, fixes to the OS and the Application software.
 - (ii) Back-up and restoration of software, as and when required.

(iii) No malware certificate.

(iv) Version of the software and IV & V (Independent verification and validation) certificate as per the applicable CMM Level, depending on the criticality of the equipment.

(v) Method of checking the health of the software and debugging methods.

(f) **Obsolescence Management.** The obsolescence management for the equipment delivered under the scope of contract would from 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.

8. **SELLER Scope of Supply and Work for CMC.** The scope for CMC by the SELLERS will include the following:-

(a) Deployment of Maintenance Team(s) as per the routine maintenance plan.

(b) Deployment of Specialist Team for preventive maintenance.

(c) Supply of Spares for routine and preventive maintenance of the equipment (Software and Hardware) and foundation of CSAFR.

(d) On call assistance (in cases where physical presence of engineer may not be required) for generic fault identification/rectification.

(e) Supply of breakdown spares and repair services.

(f) Adherence to all safety guidelines for the above maintenance services.

(g) Standard Tool Kits shall be available with the Buyer's Maintenance Team.

(h) Transportation of Special Tools Kit to locations on returnable basis and sending back after completion/ rectification of problem.

(j) The Bidder shall undertake maintenance and repair at all locations in India where CSAFR will be installed.

9. The exclusions from the CMC are mentioned below:-

- (a) Carrying out any un-authorised modification/ changes in the system after acceptance or handing over of the system.
- (b) Renewal/ obtaining any statutory approvals from Govt authorities after acceptance or handing over the system.
- (c) Any defects arising out of any un-authorised access or maintenance by /N personnel without the consent/clearance of SELLER's Maintenance Team.
- (d) Physically damaged items resulting due to mishandling/misuse/ improper storage.

10. **BUYER'S Scope of Supplies and Work for CMC.** BUYER shall be responsible for the following:-

- (a) Monitoring and inspection for proper operation and general maintenance.
- (b) Adherence to all personnel and equipment safety guidelines as per supplier documentation.
- (c) Issuance of End User Certificate in case of any import of spares, as required.
- (d) Permission for CMC technicians to work beyond working hours as required for completing the activity.

11. Terms and conditions of CMC are as follows:-

- (a) The CMC shall commence from the expiry of warranty of the first CSAFR and extend for a duration of 05 (five) years. Balance CSAFRs would get included in the CMC upon expiry of respective warranty.
- (b) There shall be no void between expiration of warranty and commencement of CMC for each CSAFR.
- (c) The Bidder is to provide, **in the Commercial Offer only**, breakdown of the cost of CMC of 20 x CSAFRs as follows:-

<u>Ser</u>	<u>CMC Year</u>	<u>No of CSAFRs</u>	<u>CMC Annual Cost</u>	<u>Remarks</u>
(a)	Year 1	10		
(b)	Year 2	20		



<u>Ser</u>	<u>CMC Year</u>	<u>No of CSAFRs</u>	<u>CMC Annual Cost</u>	<u>Remarks</u>
(c)	Year 3	20		
(d)	Year 4	20		
(e)	Year 5	20		
Total Cost of CMC for Five Years				

(d) The Buyer can depute their personnel to be attached with the Bidder's Maintenance Team during the maintenance/ repair activities.

(e) Equipment spares and consumable spares and all breakdown spares shall be covered under CAMC.

(f) Bidder shall only use authorised/ standard spares parts for repairing. However, in case of obsolescence, alternate solutions/spares may be used for repairing of the equipment.

(g) The faulty/ failed components(s)/ spares/ module(s) shall be replaced or rectified free of cost during the CMC. To ensure timely repairs, the SELLER shall maintain adequate quantities of stock of spares based on statistical data regarding the observed failure rates and the same be used for carrying out defect rectification (DR). Duration for replacement/ repair-return for the faulty component should not exceed 30 days.

(h) Adequately qualified, skilled and experienced personnel shall be deployed for the performance of the Contract. Bidder shall impart Technical and safety training to personnel after full mobilisation of team.

(j) The Bidder would be required to provide product support through their network of qualified technical engineers.

(k) Routine maintenance, preventive maintenance and breakdown maintenance (software and hardware) has to be provided by physical attendance at site by the engineers from the Bidder.

(l) All spares, components, sub-assemblies and manpower etc required for carrying out defect rectification should be provided by the Bidder under CMC at no extra cost to the Indian Navy.

(m) The maximum permissible down time commencing from the notification of defect should not exceed 15 days and not exceed 45 days within a period of one year. The year wise calculation will commence from the date of commencement of the CMC.

Annexure I to Appendix E
(Refers to Para 4 of Appendix E)

TECHNICAL LITERATURE

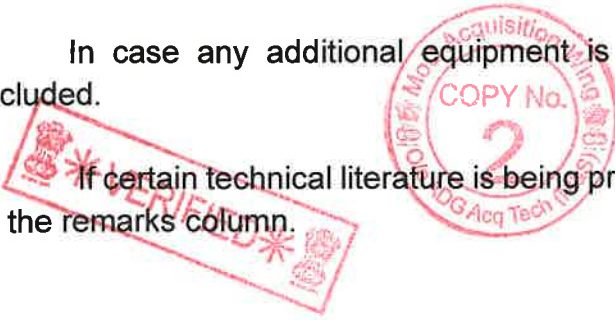
Equipment: - Containerised Small Arms Firing Range

Original Equipment Manufacturer (OEM): -

Ser	Technical Literature	Unit Cost	Scale for 01 CSAFR	Total Cost for 20 CSAFR	Remarks
1.	User Handbook/operators Manual				
2.	Design Specifications				
3.	Technical Manual (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. (c) <u>Part III.</u> Procedure assembly/ disassembly, safety precautions. (d) <u>Part IV.</u> Part list with drawing reference				
4.	CDs on the above Tech literature				
	Total				

Notes:-

1. In case any additional equipment is used their technical literature will be included.
2. If certain technical literature is being provided free of cost it should be indicated in the remarks column.



Annexure II to Appendix E
{Refers to Para 6(a) of Appendix E}

TRAINING AGGREGATES

Equipment :- Containerised Small Arms Firing Range

Original Equipment Manufacturer:- _____

Ser	Description of Training Aggregate	Scale for 01 CSAFR	Unit Cost	Total Cost (20 CSAFRs)	Remarks
1.	Training Aids to include (a) Charts (b) Slide (c) Training Brochures (d) Blow up diagram (e) Video films	01 set			
2.	Cost of training (a) 03 operators for each CSAFR at designated location. (b) 03 maintainers/ QA personnel for each CSAFR at designated location.	01 set			
	Any other cost				
<u>Total Cost</u>					



Appendix F

(Refers to Para 32 of RFP)

TRIAL METHODOLOGY
FIELD EVALUATION TRIALS

1. Field Evaluation Trials (FET) will be conducted on a 'No cost No Commitment' (NCNC) basis under the aegis of Naval Headquarters. The broad methodology of evaluation along with evaluating agencies is given at Annexure to this Appendix. The FET will constitute following:-

- (a) User trial.
- (b) Technical and Environmental Evaluation.

2. **Trial Equipment**. Each Bidder is to submit one fully functional 25 m CSAFR for FET at designated trial location. Weapons and ammunition required for FET will be provided by the Buyer. Bidders are to be prepared to submit CSAFR for FET immediately on intimation of successful TEC. The final date for submission of CSAFR for FET (considering transportation, installation and setting to work time) will be intimated only to Bidders declared compliant in TEC. Being NCNC trials all expense for transportation, freight, insurance, custom, duties and any other local taxes shall be borne by the Bidder. Any permissions/ clearances required by local government bodies for conduct of NCN trials shall be responsibility of the Bidder.

Annexure to Appendix F
(Refers to Para 1 of
Appendix F)

BROAD TRIAL PLAN – CSAFR

<u>Ser</u>	<u>Reference</u>	<u>Parameter</u>	<u>Trial Plan</u>
<u>Section I – Operational Parameters</u>			
1.	Para 1	Description	Demonstration by firing of 100 rounds each of 5.56 mm ball, 7.62 mm ball and 9 mm ball munitions
2.	Para 2	Dimensions and lanes	Specifications of 25 m CSAFR to be demonstrated
3.	Para 3	Foundation	Demonstration
4.	Para 4	Architectural Standard	Demonstration
5.	Para 5	Site Requirement	CoC
6.	Para 6	Ballistic Protection	Demonstration by firing of 100 rounds of any calibre
7.	Para 7	Shooting Lanes	Demonstration
8.	Para 8	CCTV	Demonstration
9.	Paras 9 – 10	Control Room	Demonstration
10.	Paras 11 – 12	Target Placement/ Retrieval System	Demonstration
11.	Paras 13 – 15	Virtual Target System	Demonstration of minimum two each maritime and land fighting scenarios.
12.	Paras 16 – 18	Lighting	Demonstration
13.	Paras 19 – 20	Communication System	Demonstration
<u>Section II – Technical Parameters</u>			
14.	Para 1 – 2	Firing Bay/ Live Firing Area	Demonstration and CoC
15.	Para 3	Video Scenarios	Demonstration and CoC
16.	Para 4	Interactive Computer Generated Scenarios	(a) Demonstration by firing of minimum 100 rounds each in following scenarios:- (i) One maritime scenario

<u>Ser</u>	<u>Reference</u>	<u>Parameter</u>	<u>Trial Plan</u>
			(ii) One land fighting scenario (iii) One Firing Range training scenario (b) CoC for ballistic simulation
17.	Para 5	Sound Effects	Demonstration and CoC
18.	Para 6	Software and IT Systems	Demonstration and CoC
19.	Para 7	Power Supply	Demonstration and CoC
20.	Para 8	Environmental and Military Specifications	Laboratory accredited certificates
<u>Section III – Maintainability and Ergonomics Parameters</u>			
21.	Para 1	Life	CoC
22.	Para 2	Maintainability	CoC
23.	Para 3	Product Support	CoC
24.	Para 4	Recirculation Type Air Conditioning System	Demonstration
25.	Para 5	Air Flow and Distribution	Demonstration and CoC
26.	Para 6	Acoustic Reduction Design	Demonstration and CoC
27.	Para 7	Ear Defenders	Demonstration
28.	Para 8	Lead Contamination Control	Demonstration
29.	Para 9	Fire Fighting System	Demonstration

Note. Laboratory accredited certificates are to be furnished along with CoC, as applicable.

Appendix G

(Refers to Para 40 of RFP)

COMMERCIAL CLAUSES**1. Payment Terms**

- 1.1 **INCOTERMS for Delivery.** The delivery of goods will be based on DDP INCOTERMS-2020 with ultimate consignee for each designated location of installation of CSAFR. Details of u will be finalised prior conclusion of contract. /N locations for installation of CSAFR are as follows:-

<u>Ser</u>	<u>Location of Installation</u>
(a) <u>50 m CSAFR</u>	
(i)	INS India, New Delhi
(ii)	INS Kadamba, Karwar
(iii)	Naval Coastal Battery, Goa
(iv)	INS Sardar Patel, Porbander
(v)	INS Valsura, Jamnagar
(vi)	INS Mandovi, Panaji
(vii)	INS Tunir, Karanja (Mumbai)
(viii)	INS Dronacharya, Kochi
(ix)	INS Circars, Visakhapatnam
(x)	INS Dega, Visakhapatnam
(xi)	Headquarters, Eastern Fleet, Visakhapatnam
(xii)	HQA&NC, Port Blair
(xiii)	
(xiv)	
(b) <u>25 m CSAFR</u>	
(i)	Naval Dockyard, Mumbai
(ii)	INS Tanaji, Trombay
(iii)	INS Vishwakarma, Visakhapatnam
(iv)	INS Netaji Subhash, Kolkata



<u>Ser</u>	<u>Location of Installation</u>
(v)	INS Circars, Visakhapatnam
(vi)	INS Agrani, Coimbatore

1.2 **Currency of Payment.** Bidders 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 the 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 Price of CMC.

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 V to Appendix G.

1.4.1 Advance Payment. 15% (fifteen) of the Base Contract Price (excluding CMC) 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 G**. The Advance Payment Bank Guarantee (APBG) will be deemed to be proportionately and automatically reduced until full extinction along with and prorate 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 (T0), 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 On Dispatch. 30% (Thirty) of the Base Contract Price of deliverables less training and 100% applicable taxes shall be paid on prorate basis on proof of dispatch of deliverables to the consignee and on production of inspection note PDI certificate issued by the buyer designated inspection agency. Number and date of the Railway/Road/Air Transport receipt under which the deliverables charged for in the bill are dispatched by rail/road/Air and the number and date of letter with which such receipt is forwarded to the consignee, should be quoted on the bill. The payment will be made by PCDA/CDA through cheque/Electronic Fund Transfer (EFT) on submission of following documents:-

- 1.4.2.1 Ink-signed copy of Seller's bill.
- 1.4.2.2 Ink-signed copy of Commercial invoice.
- 1.4.2.3 The relevant Transport Receipt.
- 1.4.2.4 Inspection Acceptance Certificate of Buyer's QA agency demonstrating compliance with the technical specifications of the contract.
- 1.4.2.5 Packing List.
- 1.4.2.6 Certificate of Origin.
- 1.4.2.7 Claim for statutory and other levies to be supported with requisite documents/GST invoice (with QR code, when made applicable)/proof of payment, as applicable.
- 1.4.2.8 Exemption certificate for taxes/duties, if applicable.
- 1.4.2.9 Warranty certificate from the SELLER.

1.4.3 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 22A.1 of SCD, the SELLER will be liable to return payments received against dispatch.

1.4.4 **On Delivery.** **40% (Forty)** of the Base Contract Price of deliverables less training shall be paid on prorated basis on completion of JRI post delivery of equipment with accessories and issue of JRI Certificate/Certified Receipt Voucher (CRV) issued by the Buyer.

1.4.5 **On Final Acceptance and Installation/Commissioning.** The remaining **15% (Fifteen)** of the Contract Price of deliverables less training shall be paid on prorated basis 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.

1.4.6 **On Completion of Training.** **85% (Eighty Five)** of the Base Contract Price of training and 100% of applicable taxes shall be paid on pro-rate basis for each Lot of delivered CSAFRs post completion of training and submission of the Training Completion Certificate. The concerned PCDA/CDA will release the payment through cheque/EFT.

1.4.7 **Part-Dispatch/ Part-Shipment.** Part-dispatch or part-shipment of goods is permitted and corresponding payment will be released to the Seller. However, where permitted, the minimum quantity for using this facility on each occasion will not be less than **One (01) CSAFR.**

1.4.8 **CMC Payments.** Annual payments will be made by PCDA/CDA on submission of User clearance certificate through issue of cheque/ECS.

1.4.9 **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 actuals whichever is lower. The payment will be made by PCDA/CDA through cheque/Electronic Fund Transfer (EFT).

1.4.10 **Exchange Rate Variation.** Exchange Rate variation shall be applicable for Rupee contracts with Indian Vendors, based on RFPs issued under all categories of capital acquisitions mentioned at Para 6 to 11 of Chapter I of DAP.

The indigenous & import components as also the various currencies (of the import components) for ERV purposes, must be determined in advance. The guidelines on protection of Exchange Rate Variation are given at **Annexure II to this Appendix.**

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 III to Appendix G .**

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 III to Appendix G**.

4. **Inspection.** Pre Dispatch Inspection (PDI) would be at the discretion of the Buyer. In addition, Joint Receipt Inspection (JRI) also will be carried out. If it is PDI, the Bidder should intimate at least 45 days prior to the day when the equipment is to be offered for PDI to enable Buyer's QA personnel to be available for inspection. All the expenses towards PDI will be borne by the Bidder except transportation and accommodation of Buyer's PDI team, which will be deputed at Buyer's expense. In case of rejection of Goods during PDI, re-PDI will be undertaken at Bidder's premises at Buyer's sole discretion. All expenses including transportation and accommodation of Buyer's PDI team will be borne by the Bidder. Towards this, the expenses towards transportation and accommodation of Buyer's PDI team will be initially done by the Buyer and subsequently reimbursed by the Bidder either by remittance or by recovery from the Balance Payment/ PWBG. In the event of a failed PDI, the Bidder shall consult the Buyer for scheduling re-PDI. In case of JRI, the representative of the Seller may be present for inspection after the equipment reaches the concerned destination. The Seller would be informed of the date for JRI. On-site Acceptance Trials (O-SAT) post

installation of each CSAFR will be conducted iaw ATP agreed mutually between Buyer and Seller.

5. **Liquidated Damages (LD).** In the event of the Bidder's failure to submit the Documents, supply the stores/ goods, perform services, conduct trials, installation of equipment, 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, @1.5% per week of delay 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.** In case the cumulative downtime exceeds 14 (working days) in the Year, payment will be deducted. The total downtime will be calculated at the end of the Year and payments will be deducted. 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 14 (working days), as follows:-

- (i) Per year CMC/ = 'X1'
- (ii) Period by which cumulative downtime exceeds the specified cumulative downtime, in days = 'Y1'
- (iii) Payment Deduction = 'Z1',
Where Z1 = [(X1/ Number of days in the year) * Y1]

(b) In addition, damages would be deducted to the sum of 0.1% of the per annum CMC cost per day, for the duration, by which cumulative downtime exceeds the maximum permissible cumulative downtime per quarter/half-year/year, subject to the maximum value of this damages not being higher than 5% of the annual 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 IV to Appendix G**.



Annexure I to Appendix G
(Refers to Para 1.4.1 of App G)

BANK GUARANTEE FORMAT FOR ADVANCE

To

The _____

Ministry of _____

Government of India

_____ (complete postal address of the beneficiary)

1. "Whereas President of India represented by the _____ Ministry of _____ 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 _____ % 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 G
(Refers to Para 1.4.10 of App G)

GUIDELINES OF PROTECTION OF EXCHANGE RATE VARIATION IN CONTRACTS

1. Parameters to be kept in view while formulation ERV Clause.

(a) In contracts with Indian Vendors in all categories of capital acquisitions where there is an import content, ERV clause will be provided. However, ERV clause shall not be applicable to contracts in following conditions:-

- (i) The delivery period is less than one year; or
- (ii) The rate of exchange variation is within the band of +/- 2.5%.

(b) ERV clause will be framed according to the specific requirements of the contract. While calling for information at the RFP stage/ formulation of ERV clauses in the contracts, the following factors are to be taken into consideration depending upon the requirements of the individual contracts:-

- (i) Year wise and major currency wise import break up is to be indicated.
- (ii) Detailed time schedule for procurement of imported material/Services and their value at the FE rates adopted for the contract is to be furnished by the vendor as per the format given below:-

Year	Total Cost of Imported Material Services (In Rupees)	FE Content – Out Flow (equivalent in rupees in crore)			
		Dollar Denominated	Euro Denominated	Pounds Denominated	Other Currencies Denominated (as applicable)

- (iii) ERV clause will not be applicable in case delivery periods for imported content are subsequently to be refixed/ extended unless the reasons for delivery period extension are attributable to the Buyer.

(iv) For purposes of ensuring uniformity, the Base Exchange Rate on the ERV reckoning date will be adopted for each of the major foreign currencies. The Base Exchange Rate will be the BC Selling Rate of the Parliament Street Branch of State Bank of India, New Delhi. The ERV reckoning date will be the last date of submission of commercial bids as per RFP. In cases where Option Clause is exercised, the date of reckoning of ERV will be the last date of submission of bids for the RFP of the Original Procurement Case.

(v) ERV clause in the contract is to clearly indicate that ERV is payable/ refundable depending upon exchange rate as prevalent on the date of transaction with reference to Base Exchange Rate on the ERV reckoning date.

(vi) Other issues which are peculiar to the contract.

2. **Methodology For Claiming ERV.** “The prices finalised in the contract are based on the base exchange rates indicated in the contract. The year-wise amount of foreign exchange component of the imported items as indicated in the contract shall be adjusted for the impact of exchange Rate Variation of the Rupee based on the exchange rate prevailing on the date of each transaction, as notified by the SBI, Parliament Street Branch, New Delhi. The impact of notified Exchange Rate Variation shall be computed on an yearly basis for the outflow as tabulated in Annexure (The table at Para 1(b) (ii) is to be an Annexure to the contract) and shall be paid/refunded before the end of the financial year based on the certification of Finance Head of the concerned Division.....”.

3. Paying authority is to undertake a pre-audit of the documents before payment.

4. Documentation for Claiming ERV. The following documents would need to be submitted in support of the claim on account of ERV:-

(a) A bill of ERV claim enclosing worksheet.

(b) Banker's Certificate/debit advice detailing Foreign Exchange paid and Exchange Rate as on date of transaction.

(c) Copies of import orders placed on the suppliers.

(d) Invoice of supplier for the relevant import orders.

Annexure III to Appendix G
(Refers to Paras 2 & 3 of Appx G)

BANK GUARANTEE FORMAT FOR PERFORMANCE-CUM-WARRANTY

To

The _____
Ministry of _____
Government of India

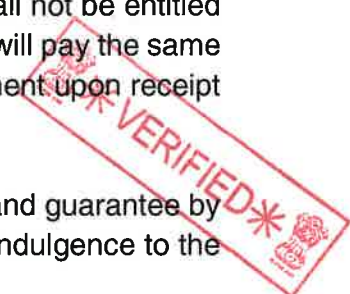
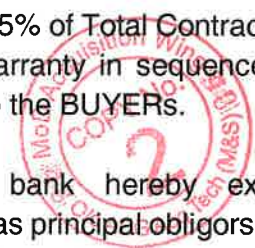
_____ (complete postal address of the beneficiary)

Dear Sir,

1. Whereas President of India represented by the _____ Ministry of _____, 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 _____ which is 5% of the Total Contract Price (including taxes and duties) to cover is 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 { is 5% of Total Contract Price (including taxes and duties)} _____ 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 _____ {is 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 is 5% of the Total Contract Price (including taxes and duties) (Rs _____ 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 IV to Appendix G
(Refers to Para 7 of Appendix G)

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..... dated.....for 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.



Supply of Quantity

- | <u>Ser</u> | <u>Lot</u> | <u>Qty of CSAFR</u> | | <u>Vendor</u> | <u>Delivery</u> | <u>Remarks</u> |
|----------------------------------|------------|---------------------|-------------|---------------|--------------------------------|----------------|
| | | <u>50 m</u> | <u>25 m</u> | | <u>Time</u>
<u>(Months)</u> | |
| For Delivery by L1 and L2 | | | | | | |
| (a) | Lot 1 | 05 | 02 | L1 | T ₀ + 06 | |
| (b) | Lot 2 | 02 | 01 | L2 | T ₀ + 09 | |
| (c) | Lot 3 | 02 | 01 | L2 | T ₀ + 12 | |
| (d) | Lot 4 | 05 | 02 | L1 | T ₀ + 15 | |
| For Delivery by L1 only | | | | | | |
| (e) | Lot 1 | 02 | 03 | L1 | T ₀ + 06 | |
| (f) | Lot 2 | 04 | 01 | L1 | T ₀ + 12 | |
| (g) | Lot 3 | 04 | 01 | L1 | T ₀ + 18 | |
| (h) | Lot 4 | 04 | 01 | L1 | T ₀ + 24 | |

The supply of CSAFRs will be split between L1 (first lowest bidder) and L2 (second lowest bidder) vendors provided L2 vendor accepts the price and terms and conditions quoted by/ negotiated with the L1 (Refers to Para 44 of Part III of RFP).

Delivery Schedule and Stages of Payment**2. For Delivery in Lots/ Batches by L1 Only.**

Ser	Activity	Delivery Timelines (T ₀ + months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
(a)	Signing of contract				
(b)	Advance Payment	T ₀	15% of the base contract price	APBG of equivalent amount to be submitted	
(c)	On Dispatch				
	Lot 1		30% of the Base Contract Price of each Lot and 100% applicable taxes on prorate basis		
	Lot 2				
	Lot 3				
	Lot 4				
(d)	On Delivery				
	Lot 1	T ₀ + 06	40% of the Base Contract Price of each Lot on prorate basis		
	Lot 2	T ₀ + 12			
	Lot 3	T ₀ + 18			
	Lot 4	T ₀ + 24			
(e)	On Installation, STW, Commissioning and Final Acceptance				
	Lot 1		15% of the Base Contract Price of each Lot on prorate basis		
	Lot 2				
	Lot 3				
	Lot 4				



(f)	On completion of Training		85% of the Base Contract Price of training and 100% applicable taxes on prorate basis		
CMC Payments					
(g)	Year 1	Annual payments post warranty	100% of annual CMC cost and applicable taxes		
	Year 2				
	Year 3				
	Year 4				
	Year 5				

3. **For Delivery in Lots/ Batches by L1 and L2.**

Ser	Activity	Delivery Timelines (T0 + Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
(a)	Signing of contract				
(b)	Advance Payment	T ₀	15% of the base contract price	APBG of equivalent amount to be submitted by both L1 and L2	
(c)	On Dispatch				
	Lot 1		30% of the Base Contract Price of each Lot and 100% applicable taxes on prorate basis		By L1 Vendor
	Lot 2				By L2 Vendor
	Lot 3				By L2 Vendor
	Lot 4				By L1 Vendor
(d)	On Delivery				
	Lot 1	T ₀ + 06			By L1 Vendor

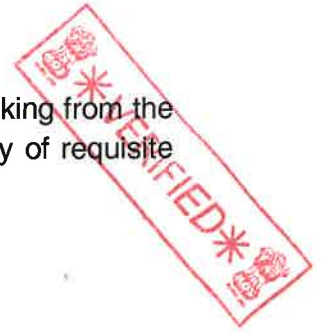


	Lot 2	T ₀ + 09	40% of the		By L2 Vendor
	Lot 3	T ₀ + 12	Base		By L2 Vendor
	Lot 4	T ₀ + 15	Contract		By L1 Vendor
			Price of		
			each Lot on		
			prorate		
			basis		
(e)	On Installation, STW, Commissioning and Final Acceptance				
	Lot 1		15% of the		By L1 Vendor
	Lot 2		Base		By L2 Vendor
	Lot 3		Contract		By L2 Vendor
	Lot 4		Price of		By L2 Vendor
			each Lot on		
			prorate		By L1 Vendor
			basis		
(f)	On completion of Training		85% of the		
			Base		
			Contract		
			Price for		
			training and		
			100%		
			applicable		
			taxes on		
			prorate		
			basis		
	CMC Payments				
(g)	Year 1	Annual	100% of		By both L1 &
	Year 2	payments	annual CMC		L2 vendors
	Year 3	post	cost and		
	Year 4	warranty	applicable		
	Year 5		taxes		

4. **Recommended Methodology for Payment in Case of delayed Commissioning.**

If in spite of all efforts to logically evolve the delivery schedule, the goods are ready for delivery and corresponding infrastructure is not available for installation and integration in a reasonable time, the supplier cannot be denied payment for work accomplished in conformity with the contract schedule. If the next stage of work cannot be executed by the supplier due to delay on the part of the buyer in providing requisite infrastructure for STW, commissioning and Acceptance trials in as reasonable time, the payment terms should cater for making 60-70% of the associated stage payment (even before accomplishing requisite work) against

submission of a bank guarantee for equivalent amount and firm undertaking from the supplier that they will fulfil all the obligations immediately on availability of requisite infra/ associated system/ platform.



Appendix H

{Refers to Paras 40 and 49(b)
of RFP}

EVALUATION CRITERIA AND PRICE BID FORMAT**1. Evaluation Criteria.**

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.

1.2. DCF technique will be applied on quoted cost of all items including taxes and duties payable to Central/ State/ Local Governments 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,

1.4. If there is a discrepancy between the unit price and the 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 will prevail for calculation of price.

2. **Price Bid Format.** The Price Bid Format is given below and Bidders are required to fill this correctly with full details. 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 incl Taxes & Duties (v)+(vi)+(vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
A.	Cost of CSAFR (i) 25 m CSAFR (ii) 50 m CSAFR Full break – up details may be given	06 14						
B.	Cost of Operator's Manual and Technical Literature (in English Language)							
C.	Cost of 03 operators & recommended period of training in India at each CSAFR site	03 operators & 03 maintainers						
D.	Any other cost (to be specified)							
E.	CMC Cost for 05 (five) years giving year-wise break-up							
	Year 1							
	Year 2							
	Year 3							
	Year 4							
	Year 5							
F.	Total Cost (Total of Serial A to E)							# This will be used in determining L1 vendor (duly applying provision of Para 1 above)
G.	Foreign Exchange component of the proposal							

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.**

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:-

$$NPV_n = \sum_{t=1}^n A_t / (1 + r)^t$$

Where,

NPV = Net Present Value

A_t = 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

t = The period after which payment is done

The bid with the lowest NPV would be selected.

3.2. The Discounting rate will be __ %". (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).

3.3. **Structuring Cash Flows for Tenders/ Bids Received in the Same Currency.** The cash outflow 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 will be selected as L-1.

Appendix J
(Refers to Para 45 of RFP)

STANDARD CONDITIONS OF RFP

LAW

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

ARBITRATION

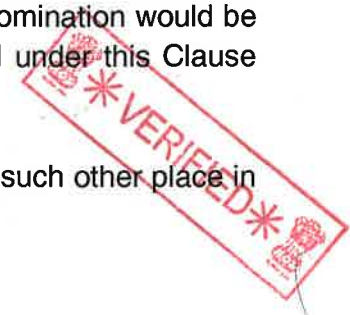
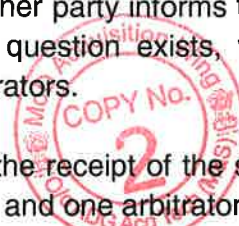
2.1 All disputes or differences arising out of or in connection with the present Contract, including the one connected with the validity of the present Contract or any part thereof, shall be settled by bilateral discussions.

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.

FORCE MAJEURE

3.1 Should any force majeure circumstances arise, each of the contracting party shall be excused for the non-fulfilment or for the delayed fulfilment of any of its contractual obligations, if the affected party within 30 (thirty) 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 **₹ 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 EMD (pre-contract) and 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.

(j) 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 ₹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 J

{Refers to Para 19 of RFP and
Para 5.1 (j) of Appendix J }

PRE-CONTRACT INTEGRITY PACT**General**

1. Whereas the PRESIDENT OF INDIA, represented by Joint Secretary & Acquisition Manager (Army/Air Force/Maritime & Systems)/Major General & equivalent, Service Headquarters./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 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 pre- contract 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 an Integrity Pact Bank Guarantee 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 up to ₹ 100 Crores (i.e all cases upto ₹ 100 Crores of AoN will be exempted from payment of EMD) as follows:-

EMD TABLE

Estimated Cost of Procurement Scheme (₹ Cr)		EMD Amount (₹)
Above (Not including)	To (Including)	
	100	Nil
100	150	30 Lakh

(e) **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 on the EMD for the period of its currency. For unsuccessful Bidders EMD will be returned on declaration of successful bidder.

(f) **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.

8.3 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.

8.4 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.

8.5 No interest shall be payable by the Buyer to the Bidder(s) on IPBG for the period of its currency.

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) DPSUs are not required to submit EMD when nominated as ab-initio single vendor. DPSUs will submit all BGs and EMD as applicable while participating in multi-vendor cases with private vendors.

(d) **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 Bank Guarantee for Bid Security is provided at **Annexure I to Appendix J.**

(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 issued/ notified by the Ministry of Defence.

(iv) 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 Parliamentary Street, New Delhi 110001

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) The EMD for pre contract period, Performance-cum-Warranty Bond post signing of contract shall stand forfeited either fully or partially, as decided by the Buyer and the Buyer shall not be required to assign 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):-

Sh. Ravikant, IAS/ Bihar (1984) (Retd),
Apartment No 502, Tower-1, M3M Merlin,
Sector-67, Gurugram 122001 (Haryana)
Mob. 9953555566, email. 84ravikant@gmail.com

Dr. Prabhat Kumar, IAS/ UP (1985) (Retd)
C-120, Sec 39, Noida 201301
GautamBudh Nagar (Uttar Pradesh)
Mob. 9810530048, email. prabhatfamily@gmail.com

Sh. Chet Ram, IRS (1985) (Retd)
Flat No A-203, Building Gemini, Gladys Alwares Marg,
Hiranandani Meadows, Off Pokhran Road No. 2
Thane (W), Maharashtra 400610
Mob. 9869479987, email. cr_koli@yahoo.com

12.1A All communications to Independent Monitors will be copied to Director (Vigilance). The Designation and Contact details of Director (Vigilance) are as follows:-



Rajinder Kumar, Dir (Vig)
Room 304, B Wing
Sena Bhawan

12.2 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.

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

12.4 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.

12.5 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.

12.6 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
Pre-Contract Integrity Pact**

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 WE of having our registered office at Are bound unto(hereinafter called the 'Buyer') in the sum of for which payment will and truly 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 of 20.....

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 this tender by the Buyer during the period of its validity:-
 - (a) If the Bidder withdraws or amends, impairs or derogates from the Bid in any respect within the period of validity of this tender.
 - (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 up to 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 and address of the Bank and address of the Branch

Appendix K

(Refers to Para 6 of RFP)

CRITERIA FOR VENDOR SELECTION/ PRE-QUALIFICATION

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

Ser	Parameter	<u>For all Cases except Shipbuilding (Ch XII), Make (Ch III & IV) and Strategic Partnerships (Ch VII)</u>
1.	Financial	
(a)	Credit Rating	Long term credit rating of CCR-BBB or better and SME-04 or better for SMEs as on 31 st March of the previous financial year. For recognized Startups/ registered MSMEs, refer Note 1.
(b)	Average Annual Turn Over	Min Avg Annual Turnover for last 03 financial years, ending 31 st March of the previous financial year, should not be less than 30% of estimated annual outflow of project cost. For recognized Startups/ registered MSMEs, refer Note 1.
(c)	Net Worth	Net worth of entities, ending 31 st March of the previous financial year, should not be less than 5% of the estimated cost of the project. For recognized Startups/ registered MSMEs, refer Note 1.
(d)	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 authorised Vendors.
(b)	Experience in related field	Min 02 Yrs. experience in broad areas like manufacturing/ engineering/ electronics/ explosives etc. as applicable in the instant case. If not, then cumulative experience of at least 03 years in above areas, resulting in gaining of competence for manufacturing the proposed product.
3.	Others	
(a)	Industrial License	Should be either holding a valid defence industrial license or should have applied for the same before responding to RFP. In any case the entity must confirm holding of Industrial License before commencement of FET.

Ser	Parameter	<u>For all Cases except Shipbuilding (Ch XII). Make (Ch III & IV) and Strategic Partnerships (Ch VII)</u>
(b)	Registration	Registered for Min 02 Years, 01 years for MSMEs. Min no of years not applicable for JVs constituted specifically for a project.

Note 1. For procurement cases where the estimated cost is up to ₹300 crores, to encourage the Start Ups/ MSMEs and build Industrial ecosystem, the recognized Start Ups/ registered MSMEs in the relevant fields may be considered for issue of RFP without any stipulation of Financial parameters, except Insolvency.

Note 2. As per Para 3(d)(iv) of Annexure IV to Appendix A of Chapter-II of DAP-2020, to calculate average annual turnover for consortium, the proportionate contribution of each company is to be taken as per equity stake in the consortium. However, the total amount is to be assessed cumulatively on the basis of equity stake and not individually.

Appendix L

{Refers to Para 34(a) of RFP}

Version No. ____ Date. ____

QUALITY ASSURANCE PLAN (QAP)**FOR****EQUIPMENT NAME****Doc. Number:-****Project Name**

Purchase Order No. _____ Date _____

Firm's LOGO

Firm / Supplier
Name & Address

INDEX

<u>S. No.</u>	<u>Topic</u>	<u>Page No.</u>
----------------------	---------------------	------------------------

Records of Amendments

CHAPTER – I
(Generic Requirements)

- | | |
|-----|--|
| 1.1 | List of Abbreviations |
| 1.2 | Terminology and Definitions |
| 1.3 | Brief Technical Specifications and Description with Block Diagram and System Configuration |

CHAPTER-II
(Applicable Standards)

- | | |
|-----|--|
| 2.1 | Governing Specifications as per contract |
| 2.2 | Firm's Standards (QS / WS / PS / DS etc) |
| 2.3 | EMI/EMC Standard |
| 2.4 | Environmental Testing Standard (ET) - including classification of Sub Systems based on location onboard N1/N2/N3/ Land |
| 2.5 | Environmental Stress Screening (ESS) Standard |
| 2.6 | Endurance |
| 2.7 | Technical Documentation Standards |
| 2.8 | Software Documentation Standards |
| 2.9 | Configuration Baseline Document |

CHAPTER-III
(QA Core Activities)

- | | |
|------|---|
| 3.1 | General Quality Assurance Plan |
| 3.2 | QA Process Involved |
| 3.3 | Details of Critical To Quality Parameters/Process (CTQ) |
| 3.4 | Details of Estimated Man Days(EMD) |
| 3.5 | Inspection Note (I/Note) |
| 3.6 | Configuration Baseline Document (CBD) |
| 3.7 | Details of Environmental Stress Screening (ESS) |
| 3.8 | Details of Environmental Test (ET) |
| 3.9 | Details of EMI/EMC Test |
| 3.10 | List of Components /Assemblies with Inspection Criteria |
| 3.11 | List of Imported Items |

- 3.12 List of Indigenous Items procured through Sub Contract
- 3.13 List of Applicable Drawings for Inspection
- 3.14 List of approved ATPs
- 3.15 List of PCBs with Jumpers beyond the guidelines
- 3.16 List of Non Mil Components (Commercial / Industrial)
- 3.17 Sampling Plan

CHAPTER – IV
(Final Acceptance)

- 4.1 Factory Acceptance Trials (FATs)

CHAPTER – V
(Markings, Deliveries & Packing/ Preservation)

- 5.1 Packing
- 5.2 Marking
- 5.3 Preservation

CHAPTER – VI
PROCESS AUDIT

- 6.1 Process Audit

LIST OF TABLES

Sl No	Table No	Description	Page No

LIST OF FIGURES

Sl No	Figure No	Description	Page No



RECORD OF AMENDMENTS

S. No.	Sub	Amendment		Amended by	Date of Insertion	Initials	Remarks
		No.	Date				

CHAPTER - I**GENERIC REQUIREMENTS**

1.1 **List of Abbreviations.** Abbreviations used in this QAP are listed in alphabetical order.

LIST OF ABBREVIATIONS USED

1.2 **Terminology and Definitions** The terms used and their definition in QAP will be as follows: -

1.2.1. **Quality Assurance Plan (QAP).** QAP is a comprehensive document which enables the Inspecting Officer to conduct smooth & effective acceptance/testing of the item(s) specified in the order. The QAP will lay down the complete and detailed

requirements of QA activities and the methodology for acceptance of item/equipment against the particular order.

1.2.2. **Inspection Criteria.** List of complete checks carried out on the equipment from raw material stage to the finished item and could include verification / measurement of physical, electrical, mechanical and chemical parameters.

1.2.3. **Acceptance Norms.** Defines the various means of verifying the inspection criteria and could include visual tests, functional measurements, testing of parameters, measurement of dimensions, environmental testing, environmental stress screening, EM interference compatibility and endurance. The QAP shall define norm for acceptance of the item either through review of documents (R) or Witness (W) of the test.

1.2.4. **Review.** The term "Review (R)" shall mean verification of tests/checks reports, undertaken on the item/sample as per inspection criteria conducted at NABL accredited Lab/Govt. Lab.

1.2.5. **Witness.** The term "Witness (W)" shall mean physical measurement/testing of items/sample as per approved document in the presence of QA inspector.

1.2.6. **Sampling Plan.** Sampling Plan is applicable for the lot or batch of the items where it would not be possible for 100% checks. The sampling plan shall clearly specify/mention the Acceptance Quality Level (AQL) wrt to applicable specification.

1.2.7. **Customer Hold Point (CHP)** The term Customer Hold Points (CHPs) denotes critical stages of the manufacturing implying that the next stage of manufacturing cannot commence unless clearance of the previous stage is accorded by the inspection agency. The CHP stages shall be decided by the respective QA agency in consultation with the Firm.

1.2.8. **QA Process.** All encompassing processes involved from receipt of Purchase Order to issue of I-Note need to be defined.

1.2.9 **Input Material.** The input material shall mean the material that the OEM procures from its approved supplier in its raw form. The list of such input materials is vast and varied. However, discrete electronic components , ICs (active and passive devices) , displays , fans , pipes, plates, sheet, forging, casting, & bought out items / modules / assemblies etc are few part of input materials.

1.2.10. **COTS.** The term Commercial off the Shelf (COTS) refers to commercially available items suitable for Naval applications and are bought from the civilian market. Such items are in the regular production range of the manufacturer and follow their own qualification. However, these items must meet the requirements stated in

SOTRs/POTS in its existing form or at higher indenture level when used as a components or LRU.

1.2.11. **Manufactured Items.** Items manufactured either in OEM premises or subcontracted/outsourced as per the specification given by the OEM and are used as input material such as casting, forging, PCBs, LRUs etc. form the manufactured items.

1.2.12. **Environmental Stress Screening (ESS).** ESS is the tailored application for electrical and electronics items to identify and eliminate defective, abnormal or marginal parts and manufacturing defects. ESS is to be carried out on 100% electronics as per the severities mentioned in DQA (N) guidelines promulgated vide letter No. DQAN/SG/1001/ESS dated 30 May 22. All electronic items as well as backplane wired bare cabinets will be subjected to ESS.

1.2.13. **Type Test.** The purpose of this test is to check the vulnerability of the equipment to failure due to prolonged environmental effects (climatic and induced) under which the Unit Under Test (UUT) is likely to operated or stored. The UUT is thus exposed to simulated environment at accelerated scale for shorter duration. The guidelines for conducting ETs for electrical and electronic items / equipment have been promulgated vide DQAN Policy DQAN/SG/1001/Type Test dated 18 Jan 2022 and ET standard JSS 55555 (Latest version). The detailed ET plan is placed at Annexure – 7.

1.2.14. **EMI / EMC Tests.** The EMI/EMC tests will be carried out as per the approved Naval EMI/EMC Plan (N-EMAP). The N-EMAP is to be vetted by NEC(MB) and approved IHQ MoD(N). The approved N-EMAP would form the addendum of QAP. List of EMI/EMC tests would be as per MIL STD 461E/F.

1.2.15. **Certificate of Conformance (CoC).** Certificate of Conformity (CoC) is the certificate issued by the OEM stating that the supplied items shall meet the specified requirements indicated by the purchaser. The certificate shall also include the governing specifications and values to which the item has been tested.

1.2.16. **Imported Stores.** Items / components of imported nature forming part of any assembly will undergo complete Type Tests as envisaged for the assembly. However, fully finished products/stores of imported nature shall be accepted against validation of following import documents as per DQA(N) guidelines:-

- (a) Copy of one among Bill of Lading / Shipping Bill / Airway Bill (A document issued by the transporter of the equipment which clearly indicates the description, quantity, port of collection and port of discharge).
- (b) Invoice by OEM or Country of Origin certificate of the equipment with packing list.
- (c) Bill of Entry into warehouse.

(d) The Certificate of Conformity (CoC) indicating governing specifications and values to which the items are tested alongwith Original Equipment Manufacturer (OEM) test certificates/test reports/ Catalogue/Data Sheet.

(e) Guarantee / Warrantee certificate from the supplier/OEM as per Supply Order.

1.2.17. **Factory Acceptance Tests (FATs).** FATs is to be undertaken on the integrated system in accordance with the IHQ MoD(N) approved FATs document by an agency nominated by the Order Placing Authority (OPA)/IHQ MoD(N).

1.2.18. **Preservation & Packing.** Preservation & Packing of the equipment, spares/goods contracted so as to ensure safety against damage in the conditions of land, sea and air transportation, transshipment, storage and against weather hazards during transportation. The sellers shall ensure that the stores are packed in containers which are made sufficiently strong and with seasoned wood.

1.3 **Introduction.** In this section a brief Technical Description of the system is to be included with a block diagram, systems configuration, technology used and the salient features of the system up to the sub unit level is to be included in this section. The brief functional description with functional block diagram in addition to the technical specification of the system will also to be included. The list of deliverables, list of technical documents / IETMs and list of installation material as per contract are to be included as per formats placed at **Annexure 1, 2 and 3** respectively.

CHAPTER - II **APPLICABLE STANDARDS**

- 2.1 List of Governing Specifications and Applicable Standards
- 2.2 Applicable Firm's Standards (Quality Standards / Work Standards / PS / DS etc)
- 2.3 EMI/EMC Standards
- 2.4 Environmental Testing Standards (ET)
- 2.5 Environmental Stress Screening (ESS) Standards
- 2.6 Burn In / Endurance
- 2.7 Technical Documentation Standards
- 2.8 Software Documentation Standards, if applicable.
- 2.9 Packing and Preservation Standards.

Note. Details of all applicable standards for all the above attributes are to be included in the QAP.



CHAPTER - III **QA CORE ACTIVITIES**

3.1 General Quality Assurance Plan. The general QA Plan followed by the supplier for manufacturing of systems for ship board application is to be brought out in detail in accordance with the format placed at **Annexure 4**. The plan should be applicable for the following:-

- (a) Components / sub assemblies.
- (b) Sub Contract Inspection - In process inspection , ESS etc.
- (c) Sub Units , Modules and LRUs.

3.2 QA Process Involved. The production process followed for achieving the output are to be depicted in different flow diagrams. The flow diagrams will bring out the inspection points customer involvement in the production process. The processes could be as follows:-

- (a) Inspection Process Flow Diagram (For imported purchased parts).
- (b) Production Process Flow Diagram (System level).
- (c) Production Process Flow Diagram (For all Spares).
- (d) Production Process Flow Diagram (For ESS Tests).
- (e) Production Process Flow Diagram (For QT and EMI/ EMC Tests).

3.3 Details of Critical To Quality Parameters/Processes (CTQ). The specific parameters/attributes which are relatively more critical in term of their impact they wield on the functionality of product shall be brought out/marked explicitly in QAP for stringent focus during its production and subsequent QA stages/activities. The details of such CTQ's needs to be finalised after detailed deliberations with all stake holders.

3.4 Details of Estimated Man Days (EMD). The details of EMD's against each production process and their relative QA activity (At each stage of testing) needs to be explicitly mentioned for optimum planning and allocation of resources leading to better time management & completion of QA activity.

3.5 Inspection Note (I/Note). Inspection note is issued for bulk consignment/lot indicating acceptance of same after successful completion of all QA activities and remains valid for a specific period of 30 days till the time of dispatch of stores. The details of same is listed at **Annexure 17**.

3.6 Configuration Baseline Document(CBD). The configuration base line document details brief description of system and list all hardware and software configuration identification (CI) and contains reference to configuration document of each CI. It contains mechanism to initiate implement and document any modification in hardware and software components of the system and ensures these modifications are suitably absorbed through alterations in exploitation, maintenance, training and

logistic support. The configuration management is implemented for all the systems under production or to be inducted in service. The CBD is to be submitted prior to FATs to NTG & CQAE for audit & to be confirmed/approved by NTG prior to issue of I/Note. Refer DWE letter No WM/2807/01 dated 26 Sep 07.

3.7 **Details of Environmental Stress Screening (ESS).** The detailed ESS plan for the system indicating the severities of the screen parameters is to be included in the QAP. Also the list of items in the system exempted from ESS is to be listed as per **Annexure 6**.

3.8 **Details of Environmental Test (ET).** The detailed ET plan for the system with process flow diagrams indicating the units being subjected , test parameters , severities and venue for conduct of the test is to be included in the QAP as per **Annexure 7**. In case the environmental test has been carried out earlier the details of the same is to be included in the QAP. Also the list of units/items to undergo ET is to be included in the QAP as per **Annexure 8**.

3.9 **Details of EMI/EMC Test.** The detailed EMI/EMC plan for the system is to be prepared by the supplier and submitted to NEC(MB) for vetting and subsequent approval of the same by IHQ MOD(N). The approved EMI/EMC plan is to be included as an Addendum in the QAP, as the inspecting QA agency would ensure the equipment meet the specs as specified in the EMI/EMC plan. Also the list of items in the system to undergo EMI/EMC along with the venue for conduct of the test is to be listed as per **Annexure 9**.

3.10 **List of Bill of Material(BOM) with Inspection Criteria.** A detailed list of all components /assemblies with inspection criteria is to be listed as per **Annexure 10**.

3.11 **List of Imported Sub Systems / Modules.** All the sub system/modules which are of import nature is to be listed in the QAP as per **Annexure 11**. These items will be accepted on the prescribed CoC format and will not be subjected to ESS.

3.12 **List of Indigenous Sub systems /modules procured through Sub Contract.** All the sub systems/modules of the system which are being manufactured through sub contract is to be listed in the QAP as per **Annexure 12**. The items applicable are to be subjected to ESS by Firm/ Sub Contractor and relevant test reports to be submitted.

3.13 **List of Applicable Drawings for Inspection.** All the applicable drawings (General Assembly, Wiring List/Cable List / Cable form drawings and BOM) to be referred by the inspection agency whilst carrying out QA are to be listed as per **Annexure 13**.

3.14 **List of approved ATPs.** The applicable Acceptance Test Plans (ATPs) for undertaking the functional tests duly approved by professional directorate are to be included in the QAP as per **Annexure 14**.

3.15 **List of PCBs with Jumpers.** All the PCBs used in the system having jumpers over and above the nos. permissible as per IHQ MoD(N) letter WM/2807/01 dated 03 Aug 2015 is to be listed in the QAP as per **Annexure 15**. These PCBs will be accepted based on approval of IHQ MOD (N).

3.16 **List of Non Mil Components (Commercial / Industrial).** All the Non Mil components including industrial/commercial used in the system are to have been approved by IHQ MOD(N). The details of the components is to be listed as per **Annexure 16** and included in the QAP.

3.17 **Sampling Plan.** Sampling Plan is applicable for the lot or batch of the items where it would not be possible for 100% checks. The sampling plan shall clearly specify/mention the Acceptance Quality Level (AQL) wrt to applicable specification. The sampling plan for the system/equipment inward goods inspection is to be prepared in accordance with format placed at **Annexure 5**

CHAPTER - IV **FINAL ACCEPTANCE**

4.1 **Factory Acceptance Tests (FATs).** FATs is to be undertaken on the integrated system to check the overall functionality to meet the contractual specifications. The purpose of FATs is to ensure that all the equipment to be delivered is fully functional and all faults have been eliminated prior to despatch and installation. The detailed scope of work during FATs shall be jointly worked out, finalised and approved by the professional directorate. A team comprising of various stake holders would be constituted by IHQ MoD(N) for undertaking the FATs of which a member from the QA establishment would be present. On successful completion of FATs a report is to be generated and signed by the FATs team. FATs is to be conducted post completion of all QA activities by respective QA agency.

CHAPTER - V **PACKING, MARKINGS & PRESERVATION**

5.1 **Packing.** The methodology followed by FIRM for packing each item (main equipment, spares, SMT, STE, accessories etc.) is to be specified in the QAP.

5.2 **Marking.** The firm shall mark each package with indelible ink in English language, the details such as contract no , date , consignee , gross weight etc are to be indicated.

5.3 **Preservation.** The preservation instructions along with shelf life as applicable to the equipment are to be specified.

CHAPTER- VI

AUDIT

6.1 **Audit:** Audit is systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled. Audits will be performed in accordance with the DQA (N) guidance on the subject.

6.1.1 **Types of Audits.**

(a) **Adequacy Audit.** Adequacy audit zeroes in on the amount of documentation needed by the system. An established system can be checked through the available documented information. Adequacy check is also known as desk audit where documents and records are read for suitability and completeness.

(b) **Compliance Audit (Implementation).** Documentation is just one piece of the entire standards-based system story. The other vital half of system is implementation. Standard will evolve the process until it has zero room for deviation. Assuming that documentation is proven adequate during the initial audit, the auditing can now focus on how these documents are being complied. Compliance audit, which is the next logical step after adequacy check, will reveal invaluable insights on how one ought to manage its processes. After all, it is the processes that produce consistent results. Fix the process, and one could have fixed the results. A typical audit finding during compliance check is that the human resources are knowledgeable of the clear implementation plan. It was made clear as to how the management system works, not only from the high-level plan-do-check-act cycle, but also elaborating the details of the interrelationships of the different functions of each process.

(c) **Surveillance Audit.** Audit conducted by the Certification / Registration body on a defined frequency after Registration.

(d) **Process Audit.** If specifications are correctly laid down and the capable process employed in true sense, no way the product will fall sort of quality requirements. Process audit is the process of verification of the employed process to establish that the execution is in line with the promulgated guidelines. The process audit has two parts viz. establishing the process capability to ascertain its efficiency and effectiveness and secondly verifying the correctness of execution process through auditing the records and reports against audit criteria.

(e) **Product Audit.** Product Audit is conducted on finished items for acceptance. It includes visual inspection and parametric measurements. During product audit of finished items, the pre-inspection test reports will be reviewed and sample tests will be selected from the pre-inspection test results. These

tests will be conducted on items and sentencing (Acceptance/Rejection) will be in accordance with Para 6.1.4 of Chapter VI. Tests conducted in external NABL accredited/Govt. labs will not be repeated and only Test Certificate will be reviewed in such cases.

6.1.2 Following applicable reference documents will be used for conducting audit:-

- (a) Approved QAP, ATPs, Drawings and Bill of Materials.
- (b) Applicable Reference standards like EEDs, IS, Mil Std., JSS etc.
- (c) Original Type Test Reports store. (for regular production).
- (d) Internally approved details of production processes maintained by the firm wrt 6M for each process/ sub process and their change management.
- (e) In-house test reports prepared by the supplier.
- (f) Data analysis reports prepared for Cpk, Ppk for determining process stability.

6.1.3 Audit will be carried out by QA team at following occasions:-

- (a) **Adequacy Audit.** Before commencement of production of new type of product (Comprehensive audit only once for the firm for a product and for subsequent new products only relevant part of documentation will be audited).
- (b) **Compliance Audit.** At manufacturing stage, (Only once during development and need basis during regular production)
- (c) **Process Audit.** is required to be conducted on following occasions:-
 - (i) Periodic (generally on the CTQ Processes).
 - (ii) On finding Non conformities/ defects on product during testing/inspection.
 - (iii) On receipt of DR/ Substandard report from user.
- (d) **Product Audit.** On finished items for acceptance (Referred to as finished product inspection).
- (e) **Surveillance Audit.** Conducted by the Certification / Registration body on a defined frequency after Registration like GCC/SC.

6.1.4 Being first party quality assurer, it is incumbent upon the supplier to prepare and

maintain all documents and records during manufacturing operations. Finally, the supplier should satisfy itself before offering finished products for acceptance and submit properly recorded pre-inspection test reports along with I-call. QA team will conduct visual checks and sample based confirmatory testing on finished items (called product audit) based on pre-inspection test reports. Following mutually agreed acceptance criteria will be followed:-

- (a) If all sample test results match with the pre-inspection test results within pre-defined approved limits, the lot will be accepted.
- (b) If firm fails to demonstrate repeatability of sample test results with pre-inspection test results within pre-defined approved limits then firm will carry out Root Cause Analysis (RCA) for the same and will repeat in-house testing and re-offer for acceptance.
- (c) Second time failure to repeat sample test results will result in rejection of lot.
- (d) Action on tests which cannot be repeated (like destructive tests/ long duration tests) will be pre decided between QA agency and supplier and test reports/ records will be reviewed in such cases. However, QA agency reserves the right to witness any of such tests if required and manufacturer will inform in advance and facilitate witnessing.

6.1.5 **Advantages.** With introduction of audit based QA activities following advantages will be accrued:-

- (a) Compliance to the contemporary practices in the field of Quality Assurance.
- (b) Industry will be able to harness the advantage of experience of QA personnel.
- (c) With implementation of efficient audit program rework/scrap will be reduced significantly.
- (d) This will save vendor's time and reduce QA agency's workload.
- (e) It will empower the manufacturer to shoulder greater responsibilities and give independence in time management without waiting for availability of DQAN personnel during production and testing.
- (f) It will help in smooth transition to self-certification/ Green Channel Certification.

- (g) It will help in developing culture of standardisation and make Indian manufacturers more competitive globally.

6.1.6 The supplier will share all relevant information, documents & records with audit team to facilitate smooth conduct of audit. The outcome of the audit will be shared with supplier for addressing the non-conformities, if any. The supplier will submit the action taken report for verification of compliance and closure of the NCs. Comprehensive final audit report will be submitted by the QA agency to DQA (N) for further communication with IHQ/ OPAs.

6.2 **BASIC QUESTIONNAIRE FOR PROCESS AUDIT**

The Process Audit of the specific process shall be broadly covered under the process elements viz. Man, Machine, Method, Measurement, Material and Environment. The below questionnaire based on the HQDQA(N) policy letter 66301/POLICY/DQA(N)/SG dated 02Sep14 and general Quality Assurance practices forms the basic guidelines for smooth conduct of Process Audit. However, the Audit Team is required to draw a firm audit plan/flow as per requirement for the specific process.

Questionnaire					
1. Input Material					
Sl.No.	Question	Yes	No	N/A	Non-Conformity Minor=1, Major=2, Critical=3
1.1	Has the manufacturer defined the specifications and acceptance norm for the input material for outsourced material?				
1.2	(a) Does the manufacturer has internal approval for bill of material and maintain record of changes during prototype development?				
	(b) Does the manufacturer has IHQ approved BoM for regular production?				
	(c) Did the designer initiate the change notice for change in BoM on account of obsolescence or improvement?				
	(d) Has the manufacturer obtained approval from IHQ for any change in material?				
1.3	(a) Does manufacturer has reports of test conducted on raw material,				

	component or modules using in house test facilities as either internal test process or witness by QA rep or from accredited laboratory?				
	(b) Is correct OEM certificate of conformance or the OEM test reports available for material component or the module which is accepted based on the same?				
	(c) Has the firm record of PO containing specification as link document for raw material/ component or the modules which are accepted based upon OEM certificate or test report so that to establish the specifications with report?				
	(d) Are data sheets available from independent source like Internet for the bought-out items?				
	(e) Are documents as per DQAN Policy available with supplier for imported items?				
1.4	(a) Has the manufacturer defined the input and output specifications/ attributes of product at each stage of manufacturing?				
	(b) Are the procedures for monitoring and recording the stage specs available?				
1.5	(a) Is Manufacturer using only IHQ, MoD(N) approved COTs items with specified OEM, Make and Model where specified?				
	(b) Has approval by IHQ, MoD (N) been accorded for any change on account of obsolescence/ alternative source of material post internal validation of such change by the firm?				
	(c) Is re-qualification/ limited qualification test of eqpt conducted if stated by approving authority view changes?				
1.6	(a) Has the Manufacturer frozen source of material suppliers post				

	Qualification but before regular production?				
	(b) Has the manufacturer defined the procedure for selection of alternate material/ component and its supplier and maintain the record of such changes?				
	(c) In case of change of material has the Alternative source of supplies been approved by IHQ, MoD(N) post analysis of comparative specification of the material used during qualification testing vis-à-vis material from alternative supplier?				
2. Machines/Tools/Test Equipment (TE)					
2.1	(a) Has the manufacturer identified and recorded requirement of suitable machines/tools and TEs used in the process under audit? Manufacturer shall also define the SOP for management of the change in machine/ tools or TEs				
	(b) Does the manufacturer have the installed capacity of suitable machines/tools and Test Eqpt required to perform the process under audit and maintain the record of same?				
	(c) Has the Manufacturer defined the SOP for management of the change in machine/ tools or TEs?				
2.2	Has the Manufacturer maintained Logbook for each Machine/TEs for maintenance and calibration record as per technical manual of Machine/TE?				
2.3	Has the manufacturer defined calibration schedule for all Test Equipment used for testing parameters?				
2.4	Has the manufacturer kept the record of valid NABL scope of Laboratory for which testing has been outsourced?				
2.5	Has the Manufacturer defined the action to be taken in case of non-				

	availability of machine/ Test equipment on account of break-down, repair, maintenance, out of calibration etc.				
3. Human Resources					
3.1	Has the Manufacturer defined and deployed requisite number of qualified personnel to perform manufacturing/testing process?				
3.2	Has the Manufacturer defined the Educational Qualification required for the person-performing task?				
3.3	Has Manufacturer defined the requirement of training and periodicity of refreshment training, if any for the process under audit?				
3.4	Has the Manufacturer defined required length of experience for the person-performing task?				
3.5	Has Manufacturer defined level of competence required to perform given task?				
3.6	Has the Manufacturer defined the category of employment i.e., Permanent, ad hoc, or contractual basis?				
3.7	Has the Manufacturer maintained a matrix of qualification, experience, training, and employment category and competence level of the Engineer/operators against requirement of processes?				
3.8	Does QA department has defined independent and non-conflicting role?				
3.9	Has the Manufacturer defined the procedure/s to be adopted in case of any change in defined human resources?				
4. Milieu (Environment)					
4.1	Has the manufacturer defined the specific environmental conditions need for each process for delivering consistent quality output?				

4.2	Has the Manufacturer defined the procedure to be adopted in case of any change in environmental conditions?				
5. Method (Reference documents)					
5.1	Has the Manufacturer adopted standard Manufacturing/Testing method and maintained a copy of applicable standard at workplace?				
5.2	Has the Manufacturer approved copy of QAP and ATPs?				
5.3	Does Manufacturer have IHQ, MoD(N) approved drawings?				
5.4	Does manufacturer have original qualification test reports, BoM and drawings and the details of processes adopted during qualification testing?				
5.5	Are Test Equipment operating manual/ and or work instructions for correct operation of equipment available at site?				
5.6	Is agreed upon sampling plan for selecting samples of items/parameters for testing/inspection along with Acceptance/Rejection criteria available?				
5.7	Is latest version of internally approved work instructions to be executed by Engineer/Operator available at workplace?				
5.8	Are approved copies of applicable documents like PO/SOTR/NSQR/ T&C (MoM) etc available?				
5.9	Has Manufacturer defined the impact and action to be taken in case of change in any reference document or procedure?				
6. Measurement Records					
6.1	Has the manufacturer kept old records of Type Testing/ Qualification Testing and all other tests conducted against item				

	specification during current manufacturing?				
6.2	(a) Do all test records have traceability to the item which has been tested?				
	(b) Do all the items bear traceable label?				
	(c) If marking of serial number on product is not possible then do such products have temporary tag with serial number of final product or are they stored in tagged case/tray till forward integration with final product?				
6.3	(a) Does manufacturer maintain consistency in controlling the factors affecting process stability such that measured test results can be repeated to prove stability of measurement process?				
	(b) Are mutually agreed limits for repeatability of measured results been decided in advance?				
	(c) Are root cause analysis record being maintained by the manufacturer in case of non-repeatability of test results?				
	(d) Is approval from IHQ/ MoD been obtained for the parameters for which repeatability of measured results is not possible?				
6.4	(a) Has the Manufacturer defined the policy and procedures for disposal of non-conforming work?				
	(b) Is record of all non-conforming works being maintained?				
6.4.1	Has the Manufacturer defined the communication channel and format of reporting any non-conformity observed during process?				
6.4.2	(a) Has the communication been made on occurrence of the non-conformity, as per defined channel?				

	(b) Has the Root Cause Analysis (RCA) for the Non-conformity been carried out for reported NC?				
6.4.3	(a) Has the corrective action been defined after RCA?				
	(b) Has the corrective action been approved by the defined authority?				
	(c) Has the approved corrective action been implemented?				
6.4.4	Has the manufacturer defined the procedure for action on retrospectively produced items on identification of non-conformities in the process?				
6.4.5	Has the record been maintained for Corrective measures?				
6.4.6	Has the manufacturer defined the criteria for carrying out rework or scrapping of non-conforming items?				
6.5	Is Manufacturer using Statistical Process Control (SPC) tools to calculate Cp & Cpk values periodically to assess the stability of process and maintain the record for the same?				

Annexure I**LIST OF DELIVERABLES AS PER CONTRACT**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>QTY(Nos.)</u>	<u>Remarks</u>

Annexure II**LIST OF TECHNICAL DOCUMENTS AND IETMs AS PER CONTRACT**

<u>Sl. No.</u>	<u>Document Description</u>	<u>Part No / INBR No</u>	<u>Volumes</u>	<u>Per Ship</u>	<u>Additional Sets for Base</u>	<u>Remarks</u>

Annexure III**LIST OF INSTALLATION MATERIAL AS PER CONTRACT**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Qty (Nos)</u>	<u>Category</u> <u>(Manufactured/Purchased</u> <u>Parts Imported/COTs)</u>	<u>Remarks</u>

Annexure IV**QA STAGES OF**
INPUT MATERIALS, IN-PROCESS AND FINAL PRODUCT

<u>Ser</u>	<u>QA Stage</u>	<u>QA Characteristics</u>	<u>Quantum of checks</u>	<u>Ref.doc</u>	<u>QA Criteria / Acceptance Norms</u>	<u>Remarks</u>	<u>E M D</u>
1.	<u>Input Material</u>						
	<u>(a) Electrical /Electronic Items</u>						
	(i) Discrete electronic items/components (Resistors Capacitors Inductors, Diode, LEDs, Transistors ICs, Switches, Push buttons, Relays, Sensor etc)	Visual, Electrical tests	100% or Sampling plan as per IS 10673 (as per practice of the firm)	PP Drg /, catalogue or FIRM Part drg.	Review of IGI Report (Traceability) Testing Thermal Shock		
	(ii) COTS (PCBs, LRUs, Laptop, CPUs, Hard disks etc.)	Visual, Electrical	100%	As per OEM's specification Catalogue, with CoC	Testing	CoC should contain data sheets/reports for compliance to ESS as per / MIL HDBK 2164A/MIL	

						HDBK 344A (or) other equivalent specs. (or) Perform the ESS test i.a.w MIL HDBK 344A	
(b) Mechanical items							
	(i) Bar, Plate, pipe, sheets	Visual, Chemical, Physical Inclusion Rating, Bend Test, Couping Test and other applicable test as per relevant specificati on / Drg.	One sample per heat/batch	Approved drawings , IS/BS/ ASTM or other OEM Stds	Review/ Witness (To be decided by QA agency)	(aa) CHP as applicable (ab) Review of record/ test for imported items. (ac) Specific Material Grade to be mentioned in the drg/ BOM.	
	(ii) Casting	Pouring of castings , Visual, Chemic al, Physical , Non Destruct ive test (NDT)	One sample per heat batch	Approved drawings , Process, IS/BS Or any other OEM Stds	Review/ Witness	(aa) Witness/R eview for pouring stage. (ab)Accept ance level for NDT to be indicated with relevant applicable Specificati on. (ac) CHP for pouring stage.	
	(iii) Forgings	Visual, Chemic al, Physical	One sample per heat/batch	Approved drawings , IS/BS or other OEM Stds	Review/ witness	Acceptanc e level for NDT be indicated	

		NDT, Micro, Macro, and Forging Flow lines				with relevant specification	
	(iv) Standard articles (bolt, nut, washer, seal, chain, bearings etc)	Visual, Dimension, Chemical, Physical, Hardness, coating thickness,	Sampling plan as per IS 2500 Part -I	OEM Catalogue, Approved drawings IS/BS and other equivalent specs.	Review/Witness		
	(v) Spring	Visual, Dimension, Chemical, Physical, Load test/spring rating	Sampling plan as per IS 2500 Part -I	OEM Catalogue, Approved drawings IS/BS and other equivalent specs.	Review/witness	CHP for spring rating/load test	
	(vi) Seal/moulded rubber components	Visual, Dimension, Chemical, Physical, shore hardness, polymer identification, shelf life	Sampling plan as per IS 2500 Part -I	OEM Catalogue, Approved drawings IS/BS and other equivalent specs.	Review/Witness		
	(vii) Adhesives	Shelf life	Sample	OEM Catalogue	Certificate of Conformance	Data sheets to be provided for each batch.	

	(viii) Bearings	Visual, Dimension, Chemical, Physical Axial, radial play	Sampling plan as per IS 2500 Part -I	OEM Catalogue, Approved drawings IS/BS and other equivalent specn	Review/witness		
	(ix) Hoses	Visual, Dimension, material, pressure test	Sampling plan as per IS 2500 Part -I	OEM Catalogue, Approved drawings IS/BS and other equivalent specs.	Review/witness		
	(x) Valves, gear box, Hyd.cylinders, actuators, all types of pressure gauges and misc instrumentation	Visual, pressure test, functional test and verification of calibration certificate as applicable	Sampling plan as per IS 2500 Part -I	OEM Catalogue, Approved drawings/ATPs/IS/BS and other equivalent specs.	Review/witness		
2.	<u>In Process</u>						
	(a) <u>Sub – Assembly / Assembly</u>						
	(i) Fabrication	Visual, NDT	Sample (10%)	ASTM/ASME/IS/BS / Approved drawing	Witness/Review (10%)	(i) CHP for welding (ii) Firm should establish the Weld Procedure Specification (WPS) & Process Qualification Record prior start of welding process.	



	(ii) Machining	Visual	100%	Approved drawing/ Specification	Review		
		Dimension	Sample (10%)	Approved drawing/ specification	Witness (10%)		
		Geometric dimension	On one sample	Approved drawing/ specification	Witness	Only geometric dimensions like parallelism, concentricity, run out etc to be verified during machining, if, specified in the drawings.	
		Surface treatment to check the Hardness Plating thickness	Sample (10%)	Approved drawing/ Specification /process document	Witness (10%)	Approval from IHQ MoD(N) is required for Process like hard chrome plating, ENP etc	
	(b) PCBs (In-House manufactured/sub-contracted)	Visual	100%	Approved GA/ schematic	Review/ Witness	(i) Approval from IHQ MoD(N) is required for use of Non-Mil grade. ATPs should be approved by IHQ MOD (N).	
		Component layout & wiring, configuration/ Version) Functional tests	100% 100%	Approved GA/ schematic /wiring chart ATP	Review/Witness Witness		
	(c) Cabinets	(i) Visual	100%	Approved drawing	Witness	Conformance to the	

						drawing w.r.t. ventilation, lifting arrangement, handle, shock mount fitment, components layout, grounding arrangement, internal wiring etc.	
	(d) <u>Cables</u>	(ii) Dimension	100%	Approved drawing	Witness		
			100%	Approved ATP/PTP	Witness /Review		
		(iii) Functional Test	100% As per TPs	Approved TPs/ drawings	Review/Witness		
	<u>ESS</u>	(i) Visual, (ii) Raw material (iii) dimension (iv) functional test	100%	DQA(N) Guideline DQAN/SG/1001/ESS dated 30 May 22 / Mil HDBK 344A or other equivalent specs.	Review/ witness	CHP Review for material	
	<u>ETs</u>	As per approved ESS Plan / DQAN guideline	On prototype or first of production model as per DQA(N) Policy No. DQAN/SG/1001/Type test dt 18 Jan 2022.	As per MIL 810G / JSS 55555 – 2020 (Rev - 4) or other equivalent specification	Review/ witness	OEM should draw the ESS plan for the equipment being supplied as per DQAN guideline for the parameters /checks mentioned therein.	
		As per Annexure 7				To be undertaken at NABL	

					<p>accredited Lab/Govt. Lab. Witness will be done by QA agency in case test is being conducted at firm's premises. CHP</p> <p>Witness for indigenous manufacture d items.</p> <p>Review of CoC for imported items.</p> <p>The CoC should contain the achieved and specified values as per the specification tested.</p> <p>Firm can use other equivalent International Standards like MIL,DEF,VG (German) for testing the ETs, however, the final requirement s shall meet the</p>	
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						SOTRs/Contract requirements.	
3	Final Product						
	Final Assembly	Completeness checks	100%	Approved drawing	Witness	QA agency is to physically confirm that all LRUs assembled in the system have QA stamp for clearance	
		Dimension & Weight	100%	Approved drawing/Specification.	Witness		
	EMI/EMC test	Approved EMI/EMC-Acceptance Plan (EMC-AP)	Prototype or first of production model 100%	Approved EMI/EMC-Acceptance Plan (EMC-AP)	Review/Witness		
		Functional test (CTQ)	100%	Approved Test Instruction (TI), ATP/PTP Approved plan by IHQ MoD(N) as per DQAN Policy No 66301/Policy-10/DQA(N)/QA-10 dated 14 June 13	Witness	OEM to formulate EMC-AP and forward to IHQ MoD(N) through NEC(MB). The plan shall be as per SOTRs/POTS	
		Endurance Test	100%	Approved FATs /ATP Document by IHQ MoD(N)	Witness		
		Factory Acceptance					

		Test (FATs) (CTQ)					
	Painting	Colour scheme	100%	Approved colour scheme by IHQ MoD(N)	Witness /Review		
		Dry Film Thickness (DFT) measurement	100%				
	Preservation & Packing	Visual	100%	Approved Packing & Preservation.	Witness		

Note:-

CTQ parameters & EMD to be included (Refer DQAN Policy DQAN/SG-I/1001 dated 11 Jun 21)

Annexure V

SAMPLING PLAN FOR COMPONENTS/ELECTRICAL/MECHANICAL/ELECTRO MECHANICAL ITEMS

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Visual</u>	<u>Marking</u>	<u>Electrical</u>	<u>Dimensional</u>	<u>Remarks</u>

<u>Sl. No.</u>	<u>Lot or Batch Size</u>	<u>Sample Size</u>	<u>Quality Plan as Per AQL 2.5 Level III / IV</u>		
			<u>Acceptance No</u>	<u>Rejection No</u>	<u>Remarks</u>

Annexure VI**LIST OF ITEMS EXEMPTED FROM ESS**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Category</u> <u>(Manufactured/Purchased</u> <u>Parts Imported/COTs)</u>	<u>Remarks</u>

NOTE : ALL ITEMS EXEMPTED FROM ESS WILL NEED TO BE SUBSTANTIATED WITH RELEVANT CoCs.

Annexure VII**DETAILS OF ENVIRONMENTAL TEST PLAN**

<u>Sl. No.</u>	<u>Test</u>	<u>Severity</u>	<u>Applicable Standard</u>	<u>Venue</u>	<u>Remarks</u>

Annexure VIII**LIST OF ITEMS TO UNDERGO ENVIRONMENTAL TESTs**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Test</u>	<u>Severity</u>	<u>Applicable Standard</u>	<u>Remarks</u>

Annexure IX**LIST OF ITEMS TO UNDERGO EMI/EMC TESTs**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Test</u>	<u>Applicable Standard</u>	<u>Test Lab</u>	<u>Remarks</u>

Annexure X**LIST OF BOM WITH INSPECTION CRITERIA**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No.</u>	<u>Supplier/Supplier Code Reference</u>	<u>Class</u>	<u>Type of Check</u>	<u>Sample</u>	<u>Acceptance Norms</u>	<u>Format of Record</u>	<u>Agency</u>	<u>CHP</u>	<u>GRADE</u>

Annexure XI**LIST OF IMPORTED PCB/SUB ASSEMBLIES/MODULES**

<u>Sl. No.</u>	<u>Item/Part Description</u>	<u>Manufacturers Part No/Reference</u>	<u>Manufacturer Name</u>	<u>Classes</u>	<u>Firm Part No.</u>	<u>Grade</u>	<u>Remarks</u>

Note: These items will be accepted on the prescribed CoC format and will not be subjected to ESS in accordance with DQAN guidelines.

Annexure XII**LIST OF INDIGENOUS SUB SYSTEMS / MODULES THROUGH SUB CONTRACT**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Supplier Reference</u>	<u>Manufacturer Name</u>	<u>Class</u>	<u>FIRM Part No.</u>	<u>Class</u>	<u>Remarks</u>

Annexure XIII**LIST OF APPLICABLE DRAWINGS FOR INSPECTION**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Drawing No</u>	<u>Version</u>	<u>Date</u>	<u>Remarks</u>

Annexure XIV**LIST OF APPROVED ATPs**

<u>Sl. No.</u>	<u>ATP Description</u>	<u>Part No</u>	<u>Version</u>	<u>Date</u>	<u>Remarks</u>

Annexure XV**LIST OF PCBs WITH JUMPERS**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Category (Manufactured/Purchased Parts Imported/COTs)</u>	<u>No of Jumper s</u>	<u>Applicable Standard s</u>	<u>Remarks</u>

Annexure XVI**DETAILS OF NON MIL COMPONENTS**

<u>Sl. No.</u>	<u>Item Description</u>	<u>Part No</u>	<u>Class</u>	<u>Supplier Reference</u>	<u>Grade (IND/COM)</u>	<u>Remarks</u>

Annexure XVII**VALIDITY OF INSPECTION NOTES**

1. Since i/Note is issued only after full readiness of the acceptable Bulk consignment, it is mandatory for the firm to dispatch the stores to the consignee forthwith, not exceeding 30 DAYS from the date of issue of I/Note as any undue delay may result in deterioration/damage/pilferage /tampering etc of stores after inspection. This will also ensure possibility of stores being released prior to readiness of complete bulk (Para 14.23 of DGS&D Manual refers).

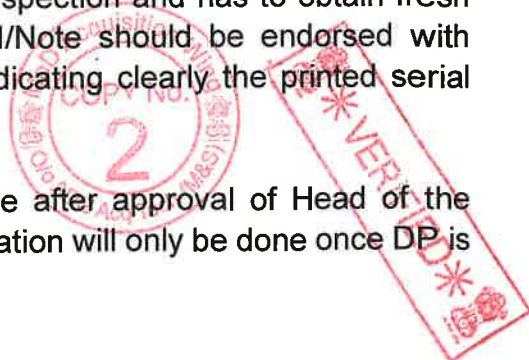
2. Inspection notes after the expiry of validity period will be revalidated as per following instructions:-

- (a) If the supplier is not able to dispatch the store within 30 days from the date of issue of I/Note, the same may be revalidated for another 30 days which

should be authenticated by the officer next higher in rank than who signed I/Note, after ensuring that the stores have not suffered deterioration/ damage/ pilferage/ tampering etc.

(b) If the stores are not dispatched within 60 days of the issue of I/Note, the vendor will have to re-offer the store for re-inspection and has to obtain fresh I/Note in lieu of earlier I/Notes. The fresh I/Note should be endorsed with remarks Issue in lieu of earlier I/Note No indicating clearly the printed serial number and date of invalid I/Note.

(c) Any revalidation of I/Note will be done after approval of Head of the Quality Assurance Establishment. The revalidation will only be done once DP is alive.



Appendix M

(Refers to Para 46 of RFP)

**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 are placed below. Non-submission of the documents may result in disqualification of the Bidder from the bidding process.

<u>Ser No.</u>	<u>Reference</u>	<u>Document Description</u>
1.	Para 5 of RFP	Declaration by Bidder : Debarment of vendors .
2.	Para 16 of RFP	Declaration by Bidder: Government Regulation
3.	Para 17 of RFP	Declaration by Bidder: Obligations Relevant to Transfer of Conventional Arms
4.	Para 18 of RFP	Declaration by Bidder : Patent Rights
5.	Para 20 of RFP	Declaration by Bidder : Fall Clause
6.	Appendix B	Compliance Table
7.	Appendix C	Warranty Clause
8.	Appendix D	CERTIFICATE: Malicious Code
9.	Annexure I to Appendix E	Technical Literature
10.	Annexure II to Appendix E	Training Aggregates
11.	Appendix H	Price Bid
12.	Annexure I to Appendix J	Pre-Contract Integrity Pact
13.	Annexure I to Appendix J	EMD

Appendix N**GLOSSARY**

AMC	Annual Maintenance Contract
AoN	Acceptance of Necessity
ATP	Acceptance Test Procedure
CAMC	Comprehensive Annual Maintenance Contract
CKD	Completely Knocked Down
CNC	Contract Negotiation Committee
CoC	Vendor's Certificate of Compliance
CSAFR	Containerised Small Arms Firing Range
DAC	Defence Acquisition Council
DGNAI	Director General Naval Armament Inspectorate
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
ESP	Engineering Support Package
FET	Field Evaluation Trials
Goi	Government of India
IC	Indigenous Content
IDDM	Indigenously Designed & Developed Manufactured
IM	Indigenously Manufactured
IP	Integrity Pact
IPBG	Integrity Pact Bank Guarantee
LRU	Line Replaceable Unit

MET	Maintainability Evaluation Trial
MoD	Ministry of Defence
MRLS	Manufacturer Recommended List of Spares
M-ToT	Maintenance Transfer of Technology
NCNC	No Cost No Commitment
OEM	Original Equipment Manufacturer
O-SAT	On-Site Acceptance Trials
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
ToT	Transfer of Technology