

(Cover Page)



सत्यमेव जयते
Ministry of Defence
Government of India

REQUEST FOR PROPOSAL
BY
MINISTRY OF DEFENCE
GOVERNMENT OF INDIA
FOR PROCUREMENT OF
HAND HELD RADIO SETS
THROUGH
FAST TRACK PROCEDURE
UNDER
CATEGORY BUY (INDIAN)

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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 93 pages including cover page and Appendices.



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File No : B/46034/HHRS/EP/Sigs 5(a)

Director General of Signals
General Staff Branch
Signals -5, Room No 604,
A Wing, Sena Bhawan
Integrated HQ of MoD (Army)
New Delhi-110011

19 Feb 2025

To

REQUEST FOR TECHNICAL AND COMMERCIAL PROPOSAL FOR
PROCUREMENT OF HAND HELD RADIO SETS
CATEGORY: BUY (INDIAN)

Dear Sir/Madam,

1. The Ministry of Defence, Government of India, intends to procure **Hand Held Radio Sets under Buy (Indian) category** and seeks participation in the procurement process from prospective Bidders subject to requirements in succeeding paragraphs.

Synopsis

2. **Broad Description of Equipment/System.** It is proposed to procure **Quantity 20000 Hand Held Radio Sets, 1000 Base Stations and 400 Repeaters** along with complete accessories for the Indian Army as per the operational characteristics and features elucidated at **Appendix A** to this RFP.

2(a). **Definition of equipment.** The equipment encompasses HHRS, Base Station, Repeater with all accessories.

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 No.	Description	Details	Reference Para of the RFP
(a)	Equipment/System required	Hand Held Radio Sets (HHRS)	Para 1 of this covering letter
(b)	Quantity Required	HHRS – 20000 Base Station - 1000 Repeater - 400	Para 2 of this covering letter
(c)	Categorisation of Procurement	Buy (Indian)	Para 1 of this covering letter
(d)	Minimum IC Content required	As per Para 9 Chapter I of DAP 2020	Para 7 of Part I of RFP



(e)	Place(s) of Delivery	COD, Agra	Para 9 of Part I of RFP
(f)	Warranty Period	Three Years	Para 11 of Part I of RFP
(g)	EMD	₹70 Lakhs	Refer para 8 of Annexure II to Appendix J to Schedule I to Chapter II of DAP 2020
(h)	MRLS	Two Years	Para 33 of Part II of RFP
(j)	Date of issue of RFP	18 Feb 2025	
(k)	Last date for submission of Pre-bid queries	25 Feb 2025	Para 23 of Part I of RFP
(l)	Date and time for Pre-bid meeting	28 Feb 2025 , 1100Hr	Para 24 of Part I of RFP
(m)	Last date and time for Bid Submission	21 Mar 2025,1300hr	Para 25 of Part I of RFP

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

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(a)	Part I – General Requirements	6-11
(b)	Part II - Technical Requirements	12-15
(c)	Part III – Commercial Requirements	16
(d)	Part IV – Bid Evaluation and Acceptance Criteria	17

- 5.

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

6. The end user of the equipment is the **Indian Army**. 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.

7. This RFP is non-transferable.

8. 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 source domain document that is available at Gol, MoD website www.mod.nic.in.

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


(Subhasis Das)
Major General
Chairman,
Empowered Committee



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Disclaimer

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, Engineering Support Package (ESP), 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.

5. **Business Eligibility**

(a) **Undertaking by Bidders.** The Bidder will submit an undertaking that they are currently not banned / debarred / suspended from doing business dealings with Government of India / any other government organisation and that there is no investigation going on by MoD against them. In case of ever having been banned / debarred / suspended from doing business dealings with MoD/any other government organization, in the past, the Bidder will furnish details of such ban / debarment along with copy of government letter under which this ban / debarment / suspension was lifted / revoked. The Bidder shall also declare that their sub-contractor(s) /supplier(s)/technology partner(s) are not Suspended or Debarred by Ministry of Defence. In case the sub-contractor(s)/supplier(s)/ technology partner(s) of the Bidder are Suspended or Debarred by Ministry of Defence, the Bidder shall indicate the same with justification for participation of such sub-contractor(s)/ supplier(s)/ technology partner(s) in the procurement case.



(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 consisting of the members of the Empowered Committee.

7. **Indigenous Content.** For the purposes of this RFP and the acquisition contract (if any) signed by the Ministry of Defence with a successful Bidder, indigenous content shall be as defined under **Para 8 to 12 of Chapter I** and **Paras 1, 3 & 3A 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. **Bidders are also required to furnish undertakings as per Appendix 'A' to Chapter I of DAP 2020 and Annexure II to Appendix B to Chapter I of DAP-2020.** The right to verification of 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 in 'Buy (Indian)' and 'Buy (Indian - IDDM)' will be required to submit their indigenisation plan in respect of indigenous content as stipulated in **Para 4 to 7 of Appendix B to Chapter I** and **Para 39** of Chapter II of DAP 2020. The DAP 2020 is available at MoD, Gol website (www.mod.nic.in) for reference and free download.

8. **Year of Production.** Deliverables (including major equipment/ equipment/ systems) supplied under the contract should be of latest manufacture i.e manufactured after the date of Contract with unused components/assemblies/sub-assemblies, conforming to the current production standard and should have 100% of the defined life other than permitted running hours during assembly/acceptance trials at the time of delivery. Deviations, if any, should be clearly brought out by the BIDDER in the Technical details and Commercial Proposal.

9. **Delivery Schedule.** The delivery schedule of equipment and services along with the relevant payment stages is specified at **Annexure IV to Appendix G.**

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 warranty for **Three years.** Commencement of warranty will be from the date of acceptance of goods post JRI. Warranty Clause is given at **Appendix C** to this RFP.

12. **In Service Life.** The In Service Life of Equipment shall be minimum **Ten (10) years.** The Bidder is required to give details of reliability model, reliability prediction and its validation by designer/manufacture to ensure reliability of stores throughout Service life. The efficacy of reliability model/prediction/validation would be verified during TEC.

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 **Ten (10) years including the warranty period.** 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. Joint defect investigation will be carried out as per JSG 0309.

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

15. **Training of Crew and Maintenance Personnel.** A training package for training of operators, operator trainers and maintenance personnel to undertake operation and maintenance of equipment, along with tools and test jigs and training of QA personnel for Quality Assurance of equipment would be required to be carried out in English language and Hindi language. This training shall be designed to give the operators and maintainers necessary knowledge and skills to operate & maintain equipment (level 1 to 4 or 'O'/'I'/'D'), 'O'/'I' level as applicable. The syllabus will be defined by the Bidder in consultation with the Buyer at the time of assessment. **Training to be conducted before expiry of warranty period, however not earlier than 6 months before expiry of warranty period.** 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 / optional technical literature, spares, test equipment / test set up, charts, training handouts, power point presentations, Computer Based Training (CBT), Documentation, Simulators etc will be catered by the Bidder.

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

Ser No	Type of Training	Location of Training	No of Batches	No of Days	No of Personnel per batch	Remarks
(a)	Training of Operator	At User Premises	02	06	50	Post JRI at 02 user specified location.
(b)	Training of QA Personnel	BIDDER Premises	01	03	02	Before PDI.
(c)	Training of Maintenance Personnel					
(i)	'O' Level	MCEME	04	06	31	
(ii)	'I' Level	MCEME	01	12	12	



(i) The training of maintenance personnel should meet the needs of repair and maintenance of the complete equipment, use of SMTs/ STEs, test set up, assemblies/ sub-assemblies as per the stipulated repair philosophy. In addition to training on operation and diagnosis using STE, training would also cover repair of STE using procured spares for STE. **Vendor will make the equipment available at premises of MCEME.**

(ii) Training content should be commensurate with the proposed Permissible Repair Schedule (PRS). **It should also include the capability to reload/ Program ICs, in the event of fault occurrence on account of software.**

(iii) The trained personnel should be able to vet the MRLS to align it to actual on ground requirement. The training should bring out utilization of provided MRLS items including procedure of their fitment/ repair.

17. **Government Regulations.** Bidder to ensure that there are no Government restrictions or limitations in the country of the Bidder or countries from which subcomponents are being procured and/or for the export of any part of the deliverables being supplied.

18. Bidder to ensure 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.

19. **Patent Rights.** The Bidder should confirm that there are no infringements of any Patent Rights in accordance with the laws prevailing in their respective countries.

20. **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.

21. **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.

22. **Model Certificate for Tenders.** The BIDDER will submit a Model Certificate for Tender in compliance to rule 144(xi) of the General Financial Rules (GFR), 2017 issued vide Ministry of Finance Order (Public Procurement Order No 4 dt 23 Feb 2023). The format of certificate is given as **Annexure I to Appendix L.**



Bid Timelines

23. Any queries/clarifications to this RFP may be sent to this office by 25 Feb 2025. A copy of the same may also be sent to:-

Directorate General of Signals (Signals -5)
Integrated HQ of MoD(Army)
Room No -602, 'A' Wing, Sena Bhawan,
DHQ PO New Delhi – 110 105
Phone Number - 011 – 23018926
E mail - tac.comns-5@gov.in

24. **Pre-Bid Meeting.** A pre-bid meeting will be organised by SHQ at 1100 hrs on 28 Feb 2025 to clarify doubts regarding submission of proposals. The Bidder or his authorised representative is requested to attend.

25. **Submission of Bids.** The Technical and Commercial Proposals along with IP and EMD should be sealed in separate envelopes clearly indicating Commercial/Technical/IP and EMD and other Bank Guarantees 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 at **Gate No 6 of Sena Bhawan** marker for the following address by 1300 hours on 21 Mar 2025.

O/o Signals-5, DG Sigs
Room No 602, A Wing
Sena Bhawan, New Delhi
Tele No 23012439 / 23018926

26. Offer opening by Empowered Committee will be held at **1430 hrs on 21 Mar 2025** at the same venue as indicated at **Para 25** above. The Bidder or his authorised representative is welcome to be present at the opening of the proposals. Necessary details may be sent atleast two days in advance to facilitate obtaining of security clearance.



PART II – TECHNICAL REQUIREMENTS

27. The second part of the RFP incorporates the aspects of ORs 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 enclosed** to this RFP and the Compliance Table at **Appendix B** to this RFP.

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

29. **Technical Offer.** The Technical Offer must enable detailed understanding of the functioning and characteristics of the equipment as a whole and each sub system independently. It must include the performance parameters as listed at **Appendix A** to this RFP and any other information pertaining to the technical specifications of the equipment considered important/ relevant by the Bidder. The technical proposal should also include maintenance schedules to achieve maximum life and expected life of each assembly/subassembly (or Line Replaceable Unit (LRU)/Shop Replaceable Unit (SRU)), storage conditions/environment condition recommended and the resultant guaranteed in-service/shelf life. The range and depth of spares included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be verified during demonstration. Any Bidder found to be providing lesser ESP/MRLS in terms of range and depth will have to make good the deficiency at no extra cost. Further details are enumerated below for the technical offer:-

- (a) The technical offer should contain specification of systems / sub systems/ accessories.
- (b) Ready reference user hand book for operation of equipment shall be provided in technical bid by BIDDER.

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

31. **Technical Details.**

- (a) The technical details should be factual, comprehensive and include specifications of the offered system/equipment against broad requirements listed in **Appendix A** to this RFP.
- (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.

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



33. **Malicious Code Certificates.** The Bidder is required to submit 'Malicious Code Certificates' (only for Electronic items and Software) along with the Technical Proposal. The format is placed at Appendix D to this RFP. The vendor is also required to submit 'Measures to be adopted by bidders for information security' at Annexure I to Appendix D.

34. **Product Support (ESP).** After completion of three (03) years of warranty, the Maintenance Support by in-house agency upto 'I' level repair using procured Engineering Support Package (ESP) will be undertaken as per the repair and maintenance philosophy attached at Appendix E to this RFP. The information on Engineering Support Package that is required to be provided is enclosed at Annexure I to IV to Appendix E to this RFP. BIDDER 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 during the life cycle of the equipment. **Product support beyond 'I' level will be undertaken by maintenance & repair facility available with the vendor through Factory Repair (FR).**

35. **Spares.** The spares requirement will be as per Appendix E to this RFP. The spares are required to be categorized in four categories as follows:-

- (a) Manufactured by Bidder as OEM and can be sourced as per Part No.
- (b) Bought out items and customized by the OEM for the specific purpose and such customization would require OEM intervention.
- (c) Bought out from other OEMs/Third Party as specialised items and used without any customization. Such items can be sourced by quoting their Part No./Identification No. as given by OEM/Third Party and directly utilised.
- (d) General Engineering items/COTS which can be sourced by stating the relevant standards and item description.

Note. The OEM Part No. /Identification No. of items in addition to bidder assigned part number are also required to be given. To the extent feasible, NATO Stock Number (NSN) be also provided.

36. As brought out at Para 28, the range and depth of spares included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be verified during Demonstration. Any Bidder found to be providing lesser ESP/ MRLS in terms of range and depth will have to make good the deficiency at no extra cost. The Buyer would also have the option to amend the MRLS proposed by the Bidder within two years of the expiry of the warranty period. The Bidders would either 'Buy Back' the spares rendered surplus or exchange them on cost to cost basis with the spares as required by the Buyer. The said spares would be purchased/replaced by the Bidder, based on the prices negotiated in the contract. The 'Buy Back' clause would not be applicable for additional spares included by the Buyer in MRLS during demonstration of maintenance aspects as part of TEC consisting of members of the EC.

37. **Security Clauses.**

- (a) Items supplied should not be manufactured by an OEM/ Supplied System Integrator belonging to adversary countries having borders with India.
- (b) Govt of India reserves the right to disqualify any BIDDER should it be so necessary at any stage on grounds of National Security.



(c) BIDDER from a country sharing land border with India is required to submit certificate of registration as per GoI/Ministry of Finance (Department of Expenditure) OM No. F.7/10/2021-PPD dated 23/02/2023.

(d) During the evaluation, the EC may undertake inspection down to the component/ chip level of any of the random products submitted or visit to factory premises of the OEM/ supplier or both to comply with GoI/ Ministry of Finance (Department of Expenditure) OM No F.7/10/2021-PPD dated 23/02/2023.

(e) **The BIDDER is required to submit the Bill of Entry documents containing the country of origin for price paid or payable towards import of non-indigenised contents in the offered equipment, failing which his bid would be liable to be rejected.**

(f) The BIDDERS who have been technically rejected as per above mentioned clauses (on grounds of National Security) during the past one year of the date of publishing of this RFP, in any of the procurements undertaken by Indian Army at any place in the country, are liable to be rejected if the equipment of same MAKE is offered.

38. **Active Technology Obsolescence Management.** Bidder is to indicate the methodology on how the Bidder intends to undertake Active Obsolescence Management through life cycle of equipment which would include upgradation of system/ subsystem/ units on completion of its fair service life. The Bidder/OEM shall also intimate Buyer on likely technology obsolescence of various sub-assemblies/units/modules of equipment through an Annual Bulletin. In case of impending obsolescence of components, bulletin should specify either alternate item or option for life-time buy as under:-

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

(b) Three years prior to completion of design/service life of equipment, the Bidder/OEM will submit techno-commercial proposal for upgradation of equipment, wherever applicable, to mitigate technology obsolescence and for ensuring product support for 10 years.

Evaluation of Technical Offers

39. The technical proposals forwarded by the Bidders will be evaluated by the EC. The EC will examine the extent of variations/differences, if any, in the technical characteristics of the equipment offered by various Bidders with reference to the Operational and Technical Requirements as elaborated at **Appendix A** and prepare a "Compliance Statement" for shortlisting the Bidders for Demonstration at location specified by the EC.

40. **Demonstration.**

(a) Only vendors who are technically cleared (as per documents submitted) would be asked to organize a Demonstration of the equipment at a place/location decided by the Empowered Committee within **ten (10) days** after evaluation of documents by EC on 'No Cost No Commitment' basis. Vendors will be required to keep four (04) HHRS DMR Sets, two (02) DMR Base Stations and two (02) DMR Repeaters along with all required accessories ready for submission at the time of submission of bids. Demonstration will be witnessed by the EC Members/ Representatives nominated by the Chairman EC for evaluation as per **Demonstration Methodology** given at



Appendix F to this RFP.

(b) **Demonstration of Maintenance Aspects.** In order to maintain the equipment in field Army, maintenance related aspects shall be demonstrated by vendor with associated equipment/accessories. Following aspects to be included in the demonstration:-

- (i) Technical Literature to include User Handbook, Technical Manuals, ISPL, MRLS, Technical Manuals on STEs, details of training aggregates, CBTs, IETMs for training of technicians for maintenance.
- (ii) Details of SMTs and STEs.
- (iii) Tree diagram to include demo of assemblies/sub-assemblies.

41. **Commercial offers will be opened of only those Bidders whose equipment is short-listed, after technical evaluation and successful demonstration.** In other words, the equipment would be required to be found suitable prior to commencement of any commercial negotiations.

Quality Assurance Instructions (QAI)

42. QAI is attached at **Annexure III to Appendix F.** Bidder is to submit a Draft Acceptance Test Procedure (ATP) along with the Technical bid. Based on the draft ATP, the ATP will be finalised by the QA Agency of the Buyer with Bidder. ATP will be finalised at the CNC stage. ATP 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 Pre Dispatch Inspection (PDI) and Joint Receipt Inspection (JRI). 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.

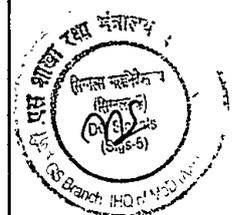
Marking and Packaging

43. **Marking of Deliverables.** The Bidder shall ensure that each deliverable is marked clearly and indelibly as per applicable standards, 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.
- (d) Manufacturing Year with serial number should be printed/ engraved in all assemblies.

44. 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.

45. **Packaging of Deliverables.** The Bidder shall pack or have packed the deliverables to ensure that each deliverables may be transported in an undamaged and serviceable condition. Packing for service electronic equipment to be as per JSS 0253-01:1981.



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

- (a) The name and address of the consigner and consignee.
- (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 03 kgs.



PART III - COMMERCIAL REQUIREMENTS

47. 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

48. 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.

49. Commercial offers will be opened only of the Bidder whose equipment is short-listed, after technical evaluation, documentation check and demonstration of the equipment witnessed by the EC / Representatives nominated by the Chairman EC, evaluated as per the Demonstration Methodology. The Commercial Offer must be firm and fixed and should be valid for at least 06 months from the last date of bid submission.

Commercial Bid Opening

50. The Commercial Offers will be opened by the EC and if Bidder desires he may depute his representative, duly authorised in writing, to be present at the time of opening of the offers.

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

52. The EC will determine the lowest bidder (L1).

Additional Aspects

53. **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. In addition, '**Termination Clause**' as given in **Para 10** of **Appendix J** to this RFP will be applicable.



PART IV: BID EVALUATION AND ACCEPTANCE CRITERIA

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

55. 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 non-responsive bid.

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

57. **Evaluation and Acceptance Process.**

(a) **Evaluation of Technical Proposals.** As per Para 39 and 40 of Part II of RFP.

(b) **Evaluation of Commercial Bid.** The Commercial bids of only those bidders will be opened, whose technical bids have been cleared by the EC and equipment has been shortlisted after the successful Demonstration by the bidders. Comparison of bids would be done on the basis of Evaluation criteria given in **Appendix H** to this RFP. The L-1 bidder would be determined by EC on the basis of **Appendix H** to this RFP. Only L-1 bidder would be invited for negotiations by the EC.

(c) **Contract Conclusion/Placement of Order.** The successful conclusion of CNC will be followed by contract conclusion/placement of order.

58. **Termination Clause.** This clause will form part of the contract. The Buyer shall have the right to terminate this Contract in any of the following cases:-

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

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

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



Appendix A
(Refers to Para
27, 28, 29, 31 (a) & 32 of RFP)

OPERATIONAL CHARACTERISTICS AND FEATURES

Introduction and Proposed Service Employment

1. **General.** Hand Held Radio Set (HHRS) and associated accessories proposed for procurement are envisaged to be light-weight, ergonomic and easy to handle. The equipment primarily consists of Hand Held Radio Set (HHRS), Base Station, Repeater and associated accessories.
2. **Aim.** The aim of this operational requirement is to lay down qualitative requirements for Hand Held Radio Set (HHRS) and associated accessories.
3. **Proposed Service Employment.** The proposed service employment of HHRS will be to provide all terrain tactical radio communication at unit and sub-unit level.
4. **Interoperability.** HHRS, Base Stations and Repeaters, based on DMR (Digital Mobile Radio) Tier II standards, to be from single OEM and will be interoperable with each other in all modes and aspects and also with the existing inventory of DMR Tier-II standard radio sets in the Indian Army.

OPERATIONAL PARAMETERS

5. **Frequency Range.** HHRS should be able to operate in the entire frequency range from 405-470 MHz.
6. **Communication Range.** The point to point RF link between two HHRS to be 03 km or more.
7. **Analog and Digital Operation.** Both Analog and Digital Operation to be supported.
8. **Channel Spacing.** 12.5 KHz/ 25 KHz.
9. **Channel Capacity.** 1000 or more.
10. **Type of Operation.** Simplex, Half Duplex, Press to Talk (PTT).
11. **Type of Antenna.** Rugged flexible aerial.
12. **Dimensions (Height x Width x Depth).** HHRS to be 150 mm (H) x 80 mm (W) x 60 mm (D) or less with Battery and without knobs.
13. **Weight.** Weight of HHRS including battery and antenna will be 500 grams or less.
14. **Display.** Day and night readable Alphanumeric coloured display to be provided.



15. **Hands Free Operation.** VOX based solution to be provided for complete hands free operation.
16. **Keypad.** Backlit (selectable) alphanumeric keypad to be provided.
17. **Battery and Spare Battery.** Rechargeable Li-ion 2400 mAH or more capable of minimum 08 hours operation. Each battery to be provided with a belt clip.
18. **Battery Charger.** Each HHRS to be provided with a battery charger capable of charging the batteries supplied with the radio.
19. **Low Battery Alert.** Battery status bar along with low battery alert to be provided on the HHRS, to enable the user to recharge or replace the radio's battery before excessive drain ceases operation.
20. **Single Location and Roaming Operation.** HHRS to provide seamless communication in an IP repeater network in both : Single location as well as Roaming mode.
21. **Text Messaging.** HHRS to be capable of sending Short Messages from Keypad and Pre-defined Messages. Minimum character size of message - 64 characters and Minimum number of Pre-defined stored messages - 10.
22. **Mode of Calls.** The HHRS to provide Selective calling, Group calling and Broadcast calling.
23. **Caller ID.** Caller ID facility to be provided.
24. **Scan.** Facility of scanning at least 5 frequencies to be provided.
25. **GNSS Based Tracking (GNSS).** Must have an in-built GPS/GLONASS/IRNSS receiver to enable tracking from Remote Control Station with appropriate system. Accuracy of the GNSS to be 10 metres or better. Time to First Fix : Cold Start to be 60 seconds or less and Time To First Fix : Hot Start to be 10 seconds or less.
26. **Dust and Water Intrusion.** HHRS to meet IP 67 or better.
27. **Compliance.** HHRS to conform to applicable tests of class L3 of JSS 55555:2020 Rev No 04 / MIL STD 810G or better.
28. **EMI/ EMC.** HHRS must comply to MIL STD 461E/ IEC 61000.
29. **Programming accessories.** Programming software along with suitable cables to be provided for Hand Held Radio Sets, Base Stations and Repeaters.
30. **Attachment for waist belt.** Belt Clip.
31. **DMR Standard.** HHRS to conform to DMR Standard Tier II.



32. **Field Operational Temperature.** The HHRS should be able to operate as per the field operating temperature conditions mentioned below :-

- (a) **Minimum Temperature.** Between minus 20⁰ C to minus 10⁰ C.
- (b) **Maximum Temperature.** Between 40⁰ C to 45⁰ C.

33. **Geographic Information System (GIS).** Radio to have software application(s) to provide locations and messaging on PC/Console. The equipment should not be connected to the Internet due to security constraints, while ensuring functionality. Location Tracking for GIS application to be provided with the following facilities:-

- (a) Real time subscriber location for all radios.
- (b) Specific Radio live tracking.
- (c) Support different map formats including Defence Series Maps.
- (d) Subscriber Location logging.
- (e) Automatic location request.
- (f) Manual location request.
- (g) Capability to export and save files.

34. **Communication Security.** System to have in built AES 256 bit encryption with Key Generation Software and should also have provision to support 3rd party encryption. The encryption key to be loadable using a PC and programming cable. If an additional external device other than a PC or programming cable is required to load the encryption key, the same will be provided with every Hand Held Radio Set, Base Station and Repeater.

35. **Safety Measures.** The HHRS to have safeguards against the following:-

- (a) Reverse polarity.
- (b) Power and line surge spikes.
- (c) Short/ open circuit antenna connection.
- (d) Over voltage/ under voltage protection.

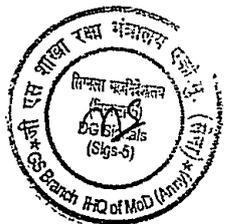
Technical Parameters

HHRS : Transmitter

- 36. **RF Power Output.** 4W or more.
- 37. **Frequency Stability.** ± 1 ppm or better.

HHRS : Receiver

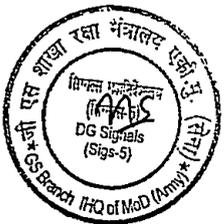
- 38. **Analog Sensitivity.** 0.30 μ V or better for 12dB SINAD.



39. **Digital Sensitivity.** 0.30 μ V or better for 5% BER.
40. **Spurious Rejection.** 60 dB or better.
41. **Audio Output.** 0.5 W or higher.
42. **Audio Distortion.** 5% or better.
43. **Adjacent Channel Rejection.** 60dB or better.

BASE STATION

44. **General.** The Base Station to be lightweight, compact and ergonomic in design. The Base Station to be capable of operating in conventional system in single location and automatic roaming using IP based repeater network without manual intervention. Depending on the operational situation, the Base Station may be used in a vehicular role for which all necessary attachments including cables for interconnection to battery and mounting fixtures to be provided.
45. **Frequency Range.** Base Station should be able to operate in the entire frequency range from 405-470 MHz.
46. **Communication Range (Base Station).** The point to point RF link between two Base Stations will be 06 km or more.
47. **Analog and Digital Operation.** Both Analog and Digital Operation to be supported.
48. **Speaker & Microphone.** Microphone & in-built speaker to be provided with the Base Station.
49. **Channel Capacity.** 1000 or more.
50. **Type of Operation.** Simplex, Half Duplex, Press To Talk (PTT).
51. **Weight.** The weight of the Base Station to be 04 Kg or less without battery and antenna.
52. **Display.** Day and night readable Alphanumeric display to be provided.
53. **Keypad.** Keypad with function and direction keys.
54. **Power Supply Unit (PSU).** PSU provided with the Base Station should have the following specifications:-
- (a) AC Operating supply voltage : 230 V AC \pm 10% at 50 Hz \pm 2%.
 - (b) DC: 11 to 14 V DC.
 - (c) Automatic change over from AC to DC and vice versa in case of mains failure.
 - (d) Provision of Battery Revert.



55. **Dimensions (H x W x D).** The dimensions of the Base Station without antenna and battery to be 100 mm (H) x 180mm (W) x 225 mm (D) or less.
56. **Single Location and Roaming Operation.** Base Station to provide seamless communication in an IP repeater network in both : Single location as well as Roaming mode.
57. **Mode of Calls.** Base Station to provide Selective calling, Group calling and Broadcast calling.
58. **Caller ID.** Caller ID facility to be provided in the Base Station.
59. **Scan.** Facility of scanning at least 5 frequencies to be provided.
60. **GNSS Based Tracking.** Must have an in-built GPS/GLONASS/IRNSS receiver to enable tracking from Remote Control Station with appropriate system. Accuracy of the GNSS should be 10 metres or better. Time to First Fix : Cold Start should be 60 seconds or less and Time To First Fix : Hot Start should be 10 seconds or less.
61. **Geographic Information System (GIS).** Radio to have software application(s) to provide locations and messaging on PC/Console. The equipment should not be connected to the Internet due to security constraints, while ensuring functionality. Location Tracking for GIS application to be provided with the following facilities:-
- (a) Real time subscriber location for all radios.
 - (b) Specific Radio live tracking.
 - (c) Support different map formats including Defence Series Maps.
 - (d) Subscriber Location logging.
 - (e) Automatic location request.
 - (f) Manual location request.
 - (g) Capability to export and save files.
62. **Dust and Water Intrusion.** Base Station to meet IP 54 or better.
63. **Compliance.** Base Station to conform to applicable tests of class L2A of JSS 55555:2020 Rev No 04 / MIL 810G or better.
64. **EMI/ EMC.** Base Station must comply to MIL STD 461E/ IEC 61000.
65. **Antenna and Feeder.**
- (a) Whip Antenna (with mounting assembly) with 03 metres low loss co-axial cable and suitable connector for vehicle use to be provided.
 - (b) Suitable Ground Plane antenna with sectionized mast and 30 metres low-loss RG 217 (or better) RF Cable for fixed station. The mast to have the following specifications:-
 - (i) Fully erected height of the mast to be at least 09 metres.



- (ii) The antenna mast assembly with payload when erected to full height to be able to withstand a wind velocity of 80 km/h (Operational) and 120 Km/h (Survival).
- (iii) The weight of the mast to be less than 100 kgs (excluding weight of accessories).

66. **DMR Standard.** Base Station to conform to DMR Standard Tier II.
67. **Field Operating Temperature.** Base Station should be able to operate as per the field operating temperature conditions mentioned below:-
- (a) **Minimum Temperature.** Between minus 20⁰C to minus 10⁰C.
- (b) **Maximum Temperature.** Between 40⁰C to 45⁰ C.
68. **Communication Security.** System to have in built AES 256 bit encryption with Key Generation Software and should also have provision to support 3rd party encryption. The encryption key to be loadable using a PC and programming cable. If an additional external device other than a PC or programming cable is required to load the encryption key, the same will be provided with every Hand Held Radio Set, Base Station and Repeater Station.
69. **Safety Measures.** Base Station to have safeguards against the following:-
- (a) Reverse polarity.
- (b) Power and line surge spikes.
- (c) Short/ open circuit antenna connection.
- (d) Over voltage/ under voltage protection.

Base Station: Transmitter

70. **RF Power Output.** 25 W or more.
71. **Frequency Stability.** \pm 1ppm or better.

Base Station : Receiver

72. **Analog Sensitivity.** 0.30 μ V or better for 12dB SINAD.
73. **Digital Sensitivity.** 0.30 μ V or better for 5% BER.
74. **Audio Output.** 2 W or higher.
75. **Audio Distortion.** 5% or better.
76. **Adjacent Channel Rejection.** 60dB or better
77. **Spurious Rejection.** 60 dB or better.



REPEATER

78. **General.** Repeater should be capable of operating in unattended mode with remote diagnostics and maintenance features. The repeater to support all features of HHRS and Base Station.
79. **Frequency Range.** Repeater should be able to operate in the entire frequency range from 405-470 MHz.
80. **Communication Range.** The communication range of Repeater in RF mode will be 08 km or more.
81. **Channel Spacing.** 12.5 KHz/ 25 KHz.
82. **Networking.** Repeater to also be IP enabled to create a network grid of Repeater stations to enable Wide Area Network of user Radio sets operating in the network from one site to another without manual intervention and to extend the range of communication and also facilitate Hand Held Radio Sets and Base Stations for roaming as brought out above.
83. **Dimensions (H x W x D).** The dimensions of the Repeater without antenna and battery to be 150mm (H) x 500mm (W) x 525mm (D) or less.
84. **Weight.** The weight of the Repeater to be 15 Kg or less.
85. **Type of Operation.** Repeater mode at 100% duty cycle at full power in both AC and DC operation.
86. **Power Supply Unit (PSU).** PSU provided with the Repeater to have the following specifications:-
- AC Operating supply voltage : 230 V AC + 10% at 50 Hz + 2%.
 - DC: 11 to 14 V DC.
 - Automatic change over from AC to DC and vice versa in case of mains failure.
 - Provision of Battery Revert.
87. **EMI/ EMC.** Repeater must comply to MIL STD 461E/ IEC 61000.
88. **Antenna and Feeder.** Two Ground Plane antennas with sectionized masts and 30 metre low-loss RG 217 (or better) RF Cable (Quantity 02 x Ground Plane antennas with masts and quantity 02 x cables per Repeater). The mast to have the following specifications :-
- Fully erected height of the mast to be at least 09 metres.
 - The antenna mast assembly with payload when erected to full height to be able to withstand a wind velocity of 80 km/h (Operational) and 120 Km/h (Survival).
 - The weight of the mast to be less than 100 kgs (excluding weight of accessories).



89. **Interfaces.** Ethernet port RJ 45 to provide the following:-
- Wide Area IP connectivity for voice & data repeaters.
 - Provision for Remote monitoring & status check.
90. **Field Operating Temperature.** Repeater should be able to operate as per the field operating temperature conditions mentioned below:-
- Minimum Temperature.** Between minus 20⁰C to minus 10⁰C.
 - Maximum Temperature.** Between 40⁰ C to 45⁰ C.

Repeater : Transmitter

91. **RF Power Output.** 40 W or better.
92. **Frequency Stability.** ± 1 ppm or better.
93. **Audio Distortion.** 5% or better.

Repeater : Receiver

94. **Analog Sensitivity.** 0.30 μ V or better for 12dB SINAD.
95. **Digital Sensitivity.** 0.30 μ V or better at 5% BER.

Maintainability & Ergonomic Parameters

96. **Repair and Maintenance.** Essential spare parts, tools and accessories for carrying out running repairs and maintenance of HHRS, Base Stations and Repeaters to be provided.
97. **Service Life, Shelf Life and Product Support.** The equipment to have a minimum Service life of 10 years. Life Cycle Support to be provided by the manufacturer.
98. **Colour.** Black /Olive Green.
99. **Mean Time Between Failures (MTBF).** The MTBF for the equipment to be more than 10000 hours to ensure reliable and seamless communication.
100. **Built In Test Equipment (BITE).** BITE supporting diagnostics to be provided to trace a fault down to card level.
101. **Power On Self Test (POST).** Upon power on, the equipment should perform POST functions to determine the health status of the equipment.



Appendix B
(Refers to Para 27 & 32 of RFP)

COMPLIANCE TABLE

For equipment

Ser No	Requirement as per the RFP	Compliance/ Partial Compliance	Indicate references of Paras/Sub Paras of the Main Technical Document
General Conditions of RFP (Para 01 to 57)			
Technical Parameters as per Appendix A			
Commercial Parameters as per RFP			
	Performance-cum-Warranty Bank Guarantee as per Annexure II to Appendix G of RFP		
	Advance Payment Bank Guarantee as per Para 1.4.1 of Appendix G of RFP		
	Earnest Money Deposit as per Para 8 of Annexure I of Appendix J of RFP		



Appendix C
(Refers to Para 11 of RFP)

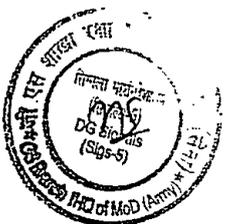
WARRANTY CLAUSE

1. The **BIDDER** 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 **BIDDER** warrants for a period of Three Years from the date of acceptance deliverables post Joint Receipt Inspection 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. **No spares will be drawn during the warranty period from the MRLS.**
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 **BIDDER** shall either replace or rectify the same free of charge, maximum within 30 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 and Bidder. Spares and all consumables required for warranty repairs shall be provided free of cost by **BIDDER**. The **BIDDER** also warrants that the special oils and lubricants required for the warranty repair of the equipment shall be provided by the **BIDDER** himself. **All activities including diagnosis, rectification, calibration, transportation etc, required for making equipment serviceable and available would be the BIDDER's responsibility.** The **BIDDER** 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 **BIDDER**. The **BIDDER** shall intimate the assignable cause of the failures.
4. **BIDDER** hereby warrants that necessary service and repair backup during the warranty period, including routine maintenance beyond Unit Level , shall be provided by the **BIDDER** Free of Cost (FOC) and he will ensure that the **cumulative downtime period for the equipment does not exceed 10% of the warranty period.**
5. (a). If a particular equipment fails frequently or the cumulative down time exceeds 10% of the warranty period then the equipment will be completely replaced free of cost by the **SELLER** within a stipulated period of 60 days from the receipt of the notification from the **BUYER**.
- 5 (b). **If a common defect is noticed in more than 5% of the quantity of equipment with respect to a particular item/component/sub-component, then the complete item/component/sub-component shall be replaced free of cost by the SELLER within a stipulated period of 60 days of receipt of the notification from the BUYER duly modified/upgraded through design improvement in all equipment supplied, yet to be supplied and ESP supplied/yet to be supplied.**
6. **BIDDER shall associate technical personnel of maintenance agency and QA of BUYER during warranty repair and shall provide complete details of defect, reasons and remedial actions for averting recurrence of such defects.**
7. In case the complete delivery of the Engineering Support Package is delayed beyond the period stipulated in this contract, then the **SELLER** undertakes that the warranty period



for the goods/stores shall be extended to that extent. In case the complete ESP is not delivered within the ibid stipulated period, the warranty to be extended by six months, post-delivery of complete ESP.

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



Appendix D
(Refers to Para 33 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.
3. *The firm will provide the following malicious code certificates from BIDDERS and OEMs as given below.*

(Signed)

Designation/Name/Address of firm

Date:

Place:

MALICIOUS CODE CERTIFICATE FROM HARDWARE OEM

1. It is certified that the firmware/microcode installed in the hardware products listed below, which is proposed to be delivered by our Business Partner M/s _____, is approved by the OEM. The products have been thoroughly tested and found to be working as per the OEM's specifications at the time of delivery and no malicious code has been found in these products. Patch level update of the system is enclosed.
2. The latest security patches as available at the time of supply, have been updated in the firmware. We undertake to provide solutions to address all security issues during the installation, warranty and support period of the equipment, provided end of support for the same has not been declared for the equipment by the OEM(s).

(Signed)

Date:

Designation/ Name/ Address of firm



MALICIOUS CODE CERTIFICATE FROM SOFTWARE OEM

1. It is certified that the firm has taken all steps to ensure that the software products listed below, which is proposed to be licensed by _____ is found to be working as per the OEM's specifications at the time of delivery and no malicious software computer program/ code hidden within the software that performs a function unauthorized by the OEM's published documentation has been introduced in these products. Patch level update of the software is enclosed.
2. The latest security patches as available at the time of supply, have been updated in the software. We undertake to provide solutions to address all security issues during the installation, warranty and support period of the software, provided end of support for the same has not been declared for the equipment by the OEM(s).

(Signed)

Date:

Designation/ Name/ Address of firm

MALICIOUS CODE CERTIFICATE FROM BIDDER

1. This is to warrant that the hardware and software being offered, as part of the Contract does not contain embedded malicious code at the time of installation and commissioning. Patch level update of the hardware/ software is enclosed.
2. The firm will be considered to be in breach of the contract, in case any physical damage or any compromise in information and cyber security or infringement related to copyright and Intellectual property Right (IPRs) is caused due to activation of any malicious code embedded in the hardware/ software.
3. The latest security patches as available at the time of installation and commissioning, have been updated in the hardware/ software. We undertake to provide solutions to address all security issues during the warranty and support period of the hardware/software, provided end of support for the same has not been declared for the equipment by the OEM's and to address all exposed security issues by exercising immediate Work-around until the OEM has made the respective solutions available."

(Signed)

Designation/ Name/ Address of firm



Annexure I to Appendix D
(Refers to Para 33 of RFP)

MEASURES TO BE ADOPTED BY BIDDERS FOR INFORMATION SECURITY

1. **Information Security.** The BIDDERS to list down all the measures taken by him to ensure that :-
 - (a) No hostile actors insert a targeted subversion attack into the equipment.
 - (b) The residual threats based on subversion of single components or subsystems, which may lead to shut down or partial loss of functionality, or to a series of privilege escalations leading to full-fledged control of the equipment.
 - (c) Likely points of insertion of roots of trust and their effect on risk mitigation using well established security principles of containment, transaction control and confinement. Hence, insertion of roots of trusts into the equipment by the trusted system integrator may be employed to block the later type of attack and escalation.
 - (d) Ensuring safety of the information assets from leakage and possible corruption or falsification.
 - (e) Any other aspect to ensure Information Security.

2. **Subversion Attacks/ Spyware/ Malware.** The BIDDERS to list down all the steps taken and obtain certificate where required to ensure NO Subversion attack/ Spyware/ Malware in the project.
 - (a) Measures instituted by the BIDDERS to ensure that the equipment being supplied to the MoD/ GoI would be free of malicious code as confirmed by the BIDDER in Malicious Code Certificate.
 - (b) List of all active components in the equipment being supplied along with their origin (i.e. OEM and country/ place of manufacture).
 - (c) Measures taken to mitigate malware risks.



Appendix E
(Refers to Para 34 & 35 of RFP)

PRODUCT SUPPORT

1. **Maintenance Philosophy.** Maintenance of the equipment is structured under two different levels. The Maintenance philosophy can be categorised into 'O' & 'I' levels as under: -

(a) **'O' Level/ Field Repairs.** These are repairs carried out at field level by technicians specially trained for this purpose and where the required special tools and spares have to be provided. These repairs comprise replacement of PCBs/Modules/Line Replaceable Units (LRUs), and other fitted external components which may require Special Maintenance Tools (SMTs) supported by diagnostics using Special Test Equipment (STE). The vendor should include Built in Test Equipment (BITE) facility in the equipment to identify faulty PCBs/modules for replacement at field level. **At Field level, all replacement of PCBs/modules will be undertaken.** In total there shall be 122 x field workshops to provide repair cover to entire equipment. The manufacturer is required to provide the following: -

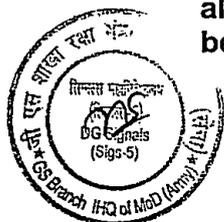
- (i) Quantity and specification of spares up to sub-Module level, other replaceable components that need to be stocked for a specified population and class of the equipment.
- (ii) Additional Special Maintenance Tools and Test Equipment needed for each such field work shop.

(b) **'I' Level Repairs.** Includes Intermediate Repairs by Corps Zone Workshop/ Base Workshops. These are extensive or special repairs carried out to include **Component Level Repairs. This level of repair envisages special diagnosis and repairs of the repairable inventory up to Printed Circuit Board (PCB) level, major assemblies, interface equipment/software and other components beyond the scope of field level repairs.** These repairs are carried out in the designated Workshops by technicians specially trained for this purpose requiring special tools and spares and the number of such facilities will be stated based on equipment deployment pattern. In total, there shall be **06 x Intermediate** level repair points to provide I level repair cover to entire equipment. The manufacturer is required, among others, to provide the following: -

- (i) Quantity and specification of **components/spares up to PCB level** that need to be stocked for a population of the equipment.
- (ii) Special Maintenance Tools and Test Equipment that has to be provided to each of these workshops.
- (iii) All necessary technical literature.
- (iv) Calibration facilities for test equipment, where applicable.
- (v) Software of all programmable components used in PCBs/ Modules to facilitate reloading/ reprogramming along with requisite software.

(c) **Repairs beyond Intermediate level repairs will be undertaken by the repair and maintenance facility available with/ set up by the vendor.**

2. **To sustain and support equipment through its operational life-cycle, Product Support requirements beyond the warranty period upto 'O' & 'I' level may be procured along with the main equipment. The equipment would be provided product support beyond 'I' level through factory repairs.**



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) Spares.
- (b) SMTs/STEs test set-up.
- (c) Technical Documentation.
- (d) Training and training aggregates.

4. Spares

(a) **Manufacturer's Recommended List of Spares (MRLS)**. This is the list of spares, recommended by the manufacturer, for maintaining operational serviceability of the equipment and sustain it for the period as stipulated in the RFP. Based on the explanation given above, the BIDDER is to provide **MRLS to sustain the equipment for a period of 02 years for various level of repair as per format given at Annexure I to this Appendix**. BIDDER will be required to provide these both with Technical details and commercial proposal. Cost of the MRLS, along with likely consumption rate of spares is to be provided with the technical details. MRLS would be provided separately for each such sub system including those for STEs. For STEs also, the spares would be categorized as field replaceable. ***In order to prevent manipulation of the quantum of MRLS for commercial competitiveness or overload unnecessary MRLS, 'Adequacy' Clause and 'Buy Back' clause will be co-opted in the contract as under: -***

(i) **'Adequacy' Clause**. The BIDDER will confirm to the Buyer the range and depth of Accompanied Accessories/ User Replaceable Parts/Expendable, Spares and SMT/STE/Test Jigs being supplied are complete and adequate for carrying out repairs on the equipment up to Component level. Any BIDDER found to be providing lesser ESP/MRLS in terms of range and depth will have to make good the deficiency at **no extra cost**. The BIDDER will also commit that any additional items, spares, tools and equipment needed for use, maintenance and repair will be supplied by the BIDDER at prices and within a period as specified in the contract, on receipt of notification from the Buyer for the Life-Cycle Support period. The BIDDER will confirm that, if two different prices have been given for the same/similar item, then the lower price quoted will prevail. In case, the quoted accessories have several items viz, Sampling Accessory Kit and add up price of these items is higher than the quoted price of the accessory, then the price would be lowered / adjusted proportionately for the items.

(ii) **'Buy Back' Clause**. The Buyer would have the option to amend the Manufacturer's Recommended List of Spares (MRLS) proposed by the BIDDER within a period of two years, post expiry of the warranty period. The BIDDER needs to agree to either 'Buy Back' the spares rendered surplus or exchange them on 'cost-to-cost' basis with the spares, as required by the Buyer. The said spares would be purchased / replaced by the Seller, based on the prices negotiated in the contract.

5. Special Maintenance Tools / Special Test Equipment and Test Jigs (SMTs/STEs/Test Jigs). SMTs and STEs are essential tools required to undertake effective



engineering support / repairs on the equipment and its systems. Based on the Maintenance Philosophy BIDDER is required to provide SMTs and STEs for repair *upto 'I' level repairs*. This would be formulated in a similar manner as explained for MRLS and details are to be included in both Technical Details and Commercial offer as per the suggested format at **Annexure II to this Appendix**. The list of equipment required to be supplied will incorporate Adequacy Clause, as elaborated above. SMTs/STEs would also be subjected to demonstration on maintenance aspects.

6. **Technical Documentation.** The BIDDER will be required to provide the technical literature preferably in IETM (Interactive Electronic Training Manuals) in Level 3 format or higher as per relevant JSS (JSS-0251). The details of technical literature to be supplied with the system should be listed as per the suggested format at **Annexure III to this Appendix**. This should be provided with both Technical details and Commercial Proposals. The cost column may be left blank in the Technical details. An illustrated list of documents which may be submitted by the Seller is as under: -

- (a) User Handbook/Operators Manual/ ISPL in English, preferably, as per JSG 0308:2017.
- (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 and use of Special Maintenance Tools (SMTs)/Special Test Equipment (STEs).
 - (iii) **Part III.** Procedure for assembly/disassembly, repair up to component level, safety precautions.
 - (iv) **Part IV.** Part list with drawing reference (Preferably as per JSS 50003 for drawing procedures for Electronics and Electrical Stores) and List of SMTs/STEs Test Bench.
 - (v) Routable 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) IETM of Class III & above.
- (j) Condemnation limits.
- (k) Packing specifications /instructions.
- (l) Any additional information suggested by the OEM.

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



Table - Format for Submitting Details of OEMs

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

8. **Training.** A training package for maintenance personnel to undertake operation and maintenance of equipment at 'O' & 'I' level along with tools and test equipment training would be required to be carried out in English and Hindi 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 BIDDER for the conduct of training. The BIDDER will provide the Operation and Maintenance & Repair training, for the duration, strength and locations specified in the RFP and Contract. The following may also be noted: -

(a) Details of training to be as per Para 16 of Part I of RFP and **Annexure IV to this Appendix.**

(b) The training should meet the needs of repair and maintenance of the complete equipment, use of SMTs/ STEs, test set up, assemblies/ sub-assemblies as per the stipulated repair philosophy. In addition to training on operation and diagnosis using STEs, training would also cover repair of STEs using procured spares for STEs.

(c) The trained personnel should be able to vet the MRLS to align it to actual on ground requirement. The training should bring out utilization of provided MRLS items including procedure of their fitment/ repair.

(d) A movie should be made of entire training class with titles for reference in future. Movie should also include stepwise use of SMTs/ STEs.

(e) The costs for aggregates and training must only be indicated in the commercial proposal.

(f) **Sufficiency Clause.** BIDDER will give an undertaking that the proposed Engineering Support Package (ESP) is sufficient to sustain the 'O' & 'I' level repair maintenance for the entire equipment for a period of 02 years after expiry of warranty. Any item falling short in the ESP in terms of range and depth will be replenished by the BIDDER at **No Additional Cost.** BIDDER will give an undertaking agreeing to carry out any change to the ESP (to include MRLS, SMTs/STE, Installation material, Technical Literature and Training Aggregates) under the provisions of this clause within the existing commercial quotes. On termination of training, technicians should be capable of carrying out stipulated maintenance/repair to the full system, else training will be repeated by the vendor **without any additional cost.**

(g) **Post Contract Maintainability Assessment.** A post contract Maintainability Assessment will be conducted within one month of signing of the contract and prior to delivery of first lot and ESP (MRLS/SMTs/STEs etc). ESP as modified during the Maintainability assessment will be provided by the SELLER at 'No Additional Cost' in terms of Adequacy clause' at Para 4 (a) (i) above.





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

MANUFACTURER'S RECOMMENDED LIST OF SPARES (MRLS)

Equipment: _____
Original Equipment Manufacturer (OEM): _____

Ser No	Manufacturers Part No	Source of Supply	Nomenclature	No fitted in one eqpt	Illustrated Spare Parts List (SPL) Reference	Vital/ Essential/ Desirable (V/E/D)	Unit Cost	Recommended scale for Equipment for two years			Total Cost			Remarks		
								122 x 'O' Level Repair Pts	06 x 'I' Level Repair Pts	Total	122 x 'O' Level Repair Pts	06 x 'I' Level Repair Pts	Total			

Note 1

- Maintenance spares/stores like lubricants, sealing compound, gases should be given separately giving source of supply and their Indian equivalent.
- Spares for Major Unit Assemblies (MUAs)/ components repairs should be included under the column of Fd Repair as suggested by OEM.



3. In 'Remarks' column following information (if applicable) be given: -
- (a) If an item has a shelf/operational life it be marked as 'G' and life indicated.
 - (b) Matching set of components be indicated.
 - (c) Item which can be locally manufactured should be marked 'LM'.
 - (d) Items which cannot be manufactured in India due to sophisticated design/technology may be marked as 'SI' (special item).
 - (e) If a component/assembly is common to-any other equipment earlier offered by the OEM-the same-be marked 'CM' and name of the equipment be indicated.
4. MRLS for any Test equipment being offered should also be provided on similar format as main equipment.
5. MRLS is prepared as per the maintenance concept of the customer (Appendix 'E' to this RFP).
6. Items provided along with the equipment as spares should also be included in MRLS.
7. Modules/Shop Replaceable Unit (SRU)/ assemblies should be listed and their components should be included under them so as to relate each item of spare to the module/ SRU/ assembly.
8. Complete MRLS should be costed separately for Field repairs as it is required to be included as part of 'Total Costed Engineering Support Package' (ESP). OEM may give cost details in confidence to Contract Negotiation Committee (CNC).

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

LIST OF SMT/STEs AND INFRASTRUCTURE

Equipment: _____

Original Equipment Manufacturer (OEM): _____

Ser No	Manufacturer's Part No	Designation	Unit Cost	Nos Required		Brief Purpose	Remarks
				122 sets for 'O' Level Repair Pts	06 sets for 'I' Level Repair Pts		
					Total		

Note 1

1. *Prepare separate sheet for each type of equipment.*
2. If test equipment is commercially available ex India, the source of supply be specified.
3. Test equipment for calibrating the STEs should be included in the list above. Periodicity of calibration of STEs to be mentioned.
4. **Calibration of test equipment to be done by BIDDER during the warranty.**
5. Diagnostic software, including test fixtures for use on existing Automated Test Equipment, if any, also be included in the list above.
6. **The above should include the requisite hardware and software wherever required for reloading / reprogramming of the programmable components used in PCB/ Modules for each 'I' level repair point.**



Annexure III to Appendix E
(Refers to Para 6 of Appendix E)

TECHNICAL LITERATURE

EQUIPMENT: _____

Original Equipment Manufacturer (OEM): _____

Ser No	Technical Literature preferably as per JSG 0251	Unit Cost	Scale For equipment	Total Cost	Remarks
1.	User Handbook/Operators Manual		21531 –		HHRS – 20131 BS 1000 Repeater - 400
2.	Design Specifications		02		
3.	Technical Manual. (a) Part I. Tech description, specifications, functioning of various Systems. (b) Part II. Inspection/Maintenance tasks, Repair procedures, materials used, fault diagnosis and use of Special Maintenance Tools (SMTs)/ Special Test Equipment (STEs). (c) Part III. Procedure assembly/ disassembly, repair up to component level, safety precautions. (d) Part IV. (i) Part list with drawing reference (ii) List of SMTs/STEs with Test Bench		131		
4.	Manufacturer's Recommended List of Spares (MRLS)		03		
5.	Illustrated Spare Part list (ISPL) preferably as per JSG 0308		131		
6.	Technical Manual on STE with drawing reference.		10		
7.	CDs/DVDs on the above Tech literature		131		
8.	IETM of Class III or above		129		
9.	Any other (specify)				

Total Cost:

Note: (i) In case any additional equipment is used their tech literature will be included.
(ii) If certain technical literature is being provided free of cost it should be indicated in the remarks column.
(iii) Technical literature / service manual supplied by sub contractors also to be provided in original. These are the items which have been sourced for integration into main equipment.
(iv) Set of CDs being provided should permit printing and duplication.
(v) Technical Literature will be provided preferably in accordance with JSS 0251:2015 including 03 sets of procurement drawings (hard/ soft copy in PDF format)



Annexure IV to Appendix E
(Refers to Para 8(a) of Appendix E)

TRAINING AGGREGATES

EQUIPMENT: _____ OEM: _____

<u>Ser. No.</u>	<u>Description of Training Aggregate</u>	<u>Scale for Eqpt.</u>	<u>Unit Cost</u>	<u>Total cost</u>	<u>Remarks</u>
1.	Complete Equipment	10 HHRS, 02 Base Stations, 02 Repeaters			
2.	Sectionised Equipment	-			
3.	Shop Replaceable Units- (SRU)/PCB/Modules/ Assemblies as under: (a) (b)	-			
4.	Computer based training package based on interactive multimedia to include (a) Full graphics, animation, text and sound (b) Symptoms-fault correlation (expert system).	130			
5.	Training Aids to include (a) Charts (b) Slides (c) Training Brochures (d) Training Work models (e) Blow up diagram (f) Video films on repair/maintenance	128			
6.	Cost of training as specified at Para 15 and 16 of Part I of RFP				
7.	Any other				
	Total Cost				



Appendix F
(Refers to Para 40 of RFP)

DEMONSTRATION METHODOLOGY

1. **Methodology.** The Demonstration will be carried out with the aim to evaluate the core capabilities of the System. Parameters specified in the Operational Characteristics of the system would be evaluated through a composite evaluation methodology comprising of Demonstration, Design Presentation, Certificate of Conformance and Certification from Accreditation Agencies.
2. **Location.** Refer Para 40 of Part II of RFP.
3. **Qty of Equipment.** Vendor will provide minimum qty of **04 (Four) Hand Held Radio Sets, 02 (Two) Base Stations and 02 (Two) Repeaters** along with requisite accessories including programming cables, PC with programming software and GPS tracking software for demonstrating compliance of the equipment to the Operational Characteristics and Features as given in the Appendix A to RFP. All necessary test equipment including power systems etc required for making the system fully functional will be catered for by the Bidder.
4. **Evaluation Schedule.** Final dates for evaluation will be intimated separately.
5. **Aspects to be Evaluated.** ORs designated for 'Demonstration' would be evaluated by Empowered Committee (EC) through physical verification of laid down parameters. Details of ORs which will be evaluated through 'Demonstration' are attached as per details in **Annexure I, II and III of this Appendix.**
6. **Eval of Parameters through Demonstration, CoC and Certification from Accreditation Agencies.** Details of ORs designated for evaluation through Demonstration, Certificate of Conformance and Certification from Accreditation Agencies will be carried out under the aegis of the Empowered Committee as per Annexure II.
7. **Demonstration of Maintenance.** Aspects related to maintenance of equipment in field Army would be demonstrated by the vendor as per Para 40 (b) of Part II of RFP.



Annexure I
(Refers to Para 6 of Appendix F)

DEMO METHODOLOGY: DESCRIPTION OF TEST METHODS

1. The evaluation of each laid out parameter will be carried out as illustrated at Annexure II. Description of test methods is as given below:-

- (a) **Demonstration**. Refer Para 40 of Part II of RFP.
- (i) Vendor will cater for all administrative and technical arrangements at the location of the demonstration including manpower, vehicles (if required).
- (ii) **Selection of Location**. Suitable location selected will be intimated to the Bidder by the EC.
- (iii) Compatibility check will be carried out wherein interoperability of only HHRS and Base Stations being procured would be checked with existing DMR Sets (in all modes) in the Indian Army.
- (b) Supplier's Declaration of Conformity (SDoC)/ **Certificate of Conformance (CoC)**. SDoC/ CoC is self-certification by the vendor to meet the particular requirement. The CoC will be accompanied by design and technical details, as applicable, forming the basis of CoC. (Refer Annexure IV of this Appendix).
- (c) **Certificate from Accredited Agency**. Certificate from Accredited agencies for applicable test standards, along with test results for each environmental tests from NABL/ ILAC / Govt designated lab with traceability to EUT will be provided by the bidder.

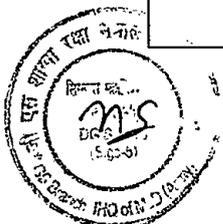


Annexure II
(Ref to Para 8 of Appendix F)

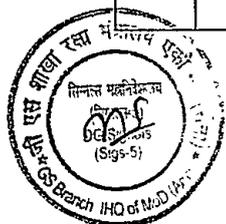
DEMO METHODOLOGY (COMPLIANCE TABLE)

1. **General.** Hand Held Radio Set (HHRs) and associated accessories proposed for procurement are envisaged to be light-weight, ergonomic and easy to handle. The equipment primarily consists of Hand Held Radio Set (HHRs), Base Station, Repeater and associated accessories. **(Physical Evaluation)**
2. **Aim.** The aim of this operational requirement is to lay down qualitative requirements for Hand Held Radio Set (HHRs) and associated accessories.
3. **Proposed Service Employment.** The proposed service employment of HHRs will be to provide all terrain tactical radio communication at unit and sub-unit level. **(Physical Evaluation and CoC)**
4. **Interoperability.** HHRs, Base Stations and Repeaters, based on DMR (Digital Mobile Radio) Tier II standards, to be from single OEM and will be interoperable with each other in all modes and aspects and also with the existing inventory of DMR Tier-II standard radio sets in the Indian Army. **(Physical Evaluation)**

<u>Ser</u>	<u>Qualitative Requirements</u>	<u>Methodology</u>
<u>HHRs</u>		
<u>Operational Parameters</u>		
1.	<u>Frequency Range.</u> HHRs should be able to operate in the entire frequency range from 405-470 MHz.	Physical Evaluation
2.	<u>Communication Range.</u> The point to point RF link between two HHRs to be 03 km or more.	Physical Evaluation
3.	<u>Analog and Digital Operation.</u> Both Analog and Digital Operation to be supported.	Physical Evaluation
4.	<u>Channel Spacing.</u> 12.5 KHz/ 25 KHz.	Physical Evaluation
5.	<u>Channel Capacity.</u> 1000 or more.	Physical Evaluation
6.	<u>Type of Operation.</u> Simplex, Half Duplex, Press to Talk (PTT).	Physical Evaluation
7.	<u>Type of Antenna.</u> Rugged flexible aerial.	Physical Evaluation
8.	<u>Dimensions (Height x Width x Depth).</u> HHRs to be 150 mm (H) x 80 mm (W) x 60 mm (D) or less with Battery and without knobs.	Physical Evaluation
9.	<u>Weight.</u> Weight of HHRs including battery and antenna will be 500 grams or less.	Physical Evaluation
10.	<u>Display.</u> Day and night readable Alphanumeric coloured display to be provided.	Physical Evaluation
11.	<u>Hands Free Operation.</u> VOX based solution to be provided for complete hands free operation.	Physical Evaluation
12.	<u>Keypad.</u> Backlit (selectable) alphanumeric keypad to be provided.	Physical Evaluation



Ser	<u>Qualitative Requirements</u>	<u>Methodology</u>
HHS		
<u>Operational Parameters</u>		
13.	<u>Battery and Spare Battery.</u> Rechargeable Li-ion 2400 mAH or more capable of minimum 08 hours operation. Each battery to be provided with a belt clip.	Vendor SDoC/ CoC Detailed instructions as per para 98
14.	<u>Battery Charger.</u> Each HHS to be provided with a battery charger capable of charging the batteries supplied with the radio.	Physical Evaluation Battery Charger must comply to relevant IS/BIS/IEC std to meet the functional and safety/ protection requirements. SDoC/ CoC to be submitted.
15.	<u>Low Battery Alert.</u> Battery status bar along with low battery alert to be provided on the HHS, to enable the user to recharge or replace the radio's battery before excessive drain ceases operation.	Physical Evaluation
16.	<u>Single Location and Roaming Operation.</u> HHS to provide seamless communication in an IP repeater network in both : Single location as well as Roaming mode.	Physical Evaluation
17.	<u>Text Messaging.</u> HHS to be capable of sending Short Messages from Keypad and Pre-defined Messages. Minimum character size of message - 64 characters and Minimum number of Pre-defined stored messages - 10.	Physical Evaluation
18.	<u>Mode of Calls.</u> The HHS to provide Selective calling, Group calling and Broadcast calling.	Physical Evaluation
19.	<u>Caller ID.</u> Caller ID facility to be provided	Physical Evaluation
20.	<u>Scan.</u> Facility of scanning at least 5 frequencies to be provided.	Physical Evaluation
21.	<u>GNSS Based Tracking (GNSS).</u> Must have an in-built GPS/GLONASS/IRNSS receiver to enable tracking from Remote Control Station with appropriate system. Accuracy of the GNSS to be 10 metres or better. Time to First Fix : Cold Start to be 60 seconds or less and Time To First Fix : Hot Start to be 10 seconds or less.	Physical Evaluation & Vendor SDoC/ CoC both
22.	<u>Dust and Water Intrusion.</u> HHS to meet IP 67 or better.	The latest test reports from NABL accredited/ authorized labs as per applicable standards to be submitted by vendor along with the bid.
23.	<u>Compliance.</u> HHS to conform to applicable tests of class L3 of JSS 55555:2020 Rev No 04 / MIL STD 810G or	The latest test reports from NABL accredited/ authorized labs as per



Ser	<u>Qualitative Requirements</u>	<u>Methodology</u>
<u>HHS</u>		
<u>Operational Parameters</u>		
	better.	applicable standards to be submitted by vendor for atleast the following tests:- High temp (Operation) High Temp (Storage) Low temp (Operation) Low Temp (Storage) Altitude (As per MIL STD 810G/ JSS 55555) Rapid Temp Cycling Solar Radiation Rain Humidity Salt Fog Vibration Blowing Dust & Sand Shock
24.	EMI/ EMC. HHS must comply to MIL STD 461E/ IEC 61000.	The latest test reports from NABL accredited/ authorized labs as per applicable standards to be submitted by vendor along with the bid.
25.	Programming accessories. Programming software along with suitable cables to be provided for Hand Held Radio Sets, Base Stations and Repeaters.	Physical Evaluation
26.	Attachment for waist belt. Belt Clip.	Physical Evaluation
27.	DMR Standard. HHS to conform to DMR Standard Tier II.	Vendor SDoC/ CoC with supporting documents.
28.	Field Operational Temperature. The HHS should be able to operate as per the field operating temperature conditions mentioned below :- (a) Minimum Temperature. Between minus 20°C to minus 10°C. (b) Maximum Temperature. Between 40°C to 45°C.	Vendor SDoC/ CoC



<u>Ser</u>	<u>Qualitative Requirements</u>	<u>Methodology</u>
29.	<p><u>Geographic Information System (GIS).</u> Radio to have software application(s) to provide locations and messaging on PC/Console. The equipment should not be connected to the Internet due to security constraints, while ensuring functionality. Location Tracking for GIS application to be provided with the following facilities:-</p> <p>(a) Real time subscriber location for all radios. (b) Specific Radio live tracking. (c) Support different map formats including Defence Series Maps. (d) Subscriber Location logging. (e) Automatic location request. (f) Manual location request. (g) Capability to export and save files.</p>	Physical Evaluation. Support for Defence Series Maps will be on Vendor CoC.
30.	<p><u>Communication Security.</u> System to have in built AES 256 bit encryption with Key Generation Software and should also have provision to support 3rd party encryption. The encryption key to be loadable using a PC and programming cable. If an additional external device other than a PC or programming cable is required to load the encryption key, the same will be provided with every Hand Held Radio Set, Base Station and Repeater.</p>	Physical Evaluation & Vendor SDoC/ CoC both
31.	<p><u>Safety Measures.</u> The HHRS to have safeguards against the following:-</p> <p>(a) Reverse polarity. (b) Power and line surge spikes. (c) Short/ open circuit antenna connection. (d) Over voltage/ under voltage protection.</p>	Vendor SDoC/ CoC. EC may carry out physical evaluation also
<u>Technical Parameters</u>		
<u>HHRS : Transmitter</u>		
32.	<u>RF Power Output.</u> 4W or more.	Vendor SDoC/ CoC
33.	<u>Frequency Stability.</u> ± 1 ppm or better.	Vendor SDoC/ CoC
<u>HHRS : Receiver</u>		
34.	<u>Analog Sensitivity.</u> 0.30 μ V or better for 12dB SINAD.	Vendor SDoC/ CoC
35.	<u>Digital Sensitivity.</u> 0.30 μ V or better for 5% BER.	
36.	<u>Spurious Rejection.</u> 60 dB or better.	
37.	<u>Audio Output.</u> 0.5 W or higher.	
38.	<u>Audio Distortion.</u> 5% or better.	
39.	<u>Adjacent Channel Rejection.</u> 60dB or better.	



Ser	<u>Qualitative Requirements</u>	<u>Methodology</u>
<u>BASE STATION</u>		
40.	<u>General.</u> The Base Station to be lightweight, compact and ergonomic in design. The Base Station to be capable of operating in conventional system in single location and automatic roaming using IP based repeater network without manual intervention. Depending on the operational situation, the Base Station may be used in a vehicular role for which all necessary attachments including cables for interconnection to battery and mounting fixtures to be provided.	Physical Evaluation
41.	<u>Frequency Range.</u> Base Station should be able to operate in the entire frequency range from 405-470 MHz.	Physical Evaluation
42.	<u>Communication Range (Base Station).</u> The point to point RF link between two Base Stations will be 06 km or more.	Physical Evaluation
43.	<u>Analog and Digital Operation.</u> Both Analog and Digital Operation to be supported.	Physical Evaluation
44.	<u>Speaker & Microphone.</u> Microphone & in-built speaker to be provided with the Base Station.	Physical Evaluation
45.	<u>Channel Capacity.</u> 1000 or more.	Physical Evaluation
46.	<u>Type of Operation.</u> Simplex, Half Duplex, Press To Talk (PTT).	Physical Evaluation
47.	<u>Weight.</u> The weight of the Base Station to be 04 Kg or less without battery and antenna.	Physical Evaluation
48.	<u>Display.</u> Day and night readable Alphanumeric display to be provided.	Physical Evaluation
49.	<u>Keypad.</u> Keypad with function and direction keys.	Physical Evaluation
50.	<u>Power Supply Unit (PSU).</u> PSU provided with the Base Station should have the following specifications:- (a) AC Operating supply voltage : 230 V AC \pm 10% at 50 Hz \pm 2%. (b) DC: 11 to 14 V DC. (c) Automatic change over from AC to DC and vice versa in case of mains failure. (d) Provision of Battery Revert.	Physical Evaluation
51.	<u>Dimensions (H x W x D).</u> The dimensions of the Base Station without antenna and battery to be 100 mm (H) x 180mm (W) x 225 mm (D) or less.	Physical Evaluation



52.	Single Location and Roaming Operation. Base Station to provide seamless communication in an IP repeater network in both : Single location as well as Roaming mode.	Physical Evaluation
53.	Mode of Calls. Base Station to provide Selective calling, Group calling and Broadcast calling.	Physical Evaluation
54.	Caller ID. Caller ID facility to be provided in the Base Station.	Physical Evaluation
55.	Scan. Facility of scanning at least 5 frequencies to be provided.	Physical Evaluation
56.	GNSS Based Tracking. Must have an in-built GPS/GLONASS/IRNSS receiver to enable tracking from Remote Control Station with appropriate system. Accuracy of the GNSS should be 10 metres or better. Time to First Fix : Cold Start should be 60 seconds or less and Time To First Fix : Hot Start should be 10 seconds or less.	Physical Evaluation & Vendor CoC both
57.	Geographic Information System (GIS). Radio to have software application(s) to provide locations and messaging on PC/Console. The equipment should not be connected to the Internet due to security constraints, while ensuring functionality. Location Tracking for GIS application to be provided with the following facilities:- <ul style="list-style-type: none"> (a) Real time subscriber location for all radios. (b) Specific Radio live tracking. (c) Support different map formats including Defence Series Maps. (d) Subscriber Location logging. (e) Automatic location request. (f) Manual location request. (g) Capability to export and save files. 	Physical Evaluation
58.	Dust and Water Intrusion. Base Station to meet IP 54 or better.	The latest test reports from NABL accredited/ authorized labs as per applicable standards to be submitted by vendor along with the bid.



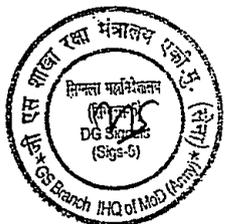
59.	<p>Compliance. Base Station to conform to applicable tests of class L2A of JSS 55555:2020 Rev No 04 / MIL 810G or better.</p>	<p>The latest test reports from NABL accredited/ authorized labs as per applicable standards to be submitted by vendor for atleast the following tests:-</p> <p>High temp (Operation) High Temp (Storage) Low temp (Operation) Low Temp (Storage) Altitude (As per MIL STD 810G/ JSS 55555) Rapid Temp Cycling Solar Radiation Rain Humidity Salt Fog Vibration Blowing Dust & Sand Shock</p>
60.	<p>EMI/ EMC. Base Station must comply to MIL STD 461E/ IEC 61000.</p>	<p>The latest test reports from NABL accredited/ authorized labs as per applicable standards to be submitted by vendor along with the bid.</p>
61.	<p>Antenna and Feeder.</p> <p>(a) Whip Antenna (with mounting assembly) with 03 metres low loss co-axial cable and suitable connector for vehicle use to be provided.</p> <p>(b) Suitable Ground Plane antenna with sectionized mast and 30 metres low-loss RG 217 (or better) RF Cable for fixed station. The mast to have the following specifications:-</p> <p>(i) Fully erected height of the mast to be at least 09 metres.</p> <p>(ii) The antenna mast assembly with payload when erected to full height to be able to withstand a wind velocity of 80 km/h (Operational) and 120 Km/h (Survival).</p> <p>(iii) The weight of the mast to be less than 100 kgs (excluding weight of accessories).</p>	<p>Physical Evaluation for 61 (a), 61 (b)(i) and 61 (b)(iii) & Vendor SDoC/ CoC for 61 (b)(ii)</p>



Ser No	Qualitative Requirements	Methodology
62.	DMR Standard. Base Station to conform to DMR Standard Tier II.	Vendor SDoC/ CoC with supporting documents.
63.	Field Operating Temperature. Base Station should be able to operate as per the field operating temperature conditions mentioned below:- (a) Minimum Temperature. Between minus 20 ⁰ C to minus 10 ⁰ C. (b) Maximum Temperature. Between 40 ⁰ C to 45 ⁰ C.	Vendor CoC
64.	Communication Security. System to have in built AES 256 bit encryption with Key Generation Software and should also have provision to support 3 rd party encryption. The encryption key to be loadable using a PC and programming cable. If an additional external device other than a PC or programming cable is required to load the encryption key, the same will be provided with every Hand Held Radio Set, Base Station and Repeater Station.	Physical Evaluation & Vendor SDoC/ CoC both
65.	Safety Measures. Base Station to have safeguards against the following:- (a) Reverse polarity. (b) Power and line surge spikes. (c) Short/ open circuit antenna connection. (d) Over voltage/ under voltage protection.	Vendor SDoC/ CoC and EC may carry out physical evaluation
Base Station: Transmitter		
66.	RF Power Output. 25 W or more.	Vendor SDoC/ CoC
67.	Frequency Stability. ± 1ppm or better.	Vendor SDoC/ CoC
Base Station : Receiver		
69.	Analog Sensitivity. 0.30 μV or better for 12dB SINAD.	Vendor SDoC/ CoC
70.	Digital Sensitivity. 0.30 μV or better for 5% BER.	
71.	Audio Output. 2 W or higher.	
72.	Audio Distortion. 5% or better.	
73.	Adjacent Channel Rejection. 60dB or better.	Vendor SDoC/ CoC
74.	Spurious Rejection. 60 dB or better.	



<u>Ser No</u>	<u>Qualitative Requirements</u>	<u>Methodology</u>
<u>REPEATER</u>		
75.	<u>General.</u> Repeater should be capable of operating in unattended mode with remote diagnostics and maintenance features. The repeater to support all features of HHRS and Base Station.	Physical Evaluation
76.	<u>Frequency Range.</u> Repeater should be able to operate in the entire frequency range from 405-470 MHz.	Physical Evaluation
77.	<u>Communication Range.</u> The communication range of Repeater in RF mode will be 08 km or more.	Physical Evaluation
78.	<u>Channel Spacing.</u> 12.5 KHz/ 25 KHz.	Physical Evaluation
79.	<u>Networking.</u> Repeater to also be IP enabled to create a network grid of Repeater stations to enable Wide Area Network of user Radio sets operating in the network from one site to another without manual intervention and to extend the range of communication and also facilitate Hand Held Radio Sets and Base Stations for roaming as brought out above.	Physical Evaluation
80.	<u>Dimensions (H x W x D).</u> The dimensions of the Repeater without antenna and battery to be 150mm (H) x 500mm (W) x 525mm (D) or less.	Physical Evaluation
81.	<u>Weight.</u> The weight of the Repeater to be 15 Kg or less.	Physical Evaluation
82.	<u>Type of Operation.</u> Repeater mode at 100% duty cycle at full power in both AC and DC operation.	Vendor SDoC/ CoC
83.	<u>Power Supply Unit (PSU).</u> PSU provided with the Repeater to have the following specifications:- (a) AC Operating supply voltage : 230 V AC + 10% at 50 Hz + 2%. (b) DC: 11 to 14 V DC. (c) Automatic change over from AC to DC and vice versa in case of mains failure. (d) Provision of Battery Revert.	Physical Evaluation
84.	<u>EMI/ EMC.</u> Repeater must comply to MIL STD 461E/ IEC 61000.	The latest test reports from NABL accredited/ authorized labs as per applicable standards to be submitted by vendor along with the bid.



<u>Ser No</u>	<u>Qualitative Requirements</u>	<u>Methodology</u>
85.	<p>Antenna and Feeder. Two Ground Plane antennas with sectionized masts and 30 metre low-loss RG 217 (or better) RF Cable (Quantity 02 x Ground Plane antennas with masts and quantity 02 x cables per Repeater). The mast to have the following specifications :-</p> <p>(a) Fully erected height of the mast to be at least 09 metres.</p> <p>(b) The antenna mast assembly with payload when erected to full height to be able to withstand a wind velocity of 80 km/h (Operational) and 120 Km/h (Survival).</p> <p>(c) The weight of the mast to be less than 100 kgs (excluding weight of accessories).</p>	Vendor SDoC/ CoC for 85(b) and Physical Evaluation for remaining parameters.
86.	<p>Interfaces. Ethernet port RJ 45 to provide the following:-</p> <p>(a) Wide Area IP connectivity for voice & data repeaters.</p> <p>(b) Provision for Remote monitoring & status check.</p>	Physical Evaluation
87.	<p>Field Operating Temperature. Repeater should be able to operate as per the field operating temperature conditions mentioned below:-</p> <p>(a) Minimum Temperature. Between minus 20⁰C to minus 10⁰C.</p> <p>(b) Maximum Temperature. Between 40⁰ C to 45⁰ C.</p>	Vendor SDoC/ CoC
Repeater : Transmitter		
88.	RF Power Output. 40 W or better.	Vendor SDoC/ CoC
89.	Frequency Stability. ±1ppm or better.	Vendor SDoC/ CoC
90.	Audio Distortion. 5% or better.	
Repeater : Receiver		
91.	Analog Sensitivity. 0.30 µV or better for 12dB SINAD.	Vendor SDoC/ CoC
92.	Digital Sensitivity. 0.30 µV or better at 5% BER.	



<u>Ser No</u>	<u>Qualitative Requirements</u>	<u>Methodology</u>
<u>Maintainability & Ergonomic Parameters (For HRS, Base Station and Repeaters)</u>		
92.	<u>Repair and Maintenance.</u> Essential spare parts, tools and accessories for carrying out running repairs and maintenance of HRS, Base Stations and Repeaters to be provided.	Physical Evaluation
93.	<u>Service Life, Shelf Life and Product Support.</u> The equipment to have a minimum Service life of 10 years. Life Cycle Support to be provided by the manufacturer.	Vendor SDoC/ CoC
94.	<u>Colour.</u> Black /Olive Green.	Physical Evaluation
95.	<u>Mean Time Between Failures (MTBF).</u> The MTBF for the equipment to be more than 10000 hours to ensure reliable and seamless communication.	Vendor SDoC/ CoC
96.	<u>Built In Test Equipment (BITE).</u> BITE supporting diagnostics to be provided to trace a fault down to card level.	Vendor SDoC/ CoC and Physical Evaluation
97.	<u>Power On Self Test (POST).</u> Upon power on, the equipment should perform POST functions to determine the health status of the equipment.	Physical Evaluation

98. **Battery and Spare Battery**

(a) Data Sheet, make/model of the battery to be submitted for audit to DGQA representative.

(b) For indigenous Li-Ion battery, Supplier Declaration of Conformance (SDoC) along with latest test reports from NABL Accredited/Govt Lab to be submitted complying with CQAL 624(B)/ JSS Specification for scrutiny or else QA Evaluation of the same will be carried out as per CQAL 624(B)/JSS Specification/ mutually agreed ATP.

(c) For COTS / Imported battery, the battery needs to comply to relevant IS/IEC/MIL/International standards and also should meet the environmental severity requirement of the main equipment HRS as per relevant table in JSS 55555. SDoC to be submitted along with supported latest test reports from NABL Lab/Internationally accredited Lab/Government Lab for the same.



Annexure III
(Ref para 42 of RFP)

GUIDELINES FOR QUALITY ASSURANCE INSTRUCTIONS (QAI)

1. **Quality Assurance Requirements.** The testing of the equipment/ stores shall be governed by relevant National Standards/ Departmental Specifications/ International Standards/ Product Specification as applicable to meet the user requirements for the envisaged life cycle of the equipment.
2. **Implementation of framework for use of certification as per relevant MoD, Acq Wing Sectt order vide MoD ID No. 1(8)/D(Acq)/19 Pt dated 14 Jan 2022.** Certificates from an accredited agency for applicable test standards along with test results for environmental tests as per Operational Requirements (ORs) from NABL/ internationally accredited lab or government designated labs with traceability to EUT along with Pre, In-situ and Post performance test/ checks as part of environmental test to be submitted by the BIDDERS for verification by the QA team.
3. Format for furnishing the details of items/ Peripherals of a system/ Sub system as per table mentioned at **Annexure 'XV' to JSG 0824:2022** shall be provided by seller along with the draft ATP for sub assemblies/ system conforming to the ORs.
4. The format of QAP as per '**Annexure-1**' of Appendix A to CQAG (**JSG 0824:2022**).
5. The guidelines for formulation of ATP as per '**Annexure-II**' of Appendix A to CQAG (**JSG 0824:2022**).
6. The format of Supplier Declaration of Conformity (SDoC) as per Annexure – IV to this Appendix.
- 6.1 Defence stores/ eqpt shall meet the requirements as per standards for reliability, maintainability & testability of electronics eqpt: **JSG 0286:1994**.
7. **System/ Eqpt & Applicable Test Standards.** '**Annexure-V to Annexure-X**' of CQAG (**JSG 0824:2022**)
8. **Software Validation and Verification.** System Quality Assurance (including hardware, software and Systems) by way of verification and validation (V&V) at PDI stage as per submitted reports.
9. The BIDDER will arrange requisite test facilities at OEM premises/ accredited lab/ facilities for conduct of static and dynamic testing of Electronics stores along with its accessories for establishing conformance whenever required.
10. **Sampling Plan.** Sampling as per applicable National/ International Standards to be followed.
11. **COTS Electrical and Electronic Items.** (Ground Equipment) for Military application as per operational characteristics and as per JSG 0825:2023.



12. **Power Systems.** The batteries used in the system should be capable to undergo repeated charging/ discharging cycles/ load cycles/ load cycle under operating conditions as specified in the operational characteristics and applicable standards. Incase if the battery is irremovable from the system while charging, provision for charging battery under field conditions shall also be specified wherever required.

13. **Draft ATP.** Draft ATP conforming to ORs shall be submitted as part of Technical Offer.

14. In addition to the clauses mentioned above, following clauses would form part of the Contract terms and conditions: -

(a) **Audit of Process Documents.** Audit of manufacturing process including input materials/ raw materials, assembly line & internal QC reports on sampling basis by QA agency as per mutually agreed during PDI.

(b) **Defect Investigation.** Post Contract, the Defect Investigation will be conducted as per AO 8/93 or JSG 0309:2019 (Second Revision). Seller shall provide all technical assistance and participation during Joint Defect Investigation (JDI) to identify root cause and suggest corrective and preventive measures with attribute-ability to inadequacies in design/ manufacturing flaws etc. Seller shall also undertake repair/ rectification/ retro modification post JDI wherever required.

(c) Inspection Acceptance Certificate/ Inspection Note will be issued by Buyer's QA Agency after successful completion of PDI as per approved ATP. Details of Buyer's QA agency are as under: -

- | | | |
|------|---------------------|----------------------------|
| (i) | QA Authority/ AHSP- | CQA (L), Bengaluru. |
| (ii) | QA Agency | - Concerned Regional SQAE. |

15. Copies of JSS/JSGs as referred may be obtained from: -

The Directorate of Standardisation
Standardisation Document Centre
Room No 635, 6th Floor, A Block, KG Marg
New Delhi-110011.

Note.

Any addition deletion of QA aspects may be carried out by respective QA agencies wherever required. Above is a broad guideline only.



Annexure IV
(Ref para 6 of Annexure III)

SUPPLIER'S DECLARATION OF CONFORMITY (SDOC)

1.	Certificate No		Date	
2.	Contract / SO No		Date	
3.	Issuer's name			
4.	Issuer's address			
5.	Product name (object)			
6.	Equipment Under Test/ Unit Under Test Sr No			
7.	Lot No		Quantity	
8.	Object of declaration			
9.	This is certify that Store. Arms/ Ammunition/ Main Equipment and its Sub Assembly/ accessories/ Parts/ Objects, wherever applicable comply with the following specification			
	<u>Parameter/ Specification</u>	<u>Para of Spec</u>	<u>Test Report No</u>	

10. Additional Information:

(a) This is to certify that above mentioned product has successfully passed the entire acceptance tests and meeting all tech parameters to define product characteristics in terms of nominal values of parameters, expressed in drawings and specifications etc.

(b) It is also certified that SDoC signed on the basis of relevant certificates issued by various testing / certifying agencies or their authorized representatives who have undertaken Sampling / Inspection/ Testing/ Trials/ Evaluation/ Verification/ Validation. QA Sampling / Audits etc as per the policy/ procedure laid down. Where feasible, the procedures are aligned to best practices. All test reports are enclosed as annexure this SDoC. It is understood that this SDoC is deemed to have been bound by all the laws, regulations and contractual requirements. Quality and financial claims can be raised against the one issuing SDoC, in the event of breach of trust.

(d) It is also understood that the false declaration, misleading declaration, wilful hiding of any part of non-conformity, depending on the severity of case can even lead to blacklisting and punitive actions.

(SIGNATURE ON BEHALF OF SELLER)

Station:

(Signature of person authorized by the issuer)

Name:

Designation:

Note:- The format of SDoC / CoC given in Annex is not sacrosanct and may be altered as per requirement of the equipment.



Appendix G
(Refers to Para 48 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 location as **COD, Agra.**

1.2 Currency of Payment. Indian 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.

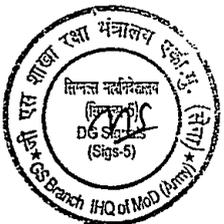
1.3.3 Bank Guarantee(s). For the purpose of payment of Advances to the Bidder and submission of various Bank Guarantees by the Bidder i.e Advance Payment Bank Guarantee (APBG) and Additional Bank Guarantee (ABG), as applicable, Base Contract price will be considered. For Performance cum Warranty Bank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

1.3.4 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 the following:-

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

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

1.4.1 Advance Payment. **Fifteen (15) %** of the Base Contract Price 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 this Appendix.** The Advance Payment Bank Guarantee (APBG) will 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 Signing of Contract (T₀).**



1.4.2 **On Dispatch.** Sixty (60) % of the Base contract price of deliverables (less cost of training and MRLS) and re-imburement of **100% of taxes and levies** excluding cost of training on pro rata basis shall be paid on proof of dispatch of deliverables to the consignee and on production of an inspection note 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 Bidder's bill.
- 1.4.2.2 Ink-signed copy of Commercial invoice.
- 1.4.2.3 The relevant Transport Receipt.
- 1.4.2.4 Certificate of Conformity and Acceptance Test report (where applicable) at the Pre Dispatch Inspection signed by BUYER's and the BIDDER's/ VENDOR's Quality Assurance Agency
- 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 BIDDER.

1.4.3 In case of failure of the Bidder 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 BIDDER will be liable to return payments received against dispatch.

1.4.4 **On Delivery.** Twenty (20%) of the Base contract price of deliverables (excluding cost of training and MRLS) on pro rata basis shall be paid on completion of JRI post delivery and issue of JRI Certificate/Certified Receipt Voucher (CRV) issued by the Buyer. Such payments will be subject to the deductions of such amounts as the Bidder may be liable to pay under the agreed terms of the contract. The concerned PCDA/CDA will release the payment through cheque/EFT.

1.4.5 **Payment for MRLS.** Balance payment for MRLS will be paid after delivery on pro-rata basis. MRLS shall be delivered between six to three months prior to the expiry of warranty of first lot.

1.4.6 **Payment on IC Certification.** Five (5) % of the Base Contract Price of deliverables less cost of training will be paid on receipt of Indigenous Content conformance certificate from Bidder at delivery stage (on pro-rata basis), iaw Para 11 to 15 of Appendix B of Chapter I of DAP 2020.



1.4.7 **Part-Dispatch / Part-Shipment.** Part-dispatch or part-shipment of goods is permitted. However, the entire delivery will not be in more than four lots and corresponding payment will be released to the vendor on pro-rata basis.

1.4.8 **Payment for Training.** The remaining 85% of the cost of training and applicable taxes, shall be paid on submission of training completion certificates from Buyer's representative that training program has been completed, along with requisite documents for payment.

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. **Custom duty is not reimbursable on input material.**

2. **Performance-cum-Warranty Bank Guarantee Clause.** A Performance-cum-Warranty Bank Guarantee (PWBG) of 10 % of value of the Total Contract Price including taxes and duties would be furnished by the Bidder in the form of a Bank Guarantee which will be from an Indian Public or Pvt Scheduled Commercial Bank (as notified by RBI) to sequentially act as Performance Bank guarantee till the delivery and as Warranty Bank Guarantee on delivery. The PWBG shall be submitted by the Bidder within one month of signing of contract and shall be valid for a period, until three months beyond the warranty period, as specified in the RFP. If at any stage, the Performance Guarantee is invoked by the Buyer either in full or in part, the Bidder shall make good the shortfall in PWBG within 30 days by an additional Bank Guarantee for equivalent amount. In the event of failure to submit the required Bank Guarantee against invoked Performance Guarantee, equivalent amount will be withheld from the next stage payment till the shortfall in the Bank Guarantee is made good by the Bidder. The prescribed format of the Performance-cum-Warranty Bank Guarantee is placed at **Annexure II to this Appendix.**

3. **Inspection.** Pre Dispatch Inspection (PDI) would be at the discretion of the Buyer. In addition Joint Receipt Inspection (JRI) will also be carried out. The Bidder should intimate at least 45 days prior to the day when the equipment is to be offered for PDI to enable SHQ 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 rescheduling re-PDI. In case of JRI, the representative of the Bidder may be present for inspection after the equipment reaches the concerned destination. The Bidder would be informed of the date for JRI. Following aspects are part of PDI:-

- (a) Inspection agency- EC/nominated rep of EC.
- (b) Only necessary tests will be undertaken during PDI/JRI not the complete parameters as evaluated during demonstration. ATP for PDI include Tests carried out for acceptance of the bulk which involves visual, functional and a few non-destructive



tests and tests which can be conducted at OEM location. The same will be mutually agreed and signed by BUYER & successful BIDDER during CNC.

4. **Liquidated Damages (LD).** In the event of the Bidder's failure to submit the Documents, supply the stores/ goods, perform services, conduct training as per schedule specified in this contract, the BUYER may, at his discretion withhold any payment until the completion of the contract. The BUYER may also deduct from the BIDDER as agreed, liquidated damages to the sum of **1.5 %** for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than **15%** 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).

5. **Denial Clause.** In case the delay in delivery is attributable to the Bidder 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 Bidder 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 Bidder during the extended delivery period, while the Buyer reserves his right to get any benefit of downward revisions in statutory duties, PVC and foreign exchange rate. Thus, PVC, other variations and foreign exchange clauses operate only during the original delivery period. The format for extension of delivery period/performance notice under the Denial clause is at **Annexure III** to this Appendix.



Annexure I to Appendix G
(Refers to Para 1.4.1 of Appendix 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 BIDDER) (referred to as BIDDER) and whereas according to the said Contract the BUYER has undertaken to make an advance payment of Rs/ US \$/Euro/PS £/Yen/AUD/SGD _____ being _____ payment of _____% of the total value of Rs/ US \$/Euro/PS £/Yen/AUD/SGD _____ 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 BIDDER 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/ US \$/Euro/PS £/Yen/AUD/SGD _____.
3. We undertake to pay to the BUYER any money so demanded notwithstanding any dispute or disputes raised by the BIDDER 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 BIDDER 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 BIDDER 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 BIDDER 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 BIDDER 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 BIDDER or for any forbearance, act or omission on the part of the BUYER or indulgence by the BUYER to the said BIDDER 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 BIDDER 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/BIDDER.

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/ US \$/Euro/PS £/Yen/AUD/SGD _____ (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 2 of Appendix 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 BIDDER) for supply of goods as per Contract to the said BUYER and whereas the BIDDER has undertaken to produce a bank guarantee amounting to Rs/ US \$/Euro/PS £/Yen/AUD/SGD _____ which is 10% of the Total Contract Price (including taxes and duties) to cover 10% 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 BIDDER 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 BIDDER of any of the terms and conditions in the Contract related to Performance and Warranty clauses, we will pay you, on demand and without demur, all and any sum up to {5% of Total Contract Price (including taxes and duties)} _____ Rupees/ US \$/Euro/PS £/Yen/AUD/SGD 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 BIDDER, indulgence to the BIDDER by you, or by any alterations in the obligations of the BIDDER 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 BIDDER or any other person.
5. In no case shall the amount of this guarantee be increased.



6. This Performance-cum-Warranty guarantee shall remain valid for a period until three months beyond the warranty period as specified in the Contract i.e. up to _____.

7. Subject to the terms of this Bank Guarantee, the issuing bank hereby irrevocably authorizes the beneficiary to draw the amount of up to Rs/ US \$/Euro/PS £/Yen/AUD/SGD _____ {10% of Total Contract Price (including taxes and duties)} for breach/failure to perform by the BIDDER 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 10% of the Total Contract Price (including taxes and duties) (Rs/ US \$/Euro/PS £/Yen/AUD/SGD _____ only) (Mention BG amount).

8. This guarantee shall be continuing guarantee and shall not be discharged by any change in the constitution of the Bank or in the constitution of M/s _____. We undertake not to revoke this guarantee during the currency except with previous consent of BUYER in writing.

9. Notwithstanding anything contained herein above:

(a) Our liability under this Guarantee shall not exceed Rs/ US \$/Euro/PS £/Yen/AUD/SGD _____ (Rupees _____ only (in words)).

(b) This Bank Guarantee shall remain valid until 3 months from the date of expiry of warranty period of the Contract, i.e up to _____ (mention the date) which is 3 months after expiry of the warranty period and the BG shall cease to be valid after _____ irrespective whether the Original Guarantee is returned to us or not.

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

Dated the _____ day of _____ (month and year)

Place :

Signed and delivered by _____ (name of the bank)

Through its authorised signatory
(Signature with seal)



Annexure III to Appendix G
(Refers to Para 5 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.



Annexure IV to Appendix G
(Refers to Para 9 of Part I of RFP
and 1.4 of Appendix G)

DELIVERY SCHEDULE AND STAGES OF PAYMENT

1. Delivery to be completed less MRLS within 12 Months from the date of signing of Contract. Some broad guidelines for payments terms are appended in subsequent Paras

2. **For Delivery in Lots/ Batches**

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(T ₀)	T ₀	15 % of the Base contract price	APBG of equivalent amount to be submitted	PWBG of 10 % of the Contract including taxes and duties to be submitted within 30 days of signing of the Contract.
(b)	On Dispatch of equipment				
	Quantity 20000 HRS, 1000 Base Stations, 400 Repeaters and location tracking software with all accessories	T ₀ + 12 Months or earlier	Sixty (60) % of the Base contract price of deliverables on pro rata basis (less cost of training and MRLS) and reimbursement of 100% of taxes and levies		To be delivered in not more than 4 lots with minimum lot size as under (Quantity 5000 HRS, 250 Base Stations, 100 Repeaters and associated accessories) Complete quantity of SMTs/ STEs,



Ser	Activity	Delivery Timelines (T ₀ + Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
					Technical Literature and Training Aggregates to be supplied with first lot
(c)	On delivery of equipment				
	On delivery of complete equipment	T ₀ + 12 or earlier	Remaining 20% of the Base Contract Price (less cost of training and MRLS) of the Lot of Equipment / System	APBG is to be returned on pro-rata basis on delivery of each lot/batch. APBG pertaining to documentation and training can be returned on delivery of a particular lot/batch.	On Pro rata Basis
(d)	IC Certification	T ₀ + 12 or earlier	05% of Base Contract Price (excluding cost of training) will be paid on IC Conformance Certificate		
(e)	MRLS	To be delivered between six to three months prior to	Bal payment on delivery of deliverables on pro rata basis		On Pro Rata Basis



Ser	Activity	Delivery Timelines (T ₀ + Months)	Scheme for Payment	Scheme for submission and Return of Advance Payment Bank Guarantees	Remarks
		expiry of warranty period	and reimbursement of 100% taxes and levies.		
(f)	Completion of Training		Balance 85% of the cost of Training		



Appendix H
(Refers to Para 57 of RFP)

EVALUATION CRITERIA AND PRICE BID FORMAT

1. **Evaluation Criteria.** The guidelines for evaluation of Bids will be as follows:-
 - 1.1. Only those Bids will be evaluated, which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially. The bidder, whose price is arrived as lowest as per Evaluation criteria given in this Appendix, will be declared as L-1 bidder by Buyer.
 - 1.2 Custom duty on input materials shall not be loaded by the Indian Bidders in their price bids, if they are exempted under the existing Notifications. In such cases, necessary Custom Duty Exemption Certificate (CDEC) shall be issued by the Buyer. In cases where Custom Duty is not exempted, Basic Custom Duty on input material is to be included in the cost of Basic Equipment, Installation/Commissioning/Integration, BNE, ToT, MRLS, SMT, STE , ESP and any other item listed at Column (ii) of Para 2 below.
 - 1.3 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.



SNo	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) +(vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
A.	Hand Held Radio Sets (HHRs) with bty charger	20000						
B.	Digital Base Station with accessories	1000						
C.	Base Station antenna with Mast (Set)	1000						
D.	Digital Repeater with accessories	400						
E.	Repeater antenna with Mast (Set)	400						
F.	Spare Battery	20000						
G.	Handsfree Headset	20000						
H.	Location Tracking software (for all HHRs and Base Stations) (Set)	1						
I.	Programming Cables HHRs	6667						
J.	Programming Cables Base Station	1000						
K.	Cost of Manufacturer's Recommended List of Spares as per the format given at Annexure I to Appendix E. In case equipment is already in usage, the spare parts requirement must be specific rather than being based on MRLS.							
L.	Cost of Special Maintenance Tools and Special Test							



SNo	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) +(vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
	Equipment as per format given at Annexure II to Appendix E							
M.	Cost of Operator's Manual and Technical Literature (in English Language) including Illustrated Spare Parts List as per Annexure III to Appendix E.							
N.	Cost of Training Aids such as simulators, cut out models, films, charts etc as recommended by the supplier as per Annexure IV to Appendix E.							
O.	Cost of recommended period of Training excluding the cost of travel and boarding and lodging.							
P.	Any other cost (to be specified).							
Q.	Freight and Transit Insurance Cost (where applicable).							
R.	Total Cost (Total of Serial A to Q)						#	# This will be used in determining L1 vendor



SNo	Items	Qty	Unit Cost	Total Cost (iii) x (iv)	Indicative Rate of Taxes & Duties used to arrive at Total Cost (as applicable)		Total Cost (including all taxes & duties) (v) + (vi) + (vii)	Remarks
					GST/IGST (%)	Custom Duty (%)		
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
S.	Total Cost as per serial Q (in words)							
T.	Foreign Exchange component of the proposal. (for Indian Vendors only)							This will be with reference to Para 1.2.2 of Appendix G.
U.	CDEC (if applicable), its authority and amount for which required.							

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.



Appendix J
(Refers to Para 53 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

(For Indian Private Vendors)

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

2.2 Any dispute, disagreement of 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 BIDDER 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 BIDDER and the BUYER.



2.9 In the event of a vacancy caused in the office of the arbitrators, the party which nominated such arbitrator, shall be entitled to nominate another in his place and the arbitration proceedings shall continue from the stage they were left by the retiring arbitrator.

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

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

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

ARBITRATION
(For Central & State PSEs)

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

ARBITRATION
(For Defence PSUs)

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

FORCE MAJEURE

5.1 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 days) of its occurrence informs in a written form the other party.



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

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

PENALTY FOR USE OF UNDUE INFLUENCE

6.1 The Bidder 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 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 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 Bidder and recover from the Bidder 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 Bidder.

6.2 Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Bidder 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 Bidder 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

7.1 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 Bidder with the Government of India.
 - (vi) At the discretion of the Buyer, the Bidder 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.

7.2 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

8. The Bidder confirms and declares to the Buyer that the Bidder is the original manufacturer of the stores referred to in this contract. The Bidder 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 Bidder, or to indulge in corrupt and unethical practices. The Bidder 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 Bidder 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 Bidder 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 Bidder 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 Bidder 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 Bidder with the Government of India.
- (d) At the discretion of the Buyer, the Bidder shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities

9. In case it is found to the satisfaction of the BUYER that the BIDDER 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 BIDDER, 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.

TERMINATION OF CONTRACT

10. **Termination Clause.** The contract may be terminated by the Buyer in the following cases :-

- (a) The delivery of the material is delayed for causes not attributable to Force Majeure for more than six months after the scheduled date of delivery.
- (b) The Bidder is declared bankrupt or becomes insolvent.
- (c) The 'Buyer' has noticed that the Bidder has utilised the services of an Agent in getting this contract and paid any commission to such individual/company etc.



Annexure I to Appendix J
(Refers to Para 20 of Part I of RFP)

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/Bidder 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 BIDDER, while submitting commercial bid, shall submit Bid Security in the form of Earnest Money Deposit (EMD), for an amount of **₹ 70 Lakh** in favour of the Buyer in Indian Rupees only.



(i) Guarantee will be from Indian Public or Private Scheduled Commercial Bank (as notified by RBI), promising payment of the guaranteed sum to the Ministry of Defence, Government of India, represented on behalf of the President of India, on demand within five working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the buyer shall be treated as conclusive proof for payment. A model Bank Guarantee format is enclosed.

(ii) 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. No. F.20/2/2014-PPD (Pt.) dated July 25, 2017 (as amended from time to time).

(iii) 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.

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

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

(ab) If the bidder having been notified of acceptance of this tender by the buyer during the period of its validity.

(aaa) If the bidder fails to furnish the Performance Security for the due performance of conduct.

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

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

8.2 The Earnest Money Deposit (EMD) shall be valid up to one year from the date of submission. However, Bidders will be required to extend the Integrity Pact Bank Guarantee, as and when required by the Buyer. In the case of the successful bidder, validity of the EMD will be extended up to the satisfactory completion of the Contract. In case a vendor unilaterally decides to withdraw from the procurement scheme or has been declared non-compliant and if he wishes to withdraw his EMD, he may do so provided he gives an undertaking that he has no complaints and will not make any complaints in the case. EMD shall be returned promptly in case of unsuccessful bidders.

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 EMD for the period of its currency.

9. Company Code of Conduct

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

10. Sanctions for Violation

10.1 Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other act enacted for the prevention of corruption shall entitle the Buyer to take all or any one of the following actions, wherever required:

(i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder(s) would continue.

(ii) The EMD/Performance-cum-Warranty Bond 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):-

(a) Shri Ranjan Kumar Ghose, IA&AS (1982) (Retd)
DX-145, Kendriya Vihar, Sector-56, Gurugram-122011(Haryana)
Mob : 9810152001, **Email-** ranjankghose@gmail.com

(b) Dr. Yogendra Tripathi, IAS (Karnataka) (1985) (Retd)
Flat No 2802, 28th Floor, Tower-B2, County 107, Sector-107, Noida-201301
Gautam Budh Nagar (Uttar Pradesh)
Mob : 8527576222, **Email-** yogendratripathi@yahoo.com

(c) Shri Chet Ram, IRS (1985) (Retd)
Flat No A-272, 27th Floor, Florence Building, Courtyard,
Thane (W), Maharashtra-400610
Mob : 9869479987, **Email-** cr_koli@yahoo.com

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

Director (Vigilance)
Room No 340,
B Wing, Sena Bhawan
New Delhi 110011
Tel No - 011 – 23012304

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/Bidder, 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

BIDDER

MINISTRY OF DEFENCE,
GOVERNMENT OF INDIA

CHIEF EXECUTIVE OFFICER

Witness

1. _____
2. _____

Witness

1. _____
2. _____



**Annexure II of Appendix J
Refers to Para 8.1 of
Pre-Contract Integrity Pact**

FORMAT OF EARNEST MONEY DEPOSIT BANK GUARANTEE FORMAT

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

Sealed with the Common Seal of the said Bank this..... day of20.....

The conditions of obligations are:-

- (1) If the Bidder withdraws or amends, impairs or derogates from the Bid in any respect within the period of validity of this tender.
- (2) If the Bidder having been notified of the acceptance of his tender by the Buyer during the period of its validity.
 - (a) If the Bidder fails to furnish the Performance Security for the due performance of the contract.
 - (b) Fails or refuses to accept/execute the contract.
- (3) If the bidder violates Pre-Contract Integrity Pact.

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

This guarantee will remain in force upto and including 45 days after the period of 18 months/ contract signing whichever is later and any demand in respect thereof should reach the Bank not later than the above date.

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



3	Others	
a	Industrial License	Possess or be in the process of acquiring a license, if the product under project requires license as per DIPP licensing policy.
b	Registration	Registered for Min 02 Years, 01 year for MSMEs (for the product being offered). Min no of years not applicable for JVs constituted specifically for a project.



Appendix L
(Refers to Para 54 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.

Ser No.	Reference	Document Description
1	Para 5 of Part I of RFP	Declaration by Bidder : Debarment of vendors
2	Para 17 of Part I of RFP	Declaration by Bidder: Government Regulation
3	Para 19 of Part I of RFP	Declaration by Bidder : Patent Rights
4	Para 21 of Part I of RFP	Declaration by Bidder : Fall Clause
5	Para 28 of Part II of RFP	Technical Offer.
6.	Appendix B	Compliance Table
7.	Appendix C	Warranty Clause
8.	Appendix D	CERTIFICATES: Malicious Code
9.	Annexure I to Appendix D	Measurers to be adopted by Bidders for Information Security
10.	Annexure III to Appendix E	Technical Literature
11.	Annexure II to Appendix J	EMD
12.	Appendix K	All documents required for vendor selection
13.	Annexure I to Appendix E	MRLS
14.	Annexure II to Appendix E	List of SMT/STEs and Infrastructure
15.	Annexure IV to Appendix E	Training Aggregates
16.	Appendix H	Price Bid (Evaluation Criteria and Price Bid Format)
17.	Annexure I to Appendix J	PCIP
18.	Annexure II to Appendix J	EMD
19.	Appendix A to Chapter I of DAP 2020	'Undertaking to comply with Indigenous Design'
20.	Annexure I to Appendix L	Certificate as per restriction under Rule 144 (xi) of the General Financial Rules (GFRs) 2017



Annexure I to Appendix L
(Refers to Para 22 of Part I of RFP)

CERTIFICATE AS PER RESTRICTION UNDER RULE 144 (XI) OF THE GENERAL FINANCIAL RULES (GFRs) 2017

1. "The bidder, M/s _____ is eligible to participate in bidding process in terms of Ministry of Finance/ Department of Expenditure Order No. F.7/10/2021-PPD(1) dated 23 February 2023 and undertakes that its equipment does not contain any products/(s) made/ manufactured/ assembled using components received from a vendor belonging to countries sharing land border in India if not being registered with the competent authority."

2. "I have read the clause (Restriction under Rule 144(xi) of the General Financial Rules (GFRs), 2017 issued vide Ministry of Finance Order (Public Procurement Order No 4 dt 23 Feb 2023) regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that (BIDDER) is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that (BIDDER) fulfills all requirements in this regard and is eligible to be considered (Where applicable, evidence of valid registration by the Competent Authority shall be attached)".



Appendix M**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
DAC	Defence Acquisition Council
DGAQA	Director General of Aeronautical Quality Assurance
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
EPP	Enhanced Performance Parameters
ESP	Engineering Support Package
GoI	Government of India
IC	Indigenous Content
ICG	Indian Coast Guard
IDDM	Indigenously Designed & Developed Manufactured
IM	Indigenously Manufactured
IP	Integrity Pact
EMD	Earnest Money Deposit
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
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

