



सत्यमेव जयते
Ministry of Defence
Government of India

**MINISTRY OF DEFENCE
GOVERNMENT OF INDIA
FOR PROCUREMENT OF
FOUR (04) COAST GUARD SHIPBORNE UNMANNED
AERIAL SYSTEMS (CGSUAS) FOR
INDIAN COAST GUARD**



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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 126 pages including cover page and Appendices.



Tele: +91-11-21411712
Fax: +91-11-21411710
E-mail: tmms-modacq@navy.gov.in

File No: TM(M)/0025/CG/04 CGSUAS
Additional Director General
Acquisition Tech (Maritime & Systems)
Acquisition Wing, Ministry of Defence
Room No 05, D-II Wing, Ground Floor
Sena Bhawan, New Delhi-110011

19 Sep 2025

To,

**REQUEST FOR TECHNICAL AND COMMERCIAL PROPOSAL FOR
PROCUREMENT OF FOUR (04) COAST GUARD SHIPBORNE UNMANNED
AERIAL SYSTEMS (CGSUAS) FOR INDIAN COAST GUARD
UNDER 'BUY (INDIAN)' CATEGORY**

Dear Sir/ Madam,

1. The Ministry of Defence, Government of India, intends to procure Four (04) Coast Guard Shipborne Unmanned Aerial Systems (CGSUAS) along with associated equipment, Engineering Support Package (ESP), installation/ integration onboard ships as well as Ashore stations and services for ICG, under 'Buy (Indian)' category for use by Indian Coast Guard (ICG) and seeks participation in the procurement process from prospective Bidders subject to requirements in succeeding paragraphs.

Synopsis

2. **Broad Description of Equipment/ System.** Four (04) Coast Guard Shipborne Unmanned Aerial Systems (CGSUAS) are intended to be inducted into the Indian Coast Guard to meet the emergent requirements of Surveillance and Reconnaissance. CGSUAS will be positioned on Ships/ Ashore stations and should be able to undertake Surveillance and Reconnaissance Missions by Day & Night, and also assist in Search and Rescue (SAR) missions.

3. The salient aspects and timelines of the acquisition are tabulated below. In case of any variation in the details furnished below or in any Annexure(s) with that mentioned in the RFP, information furnished in the main body of the RFP at referred Paragraph is to be followed. Further clarification, if any required, would be provided during the pre-bid meeting.



Ser No.	Description	Details	Refer to Page & Para of the RFP
(a)	Equipment/ System required	CGSUAS	Page 2
(b)	Quantity Required	Four (04) (other details as per Annexure I to Appendix 'A')	Page 2
(c)	Categorisation of Procurement	'Buy (Indian)' i.a.w. DAP 2020 provisions	Part I, Para 8
(d)	Minimum IC Content required	Overall IC - 60%, IC% for Material/ Component/ Software manufactured in India is 50% of Overall IC	Part I, Para 8
(e)	Place(s) of Delivery	(a) Two (02) CGSUAS at Porbandar (b) Two (02) CGSUAS at Visakhapatnam (c) MRLS, SMT's / STE's/ GSE/GHE, Training Aggregates & Technical Literature- CGASD (Goa)	Appendix-G Para 1(a)
(f)	Warranty Period	Two (02) Years	Part I, Para 13
(g)	CMC Period, if any	Two (02) Years	Part I, Para 42
(h)	Offsets required, if any	NA	--
(j)	EMD Amount	Seventy (70) Lakhs	Page 111
(k)	Last date for submission of Pre-bid queries	17 Oct 25	Part I, Para 28
(l)	Date and time for Pre-bid meeting	31 Oct 25, 1100 Hrs	Part I, Para 29
(m)	Last date and time for Bid Submission	12 Dec 25, 1200 Hrs.	Part I, Para 30

4. **Special features of the RFP.** The CGSUAS are required to comply with CGSQRs as per **Appendix 'A'** to this RFP.

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

Ser No.	Description	Page No.
(a)	Part I - General Requirements	7
(b)	Part II - Technical Requirements	15
(c)	Part III - Commercial Requirements	24
(d)	Part IV - Bid Evaluation and Acceptance Criteria	25



6. 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.

7. The end user of the equipment is the Indian Coast Guard.

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

9. This RFP is non-transferable.

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

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



Yours faithfully

(AS Dadwal)

Commodore

DDG Acq-Tech (Maritime)

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Disclaimer

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



PART I – GENERAL REQUIREMENTS

1. This part consists of the general requirement of the Goods (also referred as equipment/ systems/ deliverables) and Services, hereafter collectively referred as 'Deliverables', the numbers required, the time frame for deliveries, installation, integration and Setting To Work (STW), conditions of usage and maintenance, requirement for training, Engineering Support Package (ESP), Services 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. **Classified RFPs.** In case of issue of a classified RFP and/or documents as part of procurement process, applicable provisions will be as follows:-

(a) All the relevant precautions and procedures for handling the RFP/Document/Information have to be followed that are applicable to the relevant level of security classification, as per extant government orders on the subject. A Non-Disclosure Agreement would have to be signed by all Bidders in accordance with the format placed at **Appendix K**. The Non-Disclosure Agreement would have to be signed by the Bidder and forwarded along with the acknowledgement of receipt of the RFP.

(b) **'Restricted Information' Categories under 'Official Secrets' under Section 5 of the Official Secrets Act, 1923.** Any contravention to the above mentioned provisions by any Bidder, sub-contractors, consultants, advisors or the employees of a contractor, will make them liable for penal consequences under the above said legislation.

6. **Business Eligibility**

6(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 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.

6(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.



7. **Pre-Qualification Criteria {for multi-vendor cases in Buy (Indian-IDDM), Buy (Indian) and Buy & Make (Indian) cases}**. The detailed Pre-Qualification Criteria for the Bidders for participation in the instant procurement case are placed at **Appendix L** 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.

8. **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 **Para 1 of Appendix B to Chapter I of DAP2020**. 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 DAP2020**. The right to audit Bidder/ sub-contractors/suppliers/technology partners shall vest in the Ministry of Defence as prescribed under **Para 10**; and aspects of delivery, certification, payments, withholding of payments and imposition of penalties shall be as prescribed under **Para 11 to 15** thereof. Furthermore, Bidders in 'Buy (Indian IDDM)', 'Buy (Indian)', 'Buy and Make (Indian)', Buy (Global-Manufacture in India) and Buy (Global) (for Indian vendors) 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**. Minimum 50% of overall IC 60 % to be in the form of material/ components/ software that are manufactured in India in accordance with MoD ID No. 1(8)/D(Acq)/21 dated 18 Mar 24. The DAP-2020 and subsequent amendments to DAP-2020 is available on MoD, GoI website (www.mod.gov.in) for reference and free download.

9. **Year of Production**. Deliverables [platforms (including major equipment)/ equipment/systems] supplied under the contracts 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 Proposal.

10. **Delivery Schedule**. The Delivery Schedule of equipment and services along with the relevant payment stages are specified at **Annexure V to Appendix G**. Considering T₀ as the date of Release of Advance Payment following shall be the delivery timelines for CGSUAS and other deliverables:-



<u>Ser</u>	<u>Equipment/ Description</u>	<u>Delivery Schedule</u>
(a)	First CGSUAS of 1st Lot/batch {including installation & integration of associated equipment onboard One (01) Ship and One (01) Ashore Unit}	T ₀ + 16 Months
(b)	Second CGSUAS of 1st Lot/batch {including installation & integration of associated equipment onboard One (01) Ship}	
(c)	First CGSUAS of 2 nd Lot/batch {including installation & integration of associated equipment onboard One (01) Ship and One (01) Ashore Unit}	T ₀ + 18 Months
(d)	Second CGSUAS of 2 nd Lot/batch {including installation & integration of associated equipment onboard One (01) Ship}	
(e)	ESP	T ₀ + 16 Months

11. 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.

12. **Preservation.** Not applicable

13. **Warranty.** The deliverables supplied shall carry a warranty for **Two (02) Years**. Commencement of warranty will be from the date of acceptance post JRI or from date of installation and commissioning or user acceptance whichever is later. Warranty Clause is given at **Appendix C** to this RFP.

14. **Offset.** Not applicable.

15. **In Service Life/Shelf Life.** The In Service/Shelf Life of the deliverables shall be minimum 10 years. In case of shelf life, the relevant storage conditions should be clearly specified. The Bidder is required to give details of reliability model, reliability prediction and its validation by designer/manufacturer to ensure reliability of stores throughout Service/ Shelf life. The efficacy of reliability model/ prediction/ validation would be verified during Technical and Environmental evaluation as indicated in Para 41 and 47 of this RFP.



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

16(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. 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).

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

18. **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 (if required). This training shall be designed to give the Operators and Maintainers necessary knowledge and skills to Operate & Maintain Equipment (level 'O'). The syllabus will be defined by the Bidder in consultation with the Buyer at the time of MET. The maintenance training will be imparted to the satisfaction of the Buyer and Bidder will ensure that the training content and period will be to impart working proficiency up to the required level. All training requirements such as training aids, projection system, complete equipment with accessories / 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.



19. The Bidder would provide the following training to the personnel of the Buyer based on agreed terms of contract details of total training duration, number of trainee, batch size, place of training etc to be included as applicable :-

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

(b) The number of personnel required to be trained are as follows:-

<u>Ser.</u>	<u>Category</u>	<u>Number for Personnel</u>
(aa)	Operator Crew	Training for 24 Operators (Officers) as PIC & Mission Commander, 12 Non-Tech Enrolled personnel as Payload Operator out of which 06 Operators and 03 Payload Operators are to be trained to Instructor level
(ab)	Maintainer Crew	44 Technical Manpower {36 Maintainers, Four (04) AEO, Four (04) ALO} are required to be trained. The complete Technical Manpower (i.e. 44 personnel) are to be trained for 'O' level and of which 12 personnel are to be trained for Instructor Level. In addition, the 'O' level training should be imparted with On job Training by OEM. Post completion, the OEM should provide qualification to maintain and supervisor certification
(ac)	QA Training at OEM premises shall be carried out on testing certification and QA aspects	Two (02) DGAQA Personnel and Three (03) ICGQA Personnel.

20. **Government Regulations.** It may be confirmed 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.

21. It may be further confirmed that all National and International obligations relevant to transfer of conventional arms of the country of the supplier or countries from which parts and components are being procured, have been taken into account for the



duration of the Contract. Accordingly, thereafter there would be no review, revocation or suppression of Defence export license and other related clearance issues to the supplier for the contract that could impinge on the continuity of supply of items and their parts or components under the contract.

22. **Agents.** Not applicable.

23. **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.

24. **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.**

25. **Transfer of Technology.** Not applicable.

26. **Transfer of Technology for Maintenance Infrastructure.** Not applicable.

27. **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 ICG, if the contract has already been concluded.

Bid Timelines

28. Any queries/ clarifications to this RFP may be sent to this office by 1100 hrs on 17 Oct 25. A copy of the same may also be sent to:-

Principal Director (AA)
Directorate of Air Acquisition
Coast Guard Headquarters
National Stadium Complex, New Delhi – 110 001



29. **Pre-Bid Meeting.**

A pre-bid meeting will be organized by CGHQ at 1200 hrs on 31 Oct 25 (date) at CGHQ to answer any queries or clarify doubts regarding submission of proposals. The Bidder or his authorized representative is requested to attend. Necessary details may be sent a week in advance to **Directorate of Air Acquisition, Coast Guard Headquarters, New Delhi** to facilitate obtaining of security clearance.

30. **Submission of Bids.**

The Technical and Commercial Proposal and IP & EMD should be sealed separately in three separate envelopes clearly indicating Commercial /Technical/ IP and EMD and any other Bank Guarantee as applicable and then put in one envelope and sealed (all the envelopes should clearly state the letter No of RFP and the name of equipment and Bidder name) and submitted to the undersigned at the following address by 1200 hours on 12 Dec 25.

O/o Additional Director General

Acquisition Technical (Maritime & Systems)

Room No. 5, D- II, Ground Floor, Sena Bhawan,

New Delhi- 110011

31. Offer opening by an Offer Opening Committee will be held at 1500 hrs on 12 Dec 25 at the same venue as indicated at Para 30 above. The Bidder or his authorised representative is welcome to be present at the opening of the proposals. Necessary details may be sent atleast one week in advance to facilitate obtaining of security clearance.



PART II – TECHNICAL REQUIREMENTS

32. The second part of the RFP incorporates the aspects of SQRs describing the technical parameters of the proposed equipment, and the environmental parameters for functioning. The Operational Characteristics and Features that should be met by the CGSUAS are elucidated at **Appendix A** to this RFP and the Compliance Table at **Appendix B** to this RFP. The Bidder would be required to offer the equipment for field evaluation on a "No Cost No Commitment" basis.

33. **Operational Characteristics and Features.** The broad Operational Characteristics and Features that are to be met by CGSUAS are elucidated at **Appendix A** to this RFP.

34. **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 evaluated during FET. 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 revised list of MRLS to this effect is to be submitted prior Staff Evaluation.

35. 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.

36. **Technical Details.**

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



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

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

38. **Submission of Project Report.** Not applicable

39. **Para Applicable only for M-ToT Cases.** Not applicable.

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

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

42. **Product Support (ESP/CMC).** After induction, the Equipment / System would be repaired and maintained as per the Repair and Maintenance Philosophy at **Appendix E** to this RFP. The information on Engineering Support Package (ESP) that is required to be provided is enclosed at **Annexure I to IV to Appendix E** to this RFP. CMC is to commence from the date of completion of warranty of the first CGSUAS and is to be applicable till Two (02) years post completion of warranty of the last CGSUAS. The details of CMC proposals, must also be submitted separately by the Bidder with technical aspects being included in the technical offer and commercial aspects being included in the Commercial Offer.

43. **Spares/ MRLS.** The spares requirement will be as per **Annexure I to 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.

44. As brought out at Para 34, the range and depth of spares included in the proposal should be supported by necessary reliability and prediction model or authenticated by past data on the similar equipment in use. These would be evaluated during FET. Any Bidder found to be providing lesser ESP/MRLS in terms of range and depth will have to make good the deficiency at no extra cost.-The revised list of MRLS to this effect is to be submitted prior Staff Evaluation. The Buyer would also have the option to amend the MRLS proposed by the Bidder within 01 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 FET and SE stage, as brought out at Para 34 of RFP.

45. **Online Inventory Management System (OIMS).** To leverage Information Technology and ensure expeditious Order placement as well as timely Product Support, the Bidder is required to provide an Online Inventory Management System (OIMS), as per mutually agreed format, to place Purchase/ Repair Orders (as applicable) online. The OIMS shall also provide feature to track the delivery status of the items. Further the OIMS should provide dashboard for intimation on Obsolescence and offer of lifetime buy along with provision for user to interact with the OEM for Technical Assistance etc. The detailed scope and features of OIMS shall be finalised during the negotiations on LCSC, if required at later date.



46. **Active Technology Obsolescence Management.** Bidder is to indicate the methodology on how the Bidder intends to undertake Active Obsolescence Management through lifecycle 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 will notify the Buyer not less than Two (02) 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 will submit techno-commercial proposal for upgradation of equipment, wherever applicable, to mitigate technology obsolescence and for ensuring product support for next 15 years (or any other period as applicable).

47. **Evaluation of Technical Offers.** The Technical Offer submitted by the Bidder will be evaluated by a Technical Evaluation Committee (TEC) to confirm that the equipment being offered meets the Essential Parameters as elaborated at **Appendix A**. Thereafter, the Bidder of the short listed equipment would be asked to provide the equipment (01 Complete) for Trial Evaluation as per Trial Methodology given at **Appendix F** to this RFP, in India at 'No Cost No Commitment' basis.

48. **Field Evaluation Trials.** For an equipment to be introduced in service, it is mandatory that it successfully clears all stipulated Tests/ Trials/ Evaluations as per RFP. The trial evaluation process will be undertaken as per Trial Methodology given at **Appendix F** to this RFP.

(a) **User Trials:** These will involve functional testing by user of the equipment in various specified conditions as per requirement and may be done in more than one phase. Trials will be conducted only pertaining to conditions where the equipment is most likely to be deployed. In other conditions where the probability of deployment is not high, appropriate vendor certifications confirming the functional effectiveness under such conditions can be given and simulations based testing can be resorted to wherever applicable. In case, equipment fielded is requires any repairs/ modifications during the course of trials, these insitu servicing, repairs, maintenance actions or modifications as requested by the vendor will be permitted. Towards this, vendors shall ensure availability of requisite maintenance teams/ experts onsite during the conduct of



trials. Permission per trial equipment to move out of the trial location for a defined period for such repairs or modifications can be permitted on a case to case basis. In single vendor cases permission for the above may be permitted by the OIC trials itself. Bidder would be responsible for transportation, POLs, consumables and other requirements as required for the conduct of the trials.

(b) **Technical Trials.** Technical trials will be conducted by QA agency as per Technical Evaluation Plan (to be specified at Para 50 below) to assess conformance to the quality requirements, standards and specifications. Equipment/assemblies/sub-assemblies will be subjected to environmental tests wherever applicable. As far as possible, physical evaluation will only be carried out of critical parameters and other parameters will be evaluated based on vendor certification duly supported by certification by NABL accredited laboratories/internationally recognised laboratories. Towards this, Bidder will submit the technical documentation and draft ATP as part of technical bid or at least one month before commencement of FET. QA agencies will finalise ATP in respect of all Bidders during Technical trials.

(c) **Maintainability Evaluation Trial (MET).** MET to address maintenance, repair and spares support aspects of acquisition, wherever feasible, will be undertaken through the OEM documentation concurrent to the User Trials. Essential tests towards establishing maintainability would be undertaken to establish adequacy of maintenance tools, test equipment and spares utilisation. Actual stripping of the equipment to establish adequacy of maintenance tools, test equipment and spares utilisation will ideally be undertaken, where considered necessary by the Buyer.

(d) **EMI/EMC Evaluation.** This will consist of either review of reports of EMI/EMC tests already conducted as part of qualification testing from authorised labs or physical conduct of tests to ascertain compatibility. EMC/ EMI Evaluation would be carried out by designated testing centres like Army Centre for Electromagnetics (ACE), Mhow etc. on parameters having direct bearing on the operational employability of the equipment based on desired standards as given out in the Trial Directive. For remainder parameters, certification of accredited labs can be accepted. The CGSUAS and its supporting systems including payloads shall comply to MIL STD 464 (for system level)/MIL STD 461 latest for sub-systems level.

(e) **Secrecy Testing.** Not applicable.

49. Commercial offers will be opened only of Bidders whose equipment is short-listed, after technical trials and evaluation and who have also submitted the offset offers (if applicable) and these have been accepted technically. In other words, the equipment would be required to be trial evaluated and found suitable prior to commencement of any commercial negotiations.



Quality Assurance & Technical Evaluation Plan.

50. At the time of technical bid, the vendor would be required to provide draft Quality Assurance Plans (QAP) i.e. tests undertaken to assure quality & reliability and draft Acceptance Test Procedure (ATP) including draft Qualification Test Procedure (QTP). ATP will lay down the tests to be carried out during PDI and 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. In case PDI/JRI are planned to be conducted by authorised Third Party Inspection (TPI) Agencies, the same will be spelt out in the QA instructions and the details included in the finalised ATP. QA of equipment will be carried out as per finalised QA plan in the contract. For technical trials by QA agencies, the Bidder will arrange for requisite test facilities at OEM premises/accredited laboratories for establishing conformance. The successful Bidder would also be required to provide those test facilities at OEM premises/accredited laboratories for quality assurance, which are not available with QA agencies. Details of the same will be intimated to the Bidder during finalisation of ATP in Technical trials. The CGSUAS should be certified for Airworthiness by a Government Authority Certification Agency of the Buyer or Seller prior to delivery. RPA and its payload should have MIL STD 810/DO 160 or equivalent or better certification standards prior delivery. For outsourcing activities of CGSUAS, sub-suppliers also would meet the requirements in RFP. The airworthiness certificate shall be issued as per sub part B2 of IMTAR 21. In case, CGSUAS is already having Type certificate from the country of origin same shall be submitted to CEMILAC alongwith other related documents as required for airworthiness Certification and Build SoP purpose. The Quality Assurance will be carried out by DGAQA post verification of Airworthiness requirements, Build SoP and other related documents.

Marking and Packaging

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

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



52. 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.

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

(a) In accordance with DEFSTAN 81-041 (Part 1)/STANAG-4280 or equivalent Military Standard.

(b) To ensure that each deliverable may be transported in an undamaged and serviceable condition.

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

(a) The name and address of the consigner and consignee including

(i) The delivery destination/address if not of the consignee.

(ii) Transit destination/address (for aggregation/disaggregation, onward shipment etc).

(b) The description and quantity of the deliverables.

(c) The full part number in accordance with codification details.

(d) The makers part, catalogue, serial, batch number, as appropriate.

(e) The Contract number.

(f) Any statutory hazard markings and any handling markings including the mass of any package which exceeds 3kgs.

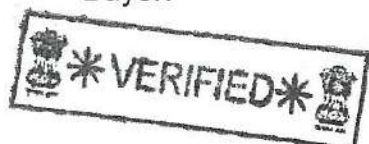
(g) The Packaging Label (Military J, N or P, special H, commercial A, C etc) {specify reference to of DEFSTAN 81-041 (Part 1)/STANAG-4280 or equivalent Military Standard}.

55. **Monitoring of Project Based on Contractual Milestones.** After placement of order, the progress of the project will be monitored by the Buyer for compliance with various activities towards achieving contractual milestones involving delivery/ installation/ integration/trials etc. The contractual milestones will be integral part of the contract. In case the project does not proceed as per the indicated timelines for various contractual milestone(s), the Buyer will have the right to invoke Termination of the project. The indicative list of Contractual Milestones and broad range of timelines (earliest and latest time for completion) for the project is as follows:-



<u>Sl.</u>	<u>Milestone</u>	<u>Timeline</u> (T ₀ + Months)	<u>Remarks</u>
(a)	First CGSUAS of 1st Lot/batch {including installation & integration of associated equipment onboard One (01) Ship and One (01) Ashore Unit}	T ₀ + 16 Months	To be completed within 16 Months from effective date of Contract (T ₀) (i.e. date of release of advance payment)
(b)	Second CGSUAS of 1st Lot/batch {including installation & integration of associated equipment onboard One (01) Ship}		
(c)	First CGSUAS of 2 nd Lot/batch {including installation & integration of associated equipment onboard One (01) Ship and One (01) Ashore Unit}	T ₀ + 18 Months	To be completed within 18 Months from effective date of Contract (T ₀) (i.e. date of release of advance payment)
(d)	Second CGSUAS of 2 nd Lot/batch {including installation & integration of associated equipment onboard One (01) Ship}		
(e)	ESP	T ₀ + 16 Months	To be completed within 16 Months from effective date of Contract (T ₀) (i.e. date of release of advance payment)
(f)	Comprehensive Maintenance Contract (CMC)	* T ₀ + 40 Months to T ₀ + 66 Months *	* CMC to commence from the date of completion of Warranty of the first CGSUAS and is to be applicable till Two (02) years post completion of Warranty of the last CGSUAS *

56. The Bidder is to indicate the proposed timelines for the above milestones in the Technical Bid. On conclusion of the Contract, these milestones will be monitored by the Buyer.



57. The Project Monitoring Meeting is to be organized at 03 months interval. The Bidder shall attend the progress monitoring meetings through its suitably qualified representatives and shall submit progress reports to the Buyer.



PART III – COMMERCIAL REQUIREMENTS

58. 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

59. 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.

60. Commercial offers will be opened only of the Bidder whose equipment is short-listed, by Technical Evaluation Committee (TEC) after Field Evaluation Trials (FET) and Staff Evaluation. The Commercial Offer must be firm and fixed and should be **valid for at least 18 months from the last date of bid submission.**

Commercial Bid Opening

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

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

63. The CNC will determine the lowest bidder (L1).

Additional Aspects

64. **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.

65. **Option Clause.** Not applicable.



PART IV: BID EVALUATION AND ACCEPTANCE CRITERIA

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

67. 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.

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

69. **Evaluation and Acceptance Process.**

(a) **Evaluation of Technical Proposals.** The technical proposals forwarded by the Bidders will be evaluated by a Technical Evaluation Committee (TEC). The TEC will examine the extent of variations/differences, if any, in the technical characteristics of the equipment offered by various Bidders with reference to the QRs and prepare a "Compliance Statement" for short listing the Bidders. The shortlisted Bidders shall be asked to send the desired units of the equipment to India for Field Evaluation in accordance with Trial Methodology placed at **Appendix 'F'**. Field Evaluation would be conducted for Essential Parameters-A. A Staff Evaluation will be carried out, which will give out the compliance of the demonstrated performance of the equipment vis-à-vis the requirements. The compliance would be determined only on the basis of the parameters specified in the RFP. The Staff Evaluation will analyse the field evaluation results and shortlist the equipment recommended for introduction into service.

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

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



Appendix A

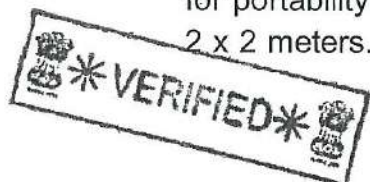
(Refers to Para 32, 33, 34, 36(a), 37
& 47 of RFP, Para 8 of **Appendix C**)

OPERATIONAL CHARACTERISTICS AND FEATURES

COAST GUARD SERVICES QUALITATIVE REQUIREMENTS (CGSQRs) FOR COAST GUARD SHIPBORNE UNMANNED AERIAL SYSTEMS (CGSUAS)

Introduction

1. Coast Guard Ship Borne Unmanned Aerial Systems, hereinafter mentioned as CGSUAS, are intended to enhance the integral Surveillance, Reconnaissance and Identification (ISR) capability of Ships at sea.
2. The Operational Requirements (ORs) that define performance and system parameters of the CGSUAS are enumerated in subsequent paragraphs.
3. **Role**. The CGSUAS should be able to undertake Surveillance and Reconnaissance missions from ICG Ships as well as from Ashore by Day and Night in order to:-
 - (a) Augment Maritime surveillance.
 - (b) Coastal Surveillance.
 - (c) Assist in Search and Rescue (SAR) missions.
 - (d) Assist in detection of oil spill.
4. CGSUAS should be capable of conducting mission including take-off and landing from ICG Ships and Ashore Units by Day as well as by Night. It should be able to carry out all the roles as specified at Para 3. The Technical parameters are enumerated in succeeding paragraphs.
5. **Composition of Single CGSUAS**. The composition of single CGSUAS should be as follows:-
 - (a) **Two Remotely Piloted Aircraft (RPA)**. Each system is to comprise of Two (02) RPA, which shall be modular in design and made of composite material. The RPA shall be capable of being dismantled/ folded and assembled for portability and stowage onboard Ship in a container of size not exceeding 3 x 2 x 2 meters. The RPA must be easily repairable and designed to be assembled



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onboard the ship. The RPA with all payloads should be designed for Vertical Take-off and Landing (VTOL).

(b) **Two Ground Control Stations (Main and Standby).** The CGSUAS shall have Two (02), Main and Standby Ground Control Stations (GCS) that can be powered with Ship's supply. In case of any failure to the main GCS, Standby GCS shall be capable of taking over command and control of RPA on Ship's Helo Deck or on ground and in-flight. The GCS must be portable to provide flexibility in positioning the system. The configuration of Main and Standby GCS are to be identical. The GCS must be capable of the following:-

- (i) Display essential flight parameters for safe conduct of flight and mission accomplishment.
- (ii) Receive and Display payload data (viz. EO & IR, AIS, ADS-B and MPR) through datalink.
- (iii) Integrate and Display inputs received from Electro Optic and Infra-Red (EO & IR), Automatic Dependent Surveillance Broadcast (ADS-B), Automatic Identification System (AIS) and Maritime Patrol Radar (MPR).
- (iv) Communicate (two-way) with other units on V/UHF R/T using the Communication Relay Module (on the RPA) within the Line of Sight of RPA.
- (v) Facility to record and playback sensor and flight data of at least Ten (10) complete sorties / 500 GB with and without specialist payloads.
- (vi) The Standby GCS should be fully backed up with Main GCS.

(c) **Ship Data Terminal(s).** Ship Data Terminal(s) is to be fixed on the upper deck so as to provide unhindered 360° coverage for Command, Control and Communication with RPA.

(d) **Engineering Support Package (ESP).** ESP comprising Ground Support Equipment (GSE), Ground Handling Equipment (GHE), Onboard Spares (OBS) and Tools for operation of the RPA onboard and Ashore must be stored in container(s) for ease of stowage and Transportation for duration as per Utilization Rate. The size of container(s) should not exceed 3 x 2 x 2 meters (length x breadth x height).

(e) **Specialised Role Equipment.** Special payload of Maritime Patrol Radar (MPR).



(f) **Two (02) Remote Video Terminals (RVT).** Two (02) man-portable RVTs which can be carried on a boat when required and capable of being operated independently. The RVT must receive EO and IR payload data from the RPA, have portable power source and have at least Three (03) hours of continuous operation with provision of connecting spare batteries for additional duration. The specifications of RVT are as follows:-

- (i) Maximum Weight - 12 Kgs
(including radio, antenna, battery and tablet computer)
- (ii) Minimum Range with Omni-Antenna - 10 Km
- (iii) Maximum dimensions of RVT (Cms) - 30 x 27
- (iv) Operation time of RVT with spare battery - 03 Hrs

6. **Fatigue / Service Life.**

- (a) CGSUAS should have a service life of at least Ten (10) years.
- (b) Utilisation Rate of 50 hrs per Month and 600 hrs per Year.

7. **Role-wise Configuration.** CGSUAS should fulfill minimum requirements for undertaking the mission with following payloads:-

(a) **Basic Payload.** Each RPA is to be provided with EO & IR, AIS and ADS-B payload. The specifications of EO & IR, AIS and ADS-B are as appended below:-

(i) **EO & IR Payload.**

(aa) EO/IR sensor shall provide a Field of Regard (FOR) of 360° in azimuth direction and at least +10 to -80 degrees in elevation direction.

(ab) The EO should provide continuous Wide Field of View (WFOV) of at least 30 degrees.

(ac) The EO & IR payload should operate between temperature ranges of at least -20° to +55° C.

(ad) The EO & IR must have an overall pointing accuracy of at least 15 milli Rad. Still Imagery, digital video and IR imagery capability is to be available. Capability of video recording and capturing still image (Day and Thermal Camera) should be available at GCS.



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(ae) Resolution of still image captured should be at least 640 x 480 pixels for IR image and 1280 x 720 pixels for image captured by Day camera. Digital Video output is to be available at minimum HD 720 pixels for Day channel at the GCS.

(af) The video output available in the display should be 4k.

(ag) The detection range at ambient temperature 25°C and RH 80% should be at least 20 Km by Day Camera and 15 Km by Thermal Imager (IR).

(ah) The camera is to have both Optical and Digital Zoom facility. Minimum EO Optical Zoom of 30x and Digital Zoom of 2x should be available. Minimum Thermal Imager (IR) Optical Zoom of 15x and 2x Digital should be available.

(aj) The Gyro stabilisation of EO/IR should provide 360 deg continuous freedom of movement.

(ak) The EO & IR system must incorporate features of LOS slaving, Geo-pointing and video tracking.

(ii) **AIS Payload.** The AIS payload should be able to function in receive only mode. The AIS data should be available in the GCS and should receive both Class A and Class B AIS data. The AIS data should be integrated with MPR data.

(iii) **ADS-B.** ADS-B In with capability to upgrade to and integrate ADS-B Out data in future.

(b) **Special Payloads.** The following special payloads must be carried in addition when required:-

(i) **Maritime Patrol Radar.** The Maritime Patrol Radar must adhere to following specifications:-

(aa) Capable of operations in rain up to 4mm/hr.

(ab) Feature of sector transmission should be available.

(ac) It should be capable of automatic and continuous detection and tracking of targets.



(ad) Minimum azimuth coverage of 240° with platform.

(ae) The minimum Radar Range (while operating at 5000 ft) as per target RCS should be as mentioned below (Detection and Tracking) at Sea State 1:-

(aaa) Small Targets ($RCS \leq 10$ sqm) : 12 (+/-1) km.

(bbb) Medium Targets ($RCS 10 - 100$ sqm) : 25 (+/-2.5) km.

(ccc) Large Targets ($RCS 100 - 1,000$ sqm) : 40 (+/-5) km.

(af) The MPR should have the provision of providing target parameters to EO/IR to slew / slave the EO/IR camera to the target.

(ag) The MPR should be able to track at least 100 tracks simultaneously.

8. **Ashore unit.** Following to be provided for operations from Ashore units :-

(a) **Ground Data Terminal.** One Ground Data Terminal (GDT) is to be fixed on Ashore unit so as to provide unhindered 360° coverage for Command, Control and Communication with RPA.

(b) **Ground Control Stations (Main and Standby)** The CGSUAS shall have Two (02) Main and Standby Ground Control Stations (GCS). In case of any failure to the main GCS, Standby GCS shall be capable of taking over command and control of RPA on ground and in-flight. The GCS must be portable to provide flexibility in positioning the system. The configuration of Main and Standby GCS are to be identical. The GCS must be capable of the following:-

(i) Display essential flight parameters for safe conduct of flight and mission accomplishment.

(ii) Receive and Display payload data (viz. EO & IR, AIS, ADS-B and MPR) through datalink.

(iii) Integrate and Display inputs received from Electro Optic and Infra-Red (EO & IR), Automatic Dependent Surveillance Broadcast (ADS-B), Automatic Identification System (AIS) and Maritime Patrol Radar (MPR).



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(iv) Communication (two-way) with other units on V/UHF R/T using the Communication Relay Module (on the RPA) within the Line of Sight of RPA.

(v) Facility to record and playback sensor and flight data of at least Ten (10) complete sorties / 500 GB with and without specialist payloads.

(vi) The Standby GCS should be fully backed up with Main GCS.

9. **Stipulated Conditions for Use.**

(a) **Indian Reference Atmosphere.** Unless stated otherwise, all performance requirements should be met under the Indian Reference Atmosphere which is defined as follows:-

- (i) Sea level Mean Temperature ($^{\circ}$ C) : ISA + 20° C
- (ii) Reference Temperature for Takeoff & landing ($^{\circ}$ C) : ISA + 20° C
- (iii) Reference Temp for performance less (ii) above : ISA + 15° C
- (iv) Lapse Rate : 6.5° C/Km
- (v) Mean Sea Level Pressure : 1005 Hpa

(b) **Shore Operations.** The CGSUAS should also be capable of carrying out operations from the beach and unprepared surfaces by day and night. The maximum area required for launch/ recovery of equipment should not exceed 10m x 10m.

(c) **Certification.** The CGSUAS should have Airworthiness Certification/ flight clearance from an Authorised Certification Agency. The following specifications are to be complied with under the conditions as follows:-

- (i) **Mechanical Shock.** Environment: 75 g 11 ms saw tooth shock, $3\pm$ shock/ axis, 3 axis, 18 total.
- (ii) **Humidity.** Environment: 240 hours, 95% RH.
- (iii) **Random Mechanism Vibration.** Environment: Vibration Step from 21-41 g.
- (iv) **Temperature Humidity Bias.** Environment: 85° C, 85 % RH, high line input voltage.



(v) Salt Fog. Environment: Salt Fog Harsh Environment.

(d) EMI/ EMC. EMI-EMC standards of CGSUAS should conform to MIL STD or FAR or equivalent or better National or International standard for UAV.

10. Afloat Operations. The CGSUAS should be able to Vertically Take off and Land (VTOL) from helo deck of a moving ship by day and night. The take-off and landing onboard a moving ship should be automatic, i.e. Automatic Take-off and Landing (ATOL) under all limitations of sea state specified by roll and pitch as mentioned in Para 10 (d). The CGSUAS should have following additional Operational features:-

(a) The pilot should be able to monitor and control all phases of flight including launch and recovery from the Ground Control station.

(b) The GCS should enable the pilot to switch between ATOL and manual flight mode in emergency.

(c) The maximum area required for launch/ recovery of equipment should not exceed 10m x 10m. Removal/ fitment of major components must be feasible onboard the ship.

(d) CGSUAS should be capable of takeoff and landing from a moving ship, up to at least 20 Kts in the following deck motion conditions:-

(i) Pitch. At least up to +/- 2 deg.

(ii) Roll. At least up to 5 deg either side.

(e) All airframe/ avionic components and associated parts should be corrosion resistant for operations in marine environment.

(f) Wind Envelope. CGSUAS must be capable of being launched and recovered in wind speeds up to 20 Knots. Suitable graph w.r.t. wind limitations is to be provided.

11. Basic Design Features. CGSUAS should have the following design and capability features:-

(a) It should have a fully autonomous flight mode, with pre-programmed or operator initiated mission guidance.



- (b) The GCS of the CGSUAS should incorporate Digital Map formats and Orthophoto software.
- (c) The system should support handover of RPA control to a GCS onboard a different ship.
- (d) Ability to operate a minimum of Two (02) RPAs from the same Control Station simultaneously to enable hot swap must be available.
- (e) The CGSUAS should have a primary datalink. The facility to configure user defined encryption for primary datalink should be available. The downlink data of payloads from CGSUAS should be capable of being encrypted. The minimum standards of encryption should be AES 256.
- (f) Crew configuration including maintainers should be restricted to a maximum of five for complete operations (launch, recovery and payload handling) for duration of Eight (08) hours of airborne time with basic payload.
- (g) Monitoring system for engine parameter must be available in the GCS. Audio or visual warning should be available to operator for failure of critical systems.
- (h) The system should be easily dismantled in not greater than 30 minutes onboard a ship and stowed in a container (Container for stowage to be provided along with the RPA). The maximum assembly time of the complete system should not exceed 30 minutes. The duration for launch and recovery should not exceed 60 minutes and 30 minutes respectively by a fully trained crew of crew size not more than Five (05) (including operator and maintainer).
- (j) Turnaround time between two successive launches of the same RPA should not exceed 30 minutes. This does not include assembly time or dismantling time of the RPA, provided there is no role change.
- (k) The RPAS GNSS receiver shall comply with NAVIC constellation and should not communicate to Beidou (Chinese Satellite)
- (l) There should not be any Chinese origin active component. In this regard. The vendor shall submit an undertaking.

12. **Fuel System**. CGSUAS fuel system should have the following features:-

- (a) Should be able to use JET A1/ Aviation grade fuel and JP 5/ AVCAT with capability for Fuelling and Defueling.



- (b) Unusable fuel should not be more than 2 liters.
- (c) The fuel system should have facility of low level warning (audio/ visual) in operator console.
- (d) The quantity of fuel available should be indicated at the GCS.
- (e) The system should have the provision of fuel gauge in the Ground Station. The display in the GCS should be able to indicate the fuel consumed, remaining fuel and remaining endurance.
- (f) The fuel trolley/ fuelling cart, if required (to be provided with each set of CGSUAS) should have provision for safe fuelling and de-fuelling the RPA.

13. **Navigation.** The aircraft navigation system should have the following specifications:-

- (a) Ability to proceed on a specified navigation route through auto mode defined by waypoints (at least 20).
- (b) Automatic change of height / speed and heading as specified in the navigational route.
- (c) Ability to carry out operator generated search pattern and navigate the RPA.
- (d) Ability to navigate to a desired waypoint and loiter as per mission requirement.
- (e) Ability to return and hold at a designated waypoint in case of Datalink loss.

14. **Service Ceiling.** Operational ceiling of the RPA should be at least 8000 feet AMSL with Basic configuration of EO & IR, AIS and ADS-B (Max AUW of 200 kgs).

15. **Speed.** The RPA shall be able to cruise at an airspeed (TAS) of at least 45 Kts with Basic payloads.

16. **Range and Endurance.** The CGSUAS range and endurance should be able to meet the following missions:-

- (a) **Basic Configuration (EO&IR, AIS and ADS-B).** At least 06 hrs loiter time at 5000 ft.



(b) **Basic Configuration plus one special Payload (MPR).** At least 05 hrs loiter time at 5000 ft.

(c) **Datalink Range.** The LOS datalink range should be at least 100 km at service ceiling.

17. **Maintenance.**

(a) All external electrical supply and fueling connectors/ couplings to be of standard NATO type.

(b) CGSUAS systems should have a flight line tester for carrying out system checks after defect rectification and parts replacement.

(c) CGSUAS systems and equipment should incorporate both on line and off line modes for fault detection and localization including BITE (Built in Test Equipment) facilities. CGSUAS should have Built in Self-Test system for all avionics system.

(d) The CGSUAS should have the facility for BITE and Fault diagnosis for RPA and payloads in the GCS if the fault occurs in flight.

18. **Fail Safe Features.** Automatic Return to Home (When operating from land) / Return to Vessel (When operating from Ship) on Communication/ Data link failure.

19. **Provision for Recovery of CGSUAS at Sea.** Provision of floatation gears for safe recovery of CGSUAS from Sea.

20. **Lifebuoy / Life Jacket Dropping Mechanism.** Provision for fitment and dropping of atleast Four (04) inflatable Life Jacket (HDLJ) and atleast Two (02) inflatable Lifebuoy (Life Jacket or Lifebuoy at a time). Specifications of Life Jacket (weighing approx. 1.5 Kgs) and Lifebuoy (weighing 2.5 Kgs) as per SOLAS.

21. **Simulator Mode.** CGSUAS must have a simulator mode to simulate mission profile sorties for operator training. This mode should be able to provide features for maintaining currency of the crew and practicing emergencies. The simulator mode is to incorporate animated videos and film clips for training of ab-initio operator in various scenarios and emergencies. Following facilities are to be available:-

(a) Operation of GCS Instrument Bays.

(b) Flight Management and Control.



- (c) Emergencies/ Malfunctions.
- (d) Aircraft sub-system indications/ operations.
- (e) Payload handling Operations.
- (f) Navigation Tracking System and Simulation.



LIST OF DELIVERABLES AND SERVICES

The details of equipment alongwith quantity required is as tabulated below:-

<u>Ser.</u>	<u>Equipment/ Proposal</u>	<u>Qty</u>	<u>Remarks/ Justification</u>
1.	Coast Guard Shipborne Aerial Systems (CGSUAS)	Four (04)	(a) Each System comprises of following:- (i) Two (02) RPAs with fitted avionics and Payloads (EO&IR, AIS, ADS-B). (ii) 01 MPR (iii) Two (02) Ground Control Stations (Main & Standby) for Ships. (iv) 01 Ship Data Terminal (v) 02 Remote Video Terminal (vi) 02 sets of Floatation Gear (vii) 01 set of Lifebuoy / Life Jacket Dropping Mechanism



<u>Ser.</u>	<u>Equipment/ Proposal</u>	<u>Qty</u>	<u>Remarks/ Justification</u>
2.	Sensor / Equipment per Ashore unit	Two (02)	(i) 01 MPR (ii) 01 Ground Data Terminal (GDT) (iii) 01 set of Lifebuoy / Life Jacket Dropping Mechanism (iv) 02 Ground Control Station (GCS) (Main & Standby)
3.	<u>Engineering Support Package (ESP)</u>		
(a)	Spares (MRLS including engine spares for sustenance O level)	--	For Operation & 'O' level Maintenance of CGSUAS from Four (04) Ships and Two (02) Ashore Units
(b)	'O' level SMT, STE, GSE/GHE, Jigs, Fixtures etc. for operations from Ships	--	For Operation & 'O' level Maintenance of CGSUAS from Four (04) Ships
(c)	'O' level SMT, STE, GSE, GHE, Jig, Fixture etc. for operations from Ashore Units	--	For Operation & 'O' level Maintenance of CGSUAS from Two (02) Ashore Units
(d)	Documentation, Publication and Training Literature	Four (04) Hard Copies and 04 Electronic Copies	To meet requirements of Four (04) Ships and Two (02) Ashore Units
(e)	Training Aggregates	Two (02) Sets	Computer based training package based on Interactive Multimedia
		Six (06)	Tough Books with Maintenance Manual for Training of Aircrew and Technical personnel
(f)	Training of Operator Crew and Maintainer Crew (Dual Training) and Instructor	(i) Training for 24 Operators (Officers) as PIC & Mission	(aa) The Training scope would comprise both Operator and Maintainer Training



<u>Ser.</u>	<u>Equipment/ Proposal</u>	<u>Qty</u>	<u>Remarks/ Justification</u>
	grading by OEM	<p>Commander, 12 Non-Tech Enrolled personnel as Payload Operator out of which 06 Operators and 03 Payload Operators are to be trained to Instructor level</p> <p>(ii) 36 Maintainers</p> <p>(iii) Four (04) AEO & Four (04) ALO</p> <p>(iv) Two (02) DGAQA reps and Three (03) ICGQA personnel training at OEM premises.</p>	<p>(ab) 06 Operators and 03 Payload Operators are to be trained to Instructor level</p> <p>(ac) The complete Technical Manpower (i.e. 49 personnel) are to be trained for 'O' level and of which 12 personnel are to be trained for Instructor Level. In addition, the 'O' level training should be imparted with On job Training by OEM. Post completion, the OEM should provide qualification to maintain and supervisor certification</p>
4.	Warranty	Two (02) Years	From date of acceptance post JRI or date of installation and commissioning or user acceptance whichever is later
5.	CMC	Two (02) Years	<p>CMC meet 90% availability for a period of Two (02) Years</p> <p>Further, sustenance of the CGSUAS beyond Two (02) years of initial CMC period is also envisaged through performance based maintenance CMC</p>



Appendix B

(Refers to Para 32, 36(b) & 37 of RFP)

**COMPLIANCE TABLE
FOR COAST GUARD SHIPBORNE UNMANNED AERIAL SYSTEMS (CGSUAS)**

Ser No	Requirement as per the RFP	Compliance/ Partial Compliance	Indicate references of Paras /Sub Paras of the Main Technical Document
1. General Conditions of RFP (Para 1 to 69)			
2. Technical Parameters as per Appendix A (please indicate compliance Para wise)			
3. Commercial Parameters as per RFP			
(a)	Performance-cum-Warranty Bank Guarantee as per Para 2 of Appendix G to RFP		
(b)	Advance Payment Bank Guarantee as per Para 1(d)(i) of Appendix G to RFP		
(c)	Earnest Money Deposit as per Para 8(d) of Annexure I to Appendix J of RFP (₹ 70 Lakhs)		



Appendix C

(Refers to Para 13 of RFP)

WARRANTY CLAUSE

1. The **SELLER** warrants that the goods/ services supplied under this contract conform to technical specifications prescribed and shall perform according to the said Technical Specifications.
2. The **SELLER** warrants for a period of **24 months** from date of installation and commissioning or user acceptance trials, whichever is later, 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).
3. If within the period of warranty, the goods/ stores are reported by the **BUYER** to have failed to perform as per the specifications, the **SELLER** shall either replace or rectify the same free of charge, maximum within **Fifteen (15)** days of notification of such defect by the **BUYER** provided that the goods are used and maintained by the **BUYER** as per instructions contained in the Operating Manual. Warranty of the equipment would be extended by such duration **of downtime**. Record of the down time would be maintained by user in log book. Spares **and all consumables** required for warranty repairs shall be provided free of cost by **SELLER**. The **SELLER** also warrants that all consumable including greases, special oils and lubricants required for the warranty repair of the equipment shall be provided by the **SELLER** himself. **All activities including diagnosis, rectification, calibration, transportation etc, required for making equipment serviceable and available would be the SELLER's responsibility.** The **SELLER** also undertakes to diagnose, test, adjust, calibrate and repair/replace the goods/equipment arising due to accidents by neglect or misuse by the operator or damage due to transportation of the goods during the warranty period, at the cost mutually agreed to between the **BUYER** and the **SELLER**. The **SELLER** shall intimate the assignable cause of the failures.
4. **SELLER** hereby warrants that necessary service and repair backup during the warranty period, including routine maintenance beyond Unit Level shall be provided by the **SELLER** and he will ensure that the **cumulative downtime period for the equipment does not exceed 10% (72 days during the warrant period of 24 months)** of the warranty period.
5. If a particular equipment/goods fails frequently and/or, the cumulative down time exceeds **10% (72 days during the warrant period of 24 months)** of the warranty period **or a common defect is noticed in more than 10% of the quantity of goods with respect to a particular item/ component/ sub-component, that**



complete **item/equipment** shall be replaced free of cost by the **SELLER** within a stipulated period of **15** days of receipt of the notification from the **BUYER** duly modified/upgraded through design improvement in all equipment supplied/yet to be supplied and Engineering Support Package (ESP) supplied/yet to be supplied.

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

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

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

9. During the warranty, the vendor will established helpdesk with Telephone/ E-mail/ Fax facilities and share the contract details of key personnel.



Appendix D

(Refers to Para 40 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 enumerated at **Annexure I to Appendix D**. Amendments/ additions/ deletions may be made to the formats given below to meet the project specific requirements and these may form part of the RFP and contract agreement.

Date:

(Signed)

Designation/ Name/ Address of firm



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

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."

Date:



(Signed)

Designation/ Name/ Address of firm



Appendix 'E'

(Refers to Para 42 of RFP)

PRODUCT SUPPORT/ REPAIR & MAINTENANCE PHILOSOPHY

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

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

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

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

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

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

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



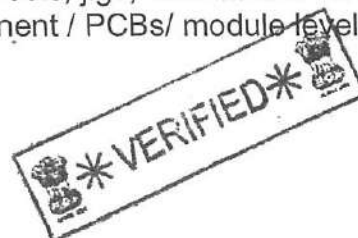
(ab) Additional Special Maintenance Tools and Test Equipment needed for each such Field/ Ship/ Station workshop.

(b) **'I' Level.** Includes 3rd level Intermediate Repairs by Corps Zone workshop/ Dockyard/ Base Repair Depot or other similar service organisation. 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/flotilla/station level repairs. These repairs are carried out in the designated workshops by technicians specially trained for this purpose requiring special tools and spares and the number of such facilities will be stated based on equipment deployment pattern. The manufacturer is required, among others, to provide the following:-

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

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

- (i) All Special Maintenance Tools, jigs, fixtures and test equipment for carrying out repairs up to component / PCBs/ module level.



- (ii) Oils and lubricants necessary for overhaul.
- (iii) All necessary technical literature.
- (iv) Calibration facilities for test equipment.

2. To sustain and support platform/ equipment through its Operational life-cycle, Product Support requirements for Two (02) years beyond the Warranty period will be procured along with the main equipment. The equipment are to be provided product support through combination of the following details which are elucidated in subsequent paragraphs:-

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

Engineering Support Package (ESP)

3. ESP is the basic Engineering Support the Seller needs to provide to the ICG 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) GSE/ GHE/ SMTs/ STEs test set-up
- (c) Technical Documentation
- (d) Training
- (e) Training Aggregates



4. **Spares.**

(a) **Manufacturers 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, you are requested to provide MRLS to sustain the Equipment for a period of Two (02) years for various 'O' levels of repair as per format given at **Annexure I** to this **Appendix 'E'**. You will be required to provide these both with Technical and Commercial proposals. Cost of



the MRLS, along with likely consumption rate of spares is to be provided with the Technical proposal. The MRLS will be supported by Reliability & Maintainability (R&M) report for the proposed spares along with their Mean Time Between Failure (MTBF). The periodicity of Reliability & Maintainability (R&M) report for MRLS / GSE/GHE should be furnished Biannually. MRLS would be provided separately for each such sub system. 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/ GSE/ GHE/ Test Jigs being supplied are complete and adequate for carrying out Repairs on the Equipment up to the specified level. Any Bidder found to be providing lesser ESP in terms of range and depth will have to make good the deficiency at no extra cost (Para 34 of RFP refers). 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 has 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 specified in the contract, 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. The 'Buy Back' clause would not be applicable for additional spares included by the Buyer in MRLS during FET and Staff Evaluation stage, as brought out at Para 34 of RFP.

5. **Special Maintenance Tools / Special Test Equipment, Ground Support Equipment, Ground Handling Equipment and Test Jigs (SMTs/STEs/GSE/ GHE/ Test Jigs).** SMTs, STE, GSE, GHE and Test Jigs are essential Tools/ Jigs/ Fixtures required to undertake effective Engineering Support / Repairs on the equipment and its systems, based on the Maintenance Philosophy. 'O' level SMT, STE, GSE, GHE, Jigs,



Fixtures etc. are to be provided for operations from Ships/ Ashore units. This would be formulated in a similar manner as explained for MRLS and details are to be included in both Technical and Commercial Proposals as per suggested format at **Annexure II** to this **Appendix 'E'**.

6. **Technical Documentation.** The Bidder will be required to provide the Technical Literature preferably in IETM (Interactive Electronic Training Manuals) in Level 4 format or higher. The details of Technical Literature to be supplied with the system should be listed as per the suggested format at **Annexure III** to this **Appendix 'E'**. This should be provided with both Technical and Commercial Proposals. The cost column may be left blank in the Technical Proposal. An illustrated list of documents which may be submitted by the Seller is as under:-

- (a) User Handbook/ Operators Manual in English.
- (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)/ Ground Support Equipment (GSE)/ Ground Handling Equipment (GHE).
 - (iii) **Part III.** Procedure for assembly/ disassembly, repair up to component level, safety precautions.
 - (iv) **Part IV.** Part list with drawing reference and List of SMTs/ STEs/ GSE/ GHE/ Test Bench.
 - (v) Rotable list, norms of consumption, mandatory/ non-mandatory spares list for each system.
- (c) Repair and Servicing schedule.
- (d) Technical Manual on STE with drawing references.
- (e) Packing specifications/ instructions.
- (f) 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

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

8. **Training.** A Training package for Operators, Operator Trainers and Maintenance personnel to undertake Operation and Maintenance of Equipment ('O' level) and QA personnel for QA of equipment as stipulated in respective Contract, alongwith Tools and Test Jigs Training would be required to be carried out in English language. Requirements such as Training Aids, Projection system, complete Equipment with accessories, Technical Literature, Spares, Test Equipment, Test Set up, Charts, Training Handouts, Power Point Presentations, Computer Based Training (CBT), Documentation, Simulators etc. will be provided by the Seller for the conduct of training. Training should be conducted before the induction of the equipment. The Seller will provide the Operator and Maintenance & Repair Training, for the duration, strength and locations specified in the RFP and Contract. The following may also be noted:-

(a) The requirement of Training and associated equipment must be clearly specified in Part I and details should be placed as per **Annexure IV** to this **Appendix 'E'**.

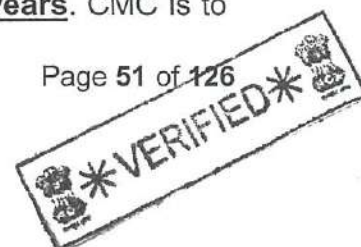
(b) The costs for aggregates and Training must only be indicated in the Commercial proposal.

(c) **Sufficiency clause** in terms of installation material and spares should also be included.

9. **Annual Maintenance Contracts (AMC).** Not applicable.

10. **Comprehensive Maintenance Contracts (CMC).**

CMC (inclusive of Spares and Consumables including Grease, Lubricants, Oil etc. except Fuel, for scheduled Maintenance, Repairs and Defects) for CGSUAS including RPAs, Sensors and associated Equipment is envisaged for **Two (02) years**. CMC is to



commence from the date of completion of Warranty of the first CGSUAS and is to be applicable till Two (02) years post completion of Warranty of the last CGSUAS. 90% serviceability and availability of 04 CGSUAS (including RPAs, Sensors and associated Equipment) should be ensured by the SELLER at each of the Two (02) Bases of Operation (viz. ICGAE Porbandar and ICGAE Visakhapatnam) during CMC period. In addition, the SELLER is to ensure that downtime of any CGSUAS should not exceed 37 days in a year period during CMC. Envisaged flight hours of one CGSUAS is as per utilization rate mentioned at Para 6(b) of **Appendix 'A'**. CMC will include all Corrective and Preventive Maintenance of the Systems, Equipment and Machinery in satisfactory working order and 'Planned Preventive Maintenance' (PPM), Repairs, Servicing, Calibration, Replacement of Defective parts, sub-assemblies, Equipment, Preservation /De-preservation as applicable. All Equipment supplied under the proposed Contract will be maintained on site by the Seller. CMC will ensure performance of the Equipment in the range and accuracies as set in Equipment Technical Manual and Appendix A. An Equipment Repair Log book will be maintained to keep a record of the equipment down time during Defect rectification. The scope of work would also involve the following:-

- (a) **Preventive Maintenance.** The Maintenance of the Equipment is to be carried out by the Bidder at the Buyer premises. The Equipment will be maintained as per the OEM specified Maintenance Schedules and Equipment Manuals. The number of visits by the Bidder to the customer premises should be at least once a quarter. The preventive maintenance team visiting the unit should be composite and possess sufficient expertise and spares to carry out preventive maintenance activities and resolve any pending unserviceability issues of the equipment. The maintenance aspects are as summarized in the table below:-

<u>Life Cycle Phase</u>	<u>'O' Level Maintenance</u>	<u>'I' and 'D Level Maintenance</u>	<u>Breakdown (Repairs/ Replacement/ Defects)</u>
Warranty {Two(02) years}	By ICG	By SELLER/ OEM	By SELLER/ OEM, free of cost
CMC {Two (02) years}	By SELLER/ OEM (by ICG on Ship only)	By SELLER/ OEM	By SELLER/ OEM
Balance Life post CAMC	Based on the quality of services provided by SELLER/ OEM during the period of CMC, further CMC/ Life Cycle Support Contract (LCSC) (if required), would be contracted for balance life of the Equipment		



(b) **Breakdown Maintenance.**

(i) In addition to Preventive maintenance, the Bidder will also be responsible to undertake Breakdown Maintenance of the equipment. Defects on the equipment as and when observed, will be intimated to the Bidder by Telephone/ Fax/ E-mail. The Bidder will depute a team for undertaking repairs of the equipment within two working days from the reporting of the defect, in order to make the equipment operational. The Bidder will provide a serviceable item within 72 hours from date of reporting of defect at Porbandar and Visakhapatnam. In case of Ships, the time would be calculated from the time the item is handed over to the Bidder. It would be the responsibility of the Bidder to collect the defective item and deliver the serviceable item at the ships next port of call in India other than Porbandar and Visakhapatnam within seven days of reporting the defect.

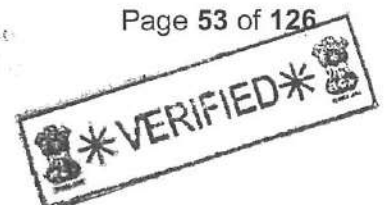
(ii) The Bidder will need to diagnose, test, adjust, calibrate and Repair/ Replace the goods/ equipment during the CMC period. However, defective Hard Disks, Strong Devices, if any, of the Equipment, will not be returned to the Bidder and would be retained for destruction/ safe custody. The downtime of the Equipment will commence from the time a Defect is reported by the user and the log of the same would be maintained.

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

(d) **Spares Management.**

(i) The Bidder will maintain requisite Spares including consumables onboard Ships/ Ashore Units at any given time, for One (01) year of Operations of the CGSUAS. Based on the experience gained during exploitation of the CGSUAS, the Bidder will range and scale the Spares required to be stocked up onboard Ships/ Ashore Units for 'O' level Maintenance and also at ICG bases for 'O' & 'I' level maintenance / repairs. In addition, the Bidder will maintain an inventory for assessing the consumption pattern and trending of defects.

(ii) The Bidder will stock the Special Test Equipment (STE),



Special Maintenance Tools (SMT), Ground Support Equipment (GSE), Ground Handling Equipment (GHE), Jigs and Fixtures that would be utilized towards Defect Investigation/ Rectification.

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

(e) **Software** The Bidder will provide support for maintenance of the software(s) during the period of CMC and would include the following:-

- (i) Upgrades, patches, fixes to the OS and the Application software.
- (ii) Back-up and restoration of software, as and when required.
- (iii) No malware certificate.
- (iv) Version of the software and IV & V (Independent verification and validation) certificate as per the applicable CMM Level, depending on the criticality of the equipment.
- (v) Method of checking the health of the software and debugging methods.
- (vi) Upgradation of software and operating system of EO/IR and Maritime Patrol Radar (MPR).



(f) **Obsolescence Management.** The Obsolescence Management for the Equipment delivered under the scope of Contract would form part of CMC Services. The Obsolescence Management will include providing "Form, Fit and Function" replacement of any system/ Sub system rendered obsolete during the period of CMC on Free of Cost (FOC) basis.

(g) **Obsolescence Management Post CMC.** Post completion of CMC, the Obsolescence Mitigation Plan will be provided by the Bidder that is specific, economical and implementable within minimum time frame. Beyond agreed upon initial life, notice to Obsolescence and submission of Definite Mitigation Plan will be Bidder's contractual liability.



(h) **Loss/ Damage during CMC.** Any loss or damage during CMC to the RPA, associated equipment **not** attributable to the Buyer will be made good by the Bidder within mutually agreed timelines.

(j) **Attributability.** The attributability of loss/ damage will be assessed by a joint team of Bidder and Buyer in accordance with the Operational/ Environmental/ Technical conditions as specified in the relevant CGSUAS Publications provided to the Buyer as part of the documentation included in **Annexure III** of this **Appendix E**.

(k) **Husbandry and corrosion protection.** As ICG intends to operate CGSUAS from Afloat platforms along with ashore bases in marine environments, the manufacturer is required to have corrosion control measures clearly specified in the technical literature supplied for implementation by the ICG at each of the bases.

(l) **Defect Feedback Report.** The Bidder to provide defect analysis report in all cases of defect investigation and defect rectification carried out on the CGSUAS including support equipment.

(m) The qualified and certified personnel are required to be positioned at each base during the period of CMC and warranty.

Online Inventory Management System (OIMS).

11. To leverage information technology and ensure expeditious order placement as well as timely product support, SHQ may ask the Bidder to provide an Online Inventory Management System (OIMS), as per mutually agreed format, to place Purchase/ Repair Orders (as applicable) online. The OIMS shall also provide feature to track the delivery status of the items. Further the OIMS should provide dashboard for intimation on obsolescence and offer of lifetime buy along with provision for user to interact with the OEM for Technical assistance etc. The detailed Scope and Features of OIMS shall be finalised during the negotiations on LCSC, if required. The OIMS may be decided on case to case basis.

Active Technology Obsolescence Management.

12. OEM will indicate his methodology to undertake Active Obsolescence Management through life cycle of equipment which would include upgradation of Systems/ Subsystems/ Units on completion of its fair service life. The Bidder/OEM (as



applicable) shall also intimate the 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 (as applicable) will notify the Buyer not less than Three (03) 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 (03) years prior to completion of design/ service life of Equipment, the Bidder/ OEM (as applicable) will submit Techno-commercial proposal for upgradation of Equipment, wherever applicable, to mitigate Technology Obsolescence and for ensuring Product Support for next 15 years.



Annexure I to Appendix E

{Refers to 42 & 43 of RFP
and Para 4(a) of Appendix E}

MANUFACTURERS RECOMMENDED LIST OF SPARES (MRLS)

EQUIPMENT: _____

Original Equipment Manufacturer (OEM): _____

Ser No	Manufacturer's Part No	Source of Supply	Nomenclature	Nos fitted in one equipment	Illustrated Spare Part List (ISPL) Reference	Unit Cost	Recommended scale for _____ qty Eqpt for two years				Total Cost				Remarks
							Unit Repair	Field Repair	Intermediate Repair	Base Repair	Unit Repair	Field Repair	Intermediate Repair	Base Repair	
Total Cost															

Note:

- Maintenance Spares/ Stores like Lubricants, Sealing Compound, Gases should be given separately giving source of supply.
- Spares for Component Repairs should be included under the column of nodal repair & Base Repair as suggested by OEM.
- In 'Remarks' column following information (if applicable) be given:
 - If an item has a shelf/operational life it be marked as 'G' and life indicated.
 - Matching set of components be indicated.



- (c) Item which can be locally manufactured should be marked 'LM'.
- (d) Item 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 other similar equipment offered by the OEM earlier these should be marked 'CM' and name of the equipment be indicated.
4. MRLS should be drawn out of the 'Part List' of the equipment, which should be separately given as part of technical Manual Part IV.
5. If the main equipment consists of other equipment then MRLS should be prepared for them under proper heads.
6. MRLS be prepared as per the maintenance concept of the customer **Appendix E** to this RFP.
7. Items provided along with the equipment as spares should also be included in MRLS.
8. 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 their module/SRU/assembly.
9. Complete MRLS should be costed separately for Field Nodal and Base 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), but other details as above be provided during Maintainability Equipment Trial (MET).
10. MRLS for test equipment should also be provided on the similar format.



Annexure II to Appendix E
(Refers to Para 42 of RFP and
Para 5 of Appendix E)

LIST OF SPECIAL MAINTENANCE TOOLS (SMT) / SPECIAL TEST EQUIPMENT (STEs), GROUND SUPPORT EQUIPMENT (GSE), GROUND HANDLING EQUIPMENT (GHE), JIGS, FIXTURE AND INFRASTRUCTURE FOR SHIP AND ASHORE UNIT

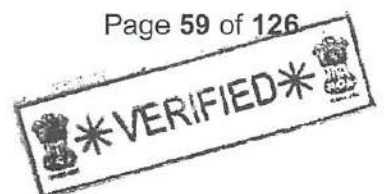
EQUIPMENT: _____

Original Equipment Manufacturer (OEM): _____

Ser No	Manufacturer's Part No	Designation	Unit Cost	Nos Required	Brief Purpose	Remarks
				O Level Repair		
<u>For Ships</u>						
<u>For Ashore Units</u>						

Note:

- (i) Prepare separate sheet for each type of equipment.
- (ii) Specify in remarks column whether the Special Test Equipment (STE)/ Special Maintenance Tools (SMTs), Ground Support Equipment (GSE), Ground Handling Equipment (GHE) can be used as general purpose Equipment on any other kind of Equipment.



(iii) If test equipment is commercially available ex India, the source of supply be specified.

(iv) Test equipment for calibrating the STEs should be included in the list above.

(v) Test equipment which are required to be provided by the customer should also be included in the list above.



Annexure III to Appendix E
(Refers to Para 42 of RFP and
Para 6 & 10 (j) of Appendix E)

TECHNICAL LITERATURE

1. **Documentation & Publications.** The **SELLER** will supply complete documentation sets in English in conformity with latest NATO/ Mil Standards/ ATA/ AECMA 1000D/ Equivalent Standard. The electronic copy (in DVD/ CD) is to be as per IETM Level 4. This is to be generated and supplied for operation, repair, maintenance and inspection. In case, the Original Documents are in any language other than English, one complete set of such documents in original language will also be required. The documentation will essentially comprise the following:-

Equipment: _____

Original Equipment Manufacturer (OEM): _____

<u>Ser No.</u>	<u>Technical Literature</u>	<u>Unit Cost</u>	<u>Scale For CGSUAS</u>	<u>Total Cost</u>	<u>Remarks</u>
1.	User Handbook/ Operators Manual		Four (04) Hard Copies and 01 Electronic Copies		
2.	Design Specifications		Four (04) Sets		
3.	Technical Manual. (a) <u>Part I.</u> Tech description, specifications, functioning of various Systems. (b) <u>Part II.</u> Inspection/Maintenance tasks, Repair procedures, materials used, fault diagnosis and use of Special Maintenance Tools (SMTs)/Special Test Equipment (STEs)/GSEs/GHEs (c) <u>Part III.</u> Procedure assembly/ disassembly, repair up to component level, safety precautions.		Four (04) Hard Copies and 01 Electronic Copy		



	(d) <u>Part IV.</u> (i) Part list with illustrations (ii) List of SMTs/STEs with Test Bench				
4.	Manufacturer Recommended List of Spares (MRLS)		04 Hard Copies and 01 Electronic Copy		
5.	Illustrated Spare Part list (ISPL)		04 Hard Copies and 01 Electronic Copy		
6.	Technical Manual on STE with illustrations		04 Hard Copies and 01 Electronic Copy		
7.	CDs on the above Tech literature				
8.	Any other (specify)				

Total Cost:

Note:

- (i) In case any additional equipment is used their technical 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 and Operator Manual of all training modules will be supplied at least three month prior to acceptance/ commissioning of the CGSUAS, whichever is earlier.
- (iv) The manufacturer will give an assurance for supply of documentation pertaining to modification, upgradation, soft bulletins etc. throughout the life span of CGSUAS. Updates to any Operator/ Technical Manuals, necessitated due to Flight Safety or Maintenance Safety related issues will be provided free of cost by the manufacturer.
- (v) The manufacturer will provide the installation DVD/ CD (10 copies), if any, of the Application Software to enable reading of supplied documents from any workstation.



Annexure IV to Appendix E

(Refers to Para 42 of RFP and
Para 8(a) of Appendix 'E')

TRAINING AGGREGATES

EQUIPMENT: _____

OEM: _____

Ser.N o.	Description of Training Aggregate	Scale for (qty) CGSUAS	Unit Cost	Total Cost	Remarks
1	Sectionised Equipment	--			
2	Shop Replaceable Units (SRU)/ PCB/ Modules/ Assemblies as under: (a) (b) (c)	--			
3	Computer based training package based on interactive multimedia to include:- (a) Full graphics, animation, text and sound. (b) Symptoms-fault correlation (expert system).	Four (04) Set			
4	Training Aids to include (a) Charts (b) Slides (c) Training Brochures (d) Training Work models (e) Blow up diagram (f) Video films	One Set			
5	Cost of training operators and technicians in country of OEM				
6	Tough Books with Maintenance Manual for training of aircrew and technical personnel	06			
7	Any other				
	Total Cost				

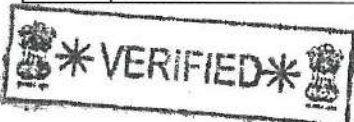


(Refers to Para 47, 48 & 69(a) of RFP)

1. Field Evaluation Trials (FET) for Equipment of all TEC compliant Vendors will be conducted by ICG on the basis of below mentioned Trial Methodology.

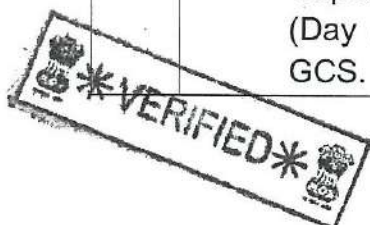
Trial Methodology.



<u>Ser</u>	<u>Requirements</u>	<u>Means of Compliance</u>
(a)	CGSUAS should be capable of conducting mission including take-off and landing from ICG Ships and Ashore Units by Day as well as by Night. It should be able to carry out all the roles as specified at Para 3 of Appendix 'A' of RFP.	Physical Demonstration
(b)	<p><u>Basic Composition of CGSUAS</u></p> <p>The CGSUAS system with basic payload of EO&IR, ADS-B and AIS would comprise the following components:-</p> <p>(i) <u>Two Remotely Piloted Aircraft (RPA)</u>. Each system is to comprise of Two (02) RPA, which shall be modular in design and made of composite material. The RPA shall be capable of being dismantled/ folded and assembled for portability and stowage onboard Ship in a container of size not exceeding 3x2x2 meters. The RPA must be easily repairable and designed to be assembled onboard the ship. The RPA with all payloads should be designed for Vertical Take-off and Landing (VTOL).</p> <p>(ii) <u>Two Ground Control Stations (Main and Standby)</u>. The CGSUAS shall have Two (02) Main and Standby Ground Control Stations (GCS) that can be powered with Ship's supply. In case of any failure to the main GCS, Standby GCS shall be capable of taking over command and control of RPA on Ship's Helo Deck or on ground and in-flight. The GCS must be portable to provide flexibility in positioning the system. The configuration of Main and</p>	<p>Harbour Test</p> <p>Harbour Test-Maintenance Inspection, VTOL to be physically demonstrated</p> <p>Harbour Test-Trials and On-Site Evaluation Procedure (OST)</p>



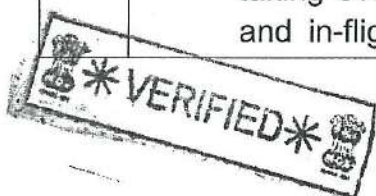
	<p>Standby GCS are to be identical. The GCS must be capable of the following:-</p> <p>(aa) Display essential flight parameters for safe conduct of flight and mission accomplishment.</p> <p>(ab) Receive and Display payload data (viz. EO&IR, AIS, ADS-B and MPR) through datalink.</p> <p>(ac) Integrate and Display inputs received from Electro Optic and Infra-Red (EO&IR), Automatic Dependent Surveillance Broadcast (ADS-B), Automatic Identification System (AIS) and Maritime Patrol Radar (MPR).</p> <p>(ad) Communicate (two-way) with other units on V/UHF R/T using the Communication Relay Module (on the RPA) within the Line of Sight of RPA.</p> <p>(ae) Facility to record and playback sensor and flight data of at least Ten (10) complete sorties / 500 GB with and without specialist payloads.</p> <p>(af) The Standby GCS should be fully backed up with Main GCS.</p>	
(c)	Ship Data Terminal (s). Ship Data Terminal(s) is to be fixed on the upper deck so as to provide unhindered 360° coverage for Command, Control and Communication with RPA.	Harbour Test-OST
(d)	Engineering Support Package (ESP). ESP comprising Ground Support Equipment (GSE), Ground Handling Equipment (GHE), Onboard Spares (OBS) and Tools for operation of the RPA onboard and Ashore must be stored in container(s) for ease of stowage and Transportation for duration as per Utilization Rate mentioned in Para 6 (b) of Appendix 'A' . The size of container(s) should not exceed 3 x 2 x 2 meters (length x breadth x height).	Harbour Test-Maintenance Inspection. Documentation in respect of Utilization Rate
(e)	Specialised Role Equipment. Special payload of Maritime Patrol Radar (MPR).	OST
(f)	Two (02) Remote Video Terminals (RVT). Two (02) Man-portable RVTs which can be carried on a Boat when required and capable of being operated independently. The RVT must receive EO and IR Payload data from the RPA.	Harbour Test-Maintenance Inspection & OST

	<p>have portable Power Source and have at least Three (03) hours of continuous Operation with provision of connecting Spare Batteries for additional duration. The specifications of RVT are as follows:-</p> <p>(i) Maximum Weight (including Radio, Antenna, Battery and Tablet Computer) - 12 Kgs</p> <p>(ii) Minimum Range with Omni-Antenna - 10 Km</p> <p>(iii) Maximum dimensions of RVT (Cms) - 30 x 27</p> <p>(iv) Operation time of RVT with spare battery - 03 Hrs</p>	
(g)	<p><u>Fatigue / Service Life.</u></p> <p>(i) CGSUAS should have a service life of at least Ten (10) years.</p> <p>(ii) Utilisation Rate of 50 hrs per Month and 600 hrs per Year.</p>	Documentation
(j)	<p><u>Role-wise Configuration.</u></p> <p>CGSUAS should fulfill minimum requirement for undertaking the following payloads:</p> <p>(i) <u>Basic Payload.</u> Each RPA is to be provided with EO&IR, AIS and ADS-B payload. The specifications of EO&IR, AIS and ADS-B are as appended below:-</p> <p>(aa) <u>EO&IR Payload.</u></p> <p>(aaa) EO/IR sensor shall provide a Field of Regard (FOR) of 360° in azimuth direction and at least +10 to -80 degrees in elevation direction.</p> <p>(bbb) The EO should provide continuous Wide Field of View (WFOV) of at least 30 degrees.</p> <p>(ccc) The EO&IR payload should operate between temperature ranges of at least -20° to +55° C.</p> <p>(ddd) The EO&IR must have an overall pointing accuracy of at least 15 milli Rad. Still Imagery, digital video and IR imagery capability is to be available. Capability of video recording and capturing still image (Day and Thermal Camera) should be available at GCS.</p>	<p>EO&IR, AIS and ADS-B payloads datasheet and technical and manuals.</p> <p>In addition, OST</p>



	<p>(eee) Resolution of still image captured should be at least 640 x 480 pixels for IR image and 1280 x 720 pixels for image captured by Day camera. Digital Video output is to be available at minimum HD 720 pixels for Day channel at the GCS.</p> <p>(fff) The video output available in the display should be 4k.</p> <p>(ggg) The detection range at Ambient Temperature 25°C and RH 80%, should be at least 20 Km by Day Camera and 15 Km by Thermal Imager (IR).</p> <p>(hhh) The camera is to have both Optical and Digital Zoom facility. Minimum EO Optical Zoom of 30x and Digital Zoom of 2x should be available. Minimum Thermal Imager (IR) Optical Zoom of 15x and 2x Digital should be available.</p> <p>(jjj) The Gyro stabilisation of EO/IR should provide 360 deg continuous freedom of movement.</p> <p>(kkk) The EO&IR system must incorporate features of LOS slaving, Geo-pointing and video tracking.</p> <p>(ab) <u>AIS Payload.</u> The AIS payload should be able to function in receive only mode. The AIS data should be available in the GCS and should receive both Class A and Class B AIS data. The AIS data should be integrated with MPR data.</p> <p>(ac) <u>ADS-B.</u> ADS-B In with capability to upgrade to and integrate ADS-B Out data in future.</p>	
	<p>(ii) <u>Special Payloads.</u> The following special payloads must be carried in addition when required:-</p> <p>(aa) <u>Maritime Patrol Radar.</u> The Maritime Patrol Radar must adhere to following specifications:-</p> <p>(aaa) Capable of operations in rain up to 4mm/hr.</p> <p>(bbb) Feature of sector transmission should be available.</p>	<p>MPR Datasheets and Technical Manuals</p> <p>In addition, OST</p> 

	<p>(ccc) It should be capable of automatic and continuous detection and tracking of targets.</p> <p>(ddd) Minimum azimuth coverage of 240° with platform.</p> <p>(eee) The minimum Radar Range (while operating at 5000 ft) as per target RCS should be as mentioned below (Detection and Tracking) at Sea State 1:-</p> <p>(aaaa) Small Targets ($RCS \leq 10$ sqm) : 12 (+/-1) km.</p> <p>(bbbb) Medium Targets (RCS 10 – 100 sqm) : 25 (+/-2.5) km.</p> <p>(cccc) Large Targets (RCS 100 – 1,000 sqm) : 40 (+/-5) km.</p> <p>(fff) The MPR should have the provision of providing target parameters to EO/IR to slew / slave the EO/IR camera to the target.</p> <p>(ggg) The MPR should be able to track at least 100 tracks simultaneously.</p>	
(k)	<p><u>Ashore unit.</u> Following to be provided for operations from Ashore units :-</p> <p>(i) <u>Ground Data Terminal.</u> One Ground Data Terminal (GDT) is to be fixed on Ashore unit so as to provide unhindered 360° coverage for Command, Control and Communication with RPA.</p> <p>(ii) <u>Ground Control Stations (Main and Standby)</u> The CGSUAS shall have Two (02) Main and Standby Ground Control Stations (GCS). In case of any failure to the main GCS, Standby GCS shall be capable of taking over command and control of RPA on ground and in-flight. The GCS must be portable to provide</p>	<p>Harbour Test and On Site Evaluation Procedure (OST)</p> <p>Harbour Test—Trials and On Site Evaluation Procedure (OST)</p>



flexibility in positioning the system. The configuration of Main and Standby GCS are to be identical. The GCS must be capable of the following:-

(aa) Display essential flight parameters for safe conduct of flight and mission accomplishment.

(ab) Receive and Display payload data (viz. EO & IR, AIS, ADS-B and MPR) through datalink.

(ac) Integrate and Display inputs received from Electro Optic and Infra-Red (EO & IR), Automatic Dependent Surveillance Broadcast (ADS-B), Automatic Identification System (AIS) and Maritime Patrol Radar (MPR).

(ad) Communication (two-way) with other units on V/UHF R/T using the Communication Relay Module (on the RPA) within the Line of Sight of RPA.

(ae) Facility to record and playback sensor and flight data of at least Ten (10) complete sorties / 500 GB with and without specialist payloads.

(af) The Standby GCS should be fully backed up with Main GCS



(l)

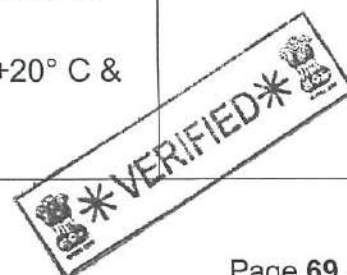
Stipulated Condition for Use

(i) **Indian Reference Atmosphere.** Unless stated otherwise, all performance requirements should be met under the Indian Reference Atmosphere which is defined as follows:-

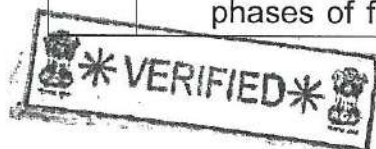
(aa) Sea level Mean Temperature (° C) : ISA + 20° C

(ab) Reference Temperature for Takeoff : ISA +20° C & landing (°C)

Technical
Manuals



	<p>(ac) Reference Temp for performance less (ii) above: ISA +15° C</p> <p>(ad) Lapse Rate : 6.5° C/Km</p> <p>(ae) Mean Sea Level Pressure : 1005 Hpa</p>	
(m)	<p><u>Shore Operations.</u> The CGSUAS should also be capable of carrying out operations from the beach and unprepared surfaces by day and night. The maximum area required for launch/ recovery of equipment should not exceed 10m x 10m.</p>	Physical Demonstration
(n)	<p><u>Certification.</u> The CGSUAS should have Airworthiness Certification/ flight clearance from an Authorised Certification Agency. The following specifications are to be complied with under the conditions as follows:-</p> <p>(i) <u>Mechanical Shock.</u> Environment: 75 g 11 ms saw tooth shock, 3± shock/ axis, 3 axis, 18 total.</p> <p>(ii) <u>Humidity.</u> Environment: 240 hours, 95% RH.</p> <p>(iii) <u>Random Mechanism Vibration.</u> Environment: Vibration Step from 21-41 g.</p> <p>(iv) <u>Temperature Humidity Bias.</u> Environment: 85 deg C, 85 % RH, high line input voltage.</p> <p>(v) <u>Salt Fog.</u> Environment: Salt Fog Harsh Environment.</p>	Documentation
(p)	<p><u>EMI/ EMC.</u> EMI-EMC standards of CGSUAS and its payloads should conform to MIL STD 464/461 latest or equivalent standards.</p>	Documentation
(q)	<p><u>Afloat Operations.</u> The CGSUAS should be able to Vertically Take off and Land (VTOL) from helo deck of a moving ship by day and night. The take-off and landing onboard a moving ship should be automatic, i.e. Automatic Take-off and Landing (ATOL) under all limitations of sea state specified by roll and pitch as mentioned in sub-para (iv). The CGSUAS should have following additional Operational features:-</p> <p>(i) The pilot should be able to monitor and control all phases of flight including launch and recovery from the</p>	OST and Documentation



	<p>Ground Control station.</p> <p>(ii) The GCS should enable the pilot to switch between ATOL and manual flight mode in emergency.</p> <p>(iii) The maximum area required for launch/ recovery of equipment should not exceed 10m x 10m. Removal/ fitment of major components must be feasible onboard the ship.</p> <p>(iv) CGSUAS should be capable of takeoff and landing from a moving ship, up to at least 20 Kts in the following deck motion conditions:-</p> <p>(aa) Pitch. At least up to +/- 2 deg.</p> <p>(ab) Roll. At least up to 5 deg either side.</p> <p>(v) All airframe/ avionic components and associated parts should be corrosion resistant for operations in marine environment.</p> <p>(vi) Wind Envelope. CGSUAS must be capable of being launched and recovered in wind speeds up to 20 Knots. Suitable graph w.r.t. wind limitations is to be provided.</p>	
(r)	<p>Basic Design Features</p> <p>CGSUAS should have the following design and capability features:-</p>	
(i)	It should have a fully autonomous flight mode, with pre-programmed or operator initiated mission guidance.	OST
(ii)	The GCS of the CGSUAS should incorporate Digital Map formats and Orthophoto software.	Documentation
(iii)	The system should support handover of RPA control to a GCS onboard a different ship.	Documentation
(iv)	Ability to operate a minimum of Two (02) RPAs from the same Control Station simultaneously to enable hot swap must be available.	Documentation
(v)	The CGSUAS should have a primary datalink. The facility to configure user defined encryption for primary datalink should be available. The downlink data of payloads from CGSUAS should be capable of being encrypted. The minimum standards of encryption	Documentation



	should be AES 256.	
(vi)	Crew configuration including maintainers should be restricted to a maximum of five for complete operations (launch, recovery and payload handling) for duration of Eight (08) hours of airborne time with basic payload.	OST
(vii)	Monitoring system for engine parameter must be available in the GCS. Audio or visual warning should be available to operator for failure of critical systems.	OST
(viii)	The system should be easily dismantled in not greater than 30 minutes onboard a ship and stowed in a container (Container for stowage to be provided along with the RPA). The maximum assembly time of the complete system should not exceed 30 minutes. The duration for launch and recovery should not exceed 60 minutes and 30 minutes respectively by a fully trained crew of crew size not more than Five (05)(including operator and maintainer).	OST
(ix)	Turnaround time between two successive launches of the same RPA should not exceed 30 minutes. This does not include assembly time or dismantling time of the RPA, provided there is no role change.	OST
(s)	Fuel System. CGSUAS fuel system should have the following features:-	
(i)	Should be able to use JET A1/ Aviation grade fuel and JP 5/ AVCAT with capability for Fuelling and Defueling.	Documentation & Physical Demonstration
(ii)	Unusable fuel should not be more than 2 liters.	Documentation
(iii)	The fuel system should have facility of low level warning (audio/ visual) in operator console.	OST/ Documentation
(iv)	The quantity of fuel available should be indicated at the GCS.	OST
(v)	The system should have the provision of fuel gauge in the Ground Station. The display in the GCS should be able to indicate the fuel consumed, remaining fuel and remaining endurance.	OST
(vi)	The fuel trolley/ fuelling cart, if required (to be provided with each set of CGSUAS) should have provision for safe fuelling and de-fuelling the RPA.	Harbour Test
(t)	Navigation. The aircraft navigation system should have the following specifications:-	
(i)	Ability to proceed on a specified navigation route through auto mode defined by waypoints (at least 20).	OST
(ii)	Automatic change of height/ speed and heading as	OST



	specified in the navigational route.	
(iii)	Ability to carry out operator generated search pattern and navigate the RPA.	OST
(iv)	Ability to navigate to a desired waypoint and loiter as per mission requirement.	OST
(v)	Ability to return and hold at a designated waypoint in case of Datalink loss	OST
(u)	<u>Service Ceiling.</u> Operational ceiling of the RPA should be at least 8000 feet AMSL with Basic configuration of EO&IR, AIS and ADS-B.	OST
(v)	<u>Speed.</u> The RPA shall be able to cruise at an airspeed (TAS) of at least 45 Kts with Basic payloads.	OST
(w)	<u>Range and Endurance.</u> The CGSUAS range and endurance should be able to meet the following missions: (i) <u>Basic Configuration (EO&IR,AIS and ADS-B).</u> At least 06 hrs loiter time at 5000 ft. (ii) <u>Basic Configuration plus one special Payload (MPR).</u> At least 05 hrs loiter time at 5000 ft. (iii) <u>Datalink Range.</u> The LOS datalink range should be at least 100 km at service ceiling	OST
(x)	<u>Maintenance</u> (i) All external electrical supply and fueling connectors/ couplings to be of standard NATO type. (ii) CGSUAS systems should have a flight line tester for carrying out system checks after defect rectification and parts replacement. (iii) CGSUAS systems and equipment should incorporate both on line and off line modes for fault detection and localization including BITE (Built in Test Equipment) facilities. CGSUAS should have Built in Self-Test system for all avionics system. (iv) The CGSUAS should have the facility for BITE and Fault diagnosis for RPA and payloads in the GCS if the fault occurs in flight.	Harbour Test
(y)	<u>Fail Safe Features.</u> Automatic Return to Home (When operating from land) / Return to Vessel (When operating from Ship) on Communication/ Data link failure.	OST & Documentation
(z)	<u>Provision for Recovery of CGSUAS at Sea.</u> Provision of floatation gears for safe recovery of CGSUAS from Sea.	Documentation



(aa)	<u>Lifebuoy / Life Jacket Dropping Mechanism.</u> Provision for fitment and dropping of atleast Four (04) inflatable Life Jacket (HDLJ) and atleast Two (02) inflatable Lifebuoy (Life Jacket or Lifebuoy at a time). Specifications of Life Jacket (weighing approx. 1.5 Kgs) and Lifebuoy (weighing 2.5 Kgs) as per SOLAS.	Physical Demonstration
(bb)	<u>Simulator Mode.</u> CGSUAS must have a simulator mode to simulate mission profile sorties for operator training. This mode should be able to provide features for maintaining currency of the crew and practicing emergencies. The simulator mode is to incorporate animated videos and film clips for training of ab-initio operator in various scenarios and emergencies. Following facilities are to be available:-	Harbour Test
(i)	Operation of GCS Instrument Bays.	Harbour Test
(ii)	Flight Management and Control.	Harbour Test
(iii)	Emergencies/ Malfunctions.	Harbour Test
(iv)	Aircraft sub-system indications/ operations.	Harbour Test
(v)	Payload handling Operations.	Harbour Test
(vi)	Navigation Tracking System and Simulation.	Harbour Test



Appendix G

(Refers to Para 59 of RFP
and Para 3(a) & (b) of Appendix B)

COMMERCIAL CLAUSES

1. Payment Terms

(a) INCOTERMS for Delivery

(i) The delivery of CGSUAS will be based on DDP INCOTERMS-2020 with ultimate consignee as designated ICG Ashore Units at Porbandar and Visakhapatnam (Two CGSUAS each).

(ii) The delivery of MRLS, SMT's / STE's/ GSE/GHE, Training Aggregates & Technical Literature will be based on DDP INCOTERMS-2020 with ultimate consignee as "The Officer in-Charge, Coast Guard Air Store Depot, Dabolim Airport, Goa - 403 801".

(b) Currency of Payment

(a) Indian bidders should submit their bids in ₹ (Indian Rupees).

(c) Contract Price and Requirement of Bank Guarantees

(i) 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.

(ii) Base Contract Price. The Base Contract Price will be considered as Total Contract Price excluding Taxes and Duties applicable at the time of signing of Contract and excluding the Total Price of CMC..

(iii) 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), Base Contract price will be considered. For Performance cum Warranty Bank Guarantee (PWBG), Total Contract Price including Taxes and Duties is to be considered.

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

(v) All Bank Guarantee(s) requirements viz Advance Payment Bank Guarantee (APBG), Performance-cum-Warranty Bank Guarantee (PWBG)



are to be submitted as per following:-

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

(d) **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 VII to Appendix M.

(i) **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 II to Appendix G**. The Advance Payment Bank Guarantee (APBG) will deemed to be proportionately and automatically reduced until full extinction along with and prorata to value of each delivery, as evidenced by corresponding copy of document proving delivery and invoices of goods/services supplied/provided. The date of delivery would be reckoned from the date of release of advance payment by the ICG to the Seller (T₀), provided the Seller submits the documents mandated by the DAP for release of advance by ICG within 45 days of signing of contract. In the event of the Seller not submitting the said documents within 45 days of signing of contract, the period between the 45th day and actual submission of documents will be excluded from the actual date of advance payment to arrive at the delivery date. In case, no advance is to be paid, the date for reckoning date of delivery would be the date of signing of contract. This clause will not be applicable in cases wherein Advance payment is released after FOPM is successfully validated. In such cases, date of accord of Bulk Production Clearance will be date for reckoning date of delivery.

(ii) **On Delivery.** 60 % of the contract price of deliverables shall be paid on completion of JRI post delivery and issue of JRI Certificate/Certified Receipt Voucher (CRV) issued by the Buyer and submission of following documents:-

- (aa) Ink-signed copy of Seller's bill.
- (ab) Ink-signed copy of Commercial invoice.
- (ac) The relevant Transport Receipt.
- (ad) Inspection Acceptance Certificate of Buyer's QA agency demonstrating compliance with the technical specifications of the contract.



- (ae) Packing List.
- (af) Certificate of Origin.
- (ag) 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.
- (ah) Exemption certificate for taxes/duties, if applicable.
- (aj) Warranty certificate from the SELLER.

(e) **On Final Acceptance and Installation/Commissioning** The remaining 25 % of the Contract Price of deliverables shall be paid within thirty (30) days of submission of the Acceptance Certificate & Certified Receipt Voucher (CRV) issued by the Buyer and other relevant documents as mentioned above for final payment, but such payments will be subject to the deductions of such amounts as the Seller may be liable to pay under the agreed terms of the Contract. The concerned PCDA/CDA will release the payment through cheque/EFT.

(f) **Part-Dispatch/Part-Shipment.** Not applicable

(g) **CMC/ Payments.** Half Yearly payments will be made by PCDA/CDA on submission of User clearance certificate through issue of cheque/ECS.

- (h) **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.

(j) **Exchange Rate Variation.** Exchange Rate variation shall be applicable for Rupee contracts with Indian Vendors, based on RFPs issued under all categories of capital acquisitions mentioned at Para 8 to 12 of Chapter I of DAP. The indigenous & import components as also the various currencies (of the import components) for ERV purposes, must be determined in advance. The guidelines on protection of Exchange Rate Variation are given at **Annexure I to this Appendix G.**

2. **Performance-cum-Warranty Bank Guarantee Clause.** A Performance-cum-Warranty Bank Guarantee (PWBG) of 5% of value of the Total Contract Price, including Taxes and Duties would be furnished by the Bidder in the form of a Bank Guarantee to sequentially act as Performance Bank Guarantee till the delivery and as Warranty Bank Guarantee on delivery. The PWBG shall be submitted by the Bidder within one month of signing of Contract and shall be valid for a period, until three months beyond the warranty period, as specified in the RFP. If at any stage, the Performance Guarantee is invoked by the Buyer either in full or in part, the Bidder shall make good the shortfall in PWBG within 30 days by an additional Bank Guarantee for



equivalent amount. In the event of failure to submit the required Bank Guarantee against invoked Performance Guarantee, equivalent amount will be withheld from the next stage payment till the shortfall in the Bank Guarantee is made good by the Bidder. For Startups and MSMEs under iDEX and TDF, Performance cum warranty security shall be relaxed and kept at minimum as per the GFR i.e 3% at present or at the minimum rate as revised from time to time, in form of Insurance Surety Bond/Bank Guarantee as per the convenience of startups/MSMEs and this amendment shall be restricted to the procurement cases of cumulative value up to Rs 250Cr inclusive of repeat order. The same shall be submitted before release of payment of 2nd stage i.e. "Procurement of Raw Material and Essential input resources stage. The prescribed format of the Performance-cum-Warranty Bank Guarantee is placed at **Annexure III to Appendix G**.

3. **Performance Bank Guarantee for CMC.** The Bidder will be required to furnish a Performance Guarantee by the way of a Bank Guarantee of a sum equal to 5% of the Total Price of CMC for contracted duration prior to expiry/ return of the PWBG of the Main Contract. Performance Bank Guarantee should be valid for 03 months beyond the period of the CMC. For Startups/MSMEs under iDEX and TDF, the Surety Bond/ BG for CMC shall be limited to 3% of CMC contract value and the same will be reimbursed on a pro-rata basis with each periodically scheduled CMC payment. This amendment shall be restricted to the procurement cases of cumulative value up to Rs 250 Cr inclusive or repeat order. The format of the Performance Bank Guarantee is to be as per **Annexure VI to Appendix G**.

4. **Inspection.** Pre Dispatch Inspection (PDI) would be done by ICG and DGAQA. In addition Joint Receipt Inspection (JRI) may also be carried out. If it is PDI, the Bidder should intimate at least 45 days prior to the day when the equipment is to be offered for PDI to enable Buyer's QA personnel to be available for inspection. All the expenses towards PDI will be borne by the Bidder except transportation and accommodation of Buyer's PDI team, which will be deputed at Buyers expense. In case of rejection of Goods during PDI, re-PDI will be undertaken at the 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 Buyers PDI team will be initially done by the Buyer's 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 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.

5. **Liquidated Damages (LD).** In the event of the Bidder's failure to submit the Documents, supply the stores/ goods, perform services, conduct trials, installation of equipment, training and MET as per schedule specified in this Contract, the BUYER



may, at his discretion withhold cost of the specific lot/ batch or 1% of the Total Contract Price, whichever is higher, until the completion of the Contract. The BUYER may also deduct from the SELLER as agreed, Liquidated Damages to the sum of 1/100 of the delay percentage {Delay percentage = (Period of Delay in Delivery in Weeks) x 100 / (Delivery Period in weeks as per contract)} of the Base Contract Price of the delayed/ undelivered stores/ services mentioned above for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not higher than 10% of the Contract price of the value of delayed stores/ services (any extension given by the Buyer for delay attributable to Buyer or Force Majeure Clause to be factored in delivery period).

6. **Payment Deductions and Damages for Shortfalls in CMC Services.** In case the cumulative down time exceeds 18 working days (per CGSUAS) in the Half Year, payment will be deducted. The total downtime will be calculated at the end of the Half Year and payments will be deducted. The total payments to be deducted will be calculated as follows:-

(a) Payments would be deducted on pro-rate basis for the duration, by which cumulative downtime exceeds 37 working days annually, as follows:-

(i) Per year CMC = 'X₁'

(ii) Period by which cumulative downtime exceeds the specified cumulative downtime, in days = 'Y₁'

(iii) Payment Deduction = 'Z₁', Where Z₁ = [(X₁/ Number of days in the year) * Y₁]

(b) In addition, damages would be deducted to the sum of 0.1% of the per annum CMC cost per day, for the duration, by which cumulative downtime exceeds the maximum permissible cumulative downtime of 45 days per Half Year, subject to the maximum value of this damages not being higher than 5% of the annual CMC cost.

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

8. **Price variation Clause.** Not applicable.



Annexure I to Appendix G
(Refers to Para 1(j) of Appendix G)

GUIDELINES OF PROTECTION OF EXCHANGE RATE VARIATION IN CONTRACTS

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

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

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

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

(i) Year wise and major currency wise import break up is to be indicated.

(ii) Detailed time schedule for procurement of imported material/Services and their value at the FE rates adopted for the contract is to be furnished by vendor as per the format given below:-

Year	Total Cost of Imported Material/ Services (In rupees)	FE Content-out flow (equivalent in rupees ₹ in crore)			
		Dollar Denominated	Euro Denominated	Pounds Denominated	Other Currencies Denominated (as applicable)

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

(iv) For purposes of ensuring uniformity, the Base Exchange Rate on the ERV reckoning date will be adopted for each of the major foreign currencies. The Base Exchange Rate will be the BC Selling Rate of the Parliament Street Branch of State Bank of India, New



Delhi. The ERV reckoning date will be the last date of submission of commercial bids as per RFP. In cases where Option Clause is exercised, the date of reckoning of ERV will be the last date of submission of bids for the RFP of the Original Procurement Case.

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

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

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

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

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

- (a) A bill of ERV claim enclosing work sheet.
- (b) Banker's Certificate/ debit advice detailing Foreign Exchange paid and Exchange rate as on date of transaction.
- (c) Copies of import orders placed on the suppliers.
- (d) Invoice of supplier for the relevant import orders.



Annexure II to Appendix G

(Refers to Para 1d(i) of Appendix G)

BANK GUARANTEE FORMAT FOR ADVANCE

To

The Principal Director
Directorate of Air Acquisition Coast
Guard Headquarters National
Stadium Complex
New Delhi - 110001

1. "Whereas President of India represented by the _____ Ministry of _____ Government of India (hereinafter referred to as BUYER) have entered into a Contract No. _____ (No. of Contract), dated _____ (Date of Contract) with M/s _____ (Name of SELLER) (referred to as SELLER) and whereas according to the said Contract the BUYER has undertaken to make an advance payment of Rs/ 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 SELLER is in breach of the Contractual obligations stipulated in the said Contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our total liability under this guarantee shall be restricted to an amount not exceeding Rs/ 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 SELLER in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the SELLER shall have no claim against us for making such payment.

4. We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the BUYER under or by



virtue of the said Contract have been fully paid and its claims satisfied or discharged or till _____ office/ Department / Ministry of _____ certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said SELLER and accordingly discharges this guarantee.

5. We, further agree with the BUYER that the BUYER shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said SELLER from time to time or to postpone for any time or from time to time any of the powers exercisable by the BUYER against the said SELLER and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, Amendment issued vide MoD ID No. 4(50)/D(Acq)/08 dated 20.06.2016 or extension being granted to the said SELLER or for any forbearance, act or omission on the part of the BUYER or indulgence by the BUYER to the said SELLER or by any such matter or thing whatsoever which under law relating to sureties would, but for this provision, have effect of so relieving us.

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

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

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

9. Notwithstanding anything contained herein above:-

(a) Our liability under this Guarantee shall not exceed Rs/ 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 III to Appendix G
(Refers to Para 2 of Appendix G)

BANK GUARANTEE FORMAT FOR PERFORMANCE-CUM-WARRANTY

To

The Principal Director
Directorate of Air Acquisition Coast
Guard Headquarters National
Stadium Complex
New Delhi - 110001

Dear Sir,

1. Whereas President of India represented by the _____ Ministry of _____, Government of India (hereinafter referred to as BUYER) have entered in to a Contract No. _____ dated _____ (herein after referred to as the said Contract) with M/s. _____ (hereinafter referred to as the SELLER) for supply of goods as per Contract to the said BUYER and whereas the SELLER has undertaken to produce a Bank Guarantee amounting to Rs/ US \$/ Euro/ PS£/ Yen/ AUD/ SGD _____ which is 5% of the Total Contract Price (including Taxes and Duties) to cover 5% of Total Contract Price (including Taxes and Duties) each for Performance and Warranty in sequence, to secure its obligations towards Performance-cum-Warranty to the BUYERS.
2. We, the _____ Bank hereby expressly, irrevocably and unreservedly undertake the guarantee as principal obligors on behalf the SELLER that, in the event that the BUYER declares to us that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the BUYER by reason of breach/ failure to perform by the said SELLER of any of the terms and conditions in the Contract related to Performance and Warranty clauses, we will pay you, n demand and without demur, all and any sum upto {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 SELLER, indulgence to the SELLER by you, or by any alterations in the obligations of the SELLER or by any forbearance whether as to payment, time performance or otherwise.
4. We further agree that any such demand made by the BUYER on the Bank shall be conclusive, binding, absolute and unequivocal notwithstanding any difference or dispute

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or controversy that may exist or arise between you and the SELLER or any other person.

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

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

7. Subject to the terms of this Bank Guarantee, the issuing Bank hereby irrevocably authorizes the beneficiary to draw the amount of upto Rs/ US\$/ Euro/ PS£/ Yen/ AUD/ SGD _____ {5% of Total Contract Price (including Taxes and Duties)} for breach/ failure to perform by the SELLER of any of the terms and conditions of the Contract related to performance and warranty clause. Partial drawings and multiple drawings under this Bank Guarantee are allowed within the above stated cumulative amount subject to each such drawing not exceeding 5% of the Total Contract Price (including Taxes and Duties) (Rs _____ 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 hereinabove:

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

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

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

Dated the _____ day of _____ (month and year)

Place:

Signed and delivered by _____ (name of the Bank)

Through its authorised signatory
(Signature with seal)



Annexure IV to Appendix G

(Refers to Para 7 of Appendix G)

FORMAT FOR EXTENSION OF DELIVERY PERIOD/ PERFORMANCE NOTICE

Name of the Procuring Entity.....

Extension of Delivery Period/Performance Notice

To

M/s (name and address of firm)

Sub: Contract No..... dated.....for the supply of.....

Ref: Your letter no. dated:.....

Dear Sir,

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

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

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

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



(a) That no increases in price on account of any statutory increase in or fresh Imposition of Customs Duty, GST or on account of any other Taxes/ Duty, including Custom Duty, leviable in respect of the Stores specified in the said Contract which takes place after (insert the original delivery date) shall be admissible on such of the said Stores, as are delivered after the said date; and,

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

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

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

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

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

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

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

1. You have failed to deliver {the (fill in qty.) of Stores/ the entire quantity of Stores} within the Contract delivery period [as last extended up to] (fill in date). In spite of the fact that the time of delivery of the goods stipulated in the Contract is deemed to be of the essence of the Contract, it appears that (fill in the outstanding quantity) are still outstanding even though the date of delivery has expired. Although not bound to do so,



the time for delivery is extended from (fill in date) to (fill in date) and you are requested to note that in the event of your failure to deliver the goods within the delivery period as hereby extended, the Contract shall be cancelled for the outstanding goods at your risk and cost.



Annexure V to Appendix G
(Refers to Para 10 of RFP)

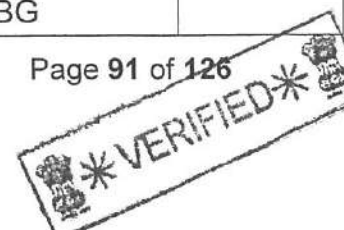
DELIVERY SCHEDULE AND STAGES OF PAYMENT

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

<u>Sl</u>	<u>Activity</u>	<u>Delivery Timelines</u> <u>(T₀+ Months)</u>	<u>Scheme for Payment</u>	<u>Scheme for submission and Return of Advance Payment Bank Guarantees</u>	<u>Remarks</u>
(a)	Release Advance Payment (T ₀)	--	15% of the Base Contract price excluding CMC cost	APBG of equivalent amount to be submitted	
(b)	<u>First CGSUAS</u>				
	Delivery of 1 st CGSUAS	T ₀ + 16 Months	60% of cost of Equipment/ system of the 1 st Lot/ Batch excluding CMC cost		
	Installation, Integration and Final acceptance of 1 st CGSUAS		25% of Balance payment of the 1 st Lot/ Batch excluding CMC cost	In addition to requisite documents bidder shall provide the PWBG	
(c)	<u>Second CGSUAS</u>				
	Delivery of 2 nd CGSUAS	T ₀ + 16	60% of cost of Equipment/ system of the 1 st Lot/ Batch excluding CMC cost		



<u>Sl</u>	<u>Activity</u>	<u>Delivery Timelines (T₀+ Months)</u>	<u>Scheme for Payment</u>	<u>Scheme for submission and Return of Advance Payment Bank Guarantees</u>	<u>Remarks</u>
		Months			
	Installation, Integration and Final acceptance of 2 nd CGSUAS		25 % of Balance payment of the 1 st Lot/ Batch excluding CMC cost	In addition to requisite documents bidder shall provide the PWBG	
(d)	<u>Third CGSUAS</u>				
	Delivery of 1 st CGSUAS		60 % of cost of Equipment/ system of the 2 nd Lot/ Batch excluding CMC cost		
	Installation, Integration and Final acceptance of 1 st CGSUAS	T₀+ 18 Months	25 % of Balance payment of the 2 nd Lot/ Batch excluding CMC cost	In addition to requisite documents bidder shall provide the PWBG	
(e)	<u>Fourth CGSUAS</u>				
	Delivery of 2 nd CGSUAS		60 % of cost of Equipment/ system of the 2 nd Lot/ Batch excluding CMC cost		
	Installation, Integration and Final acceptance of 2 nd CGSUAS	T₀+ 18 Months	25 % of Balance payment of the 2 nd Lot/ Batch excluding	In addition to requisite documents bidder shall provide the PWBG	



<u>Sl</u>	<u>Activity</u>	<u>Delivery Timelines (T₀+ Months)</u>	<u>Scheme for Payment</u>	<u>Scheme for submission and Return of Advance Payment Bank Guarantees</u>	<u>Remarks</u>
			CMC cost		
(f)	ESP	T ₀ + 16 Months	85 % of cost of ESP excluding CMC cost		
(g)	1 st CMC Payment	T ₀ + 46 Months	(20/100) x CMC Cost	PBG for CMC	
(h)	2 nd CMC Payment	T ₀ + 52 Months	(24/100) x CMC Cost		
(i)	3 rd CMC Payment	T ₀ + 58 Months	(24/100) x CMC Cost		
(j)	4 th CMC Payment	T ₀ + 64 Months	(24/100) x CMC Cost		
(k)	Final CMC Payment	T ₀ + 66 Months	(08/100) x CMC Cost		

2. **Deliveries in Lots/Batches – Definition of Lot/Batch.** In case delivery is in lots/batches and payment is being made as per the lots/batches, completion of common deliverables like documentation and Training can be linked to completion of a particular Lot/ Batches required, to be indicated by linking with relevant sl. of the lot/batch. If such linking of deliverables is not indicated in the above table, each delivery, including documentation and training shall be deemed as independent deliverable.



FORMAT FOR PERFORMANCE BANK GUARANTEE

To

The Principal Director
Directorate of Air Acquisition
Coast Guard Headquarters
National Stadium Complex
New Delhi - 110001

Dear Sir,

1. Whereas President of India represented by the _____ Ministry of _____, Government of India (hereinafter referred to as BUYER) have entered in to a Contract No. _____ dated _____ (herein after referred to as the said Contract) with M/s. _____ (hereinafter referred to as the SELLER) for Comprehensive Maintenance of 04 CGSUAS as per Contract to the said BUYER and whereas the SELLER has undertaken to produce a Bank Guarantee amounting to Rs/ US \$/ Euro/ PSE/ Yen/ AUD/ SGD _____ which is 3% of the CMC Price (including Taxes and Duties) to cover _____% of CMC Price (including Taxes and Duties) per CGSUAS each for Performance, to secure its obligations towards Performance to the BUYERS.
2. We, the _____ Bank hereby expressly, irrevocably and unreservedly undertake the guarantee as principal obligors on behalf the SELLER that, in the event that the BUYER declares to us that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the BUYER by reason of breach/ failure to perform by the said SELLER of any of the terms and conditions in the Contract related to Performance clauses, we will pay you, on demand and without demur, all and any sum upto { _____% (of CMC Price (including Taxes and Duties))} per CGSUAS _____ 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 SELLER, indulgence to the SELLER by you, or by any alterations in the obligations of the SELLER or by any forbearance whether as to payment, time performance or otherwise.
4. We further agree that any such demand made by the BUYER on the Bank shall be conclusive, binding, absolute and unequivocal notwithstanding any difference or dispute or controversy that may exist or arise between you and the SELLER or any



other person.

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

6. This Performance Guarantee shall remain valid for a period until three months beyond the warranty period as specified in the Contract i.e. upto _____.

7. Subject to the terms of this Bank Guarantee, the issuing Bank hereby irrevocably authorizes the beneficiary to draw the amount of upto Rs/ US\$/ Euro/ PSE/ Yen/ AUD/ SGD _____ {_____% of CMC Price (including Taxes and Duties)} for breach/ failure to perform by the SELLER of any of the terms and conditions of the Contract related to performance and warranty clause. Partial drawings and multiple drawings under this Bank Guarantee are allowed within the above stated cumulative amount subject to each such drawing not exceeding _____% of the CMC Price (including Taxes and Duties) (Rs _____ only) (Mention BG amount).

10. 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.

11. Notwithstanding anything contained hereinabove:

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

(b) This Bank Guarantee shall remain valid until 3 months from the date of expiry of CMC period, i.e. upto _____ (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)



Appendix H

(Refers to Para 59 & 69 (b) of RFP)

EVALUATION CRITERIA AND PRICE BID FORMAT

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

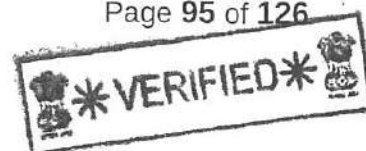
(i) Only those Bids will be evaluated, only if found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially. The bidder, whose price is arrived as lowest as per Evaluation criteria given in this Appendix, will be declared as L-1 bidder by ICG.

(ii) **In 'Buy (Indian-IDDMM)', 'Buy (Indian)' and 'Buy& Make Indian' Cases'.**

(aa) **Where DCF Technique as Given in Para 4 is Applicable.** DCF technique will be applied on quoted cost of all items including taxes and duties payable to Central/State/Local Governments to ascertain the NPV which would be used for determining L1 bidder, but with exclusion of BNE items sourced from common single source in accordance with Para 107 of Chapter II of DAP-20. The scope of BNE cost shall include the basic cost of the Main Equipment and OEM Training, Training Aggregates, Documentation, SMT/STE, Freight and OBS as applicable/as indicated in the RFP, which are exclusively sourced from the nominated vendor (OEM). No other cost including the cost of items sourced directly from third parties and the cost of activities jointly undertaken by the Bidder/Bidder's sub vendor and the nominated vendor (OEM) or any third parties are to be included in the BNE cost. BNE rate would also be separately negotiated. However, payment will be made after adding the actual cost of BNE, at the time of purchase from OFB/DPSU/Private vendor, to the L1 cost determined as mentioned above.

(iii) 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.

(iv) 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.

Rs. in Cr

Ser	Items	Total Qty	Unit Cost	Total Basic Cost (₹) {(iii) x (vi)}	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)	
	Equipment							
A.	CGSUAS and Associated equipment including: -	04						
	(i) 02 RPA with payloads (EOIR, AIS, ADS-B) per CGSUAS	08						
	(ii) 01 MPR per CGSUAS	04						
	(iii) 02 Gnd Ctrl Stns (i.e Main & Standby) for Ship per CGSUAS	08						
	(iv) 01 Ship Data Terminal per CGSUAS	04						
	(v) 02 Remote Video Terminal per CGSUAS	08						
	(vi) 02 sets of Floatation Gear per CGSUAS	08						
	(vii) 01 set of Lifebuoy / Life Jacket Dropping	04						



Ser	Items	Total Qty	Unit Cost	Total Basic Cost (₹) {(iii) x (vi)}	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)	
	Mechanism per CGSUAS							
A1.	Sensor / Equipment per Ashore unit as mentioned blow:-							
	(viii) 01 MPR	2						
	(ix) 01 Ground Data Terminal (GDT)	2						
	(x) 01 set of Lifebuoy / Life Jacket Dropping Mechanism -	2						
	(xi) 02 Ground Control Station (GCS) (Main & Standby)	2						
	ESP							
B.	Installation and Integration (on 04 Ships & 02 Ashore Units)	6						
C.	Spares (MRLS including engine spares for sustenance O level)	4						
D.	'O' level SMT, STE, GSE/GHE, Jigs, Fixtures etc. for operations from Ships	4						
E.	'O' level SMT, STE, GSE, GHE, Jig, Fixture etc. for operations from Ashore Units	2						
F.	Documentation, Publication & Training Literature	LS						
G.	Training Aggregates	LS						



Ser	Items	Total Qty	Unit Cost	Total Basic Cost (₹) {(iii) x (vi)}	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)	
H.	Training of Operator Crew and Maintainer Crew and Instructor grading by OEM	LS						
J.	Any other cost (to be specified)	--		--	--	--	--	
K.	Freight and Transit Insurance cost (where applicable)	--		--	--	--	--	
L.	CMC Cost for Two (02) years (includes flight hours maintenance cost for warranty period of 02 years also)	2						
M.	Total Cost (Total Sl. A to L)							
N.	CDEC (if applicable), its authority and amount for which required	--		--	--	--	--	

LS – Lumpsum

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

3. **Evaluation of L1 in case of EPP.** Not applicable

4. **Evaluation of Bids by DCF Technique.**

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



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

Where,

NPV = Net Present Value

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

n = Duration of cash flow stream

r = Discounting Rate

t = The period after which payment is done

The bid with the lowest NPV would be selected.

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

4.3 Evaluation Period

(a) The evaluation period shall extend from T0 (contract signing) to T0+66 months (final CMC payment).

4.4 Payment Milestones Considered for NPV

(a) The following payment schedule will be considered for NPV computation:

- (i) T0: 15% advance payment.
- (ii) T0 + 16 months: 60% of cost of first two systems on delivery.
- (iii) T0 + 16 months: 25% balance payment of first two systems on installation, integration, and final acceptance.
- (iv) T0 + 18 months: 60% of cost of next two systems on delivery.
- (v) T0 + 18 months: 25% balance payment of next two systems on installation, integration, and final acceptance.

(b) Engineering Support Package (ESP)

- (i) T0 + 16 months: 85% of cost of ESP on delivery and acceptance.



4.5. Comprehensive Maintenance Contract (CMC) – Post Warranty

(a) CMC shall commence 24 months after completion of warranty (i.e., after final acceptance of each batch of two systems).

- (i) T0 + 46 months: 20% of CMC cost
- (ii) T0 + 52 months: 24% of CMC cost
- (iii) T0 + 58 months: 24% of CMC cost
- (iv) T0 + 64 months: 24% of CMC cost
- (v) T0 + 66 months: 8% of CMC cost

4.6 Format for Submission.

(a) All bidders shall submit a time-phased cost sheet strictly in the format below (illustrative figures shown as placeholders):

Ser	Payment Milestone	Time (in months from T0)	%age of relevant cost	Payment amount At	Discount factor $(1+r)^t$	Present value ₹ $At/(1+r)^t$
(a)	Advance	T0	15% of Base Contract price		$t=1$	
(b)	Delivery of two CGSUAS of the first lot	T0+16	60% of cost of equipment / system		$t=2$	
(c)	Installation, Integration and Final acceptance of two CGSUAS of the first lot	T0+16	25% of Balance payment of the Lot/Batch		$t=2$	
(d)	ESP Delivery	T0+16	85% of cost of ESP		$t=2$	
(e)	Delivery of two CGSUAS of the second lot	T0+18	60% of cost of equipment / system		$t=2$	
(f)	Installation, Integration and Final acceptance of two CGSUAS of the second lot	T0+18	25% of Balance payment of the Lot/Batch		$t=2$	
(g)	1 st CMC Payment	T0+46	20% of CMC cost		$t=4$	



(h)	2 nd Payment	CMC	T0+52	24% of CMC cost		t=5	
(j)	3 rd Payment	CMC	T0+58	24% of CMC cost		t=5	
(k)	4 th Payment	CMC	T0+64	24% of CMC cost		t=6	
(l)	5 th Payment	CMC	T0+66	8% of CMC cost		t=6	

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

4.8 All bidders are required to indicate year-wise and currency-wise amount required as per their price bid in format given below. In case the firm a bidder does not provide year-wise cash flow details in price bid, the amount quoted in their price bid will not be discounted for comparison purposes.

Year	Dollars	Euros	Pound Sterling	Rupees	Total Cash- flow



Appendix J

(Refers to Para 64 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 or question arising out of or relating to this Contract or relating to construction or performance (except as to any matter the decision or determination whereof is provided for by these conditions), which cannot be settled amicably, shall within sixty (60) days or such longer period as may be mutually agreed upon, from the date on which either party informs the other in writing by a notice that such dispute, disagreement or question exists, will be referred to the Arbitration Tribunal consisting of three arbitrators.

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

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

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

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

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

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



5
shared equally by the SELLER and the BUYER.

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

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

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

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

ARBITRATION

(For Central & State PSEs)

3. In the event of any dispute or difference relating to the interpretation and application of the provisions of the commercial Contracts(s), between Central Public Sector Enterprises (CPSEs/Port Trusts inter se and also between CPSEs and Government Department/ Organisations (excluding disputes relating to Railways, Income Tax, customs & Excise Department), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14th December, 2022 and its subsequent amendments and the decision of AMRCD on the said dispute will be binding on both the parties.

ARBITRATION

(For Defence PSUs)

4. In the event of any dispute or In the event of any dispute of difference relating to the interpretation and application of the provisions of the commercial Contract(s), between Central Public Sector Enterprises (CPSEs/Port Trusts inter se and also between CPSEs and Government Departments/Organisations (excluding disputes relating to Railways, Income Tax, Customs & Excise Departments), Such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14th December, 2022 and its subsequent amendments and the decision of AMRCD on the said dispute will be binding on both the parties.



FORCE MAJEURE

5.1 Should any force majeure circumstances arise, each of the contracting party shall be excused for the non-fulfillment or for the delayed fulfillment of any of its contractual obligations, if the affected party within **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 seller which may affect the discharge of the Seller's obligation under the Contract shall not be treated as Force Majeure.

PENALTY FOR USE OF UNDUE INFLUENCE

6.1 The Seller undertakes that he has not given, offered or promised to give, directly or indirectly any gift, consideration, reward, commission, fees brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or for borne to do any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government. Any breach of the aforesaid undertaking by the Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offence by the Seller or anyone employed by him or acting on his behalf, as defined in the Bharatiya Nyaya Sanhita (erstwhile 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 ICG to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller.

6.2 Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/ employee of the Buyer or to any other person in a position to influence any officer/ employee of the Buyer for showing any favour in relation to this or any other Contract, shall render the Seller to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the Contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.



INTEGRITY PACT

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 Seller with the Government of India.

(vi) At the discretion of the Buyer, the Seller shall be liable for action as per extant policy on Putting on Hold, Suspension and Debarment of Entities.



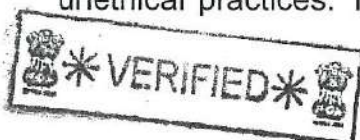
(h) Bidders are also advised to have a Company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the Company.

(j) The draft Pre-Contract Integrity Pact is attached as **Annexure I** to this **Appendix J**. 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 sub-Contract(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 Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores referred to in this Contract. The Seller confirms that he has not engaged any person, party, firm or institution as an Agent including his Agents already intimated to MoD; to, influence, manipulate or in any way to recommend to any functionaries of the Government of India, whether officially or unofficially, to the award of the Contract to the Seller, or to indulge in corrupt and unethical practices. The Seller has neither paid, promised nor has the intention to



pay to any person, party, firm or institution in respect of any such intervention or manipulation. The Seller agrees that if it is established at any time to the satisfaction of the buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that Seller has engaged any such person, party, firm or institution and paid, promised or has intention to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this Contract, the Seller will be liable for any or all of the following actions:-

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

9. In case it is found to the satisfaction of the BUYER that the SELLER has engaged an Agent, or paid commission or influenced any person to obtain the Contract as described in clauses relating to Agents and clauses relating to Penalty for Use of Undue Influence, the SELLER, on demand of the BUYER shall provide necessary information/ inspection of the relevant financial documents/information, including a copy of the Contract(s) and details of payment terms between the vendors and Agents engaged by him.



Annexure I to Appendix J

(Refers to Para 24 of RFP & Para 7.1
(j) of Appendix J)

PRE-CONTRACT INTEGRITY PACT

General

1. Whereas the PRESIDENT OF INDIA, represented by Deputy Director General (Aviation) / Ministry of Defence, Government of India, hereinafter referred to as the Buyer and the first party, proposes to procure Coast Guard Shipborne Unmanned Aerial Systems (CGSUAS), hereinafter referred to as Defence Stores and M/s _____ represented by, _____ Chief Executive Officer (which term, unless expressly indicated by the Contract, shall be deemed to include its successors and its assignees), hereinafter referred to as the Bidder/ Seller and the second party, is willing to offer/ has offered the Defence stores.

2. Whereas the Bidder is a private Company/ public Company/ partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the Buyer is a Ministry of the Government of India performing its functions on behalf of the President of India.

Objectives

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

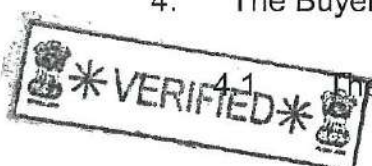
3.1 Enabling the Buyer to obtain the desired defence stores at a competitive price in conformity with the defined specifications of the Services by avoiding the high cost and the distortionary impact of corruption on public procurement.

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

Commitments of the Buyer

4. The Buyer commits itself to the following:-

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.

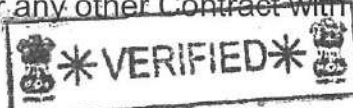
5. In case of any such preceding misconduct on the part of such official(s) is reported by the Bidder to the Buyer with full and verifiable facts and the same is prima facie found to be correct by the Buyer, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings 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.

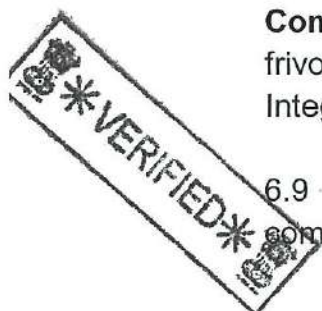
6.5 The Bidder further confirms and declares to the Buyer that the Bidder is the original manufacturer/ integrator/ authorised government sponsored export entity of the Defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way 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. Complaints will be processed as per **Guidelines for Handling of Complaints** in vogue. In case the complaint is found to be vexatious, frivolous or malicious in nature, it would be construed as a violation of Integrity Pact.

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



7. Previous Transgression

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

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

8. Bid Security: Earnest Money Deposit.

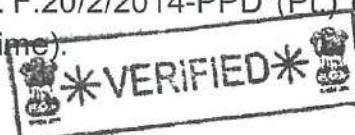
8.1. Every bidder, while submitting commercial bid, shall submit Bid Security in the form of Earnest Money Deposit (EMD), in cases where applicable (as provided in Clause 8 herein).

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

EMD TABLE

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

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



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

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

(i) Bank Guarantee from any Indian Public or Private Scheduled Commercial Bank notified by RBI or first-class banks of international repute. The format of the Bank Guarantee for Bid Security is provided at **Annexure 1 to Appendix J.**

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

(iii) Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque shall be payable in an acceptable form. The Beneficiary Bank Details for furnishing the same are as follows:-



(IFSC Code - SBIN0000691)
State Bank of India New Delhi
Main Branch C Block, 11 Parliament
Street
New Delhi, Pin: 110 001

(e) **Validity of EMD.** The EMD will be valid upto and including 45 days after the period of Eighteen months or till signing of Contract, whichever is later. The EMD shall be extended from time to time as required by the Buyer and agreed by the Bidder. No interest shall be payable by the Buyer to the Bidder(s) on the EMD for the period of its currency. For unsuccessful bidders EMD will be returned on declaration of successful bidder(s).

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

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

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

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



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

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

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

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

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

9. Company Code of Conduct

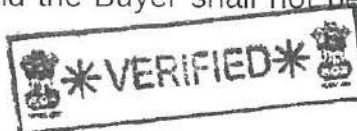
9.1 Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

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 Bharatiya Nyaya Sanhita (erstwhile Chapter IX of the Indian Penal Code, 1860) or the Prevention of Corruption Act 1988 or any other act enacted for the prevention of corruption shall entitle the Buyer to take all or any one of the following actions, wherever required:-

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

(ii) The EMD for pre-Contract period, Performance-cum-Warranty Bond post signing of Contract shall stand forfeited either fully or partially, as decided by the Buyer and the Buyer shall not be required to assign any reason therefore.



(iii) To immediately cancel the Contract, if already signed, without any compensation to the Bidder.

(iv) To recover all sums already paid by the Buyer, and 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 to 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.

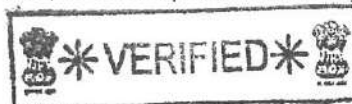
11.2 The Bidder shall strive to accord the most favoured customer treatment to the Buyer in respect of all matters pertaining to the present case.

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.gov.in to check for changes to these details):-

- (a) Shri. Ravikant, IAS/ Bihar (1984) (Retd),
Apartment No. 502, Tower-1, M3M Merlin,
Sector-67, Gurugram-122001 (Haryana),
Mob: 9953555566, e-mail: 84ravikant@gamil.com
- (b) Shri. Dr. Prabhat Kumar, IAS/UP (1985) (Retd)
C-120, Sector-39, Noida-201301,
Gautam Budh Nagar (Uttar Pradesh)
Mob: 9810530048, e-mail: prabhatfamily@gamil.com



- (c) Shri. Chet Ram, IRS (1985) (Retd)
Flat No. A-203, Building Gemini, Gladys Alwares Marg,
Hiranandani Meadows, Off-Pokhran Road No.2,
Mob: 9869479987, e-mail: cr_koli@yahoo.com

(Names & addresses of Independent Monitors holding office on date of issue of RFP to be included)

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

Shri. Madhur Verma, IPS
Jt. CP, Head of Anti Corruption Branch, GNCT Delhi
Vikas Bhavan-II, 5th Floor, Upper Bela Road
Civil Lines, Delhi - 110054

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 upto 5 years or the complete execution of the Contract to the satisfaction of both the Buyer and the Bidder/ Seller, whichever is later.

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

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

BUYER

BIDDER

Witness

1. _____
2. _____

Witness

1. _____
2. _____



Refers to Para 8.1 of
Pre-Contract Integrity Pact

EMD BANK GUARANTEE FORMAT

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

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

The conditions of obligations are:-

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

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

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

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

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

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

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

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch



Appendix K

{Refers to Para 5(a) of RFP}

NON DISCLOSURE AGREEMENT

This Non Disclosure Agreement is entered into by and between SHQ/ MoD (Disclosing Party) and _____ located at _____ (Receiving Party) for the purpose of preventing the unauthorized disclosure of confidential information as defined below. The parties agree to enter into a confidential relationship with respect to the disclosure of the RFP for procurement of **Coast Guard Shipborne Unmanned Aerial Systems (CGSUAS)** (name of the Project).

1. For purpose of this Agreement, "Confidential Information" shall include all information or material in which Disclosing party is engaged. If confidential information is in written form, the Disclosing party shall label or stamp the materials with the word "Confidential" or some similar warning. If confidential information is transmitted orally, the Disclosing Party shall promptly provide a written communication indicating that such oral communication constituted confidential information.
2. Receiving party shall hold and maintain the confidential information in strictest confidence for the sole and exclusive benefit of the Disclosing party. Receiving party shall carefully restrict exercise to confidential information to employees, Contractors and third parties as is reasonably required and shall require those persons to sign Non-Disclosure restriction at least as protective as those in this Agreement. Receiving party shall not, without prior written approval of Disclosing party, use, publish, copy, or otherwise disclose to others, or permit the use by others or to the detriment of Disclosing party, any confidential information. Receiving party shall return to the Disclosing party any and all record, notes and other written, printed or tangible materials in its possession pertaining to confidential information immediately if Disclosing party requests it in writing.
3. Nothing contained in this Agreement shall be deemed to constitute either party a partner, joint venture or employee of the other party for any purpose.
4. If any provision of this Agreement is held to be invalid or unenforceable by court of law, the remainder of this Agreement shall be interpreted so as best to effect the intent of the parties.
5. This agreement expresses the complete understating of the parties with respect to the subject matter and supersedes all prior proposals, agreements, representations and understandings. This Agreement shall not be amended except with the written consent of both the parties.



6. That in case of violation of any clause of this Agreement, the Disclosing party is at liberty to terminate the services of receiving party without assigning any reason and shall also be liable to proceeded against in a Court of Law.

7. This agreement and each party's obligations shall be binding on the representatives, assigns and successors of such parties. Each party has signed this agreement through its authorized representatives.

Disclosing Party

(Signature)

(Typed or Printed name)
Date _____

Receiving Party

(Signature)

(Typed or Printed name)
Date _____



Appendix L

(Refers to Para 7 of RFP)

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

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

<u>Sl No</u>	<u>Parameter</u>	<u>For all Cases except Ship building (Ch XII), Make (Ch III & IV) and Strategic Partnerships (Ch VII)</u>
1	Financial	
(a)	Credit Rating	Long term credit rating equivalent to CRISIL rating on Corporate Credit Scale as CCR-BBB or better, and SME-04 or better for SMEs received by credit rating agencies recognized by SEBI. Credit rating should be as on 31 st March of the previous financial year. For recognized Startups/ registered MSMEs, refer Para 5 & 5Aof Annexure IV to Appendix A to Chapter II of DAP 2020.
(b)	Average Annual Turn Over	Min Avg Annual Turnover for last 03 financial years, ending 31 st March of the previous financial year, should not be less than 30% of estimated annual outflow of project cost of the Buy (Indian) project-Not Applicable for cases below Rs. 150 Crs. For recognized Startups/ registered MSMEs, refer Para 5 & 5Aof Annexure IV to Appendix A to Chapter II of DAP 2020.
(c)	Net Worth	Net worth of entities, ending 31 st march of the previous financial year, should not be less than 5% of the estimated cost of the Buy (Indian) project. For recognized Startups/ registered MSMEs, refer Para 5 & 5Aof Annexure IV to Appendix A to Chapter II of DAP 2020.
(d)	Insolvency	The entity should not be under insolvency resolution as per IBC at any stage of procurement process from the issuing of RFP to the signing of Contract.
2	Technical	
(a)	Nature of Business	Manufacturing entity or System Integrator of defence equipment and not a trading company, except in cases where OEM participates only through its authorised Vendors.



(b)	Experience in related field	Min 02 Yrs. experience in broad areas like manufacturing/ engineering/ electronics/ explosives etc. as applicable in the instant case. If not, then cumulative experience of at least 03 years in above areas, resulting in gaining of competence for manufacturing the proposed product. (In case SHQ feels that for particular equipment a lesser experience could be accepted, then the same should be specifically approved by the RFP approving authority before including the same in the RFP).
(c)	(i) Integration Experience (ii) Turnkey Projects Experience	(i) Cases involving Integration – Where product involves integration, previous experience of not less than one year/ one project in integration of systems/ equipment shall be required. (ii) Turnkey Projects – Experience of successful completion of one Turnkey project of similar nature within last 05 Years with value of at least 20% of AoN cost or currently executing a Contract of similar nature with value of at least 30% of the AoN cost. In case of no experience in Turnkey projects the vendor for main component of the Turnkey project may be selected if it has experience as per Srl 2(b) above and experience of installation or integration of similar equipment/ system or system of systems.
(d)	Quality Control	For ICT Cases – (i) Certification to be included if linked to scope of work – Gartner Quadrant/ ISO9001/ CMMi3 or more (specifying development/ service/ acquisition models)/ ISO 27001. For Information Security and large value projects preferably CMMi5 may be specified. (ii) Compliance with IEEE/ ITU standards depending upon nature/ type of project or solution required.
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 years for MSMEs. Min no of years not applicable for JVs constituted specifically for a project and read in conjunction with DAP 2020.
4	Start Ups/ MSMEs	Start ups would be defined as per G.S.R. 127 (E) dated 19 Feb 2019 (as amended from time to time). Para 1(a),(b),(c) above are exempted. For any other relevant information, Para 5 and 5A of Annexure IV to Appendix A to chapter II of DAP 2020 may be referred.



Appendix M

(Refers to Para 66 of RFP)

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

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

<u>Ser No.</u>	<u>Reference</u>	<u>Document Description</u>
1.	Para 6 of RFP	Declaration by Bidder : Debarment of vendors
2.	Para 20 of RFP	Declaration by Bidder: Government Regulation
3.	Para 21 of RFP	Declaration by Bidder: Obligations Relevant to Transfer of Conventional Arms
4.	Para 23 of RFP	Declaration by Bidder : Patent Rights
5.	Para 27 of RFP	Declaration by Bidder : Fall Clause
6.	Para 34 of RFP	Technical document covering performance parameters.
7.	Appendix B	Compliance Table
8.	Appendix C	Warranty Clause
9.	Appendix-D	CERTIFICATE: Malicious Code
10.	Annexure I to Appendix E	Manufacturer's Recommended List of Spares (MRLS)
11.	Annexure II to Appendix E	List of SMT/ STEs, GSE/GHE, Jigs and Fixture
12.	Annexure III to Appendix E	Technical Literature
13.	Annexure IV to Appendix E	Training Aggregates
14.	Appendix F	Trial Methodology
15.	Appendix H	Price Bid
16.	Annexure I to Appendix J	Pre-Contract Integrity Pact
17.	Annexure I to Appendix J	EMD
18.	Para 5 of RFP and Appendix K	Non-Disclosure Agreement



GLOSSARY

AMC	Annual Maintenance Contract
AoN	Acceptance of Necessity
ATP	Acceptance Test Procedure
CAMC	Comprehensive Annual Maintenance Contract
CBT	Computer Based Training
CDEC	Custom Duty Exemption Certificate
CEMILAC	Centre for Military Airworthiness and Certification
CGSQR	Coast Guard Staff Qualitative Requirement
CKD	Completely Knocked Down
CNC	Contract Negotiation Committee
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
EO/IR	Electro Optic / Infra Red
ESP	Engineering Support Package
EXW	Ex-Works
FAA	Federal Aviation Administration
FET	Field Evaluation Trials
Gol	Government of India
GST	Goods Service Tax



IC	Indigenous Content
ICG	Indian Coast Guard
IDTO	Inter Divisional Transaction Order
IOR	Indian Ocean Region
INCOTERM	International Commercial Terms
IP	Integrity Pact
IP v R	Intellectual Property Rights
ISA	International Standard Atmosphere
ISAR	Inverse Synthetic Aperture Radar
ISIS	Integrated Standby Instrument System
JRI	Joint Receipt Inspection
LD	Liquidated Damage
LRU	Line Replaceable Unit
MET	Maintainability Evaluation Trial
MoD	Ministry of Defence
MPR	Maritime Patrol Radar
MRLS	Manufacturer Recommended List of Spares
M-ToT	Maintenance Transfer of Technology
NATO	North Atlantic Treaty Organisation
NCNC	No Cost No Commitment
NMEA	National Marine Electronics Association
NSN	NATO Stock Numbers
OEM	Original Equipment Manufacturer
OJT	On Job Training
OTE	Open Tender Enquiry
PA	Production Agency
PCIP	Pre Contract Integrity Pact
PDI	Pre Dispatch Inspection



PWBG	Performance cum Warranty Bank Guarantee
QA	Quality Assurance
QAP	Quality Assurance Plan
RDAQA	Regional Director Aeronautical Quality Assurance
RCMA	Regional Centre for Military Airworthiness
RFP	Request for Proposal
SHQ	Service Headquarters
SKD	Semi Knocked Down
SMT	Special Maintenance Tools
STANAG	Standardization Agreement
STE	Special Test Equipment
TEC	Technical Evaluation Committee
ToT	Transfer of Technology
TOTE	Table of Tools and Equipment
UET	User Evaluation Trials

