

RFI No. AH/8055 dated 28 Jun 22  
Total Pages - 40

**REQUEST FOR INFORMATION (RFI) FOR**  
**NAVAL SHIPBORNE UNMANNED AERIAL**  
**SYSTEM (NSUAS)FOR INDIAN NAVY**

**REQUEST FOR INFORMATION (RFI) FOR  
PROCUREMENT OF NAVAL SHIPBORNE UNMANNED AERIAL SYSTEM  
(NSUAS)**

1. The Ministry of Defence, Government of India, intends to procure approximately **40 (Forty)** Naval Shipborne Unmanned Aerial System (NSUAS) for Surveillance and Reconnaissance, Sea lines of Communication (SLOC) monitoring and Coastal/ Exclusive Economic Zone (EEZ) surveillance, anti-piracy and anti-terrorism, assistance in Search and Rescue and assistance in Maritime Domain Awareness.
2. This Request for Information (RFI) consists of two parts as indicated below. **Submission of incomplete response format will render the vendor liable for rejection.**
  - (a) **Part I.** The first part of the RFI incorporates broad operational requirements and features that should be met by the equipment. A few important technical parameters of the proposed equipment are also mentioned.
  - (b) **Part II.** The second part of the RFI states the methodology of seeking responses. Submission of incomplete response format will render the vendor liable for rejection.
  - (c) **Part III.** Guidelines for Framing Criteria for Vendor Selection/ Pre-Qualification in Buy Indian (IDDM) and Buy (Indian) cases.

**PART-I**

3. **Intended Use of Equipment (Operational Requirements)**. The NSUAS will be launched from a ship and will be used for Surveillance including SIGINT, Target Acquisition, and Reconnaissance and building MDA (Maritime Domain Awareness) around a Task Group. The secondary roles of NSUAS would include anti-piracy, anti-terrorist activities and assist in Search and Rescue (SAR).
4. **Important Technical Parameters**. This document solicits information regarding compliance with critical technical specifications of the **NSUAS**. A detailed response is essential so as to analyse the proposed solution of the vendor with regards to technical capabilities and features of the NSUAS. Certain important aspects are as follows:-
  - (a) Broad operational requirements for NSUAS are placed at **Appendix 'A'** to this RFI. The vendor is to provide maximum details with respect to each parameter and also specify restrictions or conditions, if any. In addition, additional information may also be provided as feasible. Respondents are to provide detailed, para-wise information on all aspects.

(b) **Category of Procurement.** The response is solicited for procurement of 40 NSUAS under Buy 'Indian- IDDM', Buy 'Indian' and Make category. The purposes of this RFI is to aid in deciding the acquisition category based on Defining Attributes and Decision Flow Charts as detailed in 'Appendix 'D' of Chapter II of DAP 2020. Priority would be provided iaw DAP 2020. Vendors are to specify the procurement category under which they would be willing to offer their systems. The vendors are also to indicate the minimum number of platforms to be procured to make the proposal commercially viable (in each category. Preference will be given to indigenous design, development and manufacturing of Defence equipment to promote 'Make in India'.

(c) **Delivery Schedule.** The overall timeframe of NSUAS, delivery with stage wise break-up of the entire project post signing of contract along with Programme Evaluation and Review Technique (PERT) details is required to be submitted. The vendor should indicate the delivery schedule for various procurement categories as specified, in case more than one procurement category is proposed by the vendor.

(d) **Cost Estimate.** The vendor is to provide the indicative cost including taxes and duties (to be indicated separately) of the NSUAS as well as the total project.

(e) **Field Evaluation Trials (FET) and Trial Methodology.** Vendor is to indicate whether he would offer the NSUAS for FET. If yes, the mode of FET viz. Physical Trials/ Documentation/ Certification/ Simulation and Trial Methodology including parameters for Equipment evaluation are to be indicated. Also, Technical Evaluation and Acceptance Trials will be carried out for the operational and technical parameters placed at **Appendix 'A'**.

(f) Whether the vendor would be able to comply with all provisions of Defence Acquisition Procedure 2020 (DAP 20) or not. If not, which Para/Clause of DAP 20 would not be agreed with reasons is to be indicated.

(g) Vendors may utilise this opportunity to recommend the capabilities proposed in terms of Essential Parameters-A and Essential Parameters- B iaw Para 10 of Chapter II of DAP 20, as an input for development of Qualitative Requirements.

(h) Vendors may consider RFI as advance information to obtain requisite Government clearances.

(j) **Payment Terms.** Vendor is to indicate acceptability to the terms of payment as per DAP 20.

(k) **Manpower and Training.** The manpower required to operate and maintain the system besides modalities of training is to be indicated. Details of training aids, models, software packages, and computer based tutorials, simulators etc which would be used during training is also to be indicated. Inputs

on operator and maintainer certification including training for instructional duties and prior qualifications required are to be mentioned.

(l) **Equipment Support.** Vendor is to indicate its capability to execute the project and provide Equipment support including:-

(i) Technical support being provided for maintenance and support of the facility during its service life, including warranty. The service life of the facility should be at least fifteen (15) years.

(ii) Modalities for Annual Maintenance Contract (AMC) including spares, post warranty period.

(iii) Vendor is to indicate the provisions for upgradability of Equipment to avoid system obsolescence.

(m) **Indigenisation Content (IC).** In line with the 'Make in India' initiative of the GoI, the OEM is to ensure that all efforts are made to maximize the Indigenous Content (IC) of the project without any deterioration in performance standards as specified at **Appendix 'A'**. In addition, vendor to provide availability of indigenous software which are being used for running applications on their equipment/ system in their proposal. The details of indigenous and foreign software for each sub system to be defined in the proposal.

(n) Vendors to provide information on the material component iaw Para 11 of Chapter 2 of DAP 20 under following subheads:-

(i) Main material used in the platform and likely plan for sourcing the material

(ii) Availability in the country and known sources with material designation, standard/code and grade, and test standards.

(iii) Vendor's likely plan for sourcing the material(s).

(iv) Likely cost of material(s) if sourced from Indian vendors as compared to their import cost.

5. **Conditions for Solicitation of Offers.** Vendor is to confirm if the following conditions in accordance with DAP 20, are acceptable:-

(a) The solicitation of offers will be as per 'Single Stage –Two Bid System'. It would imply that a 'Request for Proposal' would be issued soliciting the technical and commercial offers together, but in two separate sealed envelopes. The validity of commercial offers would be at least 18 months from the date of submission of offers.

- (b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.
- (c) Among the vendors cleared by TEC, a Contracts Negotiation Committee (CNC) would decide the lowest cost bidder (L1) and conclude the appropriate contract.
- (d) The Equipment of all TEC cleared vendors would be put through a trial evaluation in India on a 'No Cost No Commitment (NCNC)' basis. A staff evaluation would be carried out by SHQ to analyse the result of field evaluation and shortlist the Equipment for introduction into service.
- (e) Vendors are to confirm the feasibility to offer NCNC trials, including at sea, of proposed Equipment in India, in exact configuration as proposed in response to the RFI. Alternatively, the differences between various configurations and their consequent costs may be highlighted.
- (f) Vendor would be bound to provide Equipment support for time period specified in the RFP, which includes spares and maintenance tools/jigs/fixtures for field and component level repairs.
- (g) Vendor would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter VI of DAP 20.
- (h) **Earnest Money Deposit.** In Mar 22, DAC had approved that provisions of Integrity Pact Guarantee (IPBG) would be replaced by Earnest Money Deposit as bid security. An Earnest Money Deposit as bid security is mandatory requirement and should be provided i.a.w DAP 20 amendment as follows:-

<b>Estimated Cost of Procurement Scheme (Rs Crore)</b>		<b>EMD Amount</b>
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

- (j) **Performance-cum-Warranty Bond.** A Performance-cum-Warranty Bond of 3% of value of the Contract (or at the rate as promulgated by MoD at the time of tender submission) inclusive of taxes and duties would be furnished by the seller in the form of a Bank Guarantee after signing of the contract.
- (k) The vendor should indicate whether the proposed equipment is already

in use by any other Navy/ Air Force/ Defence Forces or offered for use by other Governmental/ Non-Governmental agencies within India or abroad and if so, unit price (without taxes/ custom duties) and year in which it was supplied is to be indicated. The differences between these versions of equipment and equipment presently being offered may also be forwarded in detail.

(l) Willingness for Option Clause including the duration for which the Option Clause would be valid is to be indicated.

(m) The vendor is to indicate whether they would be able to comply with all provisions of DAP 2020 or not. If not, para/clause of DAP 20 which would not be agreed to is to be mentioned, with reasons.

(n) Indian Vendor if willing to participate under Make and Innovation scheme, they should provide all the relevant details for applicability iaw Chapter III of DAP 20.

(p) **Software Codes and Intellectual Property Rights.** Willingness to supply software source codes for software used is to be indicated. Respondents are to clearly indicate the details of agency holding Intellectual Property Rights (IPR) for various hardware and software components of the NSUAS.

(q) **Use of Indigenous Software.** Use of indigenous software driving the applications on the equipment/system is to be indicated and a certification by the Statutory Auditor of the Bidder that the software has been developed within India is to be provided. Availability of indigenous software is mandatory for running applications (especially critical components like Fire Control System, Radars, Communications, Encryption sub systems etc) in Buy (Indian – IDDM) and Buy (Indian) cases in accordance with para 13 of DAP 20.

(r) **Cyber Security.** Protocols/ Security features being followed to maintain Cyber Security of NSUAS may be indicated. Further, acceptability and implementation of provisions w.r.t cyber security/ malicious codes as per DAP 20 may be confirmed.

(s) **Confidentiality Clause.** Classified information pertaining to the instant case/ items shall not be divulged by vendors to other agencies.

(t) Additional details as deemed appropriate are to be provided.

(u) **Suggestions.** Suggestions for alternatives to meet the same objectives as mentioned in this RFI may be offered.

(v) **Undertaking.** The prospective vendors must submit an undertaking that information provided by them is correct.

6. Government Agencies or companies are requested to provide quantified technical, operational and maintenance parameters as queried in **Appendix A**, as per

existing/ achievable capabilities with time frame. Supporting relevant Documents and literature are to be provided. Vendors are requested to indicate the indigenous content of the product, plan for indigenisation, production capacity along with envisaged timelines for local production (if applicable). Vendors are to complete the Information Proforma at **Appendix B** to this RFI.

**PART-II**

7. **Procedure for Response.**

(a) Vendors must fill the form of response as given in **Annexure II to Appendix A Chapter II of DAP 20** (details placed at **Appendix 'B'**). Apart from filling details about company, details about the exact product meeting generic technical specifications should also be carefully filled. Additional literature on the product can also be attached with the form.

(b) Vendors are to provide para wise compliance in a tabular format to this RFI along with reasons for non-compliance, if any, to all aspects of this RFI information sought as per form placed at **Annexure III** to this RFI with respect to criteria for vendor selection / pre-qualification.

(c) Vendors must forward an undertaking that in the past they have never been banned / debarred from doing business dealing with Ministry of Defence (MoD) / GoI / or any other GoI organisation.

(d) The filled form should be dispatched at undermentioned address:-

Commodore Aircraft Acquisition  
IHQ MoD (Navy)/ Directorate of Aircraft Acquisition  
Room No. 405, Block C  
Defence Offices Complex, Africa Avenue  
New Delhi – 110 023  
Tel: +91-11-26771342  
Fax No.: +91-11- 20867651  
E-mail: daa@navy.gov.in

(e) Last date of submission of filled form **should not be later than EIGHT weeks** from date of issuance of RFI.

8. **End User.** The Government of India invites responses to this request only from Original Equipment Manufacturers (OEM)/ Authorised vendors. The end user of the equipment is Indian Navy (*IN*).

9. **Vendor Interaction.** A vendor interaction with the companies would be held at Integrated Headquarters, Ministry of Defence (Navy), New Delhi, if deemed necessary, with the companies who have acknowledged the receipt of the RFI.

10. This RFI is being issued with no financial commitment and the Ministry of Defence reserves the right to change or vary any part thereof at any stage. The Government of India also reserves the right to withdraw it should it be so necessary, at any stage.

11. The acquisition process would be carried out under the provisions of DAP-2020 or as an amended from time to time in future.

**PART III**

12. **Vendor Selection Criterion.** The guidelines for Framing Criteria for Vendor Selection/ Pre-Qualification in Buy Indian (IDDM) and Buy (Indian) cases are placed at **Appendix 'C'**. Vendors must fill the form so as to enable Vendor Analysis prior issue of RFP.

(Pankaj Chauhan)  
Commodore  
Commodore Aircraft Acquisition

Jun 22

**Appendices:** As Above.

**Appendix A**  
(Refers to Para 4)

**BROAD OPERATIONAL REQUIREMENTS FOR NSUAS**

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
1.	<b><u>General Specifications</u></b>	
(a)	The Remotely Piloted Aircraft (RPA) and its payloads should be able to undertake the tasks listed at Para 3, Part I of RFI.	--
(b)	The RPA and the payloads should be modular in nature and should be easy to repair in field conditions.	--
(c)	The RPA should have low radar and acoustics signature.	--
(d)	The RPA and all its subsystems should be completely inter-operable amongst all the users of the Indian Navy.	--
(e)	Number of operators required to operate and maintain the system should be minimum. The optimum number of operators required to maintain and operate the system along with specific qualifications/ prior training/ experience is to be specified iaw Para 4 (k) of Part I of RFI.	--
2.	<b><u>Basic Composition of NSUAS</u></b> . The NSUAS would comprise at least the following components:-	
(a)	<b><u>Remotely Piloted Aircraft (RPA)</u></b> . Each system is to comprise of two air vehicles, which are modular in design, made of composite material and that can be dismantled/ folded for portability and stowage onboard ship (in a container provided along with RPA) being supplied. The RPA must be easily assembled onboard the ship.	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
(b)	<p><b><u>Two Control Stations (Main and Standby)</u></b>. Main control station to be fitted onboard the ship (preferably in ops room with a rack design) and shall be powered with onboard ship's supply. Standby control station must be positioned onboard for controlling the air vehicle for redundancy. The Ground Control Station (GCS) must have the facility to record and playback sensor and flight data of at least one complete sortie.</p> <p>What is the storage capacity of the GCS?</p> <p>Can both Main and Standby control station be provided?</p> <p>Do the control stations operate independent of each other?</p>	--
(c)	<p><b><u>One Launch System</u></b>. A transportable launch system which can be fitted / assembled when required for launch of air vehicle and stowed when not in use.</p>	--
(d)	<p><b><u>One Point Recovery System</u></b>. A point recovery system that could be assembled and extended for recovery of air vehicles and stowed thereafter.</p>	--
(e)	<p><b><u>Two Ship Data Terminals</u></b>. Ship Data Terminals to be fixed on the upper deck so as to provide unhindered communication with air vehicle.</p>	--
(f)	<p><b><u>One set of Engineering Support Package (ESP)</u></b>. ESP comprising Ground Support Equipment (GSE), GHE (Ground Handling Equipment), OBS (Onboard Spares) and tools for operation of the air vehicle onboard and ashore must be stored in a pallet for ease in stowage and transportation for duration as per utilisation rate.</p>	--
(g)	<p><b><u>One set Specialised Role Equipment</u></b>. One set of Special payloads of Maritime Patrol Radar (MPR), Communication (COM) relay equipment, ELINT, AIS, ADS (B) and COMINT payloads.</p>	--
(h)	<p><b><u>Two Remote Video Terminals (RVT)</u></b>. Two portable RVTs which be carried on a boat when required and capable of being operated independently. The RVT must have portable power source.</p>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	What is the minimum time of continuous operation of the RVT without spare batteries? At least 03 hours preferred.  What is the endurance of each spare battery?	
<b>3.</b>	<b><u>Operational Requirements/ Specifications of RPA</u></b>	
(a)	<b>Capability.</b> NSUAS should be capable of operating from ships and shore by day as well as by night and in low visibility conditions. Specify the following:-  (i) Provide the name of the system being offered.  (ii) Provide range (with payload and clean configuration), endurance, dimensions, weight and ceiling of system being offered.  (iii) Is the system Vertical Takeoff and Landing (VTOL) capable?  (iv) Is the system Automatic Takeoff and Landing (ATOL) capable from a moving ship?  (v) Whether system can be dismantled and kept in a container?  (vi) Indicate time taken to dismantle the system for stowage.  (vii) Indicate time taken to assemble the system for operations from stowage.  (viii) Indicate the maximum size and weight of container for RPA.  (ix) Indicate the payload the NSUAS can carry and details of each payload with weight.  (x) Are the payload modular or fixed.  (xi) Indicate the type of recovery and launch.  (xii) Indicate the maximum size and weight of containers for stowage of all RPA sub systems, item	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>wise.</p> <p>(xiii) Indicate the maximum size and weight of containers for stowage of launch and recovery systems.</p> <p>(xiv) Indicate the maximum size and weight of containers for stowage of spares for operations for 02 months (250 hrs per month) and Engineering Support Package.</p> <p>(xv) What is the time required for preparation, launch and recovery of NSUAS?</p> <p>(xvi) What is the turnaround time between two launches of the same NSUAS after landing?</p> <p>(xvii) What is the time required for preparation of NSUAS for recovery onboard the ship?</p> <p>(xviii) Any other relevant information may be indicated.</p>	
(b)	<p><b><u>Fatigue / Service Life.</u></b></p> <p>(i) What is the service life of NSUAS?</p> <p>(ii) <b><u>Utilisation.</u></b> What is the utilization rate for normal and intensive operations?</p>	--
4.	<p><b><u>Role-wise Configuration.</u></b> NSUAS should fulfill minimum requirements for undertaking the following payloads:-</p> <p>(a) <b><u>Electro-Optical and Infra-Red (EO and IR) Payload</u></b></p> <p>(i) What are the expected ranges of EO and IR?</p> <p>(ii) Does the system have Short wave Infrared (SWIR) technology?</p>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(iii) Can the EO/IR be slaved/slewed to radar designated target? Is it integrated with the radar?</p> <p>(iv) Is the payload gyro stabilized in at least three (3) axis?</p> <p>(v) How many gimbals does the gyro stabilised system have?</p> <p>(vi) Does the gyro stabilisation provide 360 deg continuous freedom of movement?</p> <p>(vii) What is the stabilisation accuracy of the gimbal stabilized assembly of EO/IR payload? Please provide in micro radian.</p> <p>(viii) What are the elevation and depression angles?</p> <p>(ix) What is the pointing accuracy of the payload at 10 Km distance?</p> <p>(x) What is the pointing accuracy of the payload in milli radian?</p> <p>(xi) What is steering rates of the EO/ IR payload (i.e. slewing speeds)? Provide in deg/ sec.</p> <p>(xii) What is the angular acceleration of gyro stabilized assembly?</p> <p>(xiii) What is the temperature range of operations?</p> <p>(xiv) What is the optical and digital zoom capacity of Charge-Coupled Device (CCD) day camera?</p> <p>(xv) Is continuous zoom available in colour CCD Day camera?</p> <p>(xvi) What is the Field of view of Day camera?</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(xvii) Is High resolution camera, digital video and IR imagery available? Can the camera capable of video recording and capture still image as well as FMV (Full Motion Video).</p> <p>(xviii) Is video output available in HD 720p?</p> <p>(xix) Is the video output available in 4k or can it be enhanced to 4k in the display?</p> <p>(xx) Is the quality of Day and IR camera 1024 x 1024 pixels or better?</p> <p>(xxi) Are video outputs from Day camera and IR camera available simultaneously?</p> <p>(xxii) What is the zoom capability of thermal imager?</p> <p>(xxiii) What is the range at ambient temperature 28°C and RH 95% visibility 20 Km for detection of a vehicle (2.3m x 2.3 m) by Thermal Imager?</p> <p>(xxiv) What is the range at ambient temperature 28°C and RH 95% visibility 20 Km for detection of a vehicle (2.3m x 2.3 m) by day camera?</p> <p>(xxv) Does IR Camera have both optical and digital zoom facility? Specify zoom capability. Is continuous zoom facility available?</p> <p>(xxvi) Can IR sensor operate in 3-5 micrometer range? Specify the range of operations.</p> <p>(xxvii) Is Line of Sight (LOS) slaving available?</p> <p>(xxviii) Is Geo pointing available?</p> <p>(xxix) Can video tracking of identified marine targets be carried out?</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(xxx) What is the search and scan pattern in Auto-tracking mode?</p> <p>(xxxi) Is Joy stick rate mode and Joy Stick position mode available for manual control of EO/IR payload?</p> <p>(xxxii) Is there provision of Eye Safe Laser Range Finder along with EO/IR system in order to find range of targets?</p> <p>(xxxiii) What is the range availability of Laser Range Finder (LRF)?</p> <p>(xxxiv) What is the range accuracy of LRF?</p> <p>(b) <b><u>Automatic Identification System (AIS) Payload.</u></b></p> <p>(i) Is the AIS payload in receive only mode capable of receiving the following information?</p> <ul style="list-style-type: none"><li>(aa) Position, heading and speed.</li><li>(ab) Maritime Mobile Service Identity (MMSI), Call Sign, Destination</li><li>(ac) Type of ship, dimensions and cargo type</li><li>(ad) Specify any other information provided.</li></ul> <p>(ii) Is the AIS integrated with the MPR (Indicate if AIS tracks are displayed on the MPR for correlation)?</p> <p>(c) <b><u>Communication Relay Payload.</u></b> Specify the following details of communication relay payload:-</p> <p>(i) What is the Frequency range of the payload?</p> <p>(ii) Is the payload capable of communicating with other units within its Line of Sight (LOS) on V/UHF using the Relay module?</p> <p>(iii) Can NSUAS operator R/T call be transmitted to the NSUAS via uplink and subsequently</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>transmitted using the Communication Relay module?</p> <p>(iv) Can R/T calls by other units in area be received by the Communication Relay and sent to the operator via the down link?</p> <p>(d) <b><u>Maritime Patrol Radar (MPR)</u></b>. Specify the maritime patrol radar characteristics:-</p> <p>(i) Specify the name of the radar.</p> <p>(ii) Specify the minimum Radar Range (while operating at 5000 ft) as per target RCS as mentioned below (detection and tracking) :-</p> <ul style="list-style-type: none"><li>▪ Small targets (RCS 10 sqm):</li><li>▪ Medium targets (RCS 100 sqm):</li><li>▪ Large Targets(RCS 1,000 sqm):</li></ul> <p>(iii) Specify the weight of the radar.</p> <p>(iv) Is the display at ground station capable of integrating EO/IR, AIS, ADS (B) and MPR data?</p> <p>(v) Can the ground station display EO/IR, AIS and radar data on a single display.</p> <p>(vi) Is the MPR capable of operations both by day and night and in light rain up to 4mm/hr?</p> <p>(vii) Is MPR capable of carrying out sector search of areas of interest? Is sector specific transmission programmable?</p> <p>(viii) Is MPR capable of automatic and continuous detection and tracking of targets?</p> <p>(ix) Indicate the various modes of the MPR.</p> <p>(x) What is the minimum azimuth and Elevation angle of MPR?</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
(e)	<p>(xi) What is the MPR capability of various modes such as ISAR, Range Signature, Sea MTI, weather mode, etc?</p> <p>(xii) How many targets can be tracked automatically?</p> <p>(xiii) Can NSUAS generate a search pattern and navigate the RPA?</p> <p>(xiv) Can the NSUAS navigate to a desired waypoint and loiter there as per mission requirements?</p> <p>(xv) Any other relevant information may be indicated.</p> <p>(xvi) Does the MPR provide target parameters to EO/IR to slew/slave the EO/IR camera to the target?</p> <p><b><u>COMINT</u></b></p> <p>Specify the COMINT characteristics:-</p> <p>(i) Details of COMINT Payload with all parameters including weight should be provided.</p> <p>(ii) Is the COMINT capable of operations both by day and night and in light rain up to 4mm/hr?</p> <p>(iii) Is COMINT capable of carrying out automated general sector and automated directed search?</p> <p>(iv) Is the display at ground station capable of integrating COMINT data?</p> <p>(v) Is COMINT capable of recording all emitter activities seen during a mission, have the capability of detailed Post Mission Data Analysis of all activity observed during a</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
(f)	<p>mission, as well as the capability for generating reports?</p> <p>(vi) Does the COMINT have the capability to do narrow and wide band searches over the entire frequency band?</p> <p>(vii) Is COMINT able to provide multiple simultaneous functions and high performance in a rugged and low (Size/Weight/Power) package designed for NSUAS?</p> <p>(viii) Is COMINT able to be integrated with 3D moving map with aircraft location, artificial horizon, wide / narrow band spectral displays etc?</p> <p>(ix) Is it designed for rail launches, net or belly landings and operations over 15 knots?</p> <p>(x) Does COMINT have required Built-In-Test to support maintenance and troubleshooting?</p> <p>(xi) Information such as Payload size, weight, power, frequency range, sensitivity, demodulation techniques for Analogue and digital signals etc be shared.</p> <p>(xii) Any other relevant information?</p> <p><b><u>Note: Any classified data may be shared separately through a face to face briefing.</u></b></p> <p><b><u>ELINT</u></b></p> <p>Specify the name of the ELINT system and ELINT characteristics:-</p> <p>(i) Technical Details of ELINT Payload with all parameters should be provided (Frequency coverage, PRI, PW, Library etc).</p> <p>(ii) Specify weight of the ELINT payload.</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
(g)	<p>(iii) Is the display at ground station capable of integrating ELINT data?</p> <p>(iv) Is ESM capable of recording all emitter activities seen during a mission, have the capability of detailed Post Mission Data Analysis of all activity observed during a mission, as well as the capability for generating reports?</p> <p>(v) Does the ESM have capability to do narrow and wide band searches over the entire frequency band?</p> <p>(vi) Is ESM able to provide multiple simultaneous functions and high performance in a rugged and low (Size/Weight/Power) package designed for NSUAS?</p> <p>(vii) Is it designed for rail launches, net or belly landings and operations over 15 knots?</p> <p>(viii) Does ELINT have required Built-In-Test to support maintenance and troubleshooting?</p> <p>(ix) Technical specifications and physical parameters of ELINT proposed to be provided.</p> <p><b><u>Automatic Dependent Surveillance – Broadcast (ADS-B).</u></b></p> <p>(i) Does the system have ADS (B)?</p> <p>(ii) Can the ADS (B) data be integrated with Radar display on the ground station display?</p>	
5.	<b><u>Stipulated Conditions for Use</u></b>	--
(a)	<p><b><u>Indian Reference Atmosphere.</u></b> Unless stated otherwise, all performance requirements should be met under the Indian Reference Atmosphere which is defined as follows:-</p> <p>(i) Sea level Mean Temperature (°C) is ISA+20°C</p>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(ii) Reference Temperature for Takeoff and landing(°C) is ISA+20°C</p> <p>(iii) Reference Temp for performance at 5000 ft is ISA+15°C</p> <p>(iv) Lapse Rate : 6.5 °C/Km</p> <p>(v) Mean Sea Level Pressure :1005 Hpa</p> <p>(b) <b><u>Environmental Conditions.</u></b> Confirm Environmental conditions (operating and storage) as per D0 160 or ED14 indice G or MIL STD 810 or Def Stan 00970 or Def Stan 05-123 or equivalent / better Std.</p> <p>(c) <b><u>Tropicalisation.</u></b> Confirm that the NSUAS and its systems are <b><u>tropicalised</u></b> for operating on marine environment and all payloads and air vehicle cleared to operate under ambient temperature range of - 20°C to + 55°C.</p> <p>(d) <b><u>Ship-borne Operations.</u></b> Can the NSUAS operate (launch and recovery) from all <b><i>IN</i></b> ships (moving) of length more than 100 meters and having a helo deck, by day and night? What is the maximum area required for launch/ recovery equipment? Provide details for shipborne operations if carried out?</p> <p>(e) <b><u>Shore Operations.</u></b> Is NSUAS capable of carrying out operations from the beach and unprepared surfaces by day and night? What is the maximum area and type of surface required?</p> <p>(f) <b><u>Certification.</u></b> Is the NSUAS certified for airworthiness. Is the air vehicle certified for Airworthiness and deck Operations by a Government Authorised Certification Agency.</p> <p>(g) <b><u>IP and Mil STD Certification.</u></b> What are the IP and MIL Standard Certification of all components and payloads of NSUAS (to be specified separately for each payload)?</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
(h)  (j)  (k)  (l)	<p><b><u>Environmental Stress Screening (ESS)</u></b>: Confirm that Highly Accelerated Stress Screening has been carried out on all electronics.</p> <p>HAS ESS been carried out on all LRUs as per MIL HDBK 2614A standards?</p> <p>Does the RPA along with the payloads satisfy the JSS 55555 criteria or any other equivalent/ higher standards?</p> <p>Are all COTS electronic components screened iaw JSG 0667/ JSS 50115 or equivalent/ higher standards?</p>	
6.	<p><b><u>Operational Capability.</u></b></p> <p>(a) What are the maximum roll and pitch limits for operations from a ship of 100 m in length?</p> <p>(b) Are airframe/ avionic components and associated parts corrosion resistant for operations in marine environment?</p> <p>(c) <b><u>Wind Envelope.</u></b> NSUAS must be capable of being launched and recovered in wind speeds upto 15 Knots. Wind operating limitations on ships to be specified. Wind envelope of operations wrt wind limitations is to be provided.</p> <p>(d) Is NSUAS capable of landing and taking off from shore with lateral slope of 5 deg?</p> <p>(e) <b><u>Availability and Reliability.</u></b> What is the average system and sensor performance assured in percentage? Specify MTBF of air vehicle and each payload separately.</p>	--
7.	<p><b><u>Basic Design Features.</u></b> Confirm the following wrt design features of NSUAS:-</p> <p>(a) It should be capable of operating from a ship of greater than 100 meters length with or without a helo hangar.</p> <p>(b) It should be capable of operating in light rain.</p>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(c) It should have a fully autonomous flight mode without use of autonomous sub system for launch and recovery, with pre-programmed or operator initiated mission guidance.</p> <p>(d) Capable of operating as independent detachment from remote areas.</p> <p>(e) The NSUAS should have a provision to return to a designated waypoint or the mother ship in case of Data link loss.</p> <p>(f) The control station of the NSUAS should be modular in construction and should incorporate the latest technology in Digital Map formats, satellite maps and Orthophoto software. The control station should house control and displays to fly the RPV, mission computers for data processing and intelligence deciphering and display information from payloads.</p> <p>(g) Is the integration of maps on NSUAS with those on ECDIS (Electronic Chart Display Information System) use for navigation onboard ships possible?</p> <p>(h) Can the updates for maps wrt obstructions over sea/ wrecks/ oil rigs etc be carried out manually?</p> <p>(j) The Control station should be capable of standalone operations with a provision for integration with onboard systems.</p> <p>(k) The control station should be capable of handing over one air vehicle between two different stations on two different ships for extending the range of the aircraft. Ability to hand over controls and receive data from the RPA for relay operations must be available.</p> <p>(l) Ability to operate a minimum of two air vehicles from the same control station simultaneously must be available.</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(m) The NSUAS system and the control station should be in containerized form for portability and ease in stowage onboard.</p> <p>(n) The NSUAS should have primary datalink (Specify Band) and a secondary datalink for redundancy (uplink only, preferably UHF). The primary datalink should have the capability of being encrypted.</p> <p>(p) What is the level of encryption of data uplink and downlink?</p> <p>(q) Airframe should be of composite material. The airframe must be repairable at 'O' level with replacement of parts onboard ship in short time.</p> <p>(r) Is the downlink data of payloads from the NSUAS encrypted?</p> <p>(s) What is the redundancy available to the flight control system? Is there a standby control? When does it come into being?</p> <p>(t) What is the redundancy for the autopilot of NSUAS?</p> <p>(u) What is the minimum data recording capacity in terms of hours of operation and in terms of Giga Bytes in the GCS?</p> <p>(v) What is the total technical life of NSUAS in terms of landing, operational hours and calendar life of aircraft?</p>	
8.	<p><b><u>Fuel System.</u></b> Specify features of NSUAS fuel system:-</p> <p>(a) Capability for Fueling and Defueling.</p> <p>(b) Unusable fuel.</p> <p>(c) Facility of low level warning in operator console.</p>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>(d) The quantity of fuel available should be indicated at the GCS.</p> <p>(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.</p> <p>(f) Ability to use Aviation Carrier Turbine Fuel (AVCAT)/ Jet A1 or other as fuel may be indicated.</p>	
9.	<p><b><u>Navigation.</u></b> The aircraft navigation system should have the following specifications: -</p> <p>(a) Does the NSUAS have the ability to proceed on a specified navigation route through auto mode defined by waypoints? Specify number of waypoints possible.</p> <p>(b) Is there a return home mode for recovery in case of GPS failure and data link loss?</p> <p>(c) Is it possible for automatic change of height/speed and heading as specified in the navigational route?</p> <p>(d) Is way point navigation available with the NSUAS? Are they configurable?</p> <p>(e) Can NSUAS loiter post navigating to a desired waypoint?</p> <p>(f) Can the NSUAS generate a search pattern to cover a defined area of search and navigate the RPA through the same?</p> <p>(g) Is the NSUAS link through SATCOM possible?</p>	--
10.	<p><b><u>Crew Composition.</u></b> What is the crew configuration including maintainers for complete operations (launch, recovery and payload handling) for duration of 08 hours of airborne time with basic payload?</p>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
11.	<b><u>Ceiling.</u></b> What is the service and operational ceiling of the NSUAS (Specify wrt each payload and all available configurations)?	--
12.	<b><u>Engines.</u></b>  (a) What type of engine? Is it battery operated or fuel driven.  (b) Type of battery / fuel  (c) What is the I/O and D level for maintenance of engine? What is the life of NSUAS engine and when is it supposed to be replaced?  (d) Is there a monitoring system for engine parameter available in the control station? Is there audio or visual warning should be available to operator for failure of critical systems?  (e) Can the engine be relit in air?  (f) Fuel/ Battery consumption/ hr	--
13.	<b><u>Speed.</u></b> What is the maximum, cruising and loiter speed of NSUAS?  What is the stall speed of the NSUAS?	--
14.	<b><u>Range and Endurance.</u></b> For the range and endurance requirements spelt out below, the reserve shall be 20 minutes of endurance. The minimum endurance with basic payload (EO/IR and AIS) is to be more than 10 hours.  What is the NSUAS loiter time at <u>5,000 ft at 100 Km</u> in: -  (a) <b><u>Basic Configuration (EO/IR, ADS(B) and AIS).</u></b>  (b) <b><u>Basic Configuration plus one Special Payload (EO/IR, ADS(B) and AIS plus MPR or COM Relay or COMINT or ELINT).</u></b>  (c) What is the maximum endurance with maximum All Up Weight?	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	(d) What is the maximum payload carrying capacity and whether the configuration mentioned at para 14(a) and (b) would be catered for in the payload carrying capacity?	
15.	<b><u>Night Capability.</u></b> Is the NSUAS capable of night operations (including launch and recovery) from all <b>IN</b> ships greater than 100m in length with helo deck? Is NSUAS NVG compatible ?	--
16.	<b><u>Maintenance.</u></b> Confirm the following :-  (a) All external electrical supply and fuelling connectors / couplings standard NATO type.  (b) Access panel for facilitating front line servicing should be fitted with quick release fasteners to facilitate front line maintenance and captive fasteners should be provided in access panels.  (c) NSUAS systems should have a flight line tester for carrying out system checks after defect rectification and parts replacements.  (d) NSUAS systems and equipment should incorporate both on line and off line modes for fault detection and localisation including BITE (Built in Test Equipment) facilities. NSUAS should have Built in Self-Test system for all avionic system. Provide the specific online and offline maintenance diagnostics and health monitoring capability, inbuilt test and fault warning facility.  (e) The entire system should have total electro-magnetic compatibility with all equipment onboard.	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p>EMI-EMC should conform to iaw MIL STD 461 / 464 or latest FAR or equivalent. The equipment fitted should not interfere with equipment already fitted onboard.</p> <p>(f) Specify the MTBF and MTTR facility of NSUAS and all payloads.</p> <p>(g) Does the NSUAS has facility for BITE and fault diagnosis for air vehicle and all payloads in the GCS if the fault occurs inflight?</p>	
17.	<p><b>Product Support.</b> What is the duration of product support in terms of spares and upgrades provided by the OEM? What is the period of warranty provided by the OEM?</p>	--
18.	<p><b>Annual Maintenance Contract.</b> NSUAS would be operated on a Comprehensive AMC model. Would the OEM provide a comprehensive AMC with an ability to maintain 80% full serviceability of NSUAS with sensor performance?</p>	--
19.	<p><b>Integral Simulator.</b></p> <p>(a) Is the NSUAS capable of integral simulator?</p> <p>(b) Does NSUAS have features to simulate mission profile sorties for operator training?</p> <p>(c) Can the control station have an integral simulator for maintaining currency of the crew and practicing emergencies?</p> <p>(d) Does simulator for training of ab-initio operator crew have animated videos and film clips for training of operator in various scenarios and emergencies? Confirm that the following facilities are available in the simulator:-</p> <ul style="list-style-type: none"><li>(i) Operation of GCS Instrument Bays</li><li>(ii) Flight Management And Control</li><li>(iii) Emergencies / Malfunctions</li><li>(iv) Aircraft subsystem indications / operations</li><li>(v) Payload handling</li><li>(vi) Navigation tracking system and simulation</li><li>(vii) Operations in various weather conditions.</li></ul>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
20.	<b><u>System Integration.</u></b> Is the system capable of interfacing indigenous datalink for exchanging real time tracks, images and video? Can the vendor share Interface Control Document (ICD) for integration with indigenous datalink equipment?	--
21.	<b><u>Training.</u></b>  (a) Can the OEM also provide maintenance and operator training manuals in both hard copy and digital format like CBT?  (b) What is the proposed training schedule and methodology?  (c) Can the NSUAS follow a maintainer cum operator philosophy?  (d) Can the same person be provided training for both maintainer and operator?  (e) Specify all training literature required including operational manual, preservation instructions, repair manuals, etc.	--
22.	<b><u>Flight Data Recorder (FDR).</u></b> Is the provision of FDR onboard the air vehicle to analyse in-flight data for training and operational value available? What is the recording capacity in terms of hours of operation?	--
23.	<b><u>Mission Parameter Recording.</u></b> Does the air vehicle capable of recording mission parameter data onboard in case of operating beyond datalink connectivity for extraction and analysis of data post flight? What is the recording capacity in terms of hours of operation?	--
24.	<b><u>GPS Denied Recovery.</u></b> Is there a procedure for recovery onboard the ship in case of GPS and DGPS failure? Please specify how it is undertaken.	--
25.	<b><u>Ability to float in water and reuse of air vehicle post emergency ditching.</u></b> Can the air vehicle float on water and be reused (if required after requisite	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	maintenance) in case of emergency ditching on water. Specify conditions for reuse. Also specify duration of floatation in water if ditched. Is the air vehicle water tight? Specify if waterproofing depth in salt water or fresh water is applicable with duration.	
26.	<b>Reduced Logistic Footprint.</b> What is the weight of NSUAS system in complete packed state including launch and recovery gear, GHE, GSE, Spares and three air vehicles? What are the dimensions of NSUAS system in complete packed state including launch and recovery gear, GHE, GSE, Spares and three air vehicles? Specify for each component when:-  (a) Packed  (b) Deployed	--
27.	<b>Transportability.</b> What is the method of transportation of the NSUAS from one location to another?  Provide the configuration of the capability of NSUAS to be transported by C-130 and C-17 aircraft.	--
28.	<b>Indigenous Content.</b> Specify the following (as applicable) :-  (a) What is the indigenous content with respect to (i) Basic cost of NSUAS (ii) Cost of individual LRUs / payload (iii) Cost of Spares. (iv) Cost of Special Tools.  (b) What is the percentage indigenous content on cost basis for platform?  (c) Is there any import of foreign equipment envisaged?	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
29.	<b>FET.</b> Provide details iaw Para 4 (e) of Part I of RFI	--
30.	<p><b><u>ROM Cost.</u></b></p> <p>(a) ROM cost is to be provided for <b>40</b> systems. Request provide ROM cost breakdown as specified under:-</p> <ul style="list-style-type: none"><li>(i) Cost of one NSUAS consisting of (provide each serial wise)</li><li>(ii) <b>Two</b> air vehicles with basic payload (EO/IR plus AIS)</li><li>(iii) Two control stations (One each of Main and Standby)</li><li>(iv) One launch system</li><li>(v) One point recovery system</li><li>(vi) One ship data terminal</li><li>(vii) One spare set of specialised Role Equipment (one each of MPR, COMINT, ELINT and COM relay)</li><li>(viii) Two Remote Video Terminal (RVT)</li></ul> <p><b><u>ESP</u></b></p> <ul style="list-style-type: none"><li>(ix) OEM Recommended Quantity of Payloads (EO&amp;IR, AIS, MPR, COMINT, ELINT and COM relay) as Spares.</li><li>(x) MRLS (including engines and composite Airframe parts) for sustenance of operations for 2 years as per OEM recommendation with 'Buy Back' option in case of unused spares. Includes 'O', 'I' and 'D' level maintenance ('O', 'I' and 'D' Level to be mentioned separately) as per utilisation rate mentioned below: -</li></ul>	--

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	<p><b><u>Normal Operations.</u></b> At least 100 hours per month throughout the year.</p> <p><b><u>Intensive Operations.</u></b> At least 16 hours per day and at least 300 hrs per month for a period of at least two months in a year.</p> <p>(xi) 'O' level SMT, STE, Jigs, Fixture, etc for operations from ships for 15 systems plus 20% as spares.</p> <p>(xii) Documentation, Publication and Training Literature</p> <p>(xiii) Training Aggregates as follows: -</p> <ul style="list-style-type: none"><li>• One set of Sectionised Equipment, Shop Replacable Units (SRUs), Training Charts/ Slides/ Diagram.</li><li>• Two set of Computer based training package based on interactive multimedia</li><li>• Tough Books with Maintenance Manual for training of aircrew and technical personnel</li></ul> <p>(xiv) Training of Operator and Maintainer Crew (approx. 15 teams) (Dual Training) and Instructor grading, by OEM. Only 'O' level training would be required. All crew would be required to be trained as instructors in addition.</p> <p>(xv) Comprehensive AMC for 80% serviceability of NSUAS (including payload) for <b>07</b> years.</p> <p>(xvi) Cost of vehicles including type and number required at one airbase for transportation (PI specify item wise) of NSUAS to ship and back as required. (It is proposed to operate the system akin to embarking squadrons where the systems, other than the ship-fit component, would be stowed in base</p>	

<b>Ser</b>	<b>Requirements</b>	<b>Vendor to Specify and provide maximum details possible</b>
	and embark ships as required).  (xvii) Cost of support infrastructure, if any, along with specifications  (xviii) Integration cost  (b) All applicable taxes (such as GST etc) need to be mentioned separately.  (c) Any other additional cost as deemed by the vendor.	
31.	<b>Delivery Schedule.</b> The delivery schedule of 40 NSUAS in a phased manner along with associated spares to be provided.	
32.	Annual turnover during the preceding 03 years.	
33.	No. of pages enclosed in the reply	

**Appendix B**  
(Refers to Para 7)

**INFORMATION PROFORMA (INDIAN VENDORS)**  
(Refer Annexure II to Appendix A of Chapter II of DAP 20)

1. **Name of the Vendor/Company/Firm.**

(Company profile including share holding pattern, in brief, to be attached. In the eventuality of the firm emerging as L1, contract will be concluded in the name and address of the firm, as indicated here). Vendors are to submit an undertaking that any subsequent proposal for change in name of firm or address, will be intimated to IHQ MoD (Navy) at the first available opportunity and supporting documents be furnished within five working days of approval be relevant competent authority.

2. **Type (Tick the relevant category).**

Original Equipment Manufacturer (OEM)

Yes/No

Authorised Vendor of foreign Firm

Yes/No (attach details, if yes)

Others (give specific details)

3. **Contact Details.**

Postal Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_ State : \_\_\_\_\_

Pin Code : \_\_\_\_\_ Tele : \_\_\_\_\_

Fax : \_\_\_\_\_ URL/Website: \_\_\_\_\_

Email : \_\_\_\_\_

4. **Local Branch/Liaison Office in Delhi (if any).**

Name & Address: \_\_\_\_\_

Pin code: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email : \_\_\_\_\_

5. **Financial Details. Category of Industry (Large/medium/small Scale)**

6. **Certification by Quality Assurance Organisation.**

Name of Agency	Certification	Applicable from (Date & Year)	Valid till (Date & Year)

7. **Details of Registration.**

Agency	Registration No.	Validity (Date)	Equipment
DGS&D			
DGQA/DGAQA/DGNAI			
OFB			
DRDO			
Any other Government Agency			

8. **Membership of FICCI/ASSOCHAM/CII or other Industrial Associations.**

Name of Organisation: \_\_\_\_\_

Membership Number: \_\_\_\_\_

9. **Equipment/Product Profile (to be submitted for each product separately)**

- (a) Name of Product:  
(IDDM capability be indicated against the product)  
(Should be given category wise for eg, all products under night vision devices to be mentioned together)
- (b) Description (attach technical literature):
- (c) Whether OEM or Integrator:
- (d) Name and address of foreign collaborator (if any):
- (e) Industrial Licence Number:
- (f) Indigenous component of the product (in percentage):
- (g) Status (in service /design & development stage):
- (h) Production capacity per annum:
- (j) Countries/agencies where equipment supplied earlier (give details of

quantity supplied):

- (k) Estimated price of the equipment
- 10. Alternatives for meeting the objectives of the equipment set forth in the RFI.
- 11. Any other relevant information.
- 12. **Declaration.**
  - (a) It is certified that the above information is true and any changes will be intimated at the earliest.
  - (b) It is certified that in the past that \_\_\_\_\_ (name of the firm) has never been banned/ debarred for doing business dealings with MoD/ GoI/ any other Government Organisation and that there is no enquiry going on by CBI/ ED/ any other Government Agency against the firm.

(Authorised Signatory)

**CRITERIA FOR VENDOR SELECTION/ PRE QUALIFICATION  
PREQUALIFICATION IN 'BUY (INDIAN-IDDM)' AND 'BUY (INDIAN)' CASES**

1. The guidelines prescribed for short-listing/ pre-qualification of Indian vendors in Buy (Indian-IDDM) & Buy (Indian) cases are enumerated in the succeeding paragraphs. **Paragraph 2** deals with the parameters that may be considered for short-listing of vendors, whereas **Paragraph 3** amplifies the process for applying selected parameters to the process of Vendor Short listing.

2. **Parameters.**

(a) **General Parameters.**

(i) Applicant Entity should be an Indian Vendor as defined at Paragraph 20 of Chapter I of DAP 2020.

(ii) Business dealing with applicant Entity or any of its allied entities should not have been suspended or banned, by MoD/ SHQ or any Government Department or organization (as defined in Guidelines for Penalties in Business Dealings with Entities issued vide Ministry of Defence, D(Vigilance) MoD ID No 31013/I/2006-D(Vig) Vol II dated 21 Nov 2016). None of the Promoters and Directors of applicant entity should be a wilful defaulter.

(iii) "Entities" will include companies, with whom the Ministry of Defence has entered into, or intends to enter into, or could enter into contracts or agreements.

(iv) "Applicant entity" may be a company, subsidiary, an associate company (as defined in the Companies Act, 2013), a consortium or a Joint Venture (JV).

(b) **Technical Parameters.**

(i) Vendor shall be a manufacturing entity or a system integrator of defence Equipment and not a trading company, except in cases where the OEM participates only through its authorised Vendors.

(ii) Minimum **two year** experience in **broad areas like manufacturing/ electronics/ explosives etc. as applicable in the instant procurement case**. If not, then cumulative experience of at **least three years in above areas**, resulting in gaining of competence for manufacturing the proposed Equipment. (In case the IHQ feels that for a particular Equipment a lesser experience could be accepted, then the same should be got approved by the competent authority before including the same in the RFP).

(iii) Where Equipment involves integration, previous experience **of not less than one year/ one project** in integration of systems/ Equipment shall be required.

(iv) **Turnkey Projects**. Experience of successful completion of one Turnkey project of similar nature within last five 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 paragraph 2 (b) (ii) above and experience of installation or integration of similar Equipment/system or system of systems.

(v) **ICT Cases**.

(aa) Certification to be included if linked to scope of work – Gartner Quadrant/ ISO9001/ CMMi3 or more (specifying development/ service/ acquisition models)/ ISO27001. For Information Security and large value projects preferably CMMi5 may be specified.

(ab) Compliance with IEEE/ ITU standards depending upon nature/ type of project or solution required.

(c) **Financial Parameters**.

(i) **Average Annual Turnover**. Minimum average annual turnover for last three financial years, ending 31<sup>st</sup> March of the previous financial year, should not be less than 30% of estimated cost of the Buy (Indian-IDD) and Buy (Indian) project should not be less than 30% of estimated cost of the Make portion.

(ii) **Net Worth**. Net worth of entities, ending 31<sup>st</sup> March of the previous financial year, should not be less than 5% of the estimated cost of the Buy (Indian-IDD) and Buy (Indian) project should not be less than 5% of estimated cost of the Make portion. Net worth of

entities should not be **negative**.

(iii) **Credit Rating (Desirable Financial Parameter)**. Long term credit rating equivalent to CRISIL rating on Corporate Credit Scale as **CCR-BBB or better**, and **SME-04 or better for SMEs** issued by credit rating agencies recognized by SEBI. Credit rating should be as on 31<sup>st</sup> March of the previous financial year.

**Note 1:** The turnover and net worth of the vendor shall be rounded off to the nearest lower ten/ hundred crores so as to keep the estimated cost of procurement confidential).

(d) **Other Parameters.**

(i) **Industrial License (IL)**. Vendors should be either holding a valid defence industrial license or should have applied for the same before responding to RFP. In any case the vendor must confirm holding of IL before commencement of FET. (Items requiring IL will be as per DIPP Press Note 3 of 2014 as amended from time to time).

(ii) **Registration**. Registered for a minimum of two years (one year for SMEs). Minimum number of years not applicable for JVs constituted specifically for a project.

3. **Stipulations for Applying Parameters.**

(a) Areas like manufacturing/ electronics/ explosives etc. referred to at Paragraph 2(b) (ii) should be defined in each case of procurement.

(b) In case the Applicant Entity is unable to meet the Financial Parameters by itself, it may rely on its **Holding Company** (as defined in the Companies Act, 2013 and amendments thereof) ("Companies Act") for fulfilment of the Financial Parameters, in which case reliance must be placed on the Holding Company towards fulfilment of **ALL** the Financial Parameters.

(c) In case the Applicant Entity is unable to meet one or more of the Technical Parameters by itself, it may rely on a Group Company (ies) for fulfilment of the Technical Parameters. A Group Company in relation to the Applicant Entity may be:-

(i) A company of which the Applicant Entity it is an Associate Company. Such company should have ownership, directly or indirectly, of at least **26%** of the voting shares of the Applicant Entity.

- (ii) A company which is an Associate Company of the Applicant Entity. The Applicant Entity should have ownership directly or indirectly, of at least **26%** of the voting shares of such Associate Company.
  - (iii) A Company with whom the Applicant Entity is commonly owned, directly or indirectly, for at least **26%** of the voting shares by another company. For example: An Applicant Company A is an Associate Company of Company B, in which B holds at least 26%. Further, C is also an Associate Company of B, in which B holds at least 26%. In this case the Applicant Company may use the credentials of C as well.
  - (iv) The Holding Company and Subsidiary Companies (as defined under the Companies Act) of the Applicant Entity.
- (d) The Applicant entity may be a single entity or a group of entities (the “Consortium”), coming together to implement the project. In such case:-
- (i) The credentials of only those members or their related entities may be counted, who have at least **26%** equity stake in the Consortium.
  - (ii) Each Consortium should have a designated **Lead Member**.
  - (iii) For Technical Parameters, **any of the Consortium members or their Group Companies** may meet the criteria.
  - (iv) For Financial Parameters; the Turnover and Net Worth of the Consortium Member shall be reckoned **proportionate to Consortium Member’s equity stake** in the Consortium, and each Consortium member should meet the other criteria pertaining to Insolvency and Credit Rating. In case the Consortium Member relies on its Holding Company for any one of the above-mentioned Financial Parameters, then reliance must be placed on the Holding Company for meeting **all the financial Parameters**.
- (e) Vendors should provide all necessary self-authenticated documentation in support of their achievement of criteria. Such documentation should inter-alia include:-
- (i) Details of projects/ supply orders successfully executed in the last two years.
  - (ii) Annual reports for three years of applicant entity, parent and associate companies, consortium and JV partners.

(iii) Details of shareholders, promoters, associated, allied and JV companies.

(iv) Details of vigilance action, viz. ongoing investigation and suspension/ debarment/ blacklisting actions against the applicant entity or any of its allied entities, parent company or consortium and JV partners, if any by any Department/agency of Central Government.

(v) A certificate from CA/CS indicating the financial parameters for the last three years as per Paragraph 2(c).

**(Note:** If a vendor is already a supplier to MoD and/ or has already provided the above documents in such cases, it should be necessary for the vendor to resubmit only such documentations as is necessary to update the above).

(f) Any vendor furnishing false information will be liable for action as per existing guidelines.

(g) Based on these generic parameters, more specific criteria should be evolved by the SHQ with regard to Technical and Financial parameters {Paras 2(b) and 2(c) above} in each procurement case depending upon requirements peculiar to each case keeping in view the overall need to ensure wider vendor participation. The specific criteria evolved by the SHQ for each case, as per these guidelines, may be got approved by the competent authority before including the same in the RFPs.

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). For procurement cases where the estimated cost is not exceeding ₹100 crores/ year based on delivery schedule at the time of seeking AoN or ₹ 150 crores, whichever is higher, to encourage the Start Ups/ MSMEs and build Industrial ecosystem, the recognized Start Ups/ MSMEs in the relevant fields may be considered for issue of RFP without any stipulation of Financial parameters, except Paragraph 2(c)(iii) above (Insolvency) and with General and Technical parameters to be decided on case to case basis.

5. The criteria for vendor selection shall be clearly stipulated in RFPs so as to maintain transparency. Care shall be taken to ensure that the stipulated criteria are not open to subjectivity and arbitrary interpretation.