REQUEST FOR INFORMATION : SURVEILLANCE QUADCOPTER

1. The Ministry of Defence, Government of India, intends to procure Surveillance Quadcopter for the Indian Army. Two versions of Surveillance Quadcopter are envisaged. Surveillance Quadcopter (HA) for deployment above 4000m and Surveillance Quadcopter (S) for deployment below 4000m. With the view to identify probable vendors who can undertake the said project, the OEMs / Vendors are requested to forward information on the product which they can offer.

2. The RFI consists of three parts as indicated below :-

(a) **Part I**. The first part of RFI incorporates operational characterstics and broad technical requirements that should be met by the equipment, tentative date of the issue of RFP and the tentative quantity required to be procured.

(b) **Part II**. The second Part of RFI incorporates guidelines for framing criteria for vendor selection / pre-qualification in Buy India (IDDM), Buy (Indian) and Buy & Make (Indian) cases.

(c) **Part III**. The third Part of RFI states the methodology seeking response of vendors. Submission of incomplete response format will render the vendors liable for rejection.

PART I : OPERATIONAL REQUIREMENTS AND BROAD TECHNICAL PARAMETERS

3. Indian Army seeks Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) with the following mandatory characteristics :-

(a) **Components**. Each Surveillance Quadcopter should consist of one Aerial Vehicle (AV) per sys, One MPGCS, One RVT, One colour day video camera, Monochromatic Night Thermal Sensor and One set of spare battery.

(b) **All Up Weight**. Not more than 10 Kg (+10%). However, for Surveillance Quadcopter (HA), the weight of the equipment should be suitable to withstand high altitude strong wind upto 20 knots.

(c) **Map**. Compatible with Defence Series Map and Shape file format.

(d) **Mission Range**. The mission range with maximum All Up Weight (AUW) should not be less than 5 Km (one way).

(e) **Operational Altitude**.

(i) The Surveillance Quadcopter (High Altitude) must be capable of launch from not less than 5500m Above Mean Sea Level (AMSL) and should be capable of achieving not less than 500m Above Ground Level (AGL).

(ii) Surveillance Quadcopter (S) must be capable of launch from not less than 4000m Above Mean Sea Level (AMSL) and should be capable of achieving not less than 500m Above Ground Level (AGL).

(f) **Endurance**. With max AUW including the optical payload at 5 Km rg at 500m above take off altitude should be minimum 45 minimum.

(g) **Payload**. Surveillance Quadcopter must have **colour day video camera**, **Monochromatic** and **Night Thermal Sensor**.

(h) **Launch and Recovery**. Both version of Surveillance Quadcopters must have launch and landing capability on an unprepared area of not more than 25 meter x 25 meter.

(k) **Operational Temperature**.

(i) **Svl Quadcopter (HA)**.

Max - Between 40˚C to 45˚C.

Min - Between -20˚C to -10˚C.

(ii) **Svl Quadcopter (S)**.

Max - Between 40˚C to 45˚C.

Min - Between 0˚C to 5˚C.

(l) **Crew**. Maximum two persons.

(m) **Flight Mode**. Surveillance Quadcopter must have fully Autonomous mode, Manual mode and return home mode.

(n) **Security / EW Interference**. The Svl Quadcopter (HA) and Svl Quadcopter (S) should be hardned against EW interference and should have anti-jamming and anti-spoofing properties.

(o) **Self Destruction Mode**. The sys should preferably have self-destr mechanism in case of hostile takeover / capture by en.

(p) **IFF Feature**. Sys should be able to iden and respond to friendly IFF to avoid friendly engagement of own Air Space users in TBA.

(r) **Maps**. The system should be able to use the following type of maps :-

(i) Compatible with Defence Series Map having shape file format.

(ii) Compatible to operate maps produced in WGS 84 Datum and LCC Projection (Two Standard Parallel).

(iii) All types of maps provided with the system should be upgradeable.

(s) **Geo-References**. All geo-references must be displayed in Latitude-Longitude/Indian Military Grid Reference (IMGR) (user selectable).

(t) **Compliance to Metric System**. The Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) will use SI units or SI derived units.

(u) **Compliance to Environmental Test Procedures**. The Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) will comply with the environmental test procedures as per Table 3-1 of JSS 55555.

(v) **Software**. The software should be validated as per 1EEE12207.

(w) **EMI / EMC Reqmt**. Surveillance Quadcopter must be compliant to MIL STD 461 E or better.

(x) **Shelf Life**. Surveillance Quadcopter must be capable to withstand not less than 500 landings for High Altitude Version and not less than 1000 landings for standard version.

(y) **Design & Construction**. The Surveillance Quadcopter and it's constituents should meet the following requirements as far as possible :-

(i) Modular in construction.

(ii) Built In Test Equipment and Power On Self-Test to identify defects upto Printed Circuit Boards/modules.

(iii) Use of military grade indigenous components.

(iv) Low import content.

(v) Should have capability to absorb software upgrades that is adequate memory.

(vi) Should have a tangible obsolescence management plan and upward compatibility for latest modules.

(vii) **Generators and Batteries**. The generators and batteries, if applicable, should be indigenous. The generators should be compliant to latest Central Pollution Control Board specification.

(z) **Technical Literature**. The technical literature should be as per JSS0251-01:2015 (Revision No 2).

(aa) **Counter for Usage**. Software / Mechanical Counter be provided to display cumulative in service usage for facilitating preventive/periodic maintenance.

4. Tentative date of issue of RFP is Nov 2022. The approximate quantity of Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) that can be delivered by OEMs/vendors within **18-24 months** from the date of signing of contract should be clearly mentioned in the response.

5. The parameters/broad specifications of the item are mentioned in the questionnaire attached as per **Appendix 'A'**. The vendors are required to respond to the same.

6. Vendors should confirm that following conditions 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 submitting of offers.

(b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.

(c) The equipment of all TEC cleared vendors would be put through a trial evaluation in India on a 'No Cost No Commitment' 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.

(d) Amongst the vendors cleared by GS evaluation, a Contract Negotiation Committee would decide the lowest cost bidder (L1) and conclude the appropriate contract.

(e) Vendor would be bound to provide product support for time period specified in the RFP which includes spares and maintenance tools/jigs/fixtures for operator level and field level repairs.

(f) The vendor would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter VI of DAP- 2020 (placed on www.mod.nic.in).

(g) **Offset (if applicable)**. The vendor has to undertake offset contracts amounting to _____% of the value of commercial proposals (Refer Appendix D to Chapter II).

(h) **Integrity Pact**. An integrity pact along with appropriate IPBG is a mandatory requirement in the instant case **(Refer Annexure I to Appendix M of Schedule I of DAP 2020)**.

(j) **Performance-cum-Warranty Bond**. Performance-cum-Warranty Bond both equal to 5% value of the contract inclusive of taxes and duties **or as amended from time to time** is required to be submitted after signing of contract.

(k) **ToT (if applicable)**. GOI is desirous of license production of equipment after acquiring ToT in the case.

PART II : GUIDELINES FOR FRAMING CRITERIA FOR VENDOR SELECTION/ PRE-QUALIFICATION IN 'BUY (INDIAN-IDDM)' BUY (INDIAN)' AND 'BUY & MAKE (INDIAN)' CASES

6. **Part II**. Guidelines for Framing Criteria for Vendor Selection / Pre-Qualification in Buy India (IDDM), Buy (Indian) and Buy & Make (Indian) Cases is given at **Appendix 'B'**.

PART III : PROCEDURE FOR RESPONSE

7. The Indian Army is planning to procure Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) with the view to identify probable vendors who can undertake the said project, OEMs/Authorised Vendors are requested to forward information on the product which they can offer. The parameters / broad specifications of the item are mentioned in the questionnaire attached. In addition, the vendors are required to furnish details as per Performa at **Appendix 'C'**.

8. Apart from filling the information about company, details about the exact product meeting other generic technical specifications should also be carefully filled. As per the Appendix, the vendors should also forward technical details/product brochures/literature, etc, pertaining to the equipment.

9. The Government of India invites responses to this request only from the Original Equipment Manufacturer (OEM)/Authorised Vendors/Government Sponsored Export Agencies (applicable in the case of countries where domestic laws do not permit direct export by OEMs). The end user of the equipment is the Indian Armed Forces (Indian Army).

10. This information 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. The acquisition process would be carried out under the provisions of DAP-2020.

11. An interaction with all desirous vendors has been scheduled on **24 May 2022** at **1100 hrs** at Sena Bhawan, New Delhi. All vendors desirous of attending the 'Vendor Interaction' are required to furnish requisite documents as per **Appendix 'D'** to Infantry Directorate/Infantry-5 as per the address given below by **18 May 2022** for obtaining necessary security clearance well in advance.

12. The required information / details may please be forwarded at the following addresses by **14 Jun 2022**. The vendors short listed for issue of RFP would be intimated.

Directorate General of Infantry / Infantry-5
General Staff Branch
Room No 408B, 'D1' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi - 110 011
(Fax - 011-230183898)

Directorate General of Capability Development (CD-4)
General Staff Branch
Room No 411, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi – 110011
(Fax - 011-23793274)

Army Design Bureau (GSQR Cell)
General Staff Branch
Room No 16, 'C' Wing, Sena Bhawan
Integrated HQ of MoD (Army) DHQ PO, New Delhi - 110011

ADG Acquisition Technical (Army)
Room No 28, D-II Wing, Sena Bhawan
Ministry of Defence
New Delhi – 110011
(Fax : 011-23792414)

13. An early response is requested.

Appendix A

RFI QUESTIONNAIRE

1. **Physical Aspects of the Surveillance Quadcopter**.

Ser No	Specification Required	Response
(a)	**Components**. What are components in the system ?	
(b)	**Weight**. (i) What is the breakdown of the weight of each component the Surveillance Quadcopter incl backpack? (ii) What is the maximum take-off Alt Up Weight (AUW) of Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) ?	
(c)	**Map**. (i) What kind of mapping system is being provided ? (ii) Whether the map is compatible with Defence Series Map having shape file format ? (iii) Whether system is compatible to operate maps produced in WGS 84 Datum and LCC Projection (Two Standard Parallel) ?	
(d)	**Geo-Reference**. (i) Whether system is compatible with IMGR bases on DSM. (ii) Whether equipment display console simultaneously read out 8 figure DSM Grid Reference as well as geo coord in degree minutes seconds format.	
(e)	**Dimension**. (i) What are the dimensions of each major component of the Surveillance Quadcopter (HA)? And Surveillance Quadcopter (S) (ii) What are the dimensions of the backpack provided with the system?	
Op Aspects of Surveillance Quadcopter		
(f)	**Range**. What is the maximum mission range of the Surveillance Quadcopter (High Altitude) and Surveillance Quadcopter (S) with maximum AUW at altitude given at Para 3 (d).	

Ser No	Specification Required	Response
(g)	**Altitude**. (i) What is the highest launch altitude (Above Mean Sea Level) of the Surveillance Quadcopter (S) and Surveillance Quadcopter (HA) (AMSL in meters)? (ii) After launch from the highest launch altitude (as given above), what is the maximum altitude that both versions are capable of gaining (Above Ground Level in meters)?	
(h)	**Endurance**. When launched at maximum mission range, with maximum take-off All Up Weight (AUW) at the maximum altitude (AGL), what is the endurance of the Surveillance Quadcopter (S) and Surveillance Quadcopter (HA) at following launch altitudes :- (i) 5500m AMSL for Surveillance Quadcopter (HA) and 4000m AMSL for Surveillance Quadcopter (S) ? (ii) At highest possible launch altitude for your Quadcopters?	
(j)	**Launch & Recovery**. (i) What is the Launch and Recovery mechanism offered in the Surveillance Quadcopter (HA) and Surveillance Quadcopter (S)? (ii) Can the Surveillance Quadcopter (High Altitude) be launched and recovered within an unprepared area of not more than 25 Meter x 25 Meter? Give the exact area required for launch and recovery.	
(k)	**Target Acquisition**. (i) What is the maximum look angle from the vertical at which the Surveillance Quadcopters can acquire ground targets?	
(l)	**System Accuracy**. What is target accuracy during flights (in CEP) ?	
(m)	**GPS**. (i) Whether the system is compatible with GPS, GLONASS & IRNSS (subject to its devp and to be defined by the User during RFP). (ii) What is accuracy of Geo reference coord.	

Ser No	Specification Required	Response
(n)	**Deployment Time**. From transportation condition (man pack), how much time does it take to assemble the complete system and deploy the same for a mission by two persons?	
(o)	**Temperature Range**. (i) What are the minimum and maximum ground and flight temperature ranges within which the Surveillance Quadcopter (High Altitude) and Surveillance Quadcopter (S) will function efficiently without any degradation? (ii) Also indicate the duration for which the Surveillance Quadcopter (High Altitude) and Surveillance Quadcopter (S) can effectively function at these extreme ranges. (iii) Give the operating temperature range for each version.	
(p)	**Environmental Conditions**. (i) What are environmental limitations which affect the operation of Surveillance Quadcopter (High Altitude) and Surveillance Quadcopter (S)? (aa) Wind speed. (ab) Humidity. (ac) Visibility. (ii) Details of the up gradation/degradation of the performance should be elaborated. (iii) Details of laboratories where the internal environmental testing of the equipment has been carried out.	
(q)	**Observation Ranges**. What are observations ranges of Surveillance Quadcopter (HA) and Surveillance Quadcoapter (S) in terms of detection, recognition and identification of pers, vehicle and field structure ?	
(r)	**Destr Mode**. (i) Does the system has self destruction mode in case of hostile take hour / capture by enemy. (ii) Does it have Traffic Collision Avoidance System (TCAS).	
(s)	Is the camouflage and waterproofing mechanism available?	

2. **Technical Aspects of the Surveillance Quadcopter**.

Ser No	Specification Required	Response
(a)	**Pay load**. (i) What is the payload for Surveillance Quadcopter (HA) and Surveillance Quadcopter (S). (ii) Whether it is compatible with colour day video camera, monochromatic and night thermal sensor ? (iii) What is the resolution of colour day video camera and monochromatic night thermal sensor ? (iv) What is the optical zoom vertical & horizontal & WFOV of the payload and degree of stabilization. (v) Are Optoelectronic equipments (Day & Night Camera) compliant to JSS-5855-11-2019? (vi) Is auto tracking and detection features available? (vii) Please specify whether the payload is All-in-one modular or separate payload for day and night.	
(b)	**Flight Modes**. (i) What are the different flight modes for both Surveillance Quadcopters? (ii) Whether it is compatible with fully autonomous mode, manual mode and return home mode ?	
(c)	**Software**. (i) Does the system has Indigenous software? (ii) How is the software security being assured by vendor and what are the debugging procedures? (iii) What is the methodology for carrying out Quality Assurance of software? (iv) Is the software upgradable? If so, will the vendor provide free software upgrades as and when available? (v) Is adequate security (sandboxing) available in the software package or is it still vulnerable to viruses and/or hacking? (vi) Has the software been verified and validated as IEEE-12207 ? (vii) Has Surveillance Quadcopter been evaluated at NABL accredited lab for environmental parameters as per Table3-1 of JSS 55555?	
(d)	**Man Portable Ground Control Station (MPGCS)**. (i) What are the technical specifications, features, control options, portability, weight and ruggedisation aspects of the MPGCS? (ii) Can it be customized as per user requirements at no extra cost? Can additional features / software be added for improved functionality later on? (iii) What is storage facility/capability on MPGCS ? (iv) What are the specification for display like OLED/LED/LCD ?	

Ser No	Specification Required	Response
(e)	**Remote Video Terminal (RVT)**. (i) What is the maximum distance up to which the RVT located away from the MPGCS be able to receive data from Mini RPAS be able to receive data from Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) in real time without any degradation? (ii) Can it operate without being in Line of Sight with MPGCS or the Surveillance Quadcopter (HA) and Surveillance Quadcopter (S)? (iii) Does it function on secured radio frequency or optical cable of both? All technical details and features of RVT need to be elaborated. (iv) Specify whether the RVT is ruggedized, if laptop based?	
(f)	**Data Link**. (i) What is the uplink and downlink speed for two way communication with Surveillance Quadcopters? (ii) Whether it is compatible with S/C Band (2 GHz to 6 GHz) with 128 bit AES encryption ?	
(g)	**Snapshots/Video**. (i) What kind of snapshots / video can be taken by the Surveillance Quadcopters during flight? (ii) What is the on board recording & storage capability? (iii) What is the real time transmission capability of these recordings? (iv) What all information can be annotated on these snapshots / video to enable quick analysis of data? (v) Is there any compression/encryption capability while storage data?	
(h)	**Security**. What are the anti-jamming and anti-spoofing measures incorporated in the Surveillance Quadcopter (HA) and Surveillance Quadcopter (S)?	
(j)	**Data Back-Up**. Does the equipment have capability of backing up data? What all redundancies are provided for the same?	
(k)	**EMI/EMC**. (i) What Mil Standards are being conformed to by the equipment produced by the OEM/Vendor? (ii) Which accredited laboratory (Indian/International) has certified your equipment? Please specify details with dates. (iii) Whether it is compatible with better than Mil Standard 461 E ?	

Ser No	Specification Required	Response
(l)	**Crew**. (i) How many persons are required to operate in Surveillance Quadcopter (High Altitude) as crew members ?. (ii) Whether it is compatible with max two persons ?	
(m)	**Artificial Intelligence**. What kind of Artificial Intelligence has be incorporated in the system ? Give details.	
(n)	Does the system complies to industry standards as under :- (i) ISO 9001 2008/2015. (ii) ISO 2000 for service mgt. (iii) ISO 27000 for Information Security. (iv) AS:9100 certification which is the latest international Quality Management System standard for the Aviation, space and Defense (AS&D) Industry, created by the IAG.	

4. **Maintenance and Ergonomics Aspects of the Surveillance Quadcopter**.

Ser No	Aspect / Parameter	Response
(a)	**Test Procedure**. (i) Does the Surveillance Quadcopters have an inbuilt self-test mode to indicate GO/NO GO conditions for AV, MPGCS and the payload? If so, then the details thereof may be provided. (ii) Does the equipment have a BITE facility for automatic detection and troubleshooting during each booting procedure?	
(b)	**Avionics**. (i) Are the avionics upgradable? If so, will the vendor provide future support in terms of up-gradation of these avionics as and when better technology is available? (ii) What would be the maintenance requirement and schedule for the airframe and avionics of the Surveillance Quadcopter particularly High Altitude version?	
(c)	**Performance**. Has the OEM/Vendor conducted tests of the equipment to verify its performance particularly of High Altitude version at an altitude of 5500 m AMSL and/or above? If yes, then what was the location of these tests (including altitude for tests, endurance and range achieved in most trying conditions)?	
(d)	**Tests on System**. What are the details of the tests performed at various altitudes (which can indicate the suitability of the equipment to perform as per details given by the vendor)?	

Ser No	**Specification Required**	**Response**
(e)	**Mode of Operation**. What are the various modes of operation (Fuel operated or Battery operated) of the Surveillance Quadcopters (**specify separately for each component**)? (i) If fuel operated, specify the following:- (aa) Type of fuel. (ab) Environmental requirements. (ac) Commercial availability. (ad) Details of the motor used. (ii) If battery operated, specify the following :- (aa) Type of battery. (ab) Environmental requirements. (ac) Commercial availability. (ad) Charging mechanism. (ae) Service and Shelf Life. (af) Endurance. (ag) Input voltage/Ampere Hours for operation. (ah) Detachable. (aj) Space battery.	
(f)	**Life**. What is the life of AV in terms of number of landings? Please specify separately for standard and High Altitude Version.	
(g)	**Engineering Support Package**. What is the engineering support package being offered?	

Ser No	**Specification Required**	**Response**
(h)	**Repair & Maintenance**. (i) What is the provision for repair and maintenance of this system? (ii) If the system is required to be routed back to the vendor for repairs, then what would be the total down time for such systems (including transportation to earmarked collection points)? (iii) Does the vendor have major repair and overhaul facility for major assemblies and component level repair? (iv) What are the levels of repair? Does it have Operator Level, Field Level and Base Level Repairs? Also, specify the scope of repairs at each level. (v) Is any major infrastructure facility required at Field level to repair/replace the components? If yes, mention the facilities required for the same. (vi) Do the components of the aerial vehicle have a specific calendar life or are they 'ON condition' components? (vii) Give inputs on aspect related to such as time between overhauls / repairs, life time maintenance & spares support, Obsolescence Management support etc. (viii) What is the repair & maintenance philosophy of the OEM to include periodicity of midlife interventions, intent towards establishment of maintenance hubs etc.	
(j)	**Product Support**. (i) What kind of 'Product Support' will you ensure? What will be the 'Time Period'? (ii) What life time product support can be provided?	
(k)	**Shelf Life**. What is the likely 'Shelf Life' of the equipment?	
(l)	**Annual Maintenance Contract**. What type of AMC will be provided by the OEM/Vendor and for what duration?	
(m)	**Quality Assurance**. (i) What are the Quality Assurance Procedures adopted by each OEM/Vendor for environmental and functional checks? (ii) Does the environment tests comply to relevant parameters of of Table 3-1 of JS 55555. (iii) Does the test have been accredited by NABL laboratory ?	

(n)	**Spares**. (i) Give details of vendors, sub vendors especially those with establishments in India as also readiness/Lead time towards spares provisioning. (ii) What should be the philosophy for management of repairs and spares post contract. (iii) Does the OEM / vendor has base overhaul facilities and availability of Infrastructure for the same in India?	
(o)	**Product Support for Codification**. (i) Is the systems / equipment codified ? If yes, give details? (ii) Vendor / OEM has to give acceptance to either provide existing NATO Stock Number (NSNs) of the OEM or codify the items supplied under the contract as per part list (including MRLS) in consultation with the MoD/Directorate of Standardisation in a time bound manner.	

4. **Training Aspects of the Surveillance Quadcopter**.

Ser No	Aspect / Parameter	Response
(a)	What are the training facilities available at the OEM/Vendor premises to conduct training of the Crew, Maintenance, Ordnance and DGQA personnel?	
(b)	How will the vendor assist/facilitate conduct of training for User, DGQA and Maintenance personnel in India and for what duration?	
(c)	Is there any skill set desired for the trainee?	
(d)	Is there any need for a special infrastructure required for the training? Confirm whether Simulators/Training Aids for the equipment are available and can be provided by the vendor.	
(e)	Will the vendors be able to provide sectionized/cut models, 3D models, Computer Based Training packages, soft copies of User Handbook and Training Manuals and IETMs for the training and what are the likely costs of each?	
(f)	What type of user and technical description manuals likely to be provided and what are the likely costs of each?	
(g)	Is the prototype readily available or has to be designed / manufactured? If available, please provide complete operational and technical specification of the same.	
(h)	What will be the time penalty for the mandatory and other features sought by the Indian Army to be incorporated in your equipment?	
(j)	If the equipment is to be fielded within 04 months/06 months, what level of technology (or type of prototype) would be made available?	
(k)	What will be the time penalty and fall out if additional features / higher technology are asked in the prototype?	
(l)	What is the likely time period required by the vendor to field the prototype for trials post intimation of clearance in TEC? This date should factor in time for clearance, transportation etc.	
(m)	Is the OEM/Vendor willing to participate in trials as per DAP-2020 in India on ‘NCNC’ basis?	
(n)	What maximum equipment quantity can be made available in India for trial on ‘NCNC’ basis?	
(o)	What is the suitability of equipment for deployment in various types of terrain in India? Specify separately for deserts, plains, mountainous, High Altitude Area.	
(p)	What is the likely time and clearances required for import of equipment for trials in India post receipt of EUC?	

5. **Commercial Aspects of the Surveillance Quadcopter**.

Ser No	Aspect / Parameter	Response
(a)	Is the vendor an OEM for the equipment? If no, then does a MoU for licensed production exist between the OEM and the Indian vendor?	
(b)	**Indigenous Content**. (i) Is the equipment to be provided produced indigenously by the vendor? (ii) If yes, does this product meet the requirement of minimum 50% indigenous content on cost basis? (iii) Is the equipment Indigenously Designed, Developed and Manufactured (IDDM) by the vendor? (iv) Does the vendor hold IPR/patent for the sub systems of the equipment?	
(c)	**Cost of Surveillance Quadcopter (S) and Surveillance Quadcopter (HA)**. What is the indicative price of one complete Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) being offered (price in INR)? Also give breakdown of cost in parts including payloads and also include taxes and custom duties (if applicable).	
(d)	**Cost of Sensor Package**. What is the indicative price of one set of Surveillance Quadcopter (High Altitude)?	
(e)	**Cost of ESP**. What would be the tentative cost for the Engineering Support Package being offered by the OEM/Vendor?	
(f)	**Cost of AMC**. What would be the tentative cost of comprehensive AMC being offered by the OEM/Vendor?	
(g)	**Cost of Training**. What would be tentative cost of Training on the equipment.	
(h)	**Categorisation**. What in the preferred categorization for supply of this equipment to Indian Army ? Refer guidelines for training criteria for vendor selection / prequalification in Buy (Indian-IDDM), Buy (Indian) and Buy & Make (Indian) cases given at Annexure IV to Appendix 'A' of DAP-2020. Also refer Appendix B to this RFI.	
(j)	**Quantity**. How many Surveillance Quadcopter (HA) and Surveillance Quadcopter (S) that can be delivered by OEMs/vendors within **18-24 months** from the date of signing of contract ?	

6. **Trials Related Aspect to the Surveillance Quadcopter**.

Ser No	**Aspect / Parameter**	**Response**
(a)	**For Trials**. What are the parameters which should be accepted on following :- (i) Vendor certification. (ii) Certification by accredited labs. (iii) Trials by simulation. } Give out parameters under each subheads.	
(b)	Can vendor / OEM provide two equipment each of both versions of Surveillance Quadcopters for trials in India ?	
(c)	Is it feasible for vendor / OEM to conduct Field Evaluation Trails (FET) in India ?	

Appendix B

GUIDELINES FOR FRAMING CRITERIA FOR VENDOR SELECTION / PREQUALIFICATION IN 'BUY (INDIAN-IDDM)' 'BUY (INDIAN)' AND 'BUY & MAKE (INDIAN)' CASES

Note. The guidelines prescribed for short-listing / pre-qualification of Indian vendors in Buy Indian-IDDM), Buy (Indian) & Buy & Make (Indian) cases are enumerated at Para 20 of Chapter I of DAP 2020 and Annexure IV to Appendix A of Chapter II of DAP-2020 and the same should be kept in mind while framing questions in RFI.

Appendix 'C'

INFORMATION PROFORMA (INDIAN VENDORS)

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

(Company profile including Share Holding pattern, in brief, to be attached)

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

Original Equipment Manufacturer (OEM) Yes/No
Authorised Vendor of foreign OEM Yes/No (attach details, if yes)
Others (give specific details)

3. **Contact Details**.

Postal Address:

City: _____ **State / Province:** _____

Country: _____ **Pin / Zip Code:** _____

Tele: _____ **Fax:** _____

URL/Web Site: _____

Email : _____

4. **Local Branch/ Liaison Office / Authorized Representatives in India (if any).**

Name & Address: _____

City: _____ Province / State: _____

Pin code _____ Tele: _____ Fax: _____

Email : _____

5. **Financial Details**.

(a) Category of Industry (Large/Medium/Small Scale) : _____

(b) Annual turnover : _____ (in INR)

(c) Number of employees in firm : _____

(d) Details of manufacturing infrastructure available: _____

(e) Earlier contracts with Indian Ministry of Defence/ Government agencies :

Contract Number	Equipment	Quantity	Cost

5. **Certification by Quality Assurance Organization**.

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

6. **Details of Registration**.

Agency	Registration No	Validity (Date)	Equipment
GeM			
DGQA/DGAQA			
OFB			
DRDO			
Any other Government Agency			

7. **Membership of FICCI/ASSOCHAM/CII or other Industrial Association**.

Name of Organization **Membership Number**

8. **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)

(b) Description (attach technical literature) :- _____

(c) Whether OEM or Integrator : _____

(d) Name and address of Foreign collaborator (if any) : _____

(e) Industrial Licence Number : _____

(Specifically mention the items for which DIL has been accorded)

(f) If Industrial Licence for the production of the equipment not held, has the vendor applied for the same? If yes, specify the details of the application and when is it likely to be granted?

(g) Indigenous component of the product (in percentage) _____

(h) Details of Foreign Exchange (FE) content (in percentage) _____

(j) Status (in service/design development state): _____. If the equipment is in design & development state, how much time will the vendor take to start production?

(k) What are the applicable key technologies and materials required for manufacturing of the equipment / system / platform and the extent of their availability or accessibility in case they are not available in India?

(l) What are the critical technologies which the vendor has taken from their global partners, if any? Details of the foreign partner may please be specified.

(m) Does the vendor have the capability to design, development, manufacture, test and integrate the system?

(n) Is the complete set of the design and production drawing and source code for all software applications/program of the equipment available with the vendor? If yes, can they be produced for verification as and when required?

(o) Production capacity per annum: _____. Is the production capability likely to increase?

(p) In case the equipment is to be produced/integrated indigenously, how much time will the vendor take to start production?

(q) What is the recommended ‘Delivery Schedule’ for Surveillance Quadcopter?

(r) Countries/ agencies where equipment supplied earlier (give details of quantity supplied):

_____

_____

(s) Estimated price of the equipment, including cost wise break up of components.

9. Alternative for meeting the objectives of the equipment set forth in the RFI.

11. What INCOTERMS 2020 are suitable/preferred by the vendor and for what reasons?

12. In view of the vendor, what should be the preferred categorization (as per Chapter I of DAP-2020) for the procurement of the product by Indian Army?

13. Any other relevant information: _____

14. **Declaration**. It is certified that the above information is true and any changes will be intimated at the earliest.

(Authorised Signatory)

INFORMATION PROFORMA (FOREIGN VENDORS)

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

_____

_____

(Company profile in brief, to be attached)

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

Original Equipment Manufacturer (OEM) - Yes/No_____

Government sponsored Export Agency - Yes/No (Details of registration to be provided)

Authorized Vendor of OEM - Yes/No (attach details)

Others (give specific details) _____

3. **Contact Details**.

Postal Address:

_____

_____

City: _____ **State / Province:** _____

Country: _____ **Pin/Zip Code:** _____

Tele: _____ **Fax:** _____

URL/Web Site: _____
Email : _____

4. **Local Branch/ Liaison Office/Authorised Representative, in India (if any)**.

Name & Address: _____

City: _____ State: _____

Pin code _____ Tele: _____ Fax: _____

Email : _____

5. **Financial Details**.

(a) Annual turnover : _____ (in USD)

(b) Number of Employees in firm _____

(c) Details of manufacturing infrastructure available _____

(d) Earlier contracts with Indian Ministry of Defence / Government agencies :

Contract Number	Quantity	Cost

6. **Certification by Quality Assurance Organization (if applicable)**.

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

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

(a) Name of Product : _____
(Should be given category wise)

(b) Description (attach technical literature) :- _____

(c) Whether OEM or Integrator : _____

(d) Does the vendor have any Indian manufacturing partner? If yes, specify details. If no, is the foreign OEM/vendor willing to enter into JV with Indian private industry/DPSU? _____

(e) What are the critical technologies which the vendor has taken from their global partners, if any?

(f) Does the vendor have the capability to design, develop, manufacture, test and integrate the system?

(g) Is the OEM/vendor willing to offer licensed production in India? _____

(h) Status (in service/Design development stage): _____. If the equipment is in design & development state, how much time will the vendor take to start production? _____

(j) Production capacity per annum: _____. Is the production capability likely to increase? _____

(k) In case the equipment is to be produced/integrated indigenously, how much time will the vendor take to start production?

(l) What is the recommended 'Delivery Schedule' for both Surveillance Quadcopter?

(m) Countries where equipment is in service: _____

(m) Have the OEM/Vendor supplied the equipment to any other country? If yes, furnish details of the quantity supplied and year of supply.

(n) Whether export clearance is required from respective Government:

(o) Any collaboration/joint venture/co-production/authorized dealer with Indian Industry (give details):

Name & Address _____

Tele: _____ Fax: _____

Email : _____

(p) Estimated price of the equipment _____

(q) What are the enhanced parameters/specifications that can be provided by the OEM/Vendor?

8. What INCOTERMS 2020 are suitable/preferred by the vendor and for what reasons?

9. What is the preferred mode of shipment of goods – rail, road, sea, air or combination?

10. Does the transportation system in the OEM/Vendor country and its connectivity to India require trans-shipment of goods?

11. Alternatives for meeting the objectives of the equipment set forth in the RFI.

12. Any other relevant information: _____

13. **Declaration**. It is certified that the above information is true and any changes will be intimated at the earliest.

(Authorised Signatory)

Appendix D

PARTICULARS FOR SECURITY CLEARANCE IN RESPECT OF INDIAN AGENT / REPRESENTATIVE OF INDIAN FIRMS / VENDORS

1. Name :

2. Official /residential address :

3. Date of employment and appointment :

4. Brief nature of job :

5. In case know / related to any person serving in Defence Service :

   (a) Details person :-

   (i) Father's Name :
   (ii) Date of Birth :
   (iii) Nationality :
   (iv) Passport No :

   (b) Permanent Address :

   (c) Present Address :

6. In case of ex-service-men following additional details may be provided.

   (a) Rank & Arm /Service :
   (b) Appointment last held :
   (c) Date of retirement :

7. In case of retirement from service

   (a) Details of his business entity (i.e whether Group) Private Limited Company Ltd. :
   (b) Since when established :
   (c) Registered address of the company :
   (d) Name and address of Director :

8. Weather the individual has paid income tax :

9. PAN No :

10. Name, Account No address of Bankers within and outsides the country. :

11. Attested photocopies of agreement, Including supplementary agreements covering Appointment as representative and items relate there to. :

12. Concurrence of the officer being visited that presence of representative/agents during meeting/presentation/trials is inescapable. :

PARTICULARS FOR SECURITY CLEARANCE (FOREIGN)

1. Particulars of the Representative of Foreign Firms and their Local Agents.

(a)

Ser No	Name & Appointment	Nationality	Details of Passport and Visa	Place of issue	Validity Period & date of issue

(b)

Ser No	Particular of the firm	Status of reps/agents	Address in foreign country and address in India	Weather previously visited India, if so, give date and place of visit

2. Details of Branch/Offices in India :-

(a) Name of firm/Subsidiary. :

(b) Place and Address. :

(c) Name and appointment of head of firm/ Subsidiary. :

(d) Tele, Fax No and E Mail.

3. Particulars of employees (Indian including ex-servicemen).

(a) Name :

(b) Appointment :

(c) Official/residential address :

(d) Contract point (Tele, Fax and E Mail) :

(e) Brief nature of job :

(f) In case related to any personnelServing in Def Service. :

Details of personnel related to and his appointment.

(g) In case of ex serviceman following additional details be provided:-

(i) Rank and Arm/Service. :

(ii) Appointment last held :

(iii) Date of retirement :

(iv) Date of employment with the firm :

(v) If related to any personnel serving in Def Service (Details of serving personnel and his present appointment) :

(h) Name and appointment of head of firm/subsidiary :

(j) Tele, Fax No and E Mail

PARTICULARS FOR SECURITY CLEARANCE IN RESPECT OF INDIAN AGENT / REPRESENTATIVE OF INDIAN FIRMS / VENDORS

1. Name :

2. Official /residential address :

3. Date of employment and appointment :

4. Brief nature of job :

5. In case know / related to any person serving in Defence Service :

   (a) Details person :-

   (i) Father's Name :
   (ii) Date of Birth :
   (iii) Nationality :
   (iv) Passport No :

   (b) Permanent Address :

   (c) Present Address :

6. In case of ex-service-men following additional details may be provided.

   (a) Rank & Arm /Service :
   (b) Appointment last held :
   (c) Date of retirement :

7. In case of retirement from service

   (a) Details of his business entity (i.e whether Group) Private Limited Company Ltd. :
   (b) Since when established :
   (c) Registered address of the company :
   (d) Name and address of Director :

8. Weather the individual has paid income tax :

9. PAN No :

10. Name, Account No address of Bankers within and outsides the country. :

11. Attested photocopies of agreement, Including supplementary agreements covering Appointment as representative and items relate there to. :

12. Concurrence of the officer being visited that presence of representative/agents during meeting/presentation/trials is inescapable. :