REQUEST FOR INFORMATION (RFI) : MICRO REMOTELY PILOTED AIRCRAFT SYSTEM TYPE B (MICRO RPAS TYPE B)

1. Ministry of Defence, Government of India is desirous of procuring Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B) for the Indian Army. 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 two parts as indicated below:-

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

(b) **Part II**. The second 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 PARAMETERS AND BROAD TECHNICAL PARAMETERS

3. Indian Army seeks Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B) to achieve the following broad characteristics:-

(a) A lightweight, aerial surveillance platform with day and night sensors to enhance the situational awareness of squad and troop involved in various special operations tasks.

(b) The Micro RPAS should be man portable easy for a soldier to carry and operate.

(c) The system should have an operational range of upto 5 Kilometers, weighing not more than 6 Kilograms (All Up Weight) and endurance of not less than 60 Minutes. The system should be foldable and suitable to be carried on man pack basis.

(d) The Micro RPAS should be controlled by a ground controller with a data link established with Micro RPAS.

(e) The Micro RPAS should be able to detect targets by day and night. The system should have a day camera and a night camera.

(f) The system should be launched in a Vertical Takeoff and Landing mode (VTOL).

(g) The system should have a low noise signature to avoid detection.

(h) The Micro RPAS should have the ability to transmit live video feed from GCS to remote location on user provided IP network with adequate bandwidth to support data transmission.

(j) **Components**. Each Micro RPAS should comprise of the following components :-

(i) Aerial Vehicle (AV) or Platform.

(ii) One Hand Held Ground Control Station (HHGCS).

(iii) Complete set of sensor packages (with Day & Night capability).

(iv) Commercially available spare AV batteries (three sets per AV) and two commercially available spare batteries each for HHGCS.

(v) Suitable battery chargers to enable charging the batteries from AC Mains and vehicle battery.

(k) **Weight & Portability**. Weight including backpacks of the following items when dismantled and packed equitably in two backpacks (man-portable) should not exceed 15 Kilograms and must be operable by maximum two persons :-

(i) One Aerial Vehicle (AV) or platform.

(ii) One Man Portable Ground Control Station (HHGCS).

(iii) One complete set of sensors package (with Day & Night capability).

(iv) All accessories required to operationalise the Micro RPAS (including batteries, cables, etc.)

(v) Communication box for transmission of telemetry data control commands video link.

(l) **Interchangeability**. All components of the Micro RPAS must be interchangeable with one another.

(m) **Mission Range**. The mission range with maximum All Up Weight (AUW) should not be less than 5 Kilometers (with loiter time of minimum 45 Minutes at the maximum range).

(n) **Security**. The Micro RPAS should have anti-jamming and anti-spoofing properties.

(o) **Maps**.

(i) The system should be able to use the following type of maps:-

(aa) Open Source Maps.

(ab) Raster.

(ac) Digital Terrain Elevation Data – 2 (DTED - 2).

(ad) GIS Ready Maps in SHAPE file format.

(ae) The software should be able to ingest Indian Army Defence Service Maps.

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

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

(q) **Compliance to Metric System**. The Micro RPAS will use 'SI' or 'SI' derived units with Temperature expressed in degree Celsius and Angle expressed in degree.

(r) **Deployment Time**.

(i) Time required for assembling the entire system and ready to launch should be within 15 minutes.

(ii) From transportable condition it should be possible to deploy the Micro Remotely Piloted Aircraft System within 20 minutes.

(s) **Compliance to Environmental Test procedures**. The Micro RPAS will comply with the environmental test procedures as per JSS 55555.

4. Tentative date of issue of RFP is **May 2021**. Total quantity required is approximately **150 Micro Remotely Piloted Aircraft System**. The approximate quantity should be delivered within **twelve (12) months** from the date of signing of contract. The vendors should confirm if the requisite quantity can be delivered in the stipulated timeframe.

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 Defence Procurement Procedure (DPP)-2016 placed on www.mod.nic.in.

(g) **Integrity Pact**. An integrity pact along with appropriate IPBG is a mandatory requirement in the instant case.

(h) **Performance-cum-Warranty Bond**. Performance-cum-Warranty Bond both equal to 10% value of the contract is required to be submitted after signing of contract.

PART II : PROCEDURE FOR RESPONSE

7. In addition, the vendors are required to furnish details as per Performa at **Appendix 'B'**.

8. Apart from the information as per the Appendix, the vendors should also forward technical details/product brochures/literature, etc., pertaining to the item.

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 (Infantry).

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 vendor should provide disclaimer on commitment to procure the equipment. The acquisition process would be carried out under the provisions of DPP-2016.

11. **Owing to the prevalent situation because of COVID-19 pandemic, the following is adopted** :-

(a) **E-Queries**. Submission of queries on the official email ID of Infantry-7, i.e banyantree@nic.in by **01 Jun 2020**.

(b) A consolidated response to all the queries will be forwarded to all participating OEMs as a **'RFI Query Response Document'** by this Directorate by **12 Jun 2020**.

(c) A period of 15 days will be given to the OEMs for inviting any additional queries on the official email ID of Infantry-7, i.e banyantree@nic.in.

(d) **E-Response**. Submission of RFI responses by all participating OEMs by **26 Jun 2020**.

12. The required information / details may please be forwarded at the following addresses :-

(a) Directorate General of Infantry / Infantry-7
General Staff Branch
Room No 413, 'D1' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi - 110011
(Fax - 011-23018412)
E mail : banyantree@nic.in

(b) Directorate General of Weapon and Equipment (WE-9)
General Staff Branch
Room No 411, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi – 110011
(Fax - 011-23793274)

(c) Directorate General of Weapon and Equipment (RFP Cell)
General Staff Branch
Room No 444, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army) DHQ PO, New Delhi - 110011
(Fax - 011-23793274)

(d) Directorate General of Perspective Plan DG PP (GSQR Cell)
General Staff Branch 'A' Wing
Room No 115, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi – 110011
(Fax : 011-23011198)

(e) Technical Manger (Land Systems)
Room No 28B, 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. **Operational Aspects of the Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B)**.

S No	Specification Required	Response
(a)	**Weight**. (i) What is the breakdown of the weight of the Micro RPAS, in terms of weight of each individual component as well as the complete weight when packed? (ii) Give the distribution of the weight in each backpack. (iii) What is the maximum take-off All Up Weight of one Micro RPAS (AUW)?	
(b)	**Range**. What is the mission range of the Micro RPAS with maximum All Up Weight (AUW) using two-way Airborne Data Relay?	
(c)	**Dimension**. (i) What are the dimensions of each major component of the Micro RPAS? (ii) What are the dimensions of the backpack provided with the system?	
(d)	**Altitude**. (i) What is the highest launch altitude (Above Mean Sea Level) of the Micro RPAS (AMSL in meters)? (ii) After launch from the highest launch altitude (as given above), what is the maximum altitude Micro RPAS is capable of gaining keeping in mind its optimal performance (Above Ground Level in meters)?	
(e)	**Endurance**. What is the endurance of micro RPAS at following launch altitudes (AMSL) to achieve designated mission range (5 kilometers) with requisite sensor pack (day/ night payload) :- (i) 3000 meter. (ii) 5000 meter.	
(f)	**Launch & Recovery**. (i) What is the Launch and Recovery mechanism offered in the Micro RPAS? (ii) What is the minimum area required for the Micro RPAS to launch & recover? (iii) What is the maximum wind speed in which the RPA/AV can be launched and recovered?	

(g)	**Accuracy**. (i) What is the maximum look angle from the vertical at which the Micro RPAS can acquire ground targets? (ii) What is the target acquisition accuracy of the Micro RPAS in a single pass for static targets during flight at maximum look angle within 30 seconds? (iii) What is the GPS based accuracy of geo-reference co-ordinates of the Micro RPAS at maximum altitude with maximum look angle from the vertical? (iv) Is there any provision for the system to be compatible with the IRNSS?	
(h)	**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?	
(j)	**Temperature Range**. (i) What are the minimum and maximum ground and flight temperature ranges within which the Micro RPAS will function efficiently without any degradation? (ii) Also indicate the duration for which the Micro RPAS can effectively function at these extreme ranges.	
(k)	**Environmental Conditions**. (i) What are other environmental limitations which affect the operation of Micro RPAS? (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. (iv) At what maximum & minimum temperature ranges can the Micro RPA operate?	
(l)	**Takeoff and Landing**. Does the Micro RPAS have a vertical takeoff capability?	
(m)	**Observation ranges**. What are the observations ranges of the Micro RPAS in terms of Detection, Recognition and Identification?	
(n)	**Audio Signature**. What is the audio signature of the Micro RPAS?	
(o)	**Safety Parameters**. What are the safety parameters in the Micro RPAS with respect to :- (i) Communication loss? (ii) Operational on low battery? (iii) Operation during high winds? (iv) GPS failure?	

(p)	**Cruise Speed**. What is the cruise speed of the Micro RPAS?	
(q)	**Flying Pattern**. Does the micro RPAS have hover capability / 'figure of 8' flying facility? If yes, up to what altitude and for what duration can the system fly in these patterns?	

2. **Technical Aspects of the Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B)**.

S No	Specification Required	Response
(a)	**Aerial Vehicle**. The complete technical specifications of the AV along with the features provided needs to be elaborated. Details must include engine capacity, acceleration, sealing, material of equipment, autopilot facility, navigational aids, airframe and design to include capability to take off and land in strong headwinds / tail winds (in terms of Kilometer/Hour).	
(b)	**Flight Modes**. (i) What are the different flight modes for Micro RPAS operations? (ii) Are different flight modes programmable in the Micro RPAS so as to offer flexibility? (iii) What are the emergency modes provided? (iv) Is there a provision of 'target seeking mode' and 'camera guide mode' in the RPAS?	
(c)	**Hand Held Ground Control Station (HHGCS)**. (i) What are the technical specifications, features, control options, portability, weight and ruggedisation aspects of the HHGCS? (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) Does the HHGCS provide touch screen operating facility? (iv) What is the storage capacity of the hardware? (v) What is the encryption parameters followed for transmission? (vi) Does the system have the ability to display multiple feeds ((4 or more) through an OEM defined software tool provided at remote command & centre? (vii) **Warning on HHGCS**. Does the HHGCS have any warning facility for the following situations :- (aa) Low Battery. (ab) Low Visibility. (ac) Very High Wind. (ad) System Malfunctions. (ae) Software Malfunctions.	

(d)	**GCS Application Software**. (i) What are the specifications of application software provided in the GCS? (ii) What are the functions of the applications software embedded in the GCS? (iii) Does the software provide the following functions with on screen display of the following parameters :- (aa) Coordinates of target? (ab) Real time video from the Micro RPAS? (ac) RPA position? (ad) Height of RPA above ground level? (ae) Mission time? (af) Bearing and azimuth of RPA from GCS? (iv) How is the software security being assured by vendor and what are the debugging procedures? (v) What is the methodology for carrying out Quality Assurance of software? (vi) Is the software upgradable? If so, will the vendor provide free software upgrades as and when available? (vii) Is adequate security (sandboxing) available in the software package or is it still vulnerable to viruses and/or hacking? (viii) What is the encryption used?	
(e)	**Sensor Package**. (i) What is the sensor package for both day and night surveillance? (ii) What is the performance of this sensor package during low visibility and bad weather conditions? The technical details including weight, dimensions and resolution to be given along with capability. (iii) **Day Camera**. (aa) What are the technical specifications or capabilities of the day electro optics for still picture of moving video? (ab) What is the azimuth elevation? What is the capability for static & video capture in terms of resolution and magnification of the camera? (iv) **Night Thermal Sensors**. Specify the details of technical features to include NFOV, Electronic Zoom facility, Zooming (continuous/stepping), Resolution, Magnification, Spectral Band, Cooled/Un-Cooled and Cool Down Time (if Cooled sensor), etc. (v) What are the detection, recognition & identification ranges of the Micro RPAS fitted with the sensor package (during day and night) for A vehicles, B vehicles and human targets to include details of maximum altitude above ground (during both day and night), from which, these are achievable?	

	(vi) What is the storage and video recording capability of the sensor package both during day and night? (vii) Is the sensor package available as a gimbaled payload? What is the permissible value/accuracy (in degrees) of gimbal stabilization? (viii) Can the payloads be swapped? How much time will be required to swap the payload? (ix) Is the payload gimbaled on two axes or three axes? (x) Are the payloads detachable from the AV/platform? (xi) Do the sensors function effectively in bad weather condition? (xii) Can both sensor (day & night) be fitted simultaneously on the Micro RPAS before takeoff?	
(f)	**Artificial Intelligence Applications**. (i) Does the system facilitate artificial intelligence based processor? (ii) Does the system provide real time artificial intelligence based object detection, classification and prediction analysis? (iii) If so, please provide the detailed functions of the AI based software?	
(g)	**Data Link**. (i) What is the uplink and downlink speed for two way communication with Micro RPAS from the HHGCS? (ii) What is the frequency band for this data link? Is this data link secured or is it vulnerable to interception? (iii) Can it automatically track a Micro RPAS in flight? (iv) What is the encryption used during transmission?	
(h)	**Map View**. (i) What map view options are provided with the system? (ii) Is there a capability of using different kind of maps (Google Earth, Google Maps, military maps and so on) by simply loading these maps into the system? (iii) Once loaded, will these maps be automatically calibrated in latitude/longitude with all the RPAS controls automatically to ensure seamless functioning? (iv) Can the maps be upgraded? If yes, please specify details & methodology. (v) Does the system support use of SHAPE file format?	
(j)	**Snapshots/Video**. (i) What kind of snapshots /video can be taken by the Micro RPAS during flight? (ii) What is the real time transmission capability of these recordings? (iii) What all information can be annotated on these snapshots / video to enable quick analysis of data?	
(k)	**Security**. What are the anti-jamming and anti-spoofing measures incorporated in the Micro RPAS?	

(l)	**Data Back-Up**. Does the equipment have capability of backing up data? What all redundancies are provided for the same?	
(m)	**EMI/EMC**. (i) What Mil Standards are being conformed to by the equipment produced by the OEM/Vendor? (ii) What Joint Service Specifications (JSS)/Joint Service Guidelines (JSG) are being conformed to by the equipment produced by the OEM/Vendor? (iii) Which accredited laboratory (Indian/International) has certified your equipment? Please specify details with dates.	
(n)	What are the accessories provided by you along with the complete system ?	
(o)	Clear if have ability to transmit live video feed from GCS to remote location on user provided IP network with adequate B/W to support data transmission.	
(p)	Clear if have ability to display multiple feeds (minimum 4 or more) through an OEM defined tools provided at remote centre.	
(q)	Clear if have intelligent battery management system with ability to do active logging 01 battery health.	
(r)	Describe about log data of battery voltage, cell V, charge, discharge current, acceleration/ shock.	
(s)	Self discharge of battery to moderate V if left fully charged and unused for few days to maximum battery life.	

3. **Maintenance Aspects of the Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B)**.

S No	Aspect / Parameter	Response
(a)	**Test Procedure**. (i) Does the Micro RPAS have an inbuilt self-test mode to indicate GO/NO GO conditions for AV, HHGCS 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? (iii) Is the equipment waterproof – salt/fresh water?	
(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 Micro RPAS?	

(c)	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)?	
(d)	**Mode of Operation**. What are the various modes of operation of the Micro RPAS? If battery operated, specify the following :- (i) Type of battery. (ii) Environmental requirements. (iii) Commercial availability. (iv) Charging mechanism. (v) Service and Shelf Life. (vi) Endurance. (vii) Input voltage/Ampere Hours for operation.	
(e)	**Life**. What is the life of AV in terms of number of landings?	
(f)	**Engineering Support Package**. (i) What is the engineering support package being offered? (ii) The engineering support package will be provided exclusively by you or you are sourcing them through sub vendors?	
(g)	**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 of Micro RPAS? Does it have Operator Level, Field Level and Base Level Repairs? Also, specify the scope of repairs at each level. (v) Are the components of the aerial vehicle modular in nature for ease of replacement to reduce the downtime? (vi) Is any major infrastructure facility required at Field level to repair/replace the components? If yes, mention the facilities required for the same. (vii) Do the components of the aerial vehicle have a specific calendar life or are they 'ON condition' components?	
(h)	**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?	
(j)	**Shelf Life**. What is the likely 'Shelf Life' of the equipment?	

(k)	**Battery Life.** (i) Does the system have an intelligent battery management system with ability to do active logging of battery health for at least two years of data for monitoring of maintenance battery health? (ii) Does the system have the function to moderate self discharge of battery if left fully charged and unused for few days to maximize battery life? (iii) Are the commercially available batteries required for AV & HHGCS interoperable/ interchangeable?	
(l)	**Annual Maintenance Contract**. What type of AMC will be provided by the OEM/Vendor and for what duration?	
(m)	**Quality Assurance**. What are the Quality Assurance Procedures adopted by each OEM/Vendor for environmental and functional checks?	
(n)	**Charger**. What are the charging facilities provided by you for charging of the system? How much time does it take to charge the system?	

4. **Training Aspects of the Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B)**.

S 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 sectionised/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 DPP-2016 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 Micro Remotely Piloted Aircraft System Type B (Micro RPAS Type B)**.

S 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 40% 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)	**Vendor Information (Indian OEM)** (i) Is the Applicant Entity an Indian Company as defined under the Companies Act 2013? (ii) Has the Applicant Entity or any of its allied entities ever been banned or suspended by MoD/SHQ or any Government Department or Organisation? Details of vigilance action viz ongoing investigations by any Department/ agency of Central Government may be provided. (iii) Is the Applicant Entity a Manufacturing Entity or system Integrator or a Trading Company? (iv) Does the Company have any previous experience/ expertise in this field? Specify the field of expertise / experience of your company and the duration of experience in years. (v) Specify the turnover and net worth of Company in the last three (03) years.	

	(vi) Is the Company under insolvency resolution as per Indian Bankruptcy Code? (vii) What is the Credit Rating of the Company equivalent to CRISIL rating? (viii) Does the Company qualify under Start Up or MSME Category? (ix) What are the **critical technologies** which the industry has taken from their global partners or JV, if any? Or what are the essential critical technologies which are required to be obtained?	
(d)	**Vendor Information (Foreign OEM)** (i) Does the OEM/Vendor (Buy Global) have any Indian manufacturer partner? If No, is the OEM willing to enter into JV with Indian defence industry/ DPSU? (ii) Is the OEM willing to offer licensed production in India? (iii) What are the enhanced parameters/specifications that can be provided? (iv) Do you have **industrial licenses** for the production of the equipment? If not, have you applied for the same and when (date) and by when it is likely to be granted? (v) How much time is required by the Industry to deliver the equipment/platform with the stipulated indigenous content, post trials/ contract for operational use? (vi) Is the OEM willing to provide Transfer of Technology (ToT)? If yes, then what are the critical technologies that can be provided (depth and range also to be quantified)? (vii) How and in what 'Time Frame' will you ensure the 'Transfer of Technology'. (viii) Are there any qualifying terms and conditions for ToT? Request specify details. (ix) Do you have production Agencies (PAs) in India? If so, specify details. (x) If the equipment is of foreign origin then what is the capability of Indian vendors to indigenously design and develop the required equipment. (xi) Requirement of ToT / MToT.	
(e)	**Cost of Micro RPAS**. What is the indicative price of one complete Micro RPAS being offered (price in INR)?	
(f)	**Cost of Sensor Package**. What is the indicative price of one set of sensor package (both day and night sensors)?	
(g)	**Cost of ESP**. What would be the tentative cost for the Engineering Support Package being offered by the OEM/Vendor?	
(h)	**Cost of AMC**. What would be the tentative cost of AMC being offered by the OEM/Vendor?	

Appendix 'B'

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: _____

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

Name & Address: _____

City: _____ Province / State: _____

Pin code _____ Tele: _____ Fax: _____

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

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

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

7. **Details of Registration**.

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

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

Name of Organization **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)

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

(c) Whether OEM or Integrator : _____

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

(e) Industrial License Number : _____

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

(f) If Industrial License 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) and value additions done by the vendor: _____

(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 ____Micro RPAS?

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

_____

_____

(s) Estimated price of the equipment _____

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

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

11. What INCOTERMS 2010 are suitable/preferred by the vendor and for what reasons?

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

13. In view of the vendor, what should be the preferred categorization (as per Chapter I of DPP-2016) for the procurement of the product by Indian Army?

14. Any other relevant information: _____

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

(Authorized 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: _____

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

Name & Address: _____

City: _____ Province / State: _____

Pin code _____ Tele: _____ Fax: _____

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 ____Micro RPAS?

(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: _____

(p) Estimated price of the equipment _____

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

8. What INCOTERMS 2010 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 'C'

GUIDELINES TO ATTEND VENDOR INTERACTION

1. Vendors interaction on Request For Information for Micro Remotely Piloted Aircraft System Type B is scheduled on ___-_____ at __-___ **Hours**.

2. Vendors are requested to forward the following documents/details in respect of representatives attending the subject Vendors interaction for security clearance by _____-_____**2020** positively as under :-

   (a) Details as per format attached (Annexure I, II & III).

   (b) Photocopy of passport/Aadhar Card.

   (c) Photocopy of visa, if foreign agents (VISA only business purpose is accepted).

3. Laptop, Pen drive and other storage devices are not allowed within the Defence Headquarters. Only CDs can be carried if required.

4. You are also requested to intimate number of CDs (containing presentation) and details of other materials being carried by your representative for the subject interaction.

5. The above documents may please be delivered at the under mentioned address :-

   Directorate General of Infantry/Infantry-7
   Room No 407, D-1 Wing
   General Staff Branch
   Integrated HQ of MoD (Army)
   DHQ PO, New Delhi-110011
   Fax No - +91-11-23018412
   Email - **banyantree@nic.in**

6. Documents received in this Directorate after ____-_____**2020** for security clearance will not be entertained.

7. Representatives of desirous vendors are requested to present at Reception Office, Sena Bhawan by ___-___**Hours** on ___-____**2020**.

Annexure I

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. :

Annexure II

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 personnel serving 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

Annexure III

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

1. Name :

2. Official /residential address including Tele No, Fax No and Email :

3. Date of employment and appointment :

4. Brief nature of job :

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

   (a) Details person :-

   (b) Present Appointment :

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

   (a) Rank & Arm /Service prior to retirement :

   (b) Appointment last held :

   (c) Date of retirement from service :

7. In case of collaboration :-

   (a) Details of his business entity (i.e whether functioning as individual, partnership or a private ltd coy etc). :

   (b) Since when established :

   (c) Registered address of the company :

   (d) Name and address of Directors, Chief executive and executives of the company specifically indicating those who are retired civilians or defence services officers :

8. Weather the individual has paid income tax since commencing business / joining the company :

9. Permanent income tax account No :

10. Name, Account No address of Bankers within and outside 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. :

13. It is certified that the visit of foreign vendor including Indian representative is in accordance with Ministry of Defence ID No 2250-B/JS (O) 89 dated 17 April 1989. :

Signature