PRE-BID QUERIES RECD FROM VENDORS FOR PROCUREMENT OF RUNWAY INDEPENDENT (RWI) REMOTELY PILOTED AIRCRAFT SYSTEM (RPAS) (QTY : 10)

Ser No.	Para No. of RFP	RFP Description	Queries	Remarks
M/s Idea Forge Technology Pvt Ltd				
1.	Page No 6	Generic	For National Security (as mentioned in Disclaimer at Page 6 of the RFP), there have been instances that some critical active components coming from some specific countries have had security loopholes leading to compromise in critical Military Data of National importance. Some of the active critical technologies/ components in Drones/ UAVs which are critical for data security are- Data acquisitions subsystems, Data Storage Sub systems, Camera/ payloads, Ground control station, autopilot software, Communication modules. Kindly confirm whether the subcomponents of UAV which are responsible for DATA acquisition, Transmission and its storage i.e. Camera / payloads, Ground station controller, communication module and auto pilot, could be from countries sharing the land border with India?	Equipment/ sub-components of **countries sharing the land borders with India** will not be acceptable for security reasons.

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2.	Para 5(b), Page No 8	Subsequent to submission of bids if any / sub-contractor(s) / supplier(s) / technology partner (s) of the Bidder is **Suspended or Debarred by Ministry of Defence,** the Bidder shall intimate the Ministry of Defence regarding suspension or Debarment of its sub- contractors(s) / supplier (s) / technology partner (s) within two weeks of such order being made public.	We understand that EP/FTP is carried out due to emergent nature of the demand pertaining to National Security. However, it has been seen that some of the suppliers of the past MoD EP contracts haven't delivered the equipment in the stipulated time of the contract or the supply order from Govt Agencies have been cancelled because of inability to deliver / technical issues. Would such bidders be allowed to participate in this tender?	All vendors can submit their bids. The delivery has to be within one year of signing of the contract as per DAP 2020.
3.	Para 12, Page No 9	In-Service Life and Shelf Life. The In service and Shelf Life of the Runway Independent (RWI) Remotely Piloted Aircraft System (RPAS) is 10 years. The In-service Life of Ground Control Station (GCS) and Remote Video Terminal (RVT) is 10 years. The bidder is required to give details of reliability model, reliability prediction and its validation by designer/manufacturer to ensure reliability of stores throughout service/shelf Life. The efficacy of reliability model/prediction / validation would be verified during TEC / demonstration as indicated in Para 38 of this RFP.	Generally, UAV Life is measured in terms of number of landings. We suggest that the Shelf Life for the RWI, GCS and RVT should be reduced to 7 years or 500 landings (whichever is earlier).	No deviation to RFP parameters will be carried out.

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4.	Para 28, Page No 12	If there is any associated **optional equipment** on offer that should also be indicated separately along with the benefit that are likely to accrue by procuring such optional equipment. Should the Bidder be contemplating any upgrades or modifications to the equipment being offered, the details regarding these should also be included in the Technical proposal.	The additional optional equipment / functionalities can be supplied. However, there is no column in the price bid format for including this additional equipment. It is our understanding that the costing of the additional features / optional equipment would not be considered for determining the L1 vendor. Pl confirm that out understanding is correct.	Evaluation Criteria and price bid Format as per Appendix J of RFP will be followed.
5	Para 43, Page No 16	Military Package level 'P' : Military Packaging Level 'P' of DEFSTAN 81-041 (Part 1)	Kindly confirm whether drop test as per JSS55555 would be a (sufficient) equivalent against the same.	Yes
6.	Appendix A, 18(n), Page No 18	(n) Mission Planning Function. For planning, controlling and monitoring the RPAS mission with a digital map display, the system should ensure the following:- (i) Provision for up-loading mission plan into RPAS prior to flight and modifying it while in flight.	Please confirm that mission plan be executed from GCS an not uploaded on the UAV as data stored onboard can be compromised in case of loss to UAV.	No deviation to RFP parameters will be carried out.
7.	Appx 2(b), Page 19	**System Configuration**. The Runway Independent (RWI) Remotely Piloted Aircraft System (RPAS) system should consist of the following sub-systems:- (e) Inter and intra communication system. (f) Facility to transmit imagery in real time / near real time to the end user.	(e) Kindly elaborate the meaning of Inter and Intra communication system, (f) Kindly clarify that whether the clause implies Streaming of Live Video from GCS to remote location over Internet or local network.	Intra means communication within one system. Inter means if we want to control AV of other GCS (handshake in air).

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8.	Appendix A, Para 5, Page No 20	**Geo Reference**. Indian Military Grid Reference should be based on Defence Series Maps (DSM) and the equipment display console should be able to simultaneously read out 10 figure Grid Reference as well as Geographical coordinates in degree-minutes-seconds format.	Kindly confirm that requirement is that equipment display console should provide the capability to dynamically select between IMGR and Geographical coordinates in degree-minutes-seconds format. Can the Geographical coordinates be represented as decimal format instead of degree-minute-seconds format for ease of display and reading out by the operator.	Yes. Yes, but degree-min-sec is preferable.
9.	Appendix A, Para 6 Page No 20	Launch & Recovery - Unprepared area of not more than 50m x 50m.	1. Given the likely deployment scenario in mountainous terrain, is the requirement to be interpreted as unassisted landing within the given area even in communication fail sage conditions? 2. Given the likely deployment scenarios in mountainous terrain having highly constrained clear touchdown area, should the safe touchdown area be 15m x 15m within the broader unprepared area of 50m x 50m? 3. Does safe landing mean that post landing, there should be no cracks, dents or damage to any part of the UAV?	As indicated in the RFP.

<table>
<tr><th>Ser No.</th><th>Para No. of RFP</th><th>RFP Description</th><th>Queries</th><th>Reply</th></tr>
<tr><td>10.</td><td>Appendix A, Para 14(e), Page No 21</td><td>(e) Return Home Mode. In case during the flight there is a break in communication (duration defined by the user) the AV should automatically change to ‘Return to Home’ mode. The route for Return to Home mode should be programmable by the user before the mission and capable of being updated during the mission. The AV should land at either the take-off location or a pre-selected way - point (user defined).</td><td>Please confirm that ”Return to Home mode” in case of emergency situations like “break in communications” means safest and shortest path selected by UAV to return to and land at home location / preselected way point.</td><td>No, Return Home mode should be programmable by the user as indicated in the RFP.</td></tr>
<tr><td>11.</td><td>Appendix A, para 15 (a)(b), Page No 21</td><td>(a) Engine.
(b) Fuel system.</td><td>Kindly confirm that battery Powered electric propulsion system are accepted.</td><td>No deviation to RFP parameters will be carried out.</td></tr>
<tr><td>12</td><td>Appendix A, Para 15 (c), Page No 21</td><td>(c) Power Supply. Engine driven alternators and batteries should supply electrical power to all on board systems. Necessary margin of at least 30% of the total power for redundancy and protection devices should be provided. The batteries should cater for back of 60 minutes to recover the RPAS safely in case of generator/ alternator failure.</td><td>In case of pure electric system this clause is not applicable as the clause refers to a situation when there is a generator/ alternator failure which does not exist in case of battery powered electric propulsion systems.</td><td>No deviation to RFP parameters will be carried out.</td></tr>
<tr><td>13.</td><td>Appendix A, Para 16(a), Page No 22</td><td><table>
<tr><th>Sensor</th><th>Detection</th><th>Recog</th><th>Iden</th><th>Tgt Size</th><th>Sensor Alt</th></tr>
<tr><td>CCD</td><td>15 km</td><td>10 km</td><td>05 km</td><td rowspan="2">2.3 x 2.3 m</td><td rowspan="2">3000m AMSL</td></tr>
<tr><td>MWIR</td><td>10 km</td><td>05 km</td><td>03 km</td></tr>
</table></td><td>The required target acquisition accuracy can be achieved via alternate novel techniques as well hence it is requested to give OEM the choice of using other technologies and hence make the requirement of LRF optional.</td><td>Minimum observation range to be achieved as per RFP.</td></tr>
</table>

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14.	Appendix A. Para 18 & 20 Page 22/24	**GCS Vehicle**. The vehicle should be capable of mounting containerised GCS cabin. It should have an onboard Command, control and Communication station and Power supply system. The GCS vehicle should be capable of moving at speeds not less than 40 Km per hour on road and 10 Km per hour on desert track/cross country / mountains with its full load.	(i) Since specific requirements of the vehicle for system are mentioned does that mean that vehicle for GCS will be a Buyer Furnished equipment. (ii) If Seller has to provide modified GCS vehicle, please clarify the class and type of vehicle envisaged.	Vehicle is to be provided by vendor as specified in RFP. It is preferable that GCS be mounted on a vehicle equivalent to in service ALS 4x4.
15	Appendix A, 18 m (v), Page No 23	**Pilot Observer Function**. Real time image processing for target acquisition.	Kindly elaborate the clause does this mean image processing for real time target tracking.	Capability of the system to analyse images for target acquisition by allowing processing of images.
16	Appendix A, Para 8(a), Page No 20 / Para16(a)(iii), page No 22	8. Altitude (With Payload). (a) Operating Altitude : Upto 4000M (13000ft) Above Mean Sea Level. (b) Altitude Ceiling : Upto 5000 M (16000 Ft) Above Mean Sea Level.	Since the AGL/Operating altitude requirement is stated as 1000m whereas sensor altitude is 3000 m. Kindly confirm the requirement of AGL.	The AV should be able to take off/land from an altitude of upto 4000m (13000ft) and should be able to carry out ops to an altitude of upto 5000m (16000ft) as indicated in the RFP. Eg if the AV takes off from 2000m it should be able to climb to 5000m as indicated in the RFP.
17.	Appendix A, Para 16(a)(iii), Page 22	The minimum observation ranges (slant ranges) to be achieved under clear weather conditions are:- Detection ranges EO 15 km / MWIR 10 km.	From 1000m/3000m AGL; 10-15 km of DRI requirement implies looking almost horizontal / view angle (view angle wrt Horizon) required almost becomes horizontal and because of the same Target acquisition inaccuracy is high and hence it is recommended that DRI ranges should be reduced and in proportion to operating Altitude.	No deviation to RFP parameters will be carried out.

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18.	Appendix A, Para 18 (l) Page 23	The software should comply to the relevant paragraphs of IEEE – 12207 standards.	In case the system is under 10 kg, kindly confirm IEEE-12207 will not be applicable; CEMILAC guidelines (of IMTAR 21) allows exception for the same for systems under 10 kg.	IEEE-12207 certificate required as per CEMILAC guidelines.
19.	Para 18 m(i) Page 23	(m) Pilot-Observer function. It is desirable to have modular & user-friendly system for control of EO & MWIR payload during missions. It should include following:- (iii) Mode Selection (Rate, position, track point to window etc).	Kindly confirm the clause means provision to select the prescribed a path with track points to be available to the operator.	Typo error, please read the sentence as :- **'Rate, position, track, point to window etc).'**
20.	Appendix A, Para 21, Page No 24	The RVT should be capable of being remotely located within the communication range of the AV's downlink frequency. (e) Cater for minimum of 8 hours of continuous operations with an additional minimum 8 hours spare battery for back up provided.	Kindly confirm that payload control as well as UAV control will also be required via RVT. (e) Since endurance with AUW is required for 4 hours for the UAV, can the requirement of RVT operation of 8 hours be reduced to 4 hours in line with above which in turn will also reduce the form factor of RVT the additional spare battery backup will be provided to fulfil the need of continuous operations as stated.	Payload control not required in RVT as per RFP. No deviation to RFP parameters will be carried out.
21	Appendix A, Para 25, Page No 24	Wind Conditions. Upto 25 Knots.	Kindly confirm the requirement is : in flight, wind condition up to 25 knots and while in take-off / landing it is 15 knots.	For all conditions as per RFP

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22.	Appendix E, Para 6, Page No 27	**Technical Documentation**. The Bidder will be required to provide the technical literature **preferably** in IETM (Interactive Electronic Training Manuals) in Level 4 format or higher. The details of technical literature to be supplied with the system should be listed as per the suggested format at Annexure III to this Appendix. This should be provided with both Technical and Commercial Proposals. The cost column may be left blank in the Technical Proposal.	It is mentioned that technical literature should **preferably** be in IETM in Level 4. Please clarify if providing IETM Level 4 is mandatory or not as this will have implications on pricing.	As indicated in the RFP. It is clarified that IETM is required preferably Level 4 format or higher.
23	Annexure to Appendix F, Para 5, Page 46	Compatible with Defence Series Map and Shape file format.	(a) It is observed and experienced that it is difficult to ingest .shp files of DSM maps and same may be available in CD formats within the field formation where the trials are being conducted. Else the same can also be tested with OSM maps which are available online and has a similar format. In view of above, it is requested to allow it to be demonstrated using the sample DSM maps / OSM (in .shp file format) of trial location during the trial. (b) It is also requested to change the evaluation criteria from **"Certificate of conformance" to "Demonstration"**. (c) Kindly also confirm that does DSM format compatibility imply the following:- (i) Ability to add multiple shape files on the MAP display. (ii) Ability to dynamically select the layers and attributes of the shape file.	DSM compatibility evaluation will be for L1 vendor.

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24	Appendix K, Para 7, Page No 82	The Seller confirms and declares to the Buyer that the Seller is the original manufacturer of the stores referred to in this contract.	This is in contradiction to **Point No 6 on Page 3.** Please clarify if the authorised Vendors of the OEM can participate in this tender.	Appendix K is on Standard clauses of RFP- Arbitration. The aspect of authorised vendors has been clarified vide Para 6 of RFP.
M/s TATA Advanced Systems Ltd				
25.	Page No3. Point no 4	10 number of Runway Independent (RWI) Remotely Piloted Aircraft System (RPAS) would consist of 10x Aerial Vehicle, 04x Ground Control Station (GCS) Mounted on a GCS Vehicle, 04 x Remote Video terminal (RVT), 08 x sensor Package/payload (Day and Night) with inter and intra communication system and facility to transmit imagery in real-time.	Are these the total deliverable or deliverables per system? If these are total deliverable, then the quantity of sensor package required is only 8 and 10 aerial vehicles. There is no mention for LRF.	Yes, as indicated in the RFP. LRF is part of sensor package.
26.	Page No 42, Appendix F, Point no 1	Demo Methodology is broad based. Detailed demo directive will be issued prior to conduct of demonstration is consultation with the bidders and based on the systems being offered.	It is assumed that there will be a capability demonstration and not a full scope technical trial. Kindly confirm if certain parameters could be partially demonstrated along with proper supporting technical documents/plan to achieve the final desired parameters as per the RFP.	All parameters as per demonstration methodology have to be demonstrated.

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M/s TATA Advanced Systems Ltd				
27.	Page No 42 Appendix F, Point No 5	**Retention of Trial Equipment**. The equipment of all the vendors found compliant after demonstration, will be retained by the demo unit under their custody till the commencement of CNC.	Will the trial equipment be retained? If yes, then how will the trial unit ensure its proper maintainability.	Yes, as per RFP. Periodic maint under OEM arrangement.
28.	Appendix A Para 15(a)	Engine noise <60db at 100m AGL.	Does this mean slant range of 100m?	No. It means when it is 100m above ground level.
29.	Appendix A Para 16(a)(iii)	Sensor altitude: 3000m AGL.	Does this mean the UAV is expected to fly at 3000m AGL? If yes, what will the launch altitude at which this demo will be conducted?	Parameters are for evaluating DRI parameters. If 3000m AGL is required to be achieved AV will take off from 2000m AGL or less.
30.	Appendix A Para 18(m)(iii)	Mode Selection	What is meant by rate mote control of sensor?	Speed at which camera can be moved/ rotated.
31.	Appendix E Para 8	Training	It is understood that the trainees will have prior experience / background knowledge of UAVs. No manual mode UAV flying training (using RC) will be provided as part of this schedule?	May/ May not. Trainee should have capability to fully operate the UAV in all modes post training.
32.	Appendix to Annexure F Para 16	Sensor DRI	CCD sensor range is mentioned as 15/15/5 is this a typo error? It is mentioned as 15/10/5 at other places in RFP	Typo error. It is 15/10/05.
33.	Appendix to Annexure F Para 18(m)(v)	Real time image processing for target acquisition	It is understood that the requirement is to get real time video in GCS and ability to track a target. Or does this mean anything else?	No, it means capability of the system to analyse images for target acquisition by allowing processing of images.

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M/s CD Space Robotics Private Limited.				
34.	Appendix L	Criteria for vendor selection/ pre-qualification for – RFP issue/ inclusion in RFP requirements	Request to relax Startup Companies (as recognized by DIPP) from Financial clause for Credit rating, Average annual turnover and Net worth. Similar relaxation has been given in other procurement cases such as Procurement of Logistics Drones File No 86785/LDM/Inf-5(a) and 86785/LD(HA)/Inf-5(a).	As per Appx-L of RFP.
35.	Para-11, Page-9,	Warranty.	Request for provide rate of usage in terms of No of landing and flight hours for the calculation of the requirement of MRLS. (For example, engines usually have TBO and the costs will be estimated accordingly to expected flight hours).	Warranty is 24 months as indicated in para 11 of RFP.
36.	Para-38, Page-15	-	Please elaborate the requirement to submit two AV as a part of ONE SET. The Appendix A does not mention number of AV requirement per SET.	For conduct of smooth demonstration methodology as per RFP.
37.	Appendix-A, Para-16a	-	Specification asks for a CCD Camera. CMOS cameras are equally effective and can meet desired requirements. Request to allow either CMOS camera as well.	No deviation to RFP parameters will be carried out.

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38.	Appendix-A, Para-20,	GCS Vehicle.	Request to remove requirement to provide GCS Vehicle. Instead, we can provide GCS integration support to the vehicle the buyer may procure separately. Being UAV OEM it is very difficult to provide warranty, support and MRLS for Automotive vehicle.	No change in RFP parameters.
39.	Appendix-A, Para-22, Page-25	-	Request to allow permitted frequencies in L band as well. This will help with robust long range performance.	No change in RFP parameters.
M/s Larsen & Toubro Limited (L&T Defence Engineering).				
40.	RFP part-II Clause-38	The Bidder of the short listed equipment would be asked to provide **One (01) Set consisting of 02 x Aerial Vehicle, 01 x Ground Control Station (GCS), 01 x Remote Video Terminal (RVT), 01 x Sensor Package/payload (Day and Night)** for demonstration as per Demonstration Methodology given at **Appendix F** to this RFP, in India at 'No Cost No Commitment' basis.	Due to the lead time involved & global supply chain constraint in releasing two aerial vehicle, within the short duration, bidder proposes to offer one Aerial vehicle with associated ground system and payload for demonstration. Bidder will ensure the serviceability and successful demo of aerial vehicle by keeping adequate spares on ground and following safe piloting procedures.	Requirement of two AVs was for conduct of smooth demonstration methodology as per RFP.

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41.	RFP Part-II Clause-32	The equipment produced for Demonstration/Evaluation by bidders will be retained till the signing of the contract. Post contract, equipment of the Bidder chosen for the contract will be retained till the completion of the delivery.	Bidder has collaborated with FOEM for the program & the prototype being fielded for evaluation may be offered to other customers for demonstration purpose as well. Also the prototype fielded for the demo may be required as a reference for realising the serial production Aircrafts. Hence MoD to kindly accept for the release of demo equipment to the Bidder on completion of trials. Bidder will give undertaking that the equipment delivered in serial production will meet the same or better specifications of the demo equipment meeting contractual requirements.	As per DAP 2020.
42.	RFP part-II Clause-41 & Appendix-G (Refers to Para-41 of RFP) Draft ATP Guidelines	The draft ATP will be analysed for adequate and sufficiency during demonstration. All pre-requisite documents and supporting test reports pertaining to equipment under demonstration to be submitted during demonstration. Bidders to submit draft ATP, along with their Technical Bid.	There are contradicting references in the RFP regarding ATP/ Certificate of Compliance submission. ATP to be submitted for demo equipment during demonstration only & not during technical bid submission. Request MoD to kindly confirm.	As indicated in the RFP. Draft ATP to be submitted by vendor/bidder alongwith the Technical Bid.
43.	Appendix-A, Clause 15 (c)	Necessary margin of at least 30% of the total power for redundancy and protection devices should be provided. The batteries should cater for back up of 60 min. To recover the RPS safely in case of generator/alternator failure.	In order to cater failure of alternator, we have dual alternator, we have dual alternator system with greater than 30% margin on each alternator. Additionally, we have 30 min of battery backup. We feel that 60 min of battery backup is not required as we are having redundant alternators. MoD to concur.	No deviation to RFP parameters will be carried out.
44.	Appendix-E Clause-11	Maximum standardization is ensured wherever feasible. Also wherever feasible, in-service battery and battery charger may please be incorporated in the interest of standardization.	Request MoD to share reference specifications of preferred in-service battery & battery charger to explore feasibility of incorporating same in system.	As per OEM specification.

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45.	Appendix-F, Clause-13(b), 15(a), 15(c),17, 18(l), 21(e), 22, 25	Vendor certification supported by test reports from NABL accredited Labs as applicable	We request MoD to consider OEM/Supplier certification / test reports from respective country of origin be accepted for demonstration.	Test reports from international accredited labs is acceptable.
46.	Appendix F Clause 8	Demonstration at Operating /Launch Altitude of 4000m and Altitude Ceiling of 5000m.	Due to the lead time involved in the fine tuning of the equipment for high altitude operation within the short duration as specified in the RFP, we request MoD to kindly consider the mission plan proposed by the Bidder will be able to give undertaking to achieve and comply to the altitude parameter before supply of first lot of equipment. Bidder can also offer vendor certification substantiated with adequate information like road map, timeline and theoretical prove out through calculations and simulations which can be verified by user and DGAQA. The details will be elaborated in draft demo methodology along with our proposal and the same can be discussed and agreed upon.	Demonstration as per Appendix F of RFP.
47.	Part 1 General Requirements clause 15 (a)	Training to be conducted at Leh before delivery of 1st lot of equipment.	We request MoD to conduct the user/operator training at Leh post-delivery of first lot of equipment. We request user to position the equipment at Leh for training. Any user/operator training prior to delivery of equipment can be conducted at OEM premises.	Pt noted.
48.	Part II Technical Requirements Clause 42	The Bidder shall ensure that each **Mini Remotely Piloted Aircraft System** is marked clearly and indelibly.	The term “Mini” seems to be a typographical error. Request MoD to confirm.	Typo error.
49.	Appendix A Para 2 (f)	Facility to transmit imagery in real time / near real time to the end user.	Request MoD to kindly elaborate on the functional requirement.	Transmission of imagery from GCS to the end user for corroboration of int.

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50.	Appendix-A Clause-17	A security mechanism should be provided to detect and prevent unauthorised alteration of input or transmitted data	Request MoD to elaborate on this requirement.	Security mechanism to avoid Jamming.
51.	Appendix-A Clause-25 (c)	Storage and Transportation temperature. Minus 20^0 C.	To be read as Minus 20^0 C to plus 55^0 C. Request MoD to confirm.	Minus 20°C to plus 55°C.
52.	Appendix-F Para (4)	The vendor will ensure availability of one set of demonstration equipment (as per Para-2 above) at designated location within 60 days of issue of RFP.	As pre-bid clarification is essential to understand final customer expectation and as it will have a bearing on the equipment being fielded for demo, it is requested to consider following: "Vendor to ensure availability of one set of demonstration equipment at designated location within 60 days from the date of receipt of pre-bid clarifications document.	Timelines as per RFP.
53.		Buyer may provide ranges, platform or facilities.	Bidder may require to perform internal trials to fine tune the equipment before the demo trials with the customer. We request MoD to kindly facilitate ranges & clearances for the same for a period of 2 weeks.	Necessary coordination will be carried out however no relaxation on trial dates will be given. Timeline strictly as per RFP.
54.	Appendix-F Para (9)	Location of demonstration	Request MoD to provide location of demonstration during the pre-bid clarification in order to prepare our mission plan for the demo in advance.	**Priority-1** : Leh. **Priority-2** : Gamrala Field Firing Range (NE).

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55.	Part-I, General Requirements Clause-17	It may be further confirmed that all national and international obligations relevant to transfer of conventional arms of the country of the supplier or countries from which parts and components are being procured, have been taken into account for the duration of the contract Accordingly, thereafter there would be no review, revocation or suppression of Defence export license and other related clearance issue to the supplier for the contract that could impinge on the continuity of supply of items and their parts or components under the contract.	Noted. However, any Statutory variation or change in government regulations post award of contract should be constructed as force majeure. MoD to kindly confirm.	As per DAP 2020.
56.	Part-III, Commercial Requirements 52. **Termination clause**	The delivery of the equipment is delayed beyond the scheduled date of delivery for causes not attributable to force majeure.	Our understanding is that the termination of the contract will be triggered only after the ceiling limit of LD is reached and not before that. Please confirm the understanding.	As per DAP 2020.
57.		The delivery of the equipment is delayed beyond the scheduled date of delivery for causes not attributable to force majeure.	As per the Chapter V of DAP 2020, Fast track procedure, the following is the wordings against Termination clause. “The delivery of the equipment is delayed for causes not attributable to Force Majeure for more than six months after the scheduled date of delivery”. MoD to kindly confirm the termination clause as per DAP 2020.	As per RFP.

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58.	Appendix-H (Refers to Para 46 of RFP) Commercial Clauses-5, Denial Clause.	In the denial clause, any increase in statutory duties and/or upward rise in prices due to the Price Variation Clause (PVC) and/or any adverse fluctuation in foreign exchange are to be borne by the Seller during the extended delivery period, while the Buyer reserves his right to get any benefit of downward revisions in statutory duties, PVC and foreign exchange rate. Thus, PVC other variations and foreign exchange clauses operate only during the original delivery period. The format for extension of delivery period/performance notice under the Denial clause is at **Annexure IV to this Appendix**.	Our understanding is that this portion is subject to the opening sentence whereby Denial clause is applicable for delays attributable to the Seller or for a non-force majeure condition. Request MoD to confirm this understanding.	As per DAP 2020.
59.	Part-I General Requirements Clause 14(a)	-	MoD to kindly confirm if Maintenance at O & I level is included in the scope of Bidder during the Engineering Support Package of 4 years from the date of expiry of warranty.	As per RFP.
60.	**Appendix E-Product Support** **Clause-1, Maintenance Philosophy**	O Level and I level maintenance	MoD to kindly elaborate the requirement of establishment of facility for 2 x Nos Field repair points & 2 x Nos 'I' Level repair points.	As per RFP.

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61.	**Annexure to Appendix F**	**Draft Demonstration Methodology**	MoD to kindly elaborated the difference between " To be Demonstrated" and " Physical verification during demonstration" that is being mentioned as methodology of evaluation.	Point already clarified in the RFP as what all to be demonstrated and what all to be physically verified.
62.	**Annexure to Appendix F Ser No-20**	**GCS Vehicle**	MoD to kindly share some details on the desired specification of vehicle that should be integrated with GCS.	Vehicle equivalent to in service ALS 4x4.
63.	**Appendix-F Clause-4**	**Maps**	Feature listed in this section for maps are for very specify in nature and are easily adoptable in our existing GCS system. Hence, Bidder will show its existing capability in maps with our current GCS software due to paucity of time during demonstration, while the final deliverable will incorporate all specific features. MoD to kindly confirm.	Demonstration as per Appendix F of RFP.
64.	**Appendix-A** (Refers to Para 25,26,27,29, (a) 30, 38 & 56(a) of RFP) **Operational Characteristics and Features Clause 16**.	**Payloads**	The Offered aerial system by Bidder is modular in nature and is highly scalable in terms of payload system. We can interface variety of payloads from different OEMs. Bidder has identified the payload that meets the specification and has option in hand to field the best and most suitable CCD and MWIR payload for the demonstration that will be taken forward for serial production. We shall prove the performance through simulation results or certification that the system will meet overall requirement with the payload being fielded. For flight demonstration, we suggest to demonstrate with our currently installed payload that meets the RFP specs for the day operation. The MoD to kindly consider the above approach.	Demonstration as per Appendix F of RFP.

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Ser No	Para No of RFP	RFP Description	Queries	Reply
65.	**Appendix-F Clause-21**	**RVT**	We propose to demonstrate our current RVT System which displays payload video and target co-ordinate related information only, it does not currently displays moving maps and flight related information. However, in the deliverable version of RVT, we will perform the required upgrades to make it fully compliant to the RFP. MoD to concur with the above approach.	Demonstration as per Appendix F of RFP.
66.	**Annexure-I to Appendix-K** (Refers to Para-19 of RFP and 6.1 (j) of Appendix-K)	**PCIP Signatory**	The Bidder being a large engineering conglomerate (group of companies) with independent vertical, it may not be possible for the Group CEO & MD to sign PCIB pertaining to various contracts. The independent vertical head has the authorized from Group CEO and MD to sign documents pertaining to contracts on his behalf. Hence, the PCIP for this RFP will be signed by Defence Business Head. We request MoD to Kindly confirm & allow the same. Power of Attorney may be provided if solicited by MOD during signing of the contract.	As per DAP 2020.

Ser No	Para No of RFP	RFP Description	Queries	Reply
M/s Shield AI (Pre-Bid Questions)				
67.	-	-	Is the budget for this effort 150-300 crore as indicated by the 70 lakh EMD or is it under 150 crore? **Option 2** for the question is: if the price comes in under 150 crore, is 30 lakh EMD adequate per the table provided?	EMD as per RFP.
68.	-	-	All Shield AI V-BAT demo equipment is currently booked for use in December 2022. Is it possible to conduct the demo for this tender the week of 9 January 2023?	Timelines to be adhered as per RFP.
69.	-	-	Regarding leaving the demo equipment in India after the demo is completed: is there another way to validate the equipment provided in the contract is the same as demonstrated? Leaving critical company assets in India for up to a year after the demo is completed creates many concerns and challenges for SAI.	As per RFP.
70.	-	-	Are the GCS vehicles noted in the RFP required to be provided from the seller or provided by the buyer? If the former, what are the specifications for the vehicle? If the latter, are there any requirements on the seller regarding installation?	By seller as indicated in the RFP. Vehicle equivalent to in service ALS 4x4. As per RFP.
71.	-	-	At what slant range does the GPS, GLONASS and IRNSS geo co-ordinate accuracy have to be 50 meter or better?	As per tech parameters of Appx A of RFP.

Ser No	Para No of RFP	RFP Description	Queries	Reply
72.	-	-	The RFP lists a requirement to provide Special Maintenance Tools (SMTs) and Special Test Equipment (STEs) to the Indian Army. In order to help build the local Indian defense industry capability and to reduce up-front procurement costs to the Army, would the army be willing to send the V-BATs to a local entity at a facility in India that houses all the required tooling / equipment and services for the more extensive aspect of V-BAT maintenance (i.e., engine overhauls)?	As per RFP.
73.	-	-	Do the training working days noted in the RFP (e.g., User / Operating training duration of 14 working days) mean the minimum or maximum working days duration for training? If the maximum, can you clarify this requirement as SAI typically trains operators / users for a much more extensive period to ensure the greatest level of confidence in the operators.	Minimum 14 working days.
M/s VEM TECHNOLOGIES PVT LTD				
74.	Sl No 8 of Appendix A	Operational Characteristics and Features	Height of operation is currently not possible, as existing VTOL for unmanned systems around the world up to 4000m. Camcopter S-100 which is being offered for this program can operate up to 2000m (7000ft) (take off & landing) and altitude ceiling of 4500m (15000 ft) with a payload weighing 18-20 kg.	No deviation to RFP parameters will be carried out.
75.	Sl No 15 (c) of Appendix A	Operational Characteristics and Features	The engine of Camcopter S-100 is an internal combustion engine. We can provide both option of AVCAT and AVGAS.	As per RFP.

Ser No	Para No of RFP	RFP Description	Queries	Reply
M/s ASTERIA AEROSPACE				
76.	Para 4, Page 19	**Maps**. Maps produced in WGS 84 Datum and LCC Projection (Two Standard Parallel)	It is requested that Indian Defence Maps and LCC Projection (Two Standard Parallel) based, be checked at the time of ATP. An undertaking by bidder in this regard may be accepted during TEC.	DSM parameters will be provided to L1 bidder.
77.	Para 11 Page 20	**Speed** Maximum Speed : 75 Km/h or more Operating Speed : Up to 60 – 120 Km/h	Please clarify the speed.	Speed as per RFP
78.	Para 12 (a) Page 20	**Navigation System**. The system should be compatible with GPS, GLONASS and IRNSS	The current system is compatible with GPS & GLONASS, but integration of IRNSS would take some time and can be made available at the time of ATP. An undertaking by bidder in this regard may be accepted.	To be demonstrated as per demonstration methodology of RFP.
79.	Para 15 (c) Page 21	**Power Supply**. The batteries should cater for backup of 60 minutes to recover the RPAS safely in case of generator / alternator failure.	The current system can recover from max range in less than 45 mins and hence it is requested to keep the back-up time as minimum 45 min endurance only.	No deviation to RFP parameters will be carried out.
80.	Para 16 Pt (iii) Page 22	Sensor Altitude : 3000m AGL.	Seems a typo, please clarify.	DRI parameters will be verified at 3000m AGL sensor altitude.
81.	Pt (j) Page 23	Post mission analysis and target folder generation.	Please amplify the requirements	Post mission analysis can be carried out by observer and analysis can be saved in target folder for future reference.
82.	Point (l) Page 23	The software should comply to the relevant paragraphs of IEEE-12207 standards.	It is recommended that this be accepted at the time of ATP as it is a time-consuming process.	Relevant documents required during demonstration as per RFP.

Ser No	Para No of RFP	RFP Description	Queries	Reply
83.	Para 20 Page 24	**GCS Vehicle**. The GCS vehicle should be capable of moving at speed not less than 40 Km per hour on road and 10 Km per hour on desert track / cross country / mountains with its full load.	In the QR it says Vehicle Mounted GCS, whereas in Annexure to Appendix F, Ser 20 asks for a containerized cabin. Please clarify.	Already clarified in the RFP.
84.	Para 10 Page 43	Vendor Certification (Certificate of Conformance)	Vendor Certification be accepted during TEC and NABL accredited test reports be accepted at the time of ATP.	Vendor certification required as per RFP.
85.	Para 22 Page 56	**Data Link Frequency management**. The RPAS (RWI) should have a suitable uplink and downlink with the GCS in S/C Band (2 GHz to 6 GHz) secured with **256-bit** AES encryption **or higher standards.** The transmission must be digital.	It is recommended that 128-bit encryption be accepted during TEC as most 256-bit encrypted equipment is under ITAR restriction. If 256-bit encryption is mandatory, it is recommended the same be accepted during ATP. Undertaking to the effect may please be accepted during TEC. As integration of a Non-ITAR 256 bit encryption equipment requires time for integration and testing.	No deviation to RFP parameters will be carried out.

Ser No	Para No of RFP	RFP Description	Queries	Reply
86.	Pt 25 Page 56	**Environment Conditions**. The RPAS and payload should be capable of satisfying the environmental requirements as specified in the relevant paragraphs of MIL-STD-810 G and JSS - 55555. The RPAS should withstand exposure to rainfall rate of 15 mm per hour. (a) **Humidity**. 95% non- condensing at 40ºC. (b) **Operating temperature**:- (i) Minimum: Between minus 20ºC to minus 10ºC. (ii) Maximum : Between 40ºC to 45ºC. (c) **Storage and Transportation temperature**. Minus 20ºC to 55ºC. (d) **Wind Conditions**. Upto 25 knots. (e) **Rain Conditions**. 15mm per hour. (f) Internal equipment to be ruggedized as per Mil-Std-810 G/JSS 55555. Runway Independent (RWI) Remotely Piloted Aircraft System (RPAS) and its associated components should comply to the environmental parameters as laid down in Table 3-1 of JSS-55555. (g) **Sand and Dust**. Comply with the requirement as per Mil-Std-810 G/ JSS 55555.	Vendor certification be accepted during the TEC and certificates from NABL accredited labs be accepted at the time of ATP.	Vendor certification required as per RFP.

Ser No	Para No of RFP	RFP Description	Queries	Reply
87.	Pt 26 Page 57	**EMI/EMC**. As per relevant paragraphs of MIL STD 461E/461F.	Vendor certification be accepted during the TEC and certificates from NABL accredited labs be accepted at the time of ATP.	Vendor certification required as per RFP.
88.	Appendix L Pt 1 (a) Page 93	**Credit Rating**. Long term credit rating of CCR-BBB or better and SME-04 or better for SMEs as on 31st March of the previous financial year.	Asteria Aerospace is a subsidiary of Jio Platforms Ltd (a subsidiary of Reliance Industries Ltd). Jio platforms is having a turnover of INR 4,251 Cr in FY 2021-22 and INR 3,047 Cr in FY 2020-21. The company has not gone through any Credit Rating evaluation from any third-party agency, since it has no requirement of funding. In view of the foregoing, you are requested to make Credit rating document non mandatory for Zero debt companies.	As per RFP.
89.	Appendix L Pt 1 (b) Page 93	**Average Annual Turn Over**. Minimum Average Annual Turnover for last 03 financial years, ending 31st March of the previous financial year, should not be less than 40 Crores.	Asteria Aerospace is a subsidiary of Jio Platform Ltd (which is a subsidiary of Reliance Industries Ltd). In view of the foregoing, it is requested that the Parent Company's financial credentials for Average Annual Turnover be accepted.	As per DAP 2020.