

भारतीय उष्णदेशीय मौसम विज्ञान संस्थान
INDIAN INSTITUTE OF TROPICAL METEOROLOGY
(पृथ्वी विज्ञान मंत्रालय, भारत सरकार का एक स्वायत्त संस्थान)
(An autonomous Institute under the Ministry of Earth Sciences, Govt. of India)
पाषाण, पुणे - 411 008
PASHAN, PUNE - 411008

वैश्विक निविदा सूचना / GLOBALTENDER NOTICE

निदेशक, भारतीय उष्णदेशीय मौसम विज्ञान संस्थान, डॉ. होमी भाभा मार्ग, पाषाण, पुणे - 411 008 (भारत) निम्नलिखित की आपूर्ति, प्रवर्तन, संस्थापन एवं संतोषप्रद निरूपण हेतु निर्माताओं/आपूर्तिकारों एवं उनके प्रत्यायित विक्रय एजेंटों से निविदाएं (भाग-I तकनीकी बोली, भाग - II कीमत बोली) आमंत्रित करते हैं :

Director, Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan, Pune - 411008 (India) invites tenders (Part-I – Technical Bid, Part-II – Price Bid) from Manufacturers / Suppliers and their accredited selling agents for the supply, installation, commissioning, and satisfactory demonstration of following.

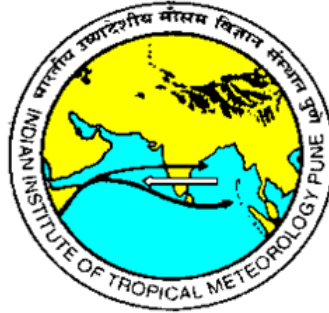
क्रम सं. Sr. No.	वैश्विक निविदा सूचना सं. Global Tender Notice No.	विवरण / Description
01.	पीएस/125/21/2018 PS/125/21/2018	वायुमंडलीय अनुसंधान और रखरखाव के लिए इंस्ट्रुमेंट एयरक्राफ्ट सिस्टम - मात्रा 01 सिस्टम के खरीद हेतु Purchase of Instrumented Aircraft System for Atmospheric Research & Maintenance – Qty. 01 System

बोली-पूर्व बैठक (ऑफलाइन)	: 08 th फरवरी 2019 को 11:30 बजे
Pre-bid Meeting (Offline)	: 08 th February 2019 at 1130 hrs.
ऑनलाइन मोड पर निविदा प्रस्तुत करने की अंतिम तिथि	: 13 मार्च 2019 को 15:00 बजे
Last date of submission of Tender on online mode	: 13 th March 2019 at 1500 hrs.
ऑनलाइन (तकनीकी बोलियाँ केवल) निविदा खोलने की तिथि	: 13 मार्च 2019 को 15:30 बजे
Opening of Tenders online (Technical bids only)	: 13 th March 2019 at 1530 hrs

संस्थान को किसी निविदा या सभी निविदाओं को बिना कारण बताए निरस्त करने का अधिकार है। विस्तृत विवरण एवं बोलियों के प्रस्तुतीकरण हेतु कृपया वेबसाइट <http://www.mstcecommerce.com/eprhome/iitm> देखें। संभावित बोलीदाताओं की जानकारी के लिए, निविदा विवरण भी इस संस्थान की वेबसाइट <http://www.tropmet.res.in> एवं सरकार का सेंट्रल प्रोक्यूरमेंट पोर्टल (सीपीपी) <http://www.eprocure.gov.in> पर भी उपलब्ध है।

The Institute reserves the right to reject any or all tenders without assigning any reason thereof. For details and submission of bids please visit website <http://www.mstcecommerce.com/eprhome/iitm>. For the information of the prospective bidders, the tender details are also available on this Institute's Website: <http://www.tropmet.res.in> and Government's Central Procurement Portal (CPP) <http://www.eprocure.gov.in>.

Sd-
प्रशासनिक अधिकारी, कृते निदेशक
Administrative Officer, for Director
ईमेल/Email : psu.iitm@tropmet.res.in



REQUEST FOR PROPOSAL

for

INSTRUMENTED AIRCRAFT SYSTEM
FOR ATMOSPHERIC RESEARCH

RFP No. IITM/NFAR/IAS/1

Indian Institute of Tropical Meteorology
(Ministry of Earth Sciences, Government of India)
Dr. HomiBhabha Road, Pashan, Pune 411 008,
Maharashtra, India.



INDIAN INSTITUTE OF TROPICAL METEOROLOGY
 (AN AUTONOMOUS INSTITUTE OF MINISTRY OF EARTH SCIENCES, GOVERNMENT OF INDIA)
 DR. HOMI BHABHA ROAD, PASHAN, PUNE 411 008 MAHARASHTRA, INDIA
 Tel #: 00 91 20 2590 4200, Fax #: 00 91 202586-5142
 Email: psu.iitm@tropmet.res.in, Website: www.tropmet.res.in

Invitation for Bids / Notice Inviting Request for Proposal

Date: 15/01/2019

The Indian Institute of Tropical Meteorology (IITM), Pune an autonomous body under Ministry of Earth Sciences (MoES), Govt. of India is country's premiere research Institute to generate scientific knowledge in the field of meteorology and atmospheric sciences that has potential application in various fields such as agriculture, economics, health, water resources, transportation, communications, etc. It functions as a national centre for basic and applied research in monsoon meteorology. The Director, IITM would like to procure the following Goods / Services for its day-to-day research. The Technical specifications, Allied requirements and Scope of Supply are given in **Chapter 4** appended herewith.

Sr. No.	Tender No.	Brief Description of Goods / Services	Quantity	Single / Two Bid
1	PS/125/21/2018	SUPPLY, INSTALLATION AND SUCCESSFUL COMMISSIONING OF INSTRUMENTED AIRCRAFT SYSTEM FOR ATMOSPHERIC RESEARCH & MAINTENANCE	01 System.	Two

- The bid has to be submitted online on Institute's e-procurement system hosted at website http://www.mstcecommerce.com/eprochome/iitm/buyer_login.jsp as per the process mentioned on the same website. Bidder has to register on the above website to participate in the bidding process through e-procurement. Bidders are advised to follow the instructions provided in 'Vendor's Guide' available on the said e-procurement website. Bidders can contact at **022-2286 6261** for any technical queries regarding registration and submission of bid on the above portal.
- The address for submission of **Technical bids only** and for obtaining further information:
 Purchase Officer
 Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan, Pune - 411008 (India)
- A Pre-bid Conference will be held on schedule mentioned below. All prospective bidders are requested to kindly submit their queries to the address indicated above so as to reach the Stores & Purchase Officer at least **three day** before Pre-Bid Conference.

	Date	Time in hours (IST)	Venue
Pre-Bid Conference	8 th February, 2019	1130 hrs	IITM, Pune (Aryabhata Conference Hall)

- The Bid prepared by the Bidder shall include the following:-

i)	Bid Security a) In case of Foreign Bidder : US\$ 458,000.00 (US\$ Four Hundred Fifty Eight Thousand only). b) In case of Indigenous Bidder : Rs.3,20,00,000.00 (Rs. Three Crore Twenty Lakhs Only)
ii)	Forms as specified in Chapter No.8

- All bids must be accompanied by a Bid Security as specified above and must be delivered to the above office before the date and time indicated below. In the event of the date specified for bid receipt is declared as a closed holiday, the due date for submission of bids will be the following working day at the appointed time.
- The Schedule for Submission of Bids is as follows:-

	Date	Time in hours (IST)	Submit to / Venue
Submission of Bids	13 th March, 2019	Upto 1500 hrs.	As detailed at Sr. No.1
Opening of Bids	13 th March, 2019	1530 hrs	

- The Director, **Indian Institute of Tropical Meteorology (IITM), Pune** reserves the right to accept or reject any or all tenders / offers either in part or in full or to split the order without assigning any reasons there for.

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ARTICLE 1**Definitions**

In this RFP the following words shall have the meaning set out herein below:

"Banking Days"	Days when banks are open for business in: The country where the Bidder has its principal office and the country where the OWNER has its principal office situated.
"Bidder"	The company referred to as "Bidder", inclusive of its authorized agents/representatives and employees.
"Buyer"	Indian Institute of Tropical Meteorology seeking through this RFP to arrive at a decision for placement of a supply order on the successful Bidder for procurement of the Instrumented Aircraft System (IAS).
"Contract"	The contract to be entered into between IITM and the successful Bidder for supply of the IAS. Contract, with all its Annexures, including Specifications and any amendments thereto, arising from this RFP for procurement of an Instrumented Aircraft System.
"Contractor"	The successful bidder on whom a supply order is to be placed by IITM in pursuance of this RFP and with whom a contract is concluded for supply of IAS to the Buyer.
"IITM"	The organisation referred to an Indian Institute of Tropical Meteorology or, in its abbreviated form, as "IITM" inclusive of its representatives and employees.
"IAS"	Instrumented Aircraft system proposed to be procured through this RFP.
"OWNER"	Indian Institute of Tropical Meteorology, Government of India, having its principal office at Pune, India
"OWNER 's Supplies"	any item, equipment, stores or services ordered directly by the OWNER from the manufacturer or supplier, which shall not be supplied and/or paid for by the Bidder in accordance with the terms of the Contract
"Date of Contract"	The date of signing the Contract by both the parties.
"Delivery and Acceptance"	The physical delivery of the IAS from the Bidder to the Buyer at the place specified in Contract and acceptance by the Buyer.
"Delivery Date"	Date of delivery of the IAS, adjusted for Permissible Delay(s), as specified in the Contract.
"Flag State"	India, being the Flag State referred to in Part IV para 9 (c).
"Force Majeure"	Any one or more of the events set out in Part III para9
"Force Majeure Delay"	A delay caused by Force Majeure circumstances which according to Part III para9 (ii) shall constitute Permissible Delay
"Warranty Period"	A period of 24 months from the date of Delivery and Acceptance of the IAS, or such other period as may be mutually agreed between the OWNER and the Bidder

"Comprehensive Warranty"	Comprehensive warranty includes cost of spares
"Probable scientific instrument supplier's List"	List of probable suppliers approved for delivery of equipment, machinery or services which shall be considered to conform to the Specifications (Annexure VII)
"Permissible Delay"	All delays, inclusive of Force Majeure Delay, causing delay in delivery of the IAS which according to the terms of the Contract shall permit postponement of the Delivery Date
"Regulatory Bodies"	The relevant authorities imposing rules and regulations with which the construction and delivery of the IAS must comply, which shall include the authorities of the Flag State together with other authorities set out in the Specifications
"Representative"	A person or persons authorised by the Bidder and/or the OWNER to represent his interest in relation to this RFP and shall include members as set forth in Part IV para 7 and shall also include the team appointed by the Buyer for supervising construction of the IAS.
"Specifications"	The specifications set out in Annexure 1, 2, 3, 4, 5 and 6 hereto
"Subcontractor"	Any person (not being a representative or employee of the Bidder) or company, with whom the Bidder has entered into a contract for the design, construction, manufacture or supply of any item, equipment, work or service for the IAS
"Supplier"	The successful bidder on whom the supply order for supply of IAS shall be placed.

ARTICLE 2

Interpretations

In this RFP, unless the context requires otherwise:

- (a) Words denoting the singular number shall include the plural and vice versa;
- (b) Words denoting any gender shall include all genders;
- (c) Where a word or phrase is defined, other parts of speech and grammatical forms of that word or phrase shall have corresponding meanings and definition of words defined using alphabets of the upper case shall equally apply to those words when they appear with alphabets of the lower case and vice versa.
- (d) Words denoting natural persons shall include corporations and vice versa;
- (e) References to clauses, sub-clauses, paragraphs, sub-paragraphs and annexures are to clauses, sub-clauses, paragraphs, sub-paragraphs and annexures to this RFP;
- (f) Headings are for convenience only and shall not affect interpretation;
- (g) References to any party to this RFP shall include the parties' successors and permitted assigns;
- (h) References to "IITM" shall include the Director of the Indian Institute of Tropical Meteorology, or any duly appointed (in writing) representative;
- (i) References to "Bidder" shall include any representative/agent/ employee/ invitee on behalf of the Bidder, Bidder or sub-contractor of the Bidder.
- (j) Words not specifically defined under Article 1 shall have the meaning as normally understood in the context of the passage where such words appear in the RFP document.

PART- I GENERAL INFORMATION AND INSTRUCTIONS TO BIDDERS

1. SUBMISSION OF BIDS

1.1 The bidders have to submit their bids online on Institute's e-procurement portal hosted at http://www.mstcecommerce.com/eprochome/hild/buyer_login.jsp and duly sealed technical bids (with soft copy in CD/DVD/PEN DRIVE) along with Earnest Money Deposit may be submitted generally by post or by hand at the Institute on or before last date of submission of bids.

a) **The soft copy of the Technical Bid has to be submitted on Institute e-procurement site http://www.mstcecommerce.com/eprochome/iitm/buyer_login.jsp as per the instruction given at the site.**

b) Price has to be filled on Institute's e-procurement site http://www.mstcecommerce.com/eprochome/iitm/buyer_login.jsp. The scanned copy of dully filled in and signed Price Bid as per format given this document has to be uploaded on the above e-procurement site. The prices filled in the e-procurement site will be treated final and shall be binding to the vendor.

c) Bidders are advised to follow the instructions provided in 'Vendor's Guide" available on the said e-procurement website.

Note: Bidder should submit the soft copy of the technical bid as mentioned at Sr. No. 1.1 (a) of RFP (page No. 7). Also bidder should submit the hard copy of the dully signed and stamped of the Technical Bid only within 5 working days from the submission date.

1.2 The bid documents submitted by the Bidder shall be complete in all respects with requisite information and Appendices, if any. It shall be complete and free from ambiguity, changes or interlineations. Bid prices must not be indicated on any document other than IITM prescribed official format of price bid (Part VIII). Any additional information that the Bidder may wish to submit must be attached to their documents as addendum.

1.3 The Bidder's offer and any annotations or accompanying documentation shall be in English language only. The complete bid including the prices must be written by the Bidder in indelible ink. Bid details and/or prices written in pencil will be rejected.

1.4 Bidders shall set their quotations in firm figures and without conditions/qualifications. Each figure stated should also be repeated in words and in the event of discrepancy between the amount stated in figures and in words, the prices / rates quoted in words shall be deemed to be the correct amount. Bids containing qualifying expressions such as "subject to availability", "subject to minimum acceptance", etc. shall be liable for disqualification and may lead to rejection of the bid. If the space in the RFP form or in the Appendices thereto is insufficient, additional pages shall be separately added. These pages shall be consecutively numbered and shall also be signed by the Bidder. In such cases, reference to the additional page(s) must be made in the bid.

1.5 Each page of the RFP document and bid documents shall be signed only by an authorized employee/Executive of the Bidder and stamped with the official seal of the Bidder.

1.6 Bidders should indicate at the time of quoting against this RFP, their full postal and fax / email address / phone nos. and also similar information in respect of their authorized agents in India, if any.

- 1.7 Bidders should quote firm price / rates for entire duration of Contract period and extension thereof, if any.
- 1.8 The bid shall be kept unconditionally valid for acceptance for a minimum period of 180 Days from the date of opening of the bid. If any Bidder desires to offer a longer validity period, it should specifically be mentioned in the bid. If needed, IITM may request Bidders to extend the validity as considered necessary by IITM. If the Bidder does not agree to extend the validity of the bid as requested by IITM, the bid submitted by such bidder shall not be considered for further evaluation.
- 1.9 Each page of the document shall be signed by duly authorized employee / Executive of the Bidder and adequate proof indicating his authority must be submitted along with the bid.
- 1.10 An integrity pact must be signed by every Bidder in the format given in Appendix – A and submitted with the technical bid in the first inner sealed cover.
- 1.11 Bidders are advised in their own interest to ensure that all the points brought out in the Instruction to Bidders are compiled within their bid; failing which the offer is liable to be rejected. Any incoherence/error in the specifications or terms should be brought out during pre-bid conference. Any extra jobs required to rectify such problems shall not qualify for additional payment/time to the Bidders as the bids are to be submitted based on clarifications provided in pursuance of deliberations in the pre-bid meeting.
- 1.12 Any interlineations, erasures or overwriting shall be valid only if they are signed by the authorized person or persons signing the bid.
- 1.13 Bid shall be signed by a person/persons duly authorized to bind the Bidder till satisfactory execution of the Contract, if awarded to the Bidder. The proof of authorization, such as power of attorney issued by the bidding company, in favour of authorized signatory must be submitted with the technical bid.
- 1.14 Bidders should quote strictly in the Price Bid Format provided at **Part VIII of the RFP** document without stating any conditions. Conditional offers will be rejected. One copy of the unpriced (leaving the price column blank) price bid is to be enclosed along with Technical Bid. If the prices are indicated in the unpriced bid submitted along with Technical Bid, such bids will be summarily rejected.
- 1.15 No alteration/changes in the price bids after closing date that is **15.00 hrs.(IST) on (Last Date of Submission)** specified at S.No.6 of Invitation to Bid will be taken into account for the bid evaluation unless specifically asked for from Bidders by IITM as a result of discussions/clarifications initiated or agreed to by IITM.
- 1.16 Bidders to note that failure to furnish all information / details / documents / certificates required in the bid document or submission of bids not in accordance with the RFP document in all respects may result in rejection of the bids.
- 1.17 Bidders are advised not to take any exception / deviations to the bid document. Exceptions / deviations, if any, should be brought out during the Pre-bid conference. IITM, after processing such suggestions (if found reasonable) may, through an addendum to the RFP document, communicate to all the Bidders the changes in its RFP document, if any. Still, if exceptions / deviations are maintained in the bid, such conditional / non-conforming bids may not be considered and are liable to be rejected.

- 1.18** IITM reserves the right to ignore/reject any offer which fails to comply with the above instructions.
- 1.19** The offer must be uploaded on e-procurement portal mention at section 1.1 above before last date and time of submission. Offers sent DIRECTLY IN PHYSICAL Form will not be accepted.
- 1.20** Any change in quotation, after opening of the bid, will not be considered.
- 1.21** TELEX/TELEGRAPHIC/TELEFAX/Email/Xerox/Photocopy offers, whether received directly by IITM or submitted by the local agents in India, also will not be considered.
- 1.22** On the day of the opening of bid (see para 6 of Invitation to Bid), only the Technical Bids will be opened.
- 1.23** Following documents to be submitted as part of Technical Bid :-
- a. Compliance statement in respect of all Annexure (1-7). Details of Technical Specifications and model/make of the aircraft and scientific instruments/equipment and List of critical spares for the aircraft and equipment that shall be supplied shall be furnished in the 'Bidder's Response' column of all Annexure(1-7).
 - b. Project Execution Plan (To be prepared as per para 25 of Part-I).
 - c. Details of modifications.
 - d. Power and heat analysis for aircraft cabin and scientific instruments onboard
 - e. Computational fluid Dynamics analysis for aircraft with instrument installed on pylons
 - f. Compliance matrix for compliance with Scientific Instruments Specification given at Annexure 5.
 - g. Earnest Money Deposit (see Para 8 of Part I).
 - h. Acceptance of all the Terms and Conditions specified in Part II, Part III and Part IV which are to be incorporated in the Contract.
 - i. Signed Pre-Contract Integrity Pact (Format of the pact – Appendix A).
 - j. Check list of compliance of instructions to Bidders.
 - k. Authorization letter in respect of signatories and or agent if applicable
 - l. Compliance matrix for Bidders qualification criteria as per part V
 - m. Un-priced Price Bid
- 1.24** IITM reserves the right to seek any clarification or not to seek any clarification after opening of technical bids (Un-priced bids). IITM at its discretion may hold technical discussions and seek presentations at Pune, India from all or some of the Bidders after opening the technical bids. Conditional Bids indicating exceptions/deviations to the RFP clauses are liable to be rejected.
- 2. SCOPE OF WORK:** Please refer the Part - IV for scope of work.
- 3.** In formulating the bid, Bidders shall have full regard to the contents of conditions specified in Part II, Part III and Part IV which are proposed to be incorporated in the Contract with the successful Bidder, since all bids will be deemed to have been made after taking into account all the provisions thereof. The Contract as finally executed will include IITM RFP document package and the Bidder's proposal, any other documents / commitments provided by the Bidder and accepted by IITM.
- 4.** The Bidder shall note that IITM will not entertain any correspondence or queries on the status of the offers received against this Bid package. Bidders are also requested not to depute any of their personnel or agents to visit IITM for making such inquiries. Should IITM find it necessary to seek any clarifications, technical or otherwise, the concerned Bidders will be duly contacted only by the authorized personnel of IITM.

5. IITM also reserves to itself the right to accept or reject any bid in part or parts, with such conditions as it may prescribe.
6. Bids once submitted will become property of IITM for the purpose of auditable records. Bidders shall not call back the bid including its envelopes /covers, as IITM need to maintain these documents as auditable documents.
7. Canvassing in any form by the Bidder or by any other agency acting on behalf of the Bidder before or after submission of the bid, shall disqualify the said Bidder. IITM's decision in this regard shall be final and binding on the Bidders.

8. EARNEST MONEY DEPOSIT (EMD)

- 8.1 The EMD amount is **Rs.3,20,00,000.00 (Indian Rupees Three Crore Twenty lakhs only) / USD 458,000.00 (US\$ Four Hundred Fifty Eight Thousand Four Hundred Fifty Eight Thousand only)**. Without the valid and prescribed EMD amount, the bid will be treated as invalid and will be ignored. The bids will be rejected if the ORIGINAL EMD is not enclosed with the Technical Bid.
- 8.2 The norms/mode of paying EMD is Bank Guarantee (B.G.) from a scheduled-A commercial bank in India or an Indian bank having a branch abroad (in case of foreign bidder), in the format provided with the RFP document at Appendix-C. The bank guarantee shall be kept valid for 180 Days + 45 days from the date of opening of bids. Should the need arise, IITM may request Bidders to extend the validity period of their bids and accordingly the bid bond validity would need to be extended by the Bidder. The Bidder may also submit the EMD in the form of Demand Draft (DD) in INR drawn on IITM payable at Pune. Refund of such EMD would be made in INR and to the Bidders name only. The BG/DD towards EMD shall constitute the EMD/Bid Bond.
- 8.3 No interest is payable on the EMD AMOUNT.
- 8.4 The validity of the Bank Guarantee submitted as the EMD, should be suitably extended by the Bidder, if required by IITM, beyond validity of the bid. Bids of bidders who do not agree to extend the validity of the Bank Guarantee for EMD as required by IITM shall not be considered for further evaluation.
- 8.5 OFFERS WITH FAX BID BONDS Offers received without original bid bond or with copy of bid bond shall not be considered unless properly executed original bid bond is received on or before the due date fixed for opening of technical bids.
- 8.6 BID BONDS IN BANK GUARANTEE (BG) FORM AND ITS AUTHENTICATION All Bank Guarantees, after its issuance from any branch of a Bank, is to be authenticated by the Bank directly to IITM. If the BG is not authenticated it, may be liable to be treated as cancelled.
- 8.7 The EMD will be returned to the unsuccessful Bidders. It will be returned to the successful Bidder after receipt of the requisite PERFORMANCE SECURITY from him.
- 8.8 In case of withdrawals or amends or impairs or derogates or non-compliance of RFP / bid condition(s) in any respect within the validity period of the bid or refusal to furnish the requisite PERFORMANCE SECURITY as specified in para 9 herein below, after getting intimation of award of the Contract, the EMD amount shall be forfeited.
- 8.9 Bid bond must be issued only on behalf of the bidding company giving complete address etc., in whose name bid is being submitted and in respect of the successful Bidder, award of Contract will be made only to the company that has submitted the bid with bid bond drawn in their name.

9. PERFORMANCE SECURITY:

- 9.1** The successful Bidder, within 14 days of the date of signing of the Contract, will be required to furnish Performance Security for 10% of the Contract value and for this purpose an unconditional performance, in the form of a Bank Guarantee from a scheduled commercial bank in India or a reputed foreign bank having a branch in India will be furnished within the prescribed 14 days in the format provided with the RFP document at Appendix- D.
- 9.2** Failure of the successful Bidder to comply with the requirement specified in clause 11.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD / Bid Bond.
- 9.3** The Performance Security Bond should remain valid for a period of 60 days beyond the date of completion of all contractual obligations (as per table 3.1 of part IV) of the successful Bidder including warranty period. In case of any delay in the delivery of the IAS, the validity of the Performance Security Bond should be extended by a period equivalent to the period of delay.
- 9.4** In case of non-delivery of the IAS and material as per scope of the Contract in time and/or for any other deficiency in delivery performance and/or failure to render contracted service during the warranty period, the Performance Security Bond will be summarily forfeited.
- 9.5** The Performance Security - will be returned to the Supplier after satisfactory completion of the delivery (whole Contract) and expiry of sixty days beyond the warranty period of the IAS as per terms and conditions of the mutually agreed Contract.
- 9.6** No interest is payable on the Performance Security.
- Note:** Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then the bidder should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.
- 10.** IITM will not be liable for any obligation until such time IITM has communicated to the successful Bidder its decision to award the Contract arising from this RFP.
- 11.** AGENT/ CONSULTANT/ REPRESENTATIVE/ RETAINER/ ASSOCIATE IITM would prefer to deal directly with the principal Bidder abroad but in case they decide to have their agent/consultant/ representative /retainer/associates in India and pay commission for their services against this RFP, it should be to the bare minimum extent and the principal Bidder would have to certify that such commission is commensurate with the services rendered to them by such an agent/consultant/representative /retainer/associate in India. The services to be rendered by the authorized agent / consultant / representative / retainer / associate in India will be limited to liaison or logistics support only.
- 11.1** In the event, Bidder having an agent / consultant / representative / retainer / associate / servicing facilities in India (who is not an employee of the Bidder), the Bidder should indicate in their offer the name and address/contact number of such an agent / consultant / representative / retainer / associate they have for services in India. The Bidder must also indicate clearly the remuneration payable out of the quoted price, to such agent / consultant / representative / retainer / associate in Indian Rupees in terms of agreement between the Bidder and the agent, consultant etc. (enclosing copy of the same). The Bidder, in his bid, will indicate the nature and extent of services to be provided by such an agent, consultant etc. on behalf of the Bidder. The remuneration to be paid to such agent, consultant, etc in Indian Rupees shall be indicated as a separate item, in the price quoted by the Bidder to IITM. Such remuneration / commission will be paid by IITM in non-convertible Indian Rupee

in India. Should it be established at any subsequent point of time that the above statement of the Bidder is not correct, the Bidder would be black-listed and a penalty as deemed appropriate by IITM shall be levied during the currency of the Contract through recovery in stage payments or by encashing the bank guarantee. The following particulars will also be furnished of remuneration / commission if its being paid to any one by the Bidder, either in India or abroad:

- a) The precise relationship between the foreign Bidder/principal and their agent/consultant/ representative /retainer/associate in India.
- b) The mutual interest which the principal and the agent/consultant/ representative /retainer/associate in India have in the business of each other.
- c) Any payment, which, the agent/consultant/representative /retainer/associate receives in India or abroad from the principal whether as a commission for the Contract or as a general retainer fee.
- d) Permanent Income Tax account No. of agent /consultant/ representative / retainer/ associate in India.
- e) Permanent Income Tax Account No. of foreign Bidder, if any.
- f) All services to be rendered by the agent/ consultant/ representative / retainer/ associate
- g) If on retainer basis, then copy of Memorandum of Understanding between the Bidder and the agent, consultants etc. should be submitted along with the un-priced bid.

11.2 Overseas Bidders should send their quotations directly. Agent/ consultant/ representative / retainer/ associate of the overseas are, however, permitted to attend bid opening, provided such an agent/consultant/ representative /retainer/associate has a power of attorney/letter of authority setting out very clearly his role, which will be limited to such areas of activity as submission of bid documents, attending bid opening, provided further that such a power of attorney/letter of authority is submitted to IITM well in advance for scrutiny and acceptance or otherwise.

12. CURRENCY OF THE BID: Bidders are to quote firm price. Bidders may quote in any internationally tradable currency. Bidders if using Indian components must quote the price thereof in **INR**. The entire agreed foreign currency amount will be paid only to the Bidder in the quoted foreign currency. The payment for agreed INR will be paid to the Indian company. All necessary details of the beneficiary Indian company should be indicated in the bid for payment of the quoted INR component. The Contract shall be entered in the Currency of quote.

13. For the purpose of comparative evaluation of the bids, the quoted Internationally tradable currency component will be converted into Indian Rupees at the reference rate of RBI (Reserve Bank of India) prevailing on the date of opening of price bid.

14. EXCHANGE RATE FLUCTUATION: Since foreign Bidders are permitted to quote in currency stated in Para 13 and also receive payments in that currency, IITM shall not compensate for any foreign exchange rate fluctuations.

15. LOCAL CONDITIONS It will be imperative for each Bidder to fully inform himself of all local conditions and factors which may have any effect on the execution of the CONTRACT as described in the RFP Documents. In their own interest, Bidders are particularly requested to familiarize themselves with the Income Tax Act 1961, the Insurance Act, 1938, the Companies Act, 1956, the Customs Act, 1961, including any amendment thereof and other related Acts and laws prevalent including corresponding statutory levies relating to this Contract in India. The IITM shall not entertain any request for clarification from the Bidder, regarding such local conditions. It is the responsibility of the Bidder that such factors are properly investigated and considered while submitting the bid proposal and that no claim whatsoever including those for financial adjustment to the CONTRACT awarded under the bidding document will be entertained by IITM and no change in the time schedule of the CONTRACT

nor any financial adjustment shall be permitted by IITM on account of failure of the Bidder to apprise himself of local laws/conditions including corresponding statutory levies relating to the Contract arising out of this RFP.

16. SIGNING OF THE CONTRACT/LETTER OF INTENT (LOI)

16.1 Prior to the expiration of the period of bid validity, IITM will notify the successful Bidder, through a Letter of Intent (LOI) in writing, that its bid has been accepted.

16.2 The notification of acceptance of the bid will constitute the formation of the Contract.

16.3 The successful Bidder is required to sign a formal detailed Contract with IITM within a maximum period of 30 days of Fax LOI order /E-mail LOI Order/ LOI sent by IITM intimating the result of the Bid. Until the Contract is signed, the Fax Order/LOI shall remain binding amongst the two parties.

17. DATE OF SUBMISSION / BID OPENING Bid : Bid must be submitted through online E-Procurement web portal <http://www.mstcecommerce.com/eprochome/iitm> only by 1500 hrs (IST) on Last Date of Submission (For more details, please refer Annexure – N) and the Technical bids will be opened on the same day at 1530 Hrs. In case of an unscheduled holiday on this day prescribed in the RFP for opening of the bid, the next working day will be treated as scheduled day for opening of the technical bids. However, there shall be no change in regard to time and date for submission of the bids, in such circumstances. The Bidder shall mark the Technical Bids as "original" and "copy". The original and copy Bids shall then be sealed in an envelope & shall submit to this Institute not more than 5 days from the last date of submission of bid online.

18. Bidders are advised in their own interest to prepare their bids in strict conformity with the RFP documents and to avoid exceptions as much as possible as bids are to be evaluated on the basis of Bid Evaluation Criteria laid down in the RFP document (Part VII). In case of any deviation, IITM has the right to reject the bid.

19. Bid documents must be submitted complete in all respects. The offers are liable to be rejected without assigning any reasons, if the bid documents are found incomplete.

20. Once the technical evaluation is completed, Price Bids of only those Bidders whose bids are responsive and technically acceptable will be opened on E-Procurement web portal <http://www.mstcecommerce.com/eprochome/iitm> for financial evaluation in the presence of authorized representatives of such Bidders if deputed. The date of opening of Price Bids shall be intimated sufficiently in advance through Fax / email.

21. TAXES, DUTIES, LEVIES Bidder may explore for himself with the concerned authorities regarding the application of taxes for the Contract resulting from this RFP before they bid. The Bidder shall indicate the split up rates of taxes, levies and duties (on the finished IAS) as specified in the Price Bid Format given in the Part VIII of this RFP. The prevalent Goods and Service Tax (GST), Customs Duty, Octroi / LBT, if any etc. shall be verified by the Bidder and included in the price with exact percentages of taxes and levies applicable and also the total figure in regard to this element must be shown in the Price Bid Format which must be submitted in a separate envelop other than the one containing the Technical Bid. Bids with "taxes as applicable" or "taxes as per government notification" and such vague terms shall not be accepted. IITM shall not reimburse any taxes, duties or statutory levies for the components imported / purchased for the performance of the Contract. IITM shall not be responsible for delay in performance of Contract if the Bidder wishes to avail of any applicable exemptions and the Bidder shall be solely responsible for the due performance of the Contract.

- 22. UNSOLICITED POST BID MODIFICATION** In case certain clarifications are sought by IITM after opening of bids, then the reply of the Bidder should be restricted to the clarifications sought. Any Bidder who modifies his bid (including a modification which has the effect of altering the value of his offer) after the closing time and date for submission of the Bids without specific reference made by IITM shall render the bid liable to be ignored and rejected without notice and without further reference to the Bidder.
- 23. CLARIFICATION IN RESPECT OF INCOMPLETE OFFER** The IITM has to finalise the award of Contract within a limited time schedule. Therefore, it may not be feasible in all cases for IITM to seek clarifications in respect of incomplete offers. Prospective Bidders are advised to ensure that their bids are complete in all respects and conform to the terms & conditions and render themselves to evaluation as per Bid Evaluation Criteria specified in Part VII of the RFP. Bids not complying with IITM's requirements may be rejected without seeking any clarifications.
- 24. LANGUAGE OF THE BID** The Bid prepared by the Bidder, and all correspondence related to the bid, exchanged between the Bidder and IITM shall be written in English Language. Any printed literature furnished by the Bidder written in another Language should be accompanied by an authenticated English translation, in which case, for purposes of interpretation of the Bid, the English translation shall prevail and be binding.
- 25. PROJECT EXECUTION PLAN (PEP)** A robust and sound Project Execution Plan (PEP) is considered a critical success factor to ensure the project is delivered on schedule, within budget, in accordance with the requested quality and the highest safety standards. As part of this, Bidder shall provide a preliminary Project Execution Plan detailing his methods for execution of the Work. The PEP shall address the critical factors which, in the opinion of Bidder, will be crucial to the successful and timely execution of the Contract. As a minimum requirement, the following topics shall be addressed:
- 25.1 Organisation and Project Management** Bidder shall provide its organisation charts for the work showing job titles and names of the proposed key personnel. The charts shall reflect the different disciplines of work to be assigned to each individual. One chart shall show the overall construction management organisation of Bidder. The organisation charts shall show lines of authority / responsibility / communication together with a written description of the working of the organisation. The Bidder shall describe the Project Management Team, experience of team members, and how it is planned to manage the project including, planning, execution, monitoring and control etc.
- 25.2 Project Schedule** The Bidder shall provide a preliminary schedule of key activities and milestones for the design, manufacture, tests, modification, trials, certification and delivery of the aircraft.
- 25.3 Work Locations** Bidder shall advise the geographic location of all offices and construction sites involved in the performance of the activities for execution of the Contract.
- 25.4 Design and Engineering** Bidder shall provide a written description of how he intends to execute the Design and fabrication engineering. The description shall specify the locations, procedures, methods, and software intended to be used. The Bidder shall provide schedule of design activities including plan approved by IITM representatives.
- 25.5 Procurement** Bidder shall provide a written description and preliminary schedule of its procurement activities. Bidder shall provide a list of proposed suppliers for key materials and equipment.
- 25.6 Material Handling** Bidder shall provide a written description how he intends to receive, inspect, handle, and store his own procured materials and free issue materials.

25.7 Manufacture: Bidder shall outline the methodology, based on full traceability requirements, of prefabrication, assembly, mechanical completion, test, modifications, calibration, pre-commissioning, commissioning and trials. Bidder shall specify the activities at the different work-locations (if any) and provide details of proposed sub- contractors for major elements of manufacture (if any).

25.8 QA/QC Bidder shall provide a Quality Plan and Inspection & Test Plan related to the required services till the completion of the project.

25.9 Safety management Bidder shall provide a Safety Management Plan related to the required services.

26. PRE-BID CONFERENCE

26.1 A **pre-bid conference** will be held as specified in para 4 of Invitation to Bid, at 1130 hrs (IST) on Pre-Bid Conference Date at IITM, Pune, wherein IITM's position on the issues raised by the Bidders will be discussed / clarified. All the terms and conditions would be frozen after the pre-bid conference. No change in specifications and RFP conditions will be permissible thereafter. IITM expects the Bidders to comply with the RFP specifications / conditions as finalized after the pre-bid conference.

26.2 The Bidder is requested to submit any query/clarification/deviation list (if any) on RFP document, by e-mail or fax so as to reach **IITM at least 3 days** before (Pre-Bid Conference Date) for deliberations in the pre-bid conference.

26.3 Non-attendance at the pre-bid conference shall not be a cause for disqualification of a Bidder. Every effort will be made to provide decisions arising from deliberations in the pre bid conference, in English, as early and accurately as possible. Every Bidder may avail the opportunity of pre-bid meeting / deliberations to get first hand details of the proceedings, in their own interest.

26.4 No reply will be given in writing in response to any query raised if that query does not warrant amending any clause of the RFP document. Nevertheless, all clarifications will be provided during the deliberations in pre-bid conference.

26.5 The following discipline will be adopted in respect of pre-bid meeting:

26.5.1 All seriously interested Bidders shall provide list of queries in writing at least three days before the date fixed for Pre-Bid Conference, i.e., (Pre-Bid Conference Date). Bidder's queries must be organized in the same order as that of RFP document.

26.5.2 Any modification of RFP document, decided during the pre-bid conference will be notified within 8 days of pre-bid conference to all Bidders. Subsequent to the pre-bid conference, all specifications and terms & conditions as finalized during the pre-bid conference will be treated as frozen.

27. Bids of firms debarred/blacklisted by Government of India or any of its organizations will not be considered for evaluation. A self-certificate in this regards may be submitted as per the APPENDIX - M.

Part II – Standard Terms and Conditions of RFP

The Bidder is required to give confirmation of their acceptance of the Standard Terms and Conditions of the RFP as mentioned below. The confirmation of acceptance by the Bidder will automatically be considered as part of the Contract concluded with the successful Bidder. Failure to provide confirmation of acceptance of the standard terms and conditions shall result in rejection of the bid submitted by the Bidder.

1. **Effective Date of the Contract:** In case of placement of a supply order, the date of the Supply Order would be deemed as effective date. In case a Contract is to be signed by both the parties, the Contract shall come into effect on the date of signatures of both the parties to the Contract (Effective Date) or as agreed during negotiations. The schedule of deliveries and supplies and performance of the services shall be reckoned to commence from the effective date of the Contract.
2. **Law:** The Contract shall be framed and entered into in accordance with the laws of the Republic of India and shall be governed by and interpreted in accordance with the laws of the Republic of India.
3. **Arbitration:** All matters relating to disputes and differences of opinion relating to the Contract arising from the current RFP shall be settled mutually, either through discussions or exchange of communications, as far as possible. The mutual discussions in this regard and any dispute arising under this Contract shall be settled in Pune, in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996, as amended from time to time. The case of arbitration may be referred, by either party, to the Secretary, Ministry of Earth Sciences Govt. of India, Prithvi Bhawan, Lodhi Road, New Delhi 110003 to appoint a sole Arbitrator. The appointment of the Sole Arbitrator by the Secretary, Ministry of Earth Sciences in pursuance of the request for appointment of a Sole Arbitrator shall not be called in to question by any of the parties to the Contract or by any other person or entity having any interest whatsoever in relation to the Contract. The award of the Sole Arbitrator shall be binding on all concerned. The arbitration proceedings shall be held at Pune, and where requirement arises, at site if so determined by the Arbitrator. The scope of this arbitration clause shall be so interpreted and construed as to include within its ambit any matter arising out of or connected with this Contract and implementation thereof, and shall be applicable to all transactions and sub-contracts executed in pursuance of this Contract.

In so far as relief under the Indian Arbitration and Conciliation Act 1996 is concerned, the Law Courts within the Corporation limits of Pune, India only will have jurisdiction over any legal matters and/or disputes arising out of or referable to arbitration proceedings and the award of the Sole Arbitrator or any breach or any matter referable to the same.

4. **Penalty for use of Undue influence:** The Bidder undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contract or forbearing to do or for having done or forborne to do any act in relation to obtaining or execution of the Contract or any other Contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the Bidder or anyone employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offers by the Bidder or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the Contract and all or any other contracts with the Bidder and recover from the Bidder the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking has been committed shall be final and binding on the Bidder.

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

5. **Agents / Agency Commission:** The Bidder confirms and declares to the Buyer that the Bidder has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to award the Contract to the Bidder; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Bidder agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Bidder has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this Contract, the Bidder will be liable to refund that amount to the Buyer. The Bidder will also be debarred from entering into any Contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Bidder who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above (i) Prime Lending Rate of State Bank of India for the Indian Bidders and (ii) London Inter Bank Offered Rate (LIBOR) for the foreign Bidders. The applicable rates on the date of opening of tender shall be considered for this. The Buyer will also have the right to recover any such amount from any payments due under any subsisting contracts with the Government of India or any of its agencies/institutions.

Or

The Bidder confirms and declares in the bid that they have engaged an agent, individual or firm, for promotion of their product. In such case, following details are to be submitted in the bid:

- a) Name and address of the Agent
 - b) Agency Agreement between the Bidder and the agent giving details of their contractual obligation
 - c) PAN Number, name and address of bankers in India and abroad in respect of Indian agent
 - d) The nature of services to be rendered by the agent and
 - e) Percentage of Commission payable to the agent
6. **Access to Books of Accounts:** In case it is found to the satisfaction of the Buyer that the Bidder has violated the provisions of Para 4 and/or Para 5 above to obtain the Contract, the Bidder, on a specific request of the Buyer, shall provide necessary information/ inspection of the relevant financial documents/information/Books of Accounts.
7. **Non-disclosure of Contract Documents:** Except with the written consent of the Buyer/ Bidder, other party shall not disclose the Contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.
8. **Withholding of Payment:** In the event of the Bidder's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, complete installation of equipment, training, etc. as specified in the Contract, the Buyer may, at his discretion, withhold any payment until the satisfactory completion of the Contract.

9. Liquidated Damages: The Buyer may deduct from the payments due to the Bidder, as agreed, liquidated damages at the rate of **0.5%** per week or part thereof, of value of supplies that could not be put to use due to late delivery beyond the Delivery Date specified in the Contract subject to a maximum of 10% of the total order value (inclusive of taxes and duty) of the Contract.

- (a) As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to. Otherwise Buyer will forfeit EMD/PS and also LD clause will be applicable /enforced
- (b) If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 0.5% of order value per week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier
- (c) IITM reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties, if any, will be deducted from the EMD/PS
- (d) The **maximum** amount of **penalty** shall be **10%**.
- (e) The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value.

10. Termination of Contract: The Buyer shall have the right to terminate the Contract in part or in full in any of the following cases:-

- i) The supplies/service is not received /rendered as per the contracted schedule(s) and the same has not been extended by the Buyer. Or

The delivery of the IAS/service is delayed for causes not attributable to Force Majeure circumstances for more than 03 months after the scheduled date of delivery as specified in the Contract and the delivery period has not been extended by the Buyer.

- ii) The delivery of store/service is delayed due to causes of Force Majeure by more than 06 months provided Force Majeure clause is included in the Contract and the delivery period has not been extended by the Buyer.
- iii) The Bidder is declared bankrupt or becomes insolvent.
- iv) The Buyer has noticed that the Bidder has violated the provisions of Para 4 and/or Para 5 above to obtain the Contract.
- v) As per decision of the Arbitration Tribunal or a judgment pronounced by a Court of Law in India.

11. Penalty Clause

Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required :-

- i) To immediately call of the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign and reason therefore.
- iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

- iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the BUYER.
- viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

12. Notices: Any notice required or permitted by the Contract shall be written in English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/ airmail, addressed to the last known address of the party to whom it is sent.

13. Transfer and Sub-letting: The Bidder has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the Contract or any part thereof without written consent of the Buyer.

14. Use of Patents and other Intellectual Property Rights: The prices stated in the Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other Intellectual Property Rights. The Bidder shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Bidder shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies or any or all the rights mentioned above.

15. Taxes and Duties

- i) **In respect of Foreign Bidders:** All taxes, duties, levies and charges which are to be paid for the delivery of IAS/services, including advance samples, shall be paid by the parties under the Contract in their respective countries. Double Tax Avoidance Treaty (DTAT) will be followed as per the treaty of bidder's country with Indian Government. However, the corporate/individual income tax, if applicable, will continue to be paid by the concerned party/individual.
IITM is a public funded research institution and has been exempted from the payment of Customs Duty, as per the description of stores and conditions thereon, under Customs Notification No. 51/96 as amended. (Applicable where INCOTERM is Delivered Duty Paid (DDP) (destination))

ii) **In respect of Indigenous Bidders**

a) **General**

- (i) If reimbursement of any Duty/Tax is intended as extra over the quoted prices, the Bidder must specifically say so. In the absence of any such stipulation it will be understood that the prices quoted are firm and final and no claim on account of any duty/tax will be entailed after the opening of tenders.
- (ii) Any addition to duty/tax and change in any duty/tax upward/downward as a result of any statutory variation in excise taking place within Contract terms shall be allowed to the extent of actual quantum of such variation of duty/tax paid by the supplier. Similarly, in case of downward revision in any duty/tax, the actual quantum of reduction of such duty/tax shall be reimbursed to the Buyer by the Bidder. All such adjustments shall include all reliefs, exemptions, rebates, concession etc., if any, obtained by the Bidder.
- (iii) TDS as per Income Tax Rules will be deducted and a certificate to that effect will be issued by the Buyer.

b) Customs Duty

- (i) IITM is a public funded research institution and has been exempted from the payment of Customs Duty, as per the description of stores and conditions thereon, under Customs Notification No. 51/96 as amended.
- (ii) The successful Bidder would be issued a Customs Duty Exemption Certificate (CDEC) under the said notification at the time of import clearance for the goods being imported against the Contract. Bidder would be required to submit a copy of their order to principal along with principal's acceptance and proforma invoice at least four weeks in advance from the expected date of arrival of goods to this office for issuance of CDEC. If multiple CDECs are required, Bidder to provide its exact nos. along with the breakup of it.
- (iii) Bidders may note that CDEC would be issued ONLY in favour of beneficiary of the Contract.

c) GST

- (i) The Purchaser is registered with Department of Scientific and Industrial Research (DSIR) for purposes of availing **GST concession** in terms of Notification No. 47/2017-Integrated Tax (Rate) dt. 14/11/2017, Notification No. 45/2017-Central Tax (Rate) dt. 14/11/2017 and Notification No. 45/2017-Union Territory Tax (Rate) dt. 14/11/2017. The maximum GST is applicable @ 5% only for goods procured for research purpose of the Institute.

d) Octroi Duty / LBT & Local Taxes, if any :

- (i) Normally, materials to be supplied to Government Departments against Government Contracts are exempted from levy of Town Duty, Octroi Duty / LBT, Terminal Tax and other levies of local bodies. The local Town/Municipal Body regulations at times, however, provide for such exemption only on production of such exemption certificate from any authorized officer. Bidder should ensure that stores ordered against contracts placed by this office are exempted from levy of Town Duty/Octroi Duty / LBT, Terminal Tax or other local taxes and duties. Wherever required, they should obtain the exemption certificate from the Buyer, to avoid payment of such local taxes or duties.
- (ii) In case where the Municipality or other local body insists upon payment of these duties or taxes, the same should be paid by the Bidder to avoid delay in supplies and possible demurrage charges. After the issue of exemption certificate by the Buyer, the Bidder may get the reimbursement from the local authority. In case of any difficulty, the receipt obtained for such payment should be forwarded to the Buyer without delay together with a copy of the relevant act or by-laws/notifications of the Municipality of the local body concerned to enable IITM to take up the case for refund with the concerned bodies, if admissible, under the said acts or rules.

16. Pre-Contract Integrity Pact:

- (i) An “Integrity Pact” would be signed between IITM and the Bidder. The Pre-Contract Integrity Pact is attached as Appendix “A”. The Bidders are required to sign the pact and submit it separately along with the Bid. Bidders are also advised to have a company code of conduct clearly rejecting the use of bribes and other unethical behaviour and put in place an effective compliance program for the implementation of the code of conduct throughout the company.
- (ii) The Pre-Contract Integrity Pact is a binding agreement between the Buyer and Bidders for specific contracts in which the Buyer promises not to accept bribes during the procurement process and Bidders promise that they will not offer bribes or adopt any unfair means. Under this Pact, the Bidders for specific services or contracts agree with the Buyer to carry out the procurement in conformity with the commitments of either party as specified in the Pact.
- (iii) Undertaking on behalf of a Bidding company will be made “in the name and on behalf of the company’s Chief Executive Officer”.
- iv) Any or all of the following set of sanctions could be enforced for any violation by a Bidder of its commitments or undertakings:
 - a) Denial or loss of contracts;
 - b) Forfeiture of the EMD and performance bond;
 - c) Liability for damages to the Buyer and the competing Bidders; and
 - d) Debarment of the violator by the Buyer for an appropriate period of time.
- (v) **The integrity pact is to be signed.** The details of the Independent External Monitors (IEMs) are as below;

(1) Shri Arun Kumar,

Ex. Secretary, Oil Industry Development Board (OIDB),
B-38, Vrindavan Apartment, Plot No. 1,
Sector 6, Dwarka, New Delhi -110075
Email :-kumararun_53@rediffmail.com
Mob. : 9810621113

(2) Shri. Sushil Gupta,

Ex. Chairman, Central Ground Water Board (CGWB) & Central Ground Water Authority (CGWA),
No. B 702, Aravali Height,
Sector 21 C, Faridabad, Haryana Pin – 121001
Email : - sushilanitagupta@yahoo.com
Mob. : 09999744061

PART III – SPECIAL TERMS AND CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of the Special Terms and Conditions of the RFP as mentioned below. The confirmation of acceptance by the Bidder will automatically be considered as part of the Contract concluded with the successful Bidder. Failure to provide confirmation of acceptance of the special terms and conditions shall result in rejection of the bid submitted by the Bidder.

1. Earnest Money Deposit (EMD)

Bidder shall deposit Rs. 3,20,00,000.00 (Rupees Three Crores Twenty Lakhs only) or USD 458,000.00 (US\$ Four Hundred Fifty Eight Thousand only) as EMD, in favour of Director, IITM, Pune, in the form of an appropriate Bank Guarantee from a public sector bank or a first class bank of international repute confirmed by the State Bank of India in case of foreign Bidder. This bank guarantee, in original, towards EMD would be submitted by the Bidder along with Integrity Pact (IP) (as per format enclosed at Appendix C) at the time of submission of bid in a separate envelope clearly marked as 'IP and EMD' put together in an envelope containing the technical bid. The bid security may also be accepted in the form of Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque from any of the Commercial Banks or payment online in an acceptable form, safeguarding the purchaser's interest in all respects.

2. Performance Bank Guarantee (PBG) / Performance Security (PS)

- i) **Indigenous Bidder:** The successful Bidder will be required to furnish a performance guarantee by way of Banker's Cheque/Demand Draft (DD)/Bank Guarantee (BG), in favour of Director, IITM, Pune, for a sum equal to 10% of the Contract value. The BG should be valid up to 60 days beyond the warranty period. The specimen of BG can be provided on request.
- ii) **Foreign Bidder:** The successful Bidder will be required to furnish performance guarantee equivalent to 10% of the Contract value by way of a Bank Guarantee from a first class bank of international repute confirmed by the State Bank of India in favour of Director IITM, Pune. The BG should be valid up to 60 days beyond the warranty period. The specimen of BG can be provided on request.
The PBG will be forfeited by the Buyer, in case the conditions of the Contract are not fulfilled or violated in any manner by the Bidder.

3. Tolerance Clause:

To take care of any change in the requirement during the period starting from issue of RFP till placement of the Supply Orders, the Buyer reserves the right to increase or decrease 25% of the tendered quantity of the required goods without any change in the terms and conditions and rates quoted by the Bidder. While awarding the Contract, the quantity ordered can be increased or decreased by the Buyer within this tolerance limit without change in the rates quoted by the Bidder.

4. Permissible time frame for submission of bills:

To claim the payment (part or full), the Bidder shall submit the bill(s) along with the relevant documents within 30 days from the completion of the milestone defined at SI No. 5 (a).(i). below.

5. Payment Terms

The payment will be made as per the following terms, on production of the requisite documents:

Stage-wise part payments as per the milestone described here.

5.1 Table indicating Stage-wise payments

Sr. No.	Milestone/ Stage	Activity	% of Total Contract Value	Months after Contract
1	Stage – 1	On completion of Preliminary Design Review (PDR) after placement of orders for equipment and one no. of aircraft	10	3
2	Stage – 2	On completion of Factory Acceptance Test – FAT1 (sensor testing at sensor factory and aircraft at aircraft factory)	15	10
3	Stage – 3	On completion of Factory Acceptance Test of modified aircraft (FAT-2)	20	22
4	Stage – 4	On arrival of IAS in India	25	23
5	Stage – 5	All regulatory clearances and on site acceptance test (SAT) of IAS by IITM, Pune	30	24

A) Stage-wise Payments upto Stage-3:

Stage-wise payment at each stage of the work upto Stage-3 of the Contract will be made, against submission of Bank Guarantee within 15 days from the date of notification of award, from scheduled-A commercial bank in India or an Indian bank having a branch abroad (in case of foreign Bidder), to the extent of 110% of the amount at that stage payment, in favour of The Director, IITM, Pune valid till date of receipt and acceptance of IAS at IITM. In case of termination of the Contract due to default of the Bidder, interest free mobilization stage payment would be deemed as interest bearing advance, compounded quarterly, at the rate of 2% above (i) Prime Lending Rate of State Bank of India for the Indian Bidder, and (ii) LIBOR rate for the foreign Bidder. The rates as applicable on the date of receipt of advance will be considered for this.

B) Stage-wise Payments for Stage-4 & 5:

Stage-4 & Stage-5 payment of the Contract will be made against completion of obligation of that particular stage as detailed above in the mode of Irrevocable Letter of Credit in case of items quoted in foreign currency and through NEFT /ECS / RTGS etc. in case of items quoted in INR currency.

6. Mode of Payment:**a) For Indigenous Bidder:**

It will be mandatory for the Bidders to indicate their bank name and account numbers and other relevant e-payment details to facilitate payments through ECS/NEFT / RTGS mechanism.

b) For Foreign Bidder:

The payment will be arranged through Letter of Credit / Wire Transfer, as applicable from State bank of India /any other Public Sector Bank in India, as decided by the Buyer, to the Bank of the Foreign Bidder as per mutually agreed terms and conditions. The Letter of Credit will preferably be opened for the amount payable at each stage prior to 90 days of that stage with validity of 90 days from the date of its opening, on extendable basis by mutual consent of both the parties. Letter of Credit opening / Wire Transfer charges in India will be borne by the Buyer. Outside India, L/C / Wire Transfer charges shall be borne by Bidder. However, the extension charges, if any, will be borne by the party responsible for the extension.

7. Documents to be Furnished for Claiming Payment

- i) **Indigenous Bidders:** The payment of bills will be made on submission of the following documents by the Bidder to the Buyer:
 - a) Ink-signed copy of Contingent Bill.
 - b) Ink-signed copy of Commercial Invoice / Bidder's Bill.
 - c) Bank Guarantee for Advance.
 - d) Guarantee/ Warranty Certificate.
 - e) Performance Bank Guarantee/ Indemnity Bond.
 - f) Details for electronic payment viz. Bank name, Branch name and address, Account Number, IFS Code, MICR Number (if these details are not already incorporated in the Contract).
 - g) Original copy of the Contract and amendments thereto, if any.
 - h) Any other document/ certificate that may be provided for in the Contract.
- ii) **Foreign Bidders:** In case of payment through Letter of Credit (LC), paid shipping documents are to be provided to the Bank by the Bidder as a proof of dispatch of goods as per contractual terms /LC conditions so that the Bidder gets payment from LC. The Bank will forward these documents to the Buyer for getting the goods/stores released from the Port/Airport. Documents to be furnished will include:
 - a) Clean on Board Airway Bill/Bill of Lading
 - b) Original Invoice
 - c) Packing List
 - d) Certificate of Origin from Bidder's Chamber of Commerce, if any.
 - e) Certificate of Quality and year of manufacture from OEM.
 - f) Dangerous Cargo Certificate, if applicable.
 - g) Insurance Policy for 110% value of contracted goods delivered on CIF/ CIP Contract
 - h) Certificate of Conformity & Acceptance Test at PDI, if any.
 - i) Physio-sanitary/ Fumigation Certificate, if any.
 - j) Performance Bond / Warranty Certificate.
 - k) Any other documents as provided for in the Contract.

8. Force Majeure Clause:

- i) Neither party shall bear responsibility for the complete or partial non-performance of any of its obligations, if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other reasonable circumstances beyond the control of the parties that may have arisen after the conclusion of the Contract.
- ii) In such circumstances, the time stipulated for the performance of an obligation under the Contract is extended correspondingly for the period of delay attributable to the force majeure circumstances.
- iii) The party for which it becomes impossible to meet obligations under the Contract due to Force Majeure conditions, is to notify the other party, in written form, at the beginning and cessation of the above conditions immediately, but in any case not later than 10 (Ten) days from commencement of those conditions.
- iv) Certificate of a Chamber of Commerce (Commerce and Industry) or other competent authority or organization of the respective country shall be a sufficient proof of commencement and cessation of the Force Majeure conditions.

- v) If the impossibility of complete or partial performance of an obligation lasts for more than 6 (six) months, either party hereto may reserve the right to terminate the Contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of its intention to terminate without any liability other than reimbursement on the terms provided in the agreement for the goods received.

9. Liquidated Damages (LD clause) for Late Delivery

- (a) If the delivery of the IAS is delayed beyond the Delivery Date, the Contract price shall be reduced by deducting there from as follows:

Each week of delay @ **0.5%** of the Contract value.

The maximum reduction in the Contract Price for delayed delivery shall not exceed 10% of the Contract value.

- (b) If the period of delay in delivery of the IAS, after excluding periods of delay due to force majeure conditions, shall continue for a period in excess of 180 days after contracted Delivery Date, IITM may at its option cancel the Contract by notifying the Bidder in writing or by telefax confirmed by registered mail, and such cancellation shall be effective as on the date of notice thereof. Before attempting to cancel the Contract, IITM shall provide reasonable opportunity to the Bidder to expedite the delivery and shall keep reminding about IITM's right to cancel the Contract beyond the delayed delivery period of 180 days. If the IAS delivery period is delayed beyond 180 days, IITM shall have the absolute freedom and right to cancel the order placed and to encash the Bank Guarantee(s) given without assigning any reason therefore. In such a case, the deduction from the Contract price as mentioned above will continue even beyond 180 days delay subject to the maximum limit of 10% of the Contract value and the Bidder shall not make any additional claim for any routine service/facilities which are required to be provided by them as part of scope of Contract during the delayed period.

Provided IITM has not sent notice of cancellation even after a lapse of 180 days of the contracted Delivery Date, the Bidder may demand in writing that IITM shall make a choice either to cancel the Contract or give consent to the acceptance of the delivery at a specific future date reasonably estimated by the Bidder in regard to delivery of the IAS. IITM shall, within 15 days of receipt of such demand, notify the Bidder of its choice it being understood that, if IITM opts not to cancel the Contract and the IAS is not delivered by the Bidder by the extended future delivery date, IITM shall have the right to cancel the Contract without further notice.

- (c) L. D. for Services (Installation, Commissioning and Integration etc.):

Each week of delay @ **0.5%** of the Contract value.

The maximum reduction in the Contract Price for delayed delivery shall not exceed 10% of the Contract value.

10. Export Licence:

The Bidder is required to furnish full details and formats of End Use certificate required for obtaining export clearance from the country of origin. This information will be submitted along with the bid. In the absence of such information, it would be deemed that no document is required from the Buyer for export clearance from the country of origin.

11. Terms of Delivery

- i) **For Foreign Bidder:** Foreign Bidders are required to quote for instrumented aircraft both (i) on FAS/FOB basis and for spares and accessories on CIP/CIF (IITM, Pune). The responsibility of delivery of IAS and spares and accessories up to IITM, Pune will be of Bidder; only the related documents will be provided by Director IITM, if required. If CIP/CIF cost is not available, an additional 10% of FAS/FOB cost over and above quoted FAS/FOB cost will be loaded on their respective bid for comparison purposes.
- ii) **For Indigenous Bidder:** The delivery of goods shall be on FOR (IITM, Pune) basis. Bidders are required to quote imported goods for instrumented aircraft on DDP basis and FOR destination for Indigenous goods. , the supplier shall arrange and pay for Marine / Transit Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, in the event of any loss or damage.

The equipment to be supplied will be insured by the supplier against all risks of loss or damage from the date of shipment till such time it is delivered at site in case of Rupee transaction.

For Imported Goods: The supplier is required under the contract to deliver the Goods on Delivery Duty Paid (DDP) basis, transportation of the Goods including loading and unloading , up to final destination point including insurance and storage, as specified in the Contract, shall be arranged and paid by the supplier. The responsibility of transportation of the goods lies with the supplier.

For Indigenous Goods: In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier. The responsibility of transportation of the goods lies with the supplier.

The clearing of the consignment at Airport shall be done by supplier's authorized Custom House Agents (CHA). If there is delay in clearing of the consignment for not giving timely pre-alert then demurrage (Ware house charges), has to be borne by Supplier / Indian Agent.

The Insurance shall be for an amount equal to 110% of the DDP value of the contract from "warehouse to warehouse (final destination)" on "all risk basis" including strikes, riots and civil commotion, in addition to storage policy for 60 days is advised so as to ensure the inspection by the Indian Agent at the time of opening the packages.

Supplier has to complete all the formalities on behalf of the Buyer. Buyer will provide necessary documentary support for both Imported and Indigenous goods, wherever necessary.

Packing and Marking Instructions: The Bidder shall arrange for packing and preservation of the equipment and spares/goods contracted so as to ensure their safety against damage in the conditions of land, sea and air transportation, trans-shipment, storage and weather hazards during transportation, subject to proper cargo handling. The Bidder shall ensure that the stores are packed in containers, which are made sufficiently strong.

- a) The packing cases should have provisions for lifting by crane/fork lift truck. Tags with proper marking shall be fastened to the special equipment, which cannot be packed.
- b) The packing of the equipment and spares/goods shall conform to the requirements of specifications and standards in force in the territory of the Bidder's country.
- c) A label in English shall be pasted on the carton indicating the under mentioned details of the item contained in the carton. The cartons shall then be packed in packing cases as required.
 - i) Part Number:
 - ii) Nomenclature:

- iii) Contract annex number:
 - iv) Annex serial number:
 - v) Quantity contracted:
- d) One copy of the packing list in English shall be inserted in each cargo package, and the full set of the packing lists shall be placed in Case No.1 painted in a yellow colour.
- e) The Bidder shall mark each package with indelible paint in the English language as follows:-
- i) Contract No. _____
 - ii) Consignee _____)
 - iii) Port/ Airport of destination _____
 - iv) Ultimate consignee _____
 - v) Package No. _____
 - vi) Gross/net weight _____
 - vii) Overall dimensions/volume _____
 - vi) The Bidder's marking _____
- f) If necessary, each package shall be marked with warning inscriptions: <Top>, <Do not turn over>, category of cargo, etc.
- g) Should any special equipment be returned to the Bidder by the Buyer, the latter shall provide normal packing, which protects the equipment and spares/goods from the damage of deterioration during transportation by land, air or sea. In this case the Buyer shall finalize the marking with the Bidder.

Inspection Instruction:

- (i) **Preliminary Design Review (PDR) meeting:** This will be held within 3 months of commencement of Contract at Buyer's place, as per requirement. During this meeting, the whole process/scope of work as per Contract will be discussed in detail in the presence of Buyer's team as well as representatives of OEMs of aircraft, manufacturer's of instruments and system integrator. In the PDR meeting, critical issues related to 'IAS' will be identified. This meeting can last up to a few days. As per requirement, there can be multiple PDR meetings. PDR should be in Buyer's country only.
- (ii) **Critical Design Review (CDR) meeting:** During CDR, the special designs/modifications being made exclusively for this Contract will be frozen by Buyer's team and approval will be given to Bidder to go ahead in realizing these modifications. Also, whole program schedule will be reviewed again in detail; necessary actions shall be identified to make up for slippages, if any and critical decisions will be taken accordingly on approval of changes, if any. This meeting will normally be held at Buyer's/Bidder's place about a month after the PDR; but can vary depending on the type of design efforts & time frames involved. The representatives of OEMs of aircraft, manufacturer's of instruments and system integrator shall attend this meeting. As per requirement, there can be multiple CDR meetings.
- (iii) **Participation in modification and Integration:** IITM scientists will visit the Bidders' office/factory and participate during the modification of aircraft and integration of instruments periodically. The expenditure towards the visits will be borne by IITM.
Factory Acceptance Test (FAT): FAT will be conducted in two phases. FAT1 will be sensor testing at sensor factory and aircraft at aircraft factory and FAT2 will be testing of Modified aircraft with instruments. Test flights of 5, and 15 hours will be conducted during FAT1 and FAT2 respectively. Two scientists from IITM will participate in test flights.
- (iv) The flight trial for acceptance of 'IAS' will be carried out in Bidder's country based on the mutually prepared and accepted test schedule in the presence of Buyer's team. After successful trial(s) during FAT2, clearance will be given by Buyer to the Bidder for shipment of 'IAS' along with stores to IITM, Pune (India).

Appendix B is attached as 'Checklist for 'AT' of IAS

Post Delivery inspection (PDI) and Trial on receipt of 'IAS' and store(s). This will be done in India in the presence of Buyer's team after receipt of 'IAS' in India.

Inspection Authority: FAT and PDI will be carried out by authorized representative(s) of the Buyer's team.

Note: There will be a 'Project Progress Evaluation Team' (PPET) from Buyer's side for smooth & successful realization and delivery of IAS. This team will regularly review the progress of Contract from the date of signing/award of the Contract, and afterwards, once in every 3 months till its completion. All the above mentioned reviews, i.e. PDR, CDR, FAT, PDI & trial on receipt of IAS and stores will be subject to PPET's reviews. The expenditure on PPET will be borne by the Buyer.

Claim:

- i) Quantity claims for deficiency of quantity and/ or quality claims for defects or deficiencies in quality noticed during inspections shall be reported by the inspection team within 30 days of completion of inspection.
- ii) The Bidder shall collect the defective or rejected goods from the location nominated by the Buyer and deliver the repaired or replaced goods at the same location, within mutually agreed period not exceeding 60 days, at Bidder's cost without any financial implication for the Buyer.

12. Warranty

The Bidder will declare that the goods, stores articles sold/supplied shall be of the best quality and workmanship and new in all respects. The contracted goods shall be strictly in accordance with the specifications and particulars contained/ mentioned in the Contract. The Bidder will guarantee that the said goods/stores/articles would continue to conform to the description and quality for a period of minimum two-year (standard warranty) from the date of acceptance of the said goods stores/articles. If during this aforesaid period of two years, the said goods/stores are discovered not to conform to the description & quality specified in the Contract or found to be not giving satisfactory performance or found to have deteriorated, the Buyer shall be entitled to call upon the Bidder to rectify the goods/stores/articles or such portion thereof as is found to be defective by the Buyer within 60 days, at the Bidder's cost, without any financial implication for the Buyer. If the downtime of IAS and instruments is beyond the maximum approved time limit, the warranty shall automatically be extended equivalent to such downtime, including the 60 days allowed for defect rectification, for the concerned item.

The warranty will begin only after the successful SAT in India (stage 5).

Product Support: The Bidder agrees to provide Product Support for the stores, assemblies/subassemblies, fitment items, Spares and consumables, Special Maintenance Tools (SMT)/Special Test Equipment (STE) for a minimum period of ten years, including two years of standard warranty period, after the delivery.

An instrumentation engineer (having sufficient experience and knowledge on the supplied aircraft) from the Bidder should be available at the site for a minimum period of two years from date of delivery to operate, maintain, trouble shoot and calibrate the scientific instruments as may be required. The instrumentation engineer should also train IITM scientists on the above aspects. Evidence for experience of the engineer should be provided. Year wise break up of cost of deployment of the engineer shall be provided. Such cost will be considered for arriving at L1. However, requirement of the engineer after every year will be reviewed and continuation of the engineer will be decided by IITM.

13. Annual Maintenance Contract (AMC) Clause:

- i) The Bidder would provide the cost of comprehensive AMC for a period of at least three-years (on annual basis) after the completion of warranty period. The AMC services should cover the repair and maintenance of IAS and all the equipment and systems purchased under the Contract and take into account the following:
 - a) Maximum repair turnaround time for equipment/systems would be 2-months, from the date of completion of procedures of Govt. of India, by the Buyer.
 - b) Required spares that may be stored at site by the Bidder at their own cost to avoid complete breakdown of the equipment/systems and to ensure serviceability.
- ii) The AMC services would be provided in two distinct ways:
 - a) **Preventive Maintenance Service:** The Bidder will provide a minimum of four Preventive Maintenance Service visits during a year to the operating base to carry out functional checkups and minor adjustments/ tuning as may be required.
 - b) **Breakdown Maintenance Service:** In case of any breakdown of the IAS/equipment/systems, on receiving a call from the Buyer, the Bidder will be required to provide maintenance service to make the IAS/ equipment/systems serviceable.
- iii) **Response Time:** The response time of the Bidder should not exceed three working days from the time the breakdown intimation is provided by the Buyer.
- iv) **Serviceability** of 90% per year is to be ensured. This amounts to total maximum downtime of 37 days per year. Downtime should not exceed 30 days at any one spell. Total down time would be calculated at the end of the year. If downtime exceeds permitted limit, LD/Extension/Termination may be considered as per the merit of the case as decided by the Buyer.
- v) **Technical Documentation:** All necessary changes in the documentation (Technical and Operators manual) for changes carried out on the hardware and software of the equipment will be provided.
- vi) During the AMC period, the Bidder shall carry out all necessary servicing/repairs to the equipment/system under AMC at the current location of the IAS/equipment/systems. Prior permission of the Buyer would be required in case certain components/sub systems are to be shifted out of location. On such occasions, before taking over the goods or components, the Bidder will give suitable bank guarantee to the Buyer to cover the estimated current value of items being taken.
- vii) The Buyer reserves the right to terminate the maintenance Contract at any time without assigning any reason after giving a notice of 2-months. The Bidder will not be entitled to claim any compensation against such termination. However, while terminating the Contract, if any payment is due to the Bidder for maintenance services already performed in terms of the Contract, the same would be paid as per the Contract terms.

14. INTELLECTUAL PROPERTY RIGHTS AND CONFIDENTIALITY

- (a) The technology developed by IITM stands protected by Intellectual Property Rights. The Contractor shall treat the details of the Contract technology developed by it in the course of this Contract and/or project as private and confidential, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of IITM. If any dispute arises as to the necessity of any publication

or disclosure for the purpose of the Contract the same shall be referred to IITM whose determination and decision shall be final and binding on both the parties.

- (b) Every employee, agent, associate and /or consultant of the Contractor shall be subject to a non-disclosure agreement in a format approved in advance by IITM and contain covenants enforceable at IITM's option under the same arbitration clause as in this document, which clause shall be incorporated by reference into such non-disclosure agreement which shall be incapable of dilution without IITM's prior written consent.
- (c) Intellectual Property & Patents: Whatever design is already developed by the Contractor and are being used for this project will be treated as existing technology of the Contractor and what is done specifically for IITM for this Contract and/or project will be the sole property of IITM. In the event of any claim from any patent holders with respect to any design used by Contractor, same shall be dealt with by Contractor directly and Contractor shall indemnify IITM against such claims. However, any claim from any patent holders pertaining to any process given by IITM to the Contractor shall be dealt with by IITM and not the Contractor.
- (d) The Contractor shall not disclose details of drawings furnished to him and works on which he is engaged in connection with the Contract without the prior approval of IITM in writing, except for disclosing the details of drawings to employees and sub-contractor on "need to know basis". No photograph of the subject matter of the Contract or any part thereof or equipment employed thereon shall be unauthorisedly taken, retained, stored and/or published or circulated without the prior written approval of IITM in writing.

IMP Note: Director, IITM will be the final authority in any kind of disputes related to this Purchase Order and it will be binding on the supplier.

All the procurement rules and regulations of Govt. of India will be applicable and will be binding on the supplier.

Part – IV SCOPE OF WORK

The scope of work and deliverables as stated in this section, which may be amended at the time of pre-bid meeting, will become part of the Contract.

1. SCOPE OF SUPPLY

- (a) The Indian Institute of Tropical Meteorology (IITM) desires that the IAS with all state of the art equipment installed on board as specified in the annexed detailed technical specifications (annex. 1 to 5) is built and delivered ready for research missions and field operations. The IAS is to be delivered by the Bidder to IITM complete in all respects and must include all items mentioned in the enclosed technical specifications of the aircraft and instruments and any other items required for full functionality for the intended operations of the IAS.
- (b) Delivery of three Sets of all design/floor plan drawings, manuals and all other documents relating to the IAS along with three sets of soft copies in portable media e.g. DVDs.
- (c) Delivery of 200 nos brochures of IAS, 100 nos small (about 8 inches long) models of IAS, 10 nos big size models of IAS (about 24 inch long), all with IAS logo, that is being designed by IITM.
- (d) The successful Bidder shall be required to provide logistic support and enter into an AMC Contract and provide service support and obtain back to back commitment for requisite services of various OEMs as the case may be (As set out in ANNEXURE- 6).
- (e) The successful Bidder should provide an Instrumentation Engineer (having sufficient experience and knowledge on the supplied aircraft system) at the site, for 2 years, to operate, maintain, trouble shoot and calibrate the scientific instruments. The Instrumentation Engineer should also train IITM scientists on all the above aspects during the entire period of his stay at the site.
- (f) The successful Bidder must furnish a Master Inventory list of all instruments onboard, equipment and spares in three sets (along with one soft copy) duly divided in various sections as per classification of items with the IAS delivery.

2. **PROJECT COMPLETION SCHEDULE** The entire scope of work, Trial tests (Static and Dynamic Tests) and handing over the IAS to IITM at the designated airport in India to be intimated by IITM shall be completed within 24 (Twenty four) months from the date of signing of the Contract. Project shall be deemed completed only after the Bidder completes all defects arising within the warranty period.

3. DELIVERABLES/MILESTONE DATES

Payments will be released after achieving milestones/stages specified under clause on Payment Terms as given in para 5 of part III. The Bidder, however, has to indicate following details along with the work plan for the IAS.

3.1 Table indicating deliverables plan

Execution Plan	Proposed schedule/ date of Achieving (from the date of actual signing of Contract)
Preliminary Design Review (PDR)	3 months from signing of Contract
Critical Design Review (CDR)	1 month after PDR
Factory Acceptance Test – FAT1 (sensor testing at sensor factory and aircraft at aircraft factory)	6 months after CDR
Aircraft Delivery for further modification	1 month after FAT1

Installation and aircraft modifications	7 months after delivery for modification
Testing, Verification & Validation	2 months after completion of modification
FAA/EASA Certification	2 months after testing
Factory Acceptance Test (FAT2 – Modified aircraft with instruments)	1 month after certification
Site Acceptance Test (SAT) in India and Delivery (IITM,) India	1 month after FAT2

4. SOFTWARE DESIGN

(a) The Supplier shall use a standard 3D modelling software to generate the detailed design, Block drawings, Coordination drawings and isometric drawings for airflow and wiring systems. IITM shall be updated with a viewer and a 3D file with each progress report to view the progress of the detailed design and to understand the design changes.

(b) **Atmospheric Data Display and Management System (ADDMS)**

A data management system should provide for obtaining data, processing data and delivering data to an End User, said data relating to the maintenance and performance of an asset, the data management system comprising;

1. data collection means configured to allow collection of a predetermined data set and to allow said data set to be transmitted from the data collection means;
2. data storage means capable of receiving data transmitted from the data collection means;
3. data processing means capable of reconfiguring said data into a predetermined format;
4. End User interface means to allow an end user to read said reconfigured data;
5. comprising means for generating a graphical user interface on a display screen, the graphical user interface consisting of a data packet containing at least one data input section.

The data management system should be able to transfer data to & from ground station through SATCOM system.

The Supplier shall design, manufacture and install a Common Atmospheric Data Display and Management System (ADDMS). The system should incorporate data acquired by all instruments on board measured during any mission. It should arrange all measured data/parameters in a single file with common time stamping using GPS server. If some of the special sensors have different frequency of data acquisition then the operation of such sensors may be done by a separate data acquisition system. However, this data should also be available in ADDMS.

Similarly, an off-line data processing tool must be provided to view the data (quick look) acquired during any mission in graphical format with any selected parameters.

The above mentioned software and tools should be able to operate on any number of computers simultaneously as required.

All the required permissions have to be obtained by supplier on behalf of Buyer. Necessary documentary support will be provided by the Buyer. Requirement of any documentation in this regard should be requested well in advance.

5. DRAWING LIST

Within four weeks of signing the Contract, Bidder shall develop an initial list of the design drawings and documents that the Bidder anticipates as required to accomplish the construction of the IAS. The list of drawings shall be based on the specifications in addition to Bidder's proposed methods of

construction/modification of the IAS. **The list shall include the target dates by which the activity relating to each drawing is to be completed.** On a monthly basis, if not more frequently, Bidder shall supply to IITM's representative copies of the most recent version of the updated list of drawings on both hard copy (paper) and in soft copy.

6. WORK PLAN:

- (a) After signing of the Contract, the Supplier shall submit a complete Master Work Schedule to IITM – comprising of Level 1 (Milestones) within 15 calendar days and Level 2 (Micro schedule with detailed list of activities to achieve the milestones) within 30 calendar days. The Master Work Schedule shall include the Bidder's plan and sequence proposed to accomplish the work within the Contract period clearly indicating Critical Path. When each of the documents is submitted, it shall be provided in both hard (paper) copy and soft copy usable by the Bidder. Bar Charts and Milestone charts should also be submitted to facilitate monitoring at macro level.
- (b) The Master Work Schedule shall sequence and schedule all work detailed in the Contract Documents, in accordance with the generally accepted practices for project management. The Master Work Schedule shall be a time-phased / resource loaded critical path network. The Master Work Schedule shall develop and clearly indicate the critical path through the project.
- (c) The critical path network of the Master Work Schedule shall also have separate activities for each of engineering, procurement, installation and testing for each system, sub-system and major components.
- (d) Thereafter, prior to the end of each calendar month, the Master Work Schedule shall be updated to reflect each appropriate activity's actual start date and/or actual finish date as well as revised start and finish dates for future activities taking into account any and all new information affecting schedule of prior activities, purchases, deliveries, installations and testing. Bidder shall submit to IITM a copy of such revised schedule in the same formats as those in which initial Master Work Schedule was submitted. The updated Master Work Schedule shall reflect opened items, additional work, deleted work and modifications, if any, in addition to work progress and completions.
- (e) Review of the Master Work Schedule by IITM's Representative with or without comments does not relieve the Bidder of his responsibility to adjust his labour force, equipment resources, or work schedule, as necessary, to anticipate and ensure completion of the work within the prescribed project completion schedule specified in para 2 of this section.

7. PROJECT PROGRESS EVALUATION TEAM (PPET)

IITM will appoint a PPET for overseeing / supervision of the construction and for monitoring the progress of modification/integration and execution of work in accordance with the specifications. Supplier shall, on receipt of prior notice, allow such members of the PPET to enter the work place during all times of construction for purposes of supervision. This will also apply to premises of sub-contractors.

8. PHOTOGRAPH

The Supplier will submit a set of digital format photographs every four weeks during the construction period of IAS, illustrating the progress of the work. With the submittal, the Supplier should provide a digital photo file index describing the date, subject, and location corresponding to each file. The Supplier should also provide the file index and digital photo files on a CD and also via e-mail as attachments. The CD should be labelled with the date of submittal. The Supplier and sub-contractors

shall allow the representatives of IITM to take pictures/videos of the progress of the IAS during the Contract period.

9. STC APPROVAL, CERTIFICATION AND REGISTRATION

- (a) The Supplier shall submit all detailed drawings to IITM for its examination / acceptance and to the Statutory and Regulatory Bodies (FAA/EASA/DGCA) for review and approval. Any work started before IITM's inspection / acceptance and Regulatory Body's review and approval, shall be at the Supplier's risk.
- (b) The Supplier shall furnish IITM with the copies of all correspondences sent / received from Regulatory Bodies regarding modification approval.
- (c) The Bidder shall provide, deliver and pay for all certificates necessary for the approval of the IAS, as further set out in the Contract, together with all documents reasonably required by the OWNER necessary for the registration of the IAS in INDIA, (Flag State). The IAS shall be registered by the OWNER, at its own cost and expense.
- (d) Availability of STC for individual instrument should be indicated in the technical bid.
- (e) All the required permissions have to be obtained by supplier on behalf of Buyer. Necessary documentary support will be provided by the Buyer. Requirement of any documentation in this regard should be requested well in advance.

10. REQUIREMENT OF ADDITIONAL INSTRUMENTS, TOOLS, CONSUMABLES ONBOARD

Requirement of any additional tools, testing/scientific instruments and consumables relevant to NFAR project (if not already covered in the list provided in the Technical Specifications) if envisaged by IITM and conveyed in writing during any stage of execution of the Contract, the list of such items will be submitted to the Supplier for effecting the supplies and payment will be reimbursed as per actual.

11. CONDITIONS FOR SELECTION OF MAKES AND BIDDER

- a) In respect of certain critical equipment like scientific instruments, research electrical/power package, communication equipment, navigation equipment etc., a recommended list of vendors for such equipment is given in Annexure 7. If Bidders wish to include other vendors, their recommendations should be brought for discussion to be discussed during the pre bid meeting.
- b) Such additional vendors as proposed by the Bidders during the pre-bid conference will be evaluated and approved by IITM according to their product specifications, length of experience in manufacturing a particular product, and availability of spares and service facilities along with operational performance experience gained by IITM on earlier procured equipment of the same vendor/manufacturer or other operator's experience. Bidder will provide necessary information for undertaking the evaluation. Serviceability of the equipment in India will be an important factor. If vendors recommended by the bidders are accepted by IITM, they will be included in the list at Annexure 7 in the final tender document and also displayed in IITM's website.
- c) Procurement of equipment/materials from vendor(s) as approved by IITM shall not relieve the Bidder of his obligations and responsibilities under this Contract.

12. RESPONSIBILITY OF THE BIDDER:

- (a) The responsibility for the detailed and final aircraft design and engineering and performance is with the Bidder. All technical data for the aircraft and specifications of instruments, outfit equipment given in this document are the minimum requirements and are to be checked by the Bidder, for any revision in course of detailed engineering of the IAS. But any material or

parts, the omission of which would be detrimental to the airworthiness, serviceability and functionality of the IAS and the inclusion of which is generally felt advantageous to IAS, shall be provided by the Bidder to the satisfaction of IITM and Regulatory Bodies without increase in cost to IITM and change of time schedule for delivery of the IAS.

- (b) Testing to prove the compliance of all the components, systems and subsystems as per the contractual requirements, shall be included as part of the Contract work associated with each such component, system and/or sub system. Such testing shall not be extra to the scope of work for the Contract and the time to achieve such testing shall not be additional to the delivery period specified in the Contract.
- (c) The IAS will be registered in India, and as such shall comply with all applicable rules set forth by the Directorate General of Civil Aviation (DGCA), India. The Bidder has to comply with all requirements for registration to be done before delivery of IAS.
- (d) Preservation and upkeep of equipment as required, when stored in his premises will be Supplier's responsibility. Necessary preservation and maintenance routines as recommended by the OEMs will be undertaken by the Supplier at his cost. The equipment will be stored in environmentally controlled store houses in consultation with the OEM.
- (e) Safety & Security of the aircraft, instruments, fittings etc. will be the responsibility of the Supplier and the same will be ensured at all times at Supplier's cost. Supplier will regularly review the measures instituted to ensure safety and security and keep IITM's representatives informed in this regard.
- (f) The Bidder should list the major risks involved in procurement, modification/ integration, testing, certification and delivery of IAS along with plans to mitigate the same for discussion during the pre-bid meeting for suitable decision by IITM and incorporation of the consequential amendments in the final tender document.

13. TRAINING:

- (a) The Supplier shall provide training, at his cost, in theory, operation, maintenance and servicing of the atmospheric sensors/instruments installed on aircraft to **four** persons from IITM for a period of 4 weeks at factory premises. The training shall include the working of sensors/instruments, their operation, calibration, troubleshooting, parts replacement and data processing software. Computer hardware/software associated with sensors/ instruments and such other aspects which are considered essential for their optimal utilization. Trainees from IITM will also participate in instruments modification and integration process. IITM will support for the travel, accommodation / per diem to trainees deputed by IITM.
- (b) The Supplier shall also provide training, at his cost, to IITM personnel at site after completion of installation/commission of IAS for duration of one week in routine operation and maintenance of IAS.
- (c) In case periods indicated above are considered insufficient, the desired duration may be indicated during the pre-bid meeting for appropriate decision by IITM to be incorporated in the final tender document.

PART V- BIDDER QUALIFICATION CRITERIA

The broad selection criterion for qualifications of Bidder is as following:

Aircraft OEMs/Instrument OEMs/Aircraft-Instrument Integrators and their Authorized Indian or Foreign Agents are eligible to quote/participate in the tender. Capability to act as Prime Bidder to provide total turn-key solution to the Buyer. The Indian agent working as Prime Bidder should have enlistment with The Director General of Supplies & Disposal (DGS&D), "Jeevan Tara", 1, New Delhi - 110001, India. Without valid DGS&D certificate at the time the payment, becomes due, no payment to Indian agent will be made.

- a. Capacity to follow the guidelines of DGCA in letter and spirit for obtaining CoA (Certificate of Air Worthiness) & CoR (Certificate of Registration) towards registration of 'IAS' and for its operation in India.

Availability of a suitable 'Maintenance Facility' in India; duly authorized by Aircraft's OEM and approved by DGCA for the maintenance of 'IAS' as per DGCA's CAR (Civil Aviation Regulations)

1) Technical Capabilities

Expertise available in the critical areas to complete the task - Should have the necessary expertise in critical areas, especially in aircraft manufacture, sensor's/instrument's integration and should have past successful track record of the same. Documents to confirm such past track record must be submitted by the Bidder along with the bid at the time of RFP stage/response)

2) Manufacturing Facilities

- a. *Availability of Infrastructure required to carry out the activity* - Should have the necessary infrastructure available to carry out manufacture of aircraft, sensors/instruments, integration or engage qualified 'Integrators' who are either AS 9100 or EN 9100 certified; should have carried out integration of airborne atmospheric measurement instrumentation and delivered comparable or higher versions of IAS.
- b. *Numbers of such type of contracts executed in past* - The Bidder should provide proof of experience and past performance about execution of similar type of contracts (i.e. integration of airborne atmospheric measurement instrumentation on proposed type of aircraft) for last 5-10years, along with the bid)

3) Financial Capabilities

Should have sufficient minimum financial resources to execute the order - The Bidder should provide information about the financial standing of his company through latest audited annual reports (balance sheet and Profit & Loss Account) of last 3 years or **equivalent acceptable documents**. If the company is a part of a larger organization, the same shall be provided for the parent company (i.e. a company owning 51% share of Bidder's company) also. This report shall be certified by Competent Authority of the Government of Bidder's country by authorized auditor; published and officially available in the country of registration of Bidder's company.

4) Management Capabilities

- a. *Availability of Quality Management System, Quality Control System, et-.* - Should have necessary Quality Management System & Quality Control system in place.
- b. *Compliance of delivery schedule* - Should be capable of strict compliance with the prescribed 24 months delivery schedule. A list of successfully executed contracts within the stipulated delivery periods in recent contracts should be submitted by the Bidder along with the bid. Details of delayed delivery, if any, during past 3 years with reasons thereof should also be submitted.

PART VI – DETAILS OF THE STORE(S)/SERVICE(S) REQUIRED**1. Schedule of Requirements:** List of items/services required is as follows –

Name/Description of Item(s)/Service(s)	Qty required
Aircraft (Details as per Annexure 1)	01 No
Scientific Instruments (Details as per Annexure 5)	As listed
All atmospheric Sensor Systems' Integration (Details as per Annexure 2,3,4 and 5), PDR & CDR, FAT before dispatch of IAS to Buyer's place, Training abroad and in India (Details at Para 13 Part IV), Ferry of IAS to India; registration of IAS with DGCA and final SAT at Buyer's place in India	01 Job

2. Technical Requirements:

- a) **Specifications/Drawings:** Specifications/Drawings should be made available to the RFP issuing authority.
- b) Technical details with technical parameters as specified in Annexure 1, 2, 3, 4 & 5 must be complied with.
- c) Training/on-job training as per details provided in Para 13 of Part IV must be complied with.
- d) Installation/commissioning as per details provided in 2 (b) must be complied with.
- e) Full Inspection including pre-delivery site inspection as per conditions in Para 14 of Part III of RFP and Appendix B must be facilitated.
- f) Assistance required after completion of warranty as per provisions made in Para 16 of Part III of the RFP must be provided. Comprehensive AMC as per provisions made in Para 18 of Part III of the RFP must be provided.
- g) Technical Documentation as per details provided in 2 (b) must be complied with.
- h) Pre-site inspection as per provisions made in Para 14 of Part III of RFP must be facilitated.
- (i) All expenses incurred before final acceptance of IAS by IITM, Pune, will be the sole responsibility of the Bidder, e.g. expenses on account of aviation fuel for instrumented aircraft's field trials; aircraft parking charges in India (e.g. at Pune or other airports) during inspection; International/DGCA Certifications/clearances, etc.
- (ii) The IAS will be owned by IITM (MoES). The aircraft will be operated and maintained by an authorized Indian Firm (as recommended by Aircraft OEM, as per Part IV of RFP) under 'Private' category) All optional item(s)/services mentioned in the RFP are desirable and the quote needs to include all options mentioned in the RFP. Thus, it is suggested that the Bidders make sure that they quote for all optional items without fail as otherwise there is a possibility that they may be disqualified as technically non-compliant.

3. Bidders are required to furnish clause by clause compliance of specifications bringing out clearly the deviations from specification, if any. Bidders are advised to submit the compliance statement for the technical parameters separately in the following format along with the Bid:

Para of RFP specifications (item-wise)	Specification of item(s) offered	Compliance to RFP specifications– whether Yes / No	Remarks (In case of non-compliance, deviation from RFP to be specified in unambiguous terms. In case of compliance, catalogue/brochure reference, if available, to be indicated)

For the Commercially-off-the-Shelf (COTS) items, it is mandatory to enclose catalogue/technical brochure to support the claims of compliance.

- 4. Delivery Period:** Delivery Period for supply of IAS (including pre-delivery services) would be twenty four months from the Effective Date of the Contract. Please note that the Contract can be cancelled unilaterally by the Buyer in case items are not received within the contracted delivery period. Extension of contracted delivery period with/without application of LD clause will be at the sole discretion of the Buyer.
- 5. INCOTERMS for Delivery and Transportation (for Foreign Bidders only):** Unless otherwise specifically agreed to by the Buyer and the Bidder and incorporated in the Contract, the applicable rules & regulations for transportation of goods from foreign countries will be as per the contemporary version of International Commercial Terms (INCOTERM) 2010 evolved by International Chamber of Commerce, Paris.
- 6. Consignee details:**

Name: Director, IITM
Address: Indian Institute of Tropical Meteorology,
 Dr. HomiBhabhaMarg, Pashan, Pune-411 008, India
 Phone (Office): +91-20-25904200,
 Fax:+91-20-25865142
 E-Mail: psu.iitm@tropmet.res.in

PART VII – BID EVALUATION CRITERIA

1. Evaluation of Technical Bids

- 1.1 The bids will be technically evaluated on the basis of the technical information supplied by the Bidder. Bids not conforming to technical specifications and other technical requirement of this RFP Document are liable to be rejected. Bidders are advised to submit the details in the format prescribed under para 3 of Part VI, clearly and correctly to facilitate decision on compliance with technical specifications of the RFP. Bidders are also advised to ensure that all technical details/documents specified in Para 1.23 of Part I are furnished with technical bid. The Technical Bids shall be evaluated on the basis of the information provided in the Technical Bids on vis-a-vis its conformity with the instructions set out in this RFP document. The eligibility criteria will be as specified in section V.
- 1.2 The Bidders shall be required to give Technical Presentations, at their own cost, before a Technical Evaluation Committee, if called for. Any such requirement of the Technical Presentations shall be informed in advance. Technical Evaluation Committee may seek information with respect to design, equipment fit etc.
- 1.3 Based on the technical specification provided, the major equipment fit proposed by the Bidder will be evaluated in detail.
- 1.4 Based on a technical assessment Ids vis-a-vis the requirements of the tendered work and the conformity of the bids submitted with the instruction provided in this document, a short-list of the technically competent and responsive Bidders will be first drawn up.
- 1.5 Once the technical evaluation is completed, the Price Bids of only those Bidders who are found technically acceptable will be opened for Price Bid evaluation in the presence of Authorized Representatives of such Bidder(s), if any, at a time, date and venue to be intimated by IITM to the short-listed Bidders.

2. Vital Commercial Criteria for Acceptance of Bids

- 2.1 The following vital commercial conditions should be strictly complied with, failing which the bids will not be considered:-
- 2.2 Offers must be kept valid for acceptance initially up to 180 Days from the closing date of tender. Validity of offers for acceptance less than 180 Days will not be considered.
- 2.3 EMD of Rs.3,20,00,000.00 (Indian Rupees three crore twenty lakhs only) or USD 458,000.00 (US\$ Four Hundred Fifty Eight Thousand only) must be submitted with the technical bid. Original EMD valid up to 180 Days + 45 Days from tender closing date must accompany the Technical bid. Offers received without EMD will be rejected. IITM shall release the EMD of unsuccessful Bidders at the earliest.
- 2.4 Signed Pre-contract Integrity Pact must be submitted with technical bid.

3. Price Bid Evaluation. Price bids of only those Bidders who qualify technically will be opened.

- 3.1 For the purpose of comparative evaluation, the quoted International tradable currency component will be converted into Indian Rupees at the reference rate of RBI (Reserve Bank of India) prevailing on the date of opening of price bid.
- 3.2 The evaluation of the quote will be done based on total cost provided by the Bidders in their Price bids. The lowest bid among the bids received from the technically qualified Bidders

would then be considered for award of Contract. The decision of IITM in this regard will be final and binding.

4. Any other matter, which arises at the time of evaluation, shall be decided by IITM keeping in view the best advantage accruing to the Buyer. The decision of IITM shall be final and binding.
5. The lowest bid will be considered for award of Contract.
6. IITM reserves the right not to award Contract to any of the Bidders.
7. This Institute is following and abide with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and subsequent amendments to the order. Accordingly preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.

PART VIII – FORMAT OF PRICE BID

Price Bid Format: The Price Bid Format is given below and Bidders are required to fill this up correctly with full details:

(I) PRICES TO BE FILLED ONLINE ON E-PROCUREMENT PORTAL

Sr. No.	Item Description	Foreign Currency (In US Dollars only) Component as per Part VIII-A	INR Price Component as per Part VIII-B
		A	B
01	Total Cost of Aircraft (DDP) (Supply, Installation & Commissioning Charges, Training Charges, Warranty Charges if any, Instruments, Logistics Support, Manpower, Applicable Duties & Taxes etc.). The details may be submitted as per the pro-forma given at Part VIII- II, Part VIII A & Part VIII B accordingly)		
02	Comprehensive AMC for 3 years after 2 years Standard Warranty (including Taxes, duties etc.)		
03	Grand Total (Sr. No. 01 +02)		

Note : The prices mentioned at Sr. No. 03 should exactly be submitted at e-procurement website (Price Bid) and soft copies of price schedule along with relevant Part VIII- II, Part VIII A & Part VIII B have to be uploaded on e-procurement web portal. The prices submitted on e-procurement website will treated as final and comparison will based on the said prices only.

(II) Basic cost of the item/items: (PDF COPY DULY FILLED IN IS TO BE UPLOADED ON E-PROCUREMENT PORTAL UNDER THE COMMERCIAL TAB)

Sl.No	Item Description	Qty.	Total Basic Cost in Foreign Currency		Total Basic Cost in INR Currency		Applicable Duties & Taxes		Total cost
			Goods / Product	Services	Goods / Product	Services	Goods / Product	Services	
1	Aircraft (Details as per Annexure 1)	01 No							
2	*Instruments for State Parameters and Aircraft Parameters (Total Suite) (Details as per Annexure 5)	01 No							
3	*Cloud Physics Instruments (Total Suite) (Details as per Annexure 5)	01 No							
4	*Aerosol Instruments (Total Suite) (Details as per Annexure 5)	01 No							
5	*Chemistry/Trace Gas Instruments (Total Suite) (Details as per Annexure 5)	01 No							
6	*Radiation Instruments (Total Suite with Gyro mounts) (Details as per Annexure 5)	01 No							
7	*Special Instruments (Total Suite) (Items 1 to 4 of Annexure 5)	01 No							
8	*Inlets (Total Suite) (Items 1 to 4 of Annexure 5)	01 No							
9	*Aircraft Data Acquisition System with ADDMS software (Details as per Annexure 5)	01 No							
10	*Aircraft Power Distribution System (Details as per Annexure 5)	01 No							
11	All Sensor Systems' Integration on aircraft (Details as per Annexure 2 and 3), PDR & CDR, FAT before dispatch of IAS to Buyer's place, Cost includes all taxes, duties and levis)	01 Job							
12	Ferry of IAS to India; Aircraft registration with DGCA and final SAT at Buyer's place in India (Cost includes all taxes, duties and levis)	01 Job							
13	Cost for Instrumentation engineer (Two years) (Details as per para 17 of part III) (Cost includes all taxes, duties and levis)	1 person 2 years							
14	Logistical support (Details as per Annexure 6)	01 Job							
A	For 2 years during the warranty period								
B	For 3 years after the warranty period								
15	Training Charges (Details as per para 13 of part IV)	01 Job							
16	Comprehensive AMC cost (For 3 years after expiry of 2 years standard warranty (year-wise break-up is required separately)	03 Years							
17	Other Charges (if any)								
18*	Total Price (all inclusive) (TCO)								

*Prices mentioned at Sr. No.18 (at Part-VIII-II) have to be filled on the e-procurement web portal which will be considered as final binding to the bidder and the same will be used for comparison.

Note:

- (i) Price Detail of each competent may be provided as per the Format Part-VIII-(I) , A & B given in Part VIII
- (ii) The Bidder is advised to indicate in the blank Price Bid Form whether he is quoting for all items at (II) (from Sr. No.1 to 17). It must be positively ensured that the price column of price bid format is necessarily blanked out. Such blank Price Bid format must be submitted along with the technical bid. Part quoting for selected items only is not acceptable. If the Bidder does not quote for any of the items or does not qualify for any one of the items, the bid will be summarily rejected. If any price is indicated in the Price Bid format enclosed with the technical bid, the bid will be rejected.
- (iii) The cost of Annexure 6 items, i.e. 'Requirement for logistical support' will be included in overall cost of all the items for deciding the L1 Bidder. However, the cost of items under Annexure 6 of present RFP will not be a part of Supply Order/Contract. It will be awarded to the **successful bidder (L1)** as per Government of India rules. Payment of such services will be made as per the terms and conditions mentioned in the RFP. Thus, the Bidders make sure that they quote for items of Annexure 6 without fail, otherwise the bid will be treated as disqualified being technically non-compliant.
- (iv) The Price Bid Format with price duly filled in along with necessary commercial details will be uploaded on e-procurement web portal only. Indication of price anywhere in the technical bid will entail rejection of the bid.
- (v) Detailed cost of each sensor in suite should be given on separate sheet. Calibration suite for each equipment and essential accessories should be mentioned.
- (vi) All the details may be provided in the prescribed formats given in the RFP.

A: FORMAT FOR PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

(Bidder should quote in this format however, if quoted in different format; all parameters given below should be covered)

Tender No: _____ Tender Date: _____
Quotation No. _____ Date: _____ Quotation Valid Upto: _____

Country of Origin: _____		Currency: _____				
Sr.No.	Description of Item		Quantity	Unit	Rate	Amount
	Catalogue, Part/Model No.	Specifications				
1.	Item name					
2.	Required Spares/Consumables (if any)					
3.	Accessories (if any)					
4.	Additional Items					
Total Ex-Works Price						
(-) LESS: Discount ___% (if any)						
Net Ex-Works Price						
(+) Packing & Forwarding Charges						
(+) Inland Freight Charges						
(INCO TERM): FOB / FCA _____ International Airport, _____ Country						
(+) Freight upto Mumbai & Insurance Charges						
CIF / CIP MUMBAI Price						
Concessional Custom Duty as per G.O.I. Notification 51/96						
Inland Transport						
DDP Price						
Approximate Weight of the Consignment			Approximate Dimensions of the Consignment			

TERM		CONDITION	
Mode of Shipment		BY AIR / SEA / ROAD	
Delivery Term(INCOTERM)			
Delivery Schedule			
Period of delivery shall count from		As enclosed in Technical Bid	
Time Frame required for conducting Installation & commissioning of the equipment, Acceptance Test, etc.			
Port of destination		Mumbai, India	
Final Destination		IITM, Pune	
Installation & Commissioning Charges			
Training Details & Charges			
Warranty		Period	Charges if any
Annual Maintenance Contract	Comprehensive		
	Non-Comprehensive		
Payment Term			
Bank Charges		Inside India to IITM account and Outside India to beneficiary's account	

SIGNATURE OF AUTHORISED PERSON

B : FORMAT FOR PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA

(Bidder should quote in this format however, if quoted in different format; all parameters given below should be covered)

Tender No: _____ Tender Date: _____
Quotation No. _____ Date: _____ Quotation Valid Upto: _____

Sr.No.	Description of Item		Quantity	Unit	Rate	Amount (Rs.)
	Catalogue, Part/Model No.	Specifications				
1.	Item name					
2.	Required Spares/Consumables (if any)					
3.	Accessories (if any)					
4.	Additional Items					
Total Ex-Works Price						
(-) LESS: Discount ___% (if any)						
Net Ex-Works Price						
(+) Packing & Forwarding Charges						
(+) Transportation Charges						
(IITM is not exempted for GST) GST Charges						
SUB TOTAL						
Local Body Tax: IITM is exempted vide PMC Reg.No. LBT-005-0068121 for supplies from outside Pune Municipal Corporation Limits						
GRAND TOTAL						
Approximate Weight of the Consignment			Approximate Dimensions of the Consignment			

TERM		CONDITION	
Mode of Shipment		BY AIR / RAIL / ROAD	
Delivery Term		Free Delivery to IITM Pune	
Delivery Schedule		As enclosed in Technical Bid	
Period of delivery shall count from			
Time Frame required for conducting Installation & commissioning of the equipment, Acceptance Test, Training, etc.			
Port of destination		Mumbai, India	
Final Destination		IITM, Pune	
Installation & Commissioning Charges			
Training Details & Charges			
Warranty		Period	Charges if any
Annual Maintenance Contract	Comprehensive		
	Non-Comprehensive		
Payment Term			

SIGNATURE OF AUTHORISED PERSON

PRE CONTRACT INTEGRITY PACT**1. General**

This pre-bid-Contract Agreement (hereinafter called the Integrity Pact) is made on _____ day of the month of _____ 2017 , between, on one hand, the Director IITM, Pune acting through Shri _____, Designation of the officer, Ministry/ Department, Government of Indian (hereinafter called the 'BUYER", which expression shall mean and include, unless the context otherwise requires , his successor(s) in office and assigns) of the First Part and M/s _____represented by Shri _____, Chief Executive Officer (hereinafter called the 'BIDDER/Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure an IAS (hereinafter referred to as IAS) through issue of the Request for Proposal (RFP) Ref. No IITM/NFAR/IAS/I dated and the BIDDER /Seller is willing to offer/has offered the IAS and WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is an autonomous institution under a Ministry of Government of India, registered as a Society under the relevant Societies Registration Act performing its functions on behalf of the President of India NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the Contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said IAS at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and for ensuring that BIDDERS abstain from bribing or indulging in any corrupt practice in order to secure the Contract, hereby provide assurance to all bidders that their competitors are also required to abstain from bribing and other corrupt practices and BUYER is committed to preventing corruption, in any form, by its officials by following transparent procedures.

The parties hereto agree to enter into this Integrity Pact and agree as follows :-

Commitments of the BUYER

- 1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the Contract, will demand, obtain a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the Contract in exchange for conferring an advantage to the BIDDER in the bidding process, bid evaluation, contracting or implementation process related to the Contract.
- 1.2 The BUYER will, during the pre-Contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the Buyer will report to the appropriate higher officer(s) in the office of the BUYER any attempted or contemplated breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceeding, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the Contract process. In such a case while an enquiry is being conducted by the BUYER, the proceedings under the Contract would not be stalled.

Commitments of BIDDERS

3. The BIDDER commits to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of the bidding process or during any pre-Contract stage in order to secure the Contract or in furtherance to secure it and in particular commit itself to the following :-
 - 3.1 The BIDDER will not offer directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the Contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.
 - 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or execution of the Contract or any other Contract with the Government for showing favour or disfavour to any person in relation to the Contract or any other Contract with the Government.
 - 3.3* BIDDERS shall disclose the names and addresses of agents and representatives and Indian BIDDERS shall disclose the names and addresses of their foreign principals or associates.
 - 3.4* BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/Contract.
 - 3.5* The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to unlawfully facilitate award of the Contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
 - 3.6* The BIDDER, either while presenting the bid or during pre-Contract negotiations or before signing the Contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the Contract and the details of services agreed upon for such payments.
 - 3.7 The BIDDER will not collude with other parties interested in the Contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the Contract.
 - 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

- 3.9 The BIDDERS shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged by any employee, associate, agent or representative of the Bidder.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner to any authority without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If BIDDER or any employee of the BIDDER or person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest /stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of submitting the tender.

The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

- 3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

4. Previous Transgression

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject BIDDER can be disqualified from the tender process and the Contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

- 5.1 While submitting commercial bid, the Bidder shall deposit an amount Rs.3,20,00,000.00 (Indian Rupees three crore twenty lakhs only) or USD 458,000.00 (US\$ Four Hundred Fifty Eight Thousand only) as Earnest Money/ Security Deposit, with the BUYER through any of the following instruments:
- i) Bank Draft or a Pay Order in favour of Director, IITM, Pune.
 - ii) An irrevocable bank guarantee from a schedule-A commercial bank in India or a reputed foreign bank having a branch in India promising payment of the guaranteed sum to the BUYER on demand within three working days without any demur whatsoever and without seeking any reason whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of liability having arisen for payment.
 - iii) Any other mode or through any other instruments (as specified in the RFP).
- 5.2 The Earnest Money/ Security Deposit shall be valid up to a period of 180 Days + 45 days or till the final completion of all contractual obligations to the complete satisfaction of the BIDDER, including warranty period, whichever is later.
- 5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to performance Bond in the Purchase Contract to the effect that the amount of the Performance Bond shall be forfeited without assigning any reason for any violation of this Pact.
- 5.4 No interest shall be payable by the BUYER to the BIDDER on Earnest Money (Security Deposit) for the period of its currency.

6. Sanction for Violations

- 6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:
- i) To immediately call off the pre Contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - ii) The Earnest Money (in pre-Contract stage) and/or Security Deposit/ Performance Bond (after the Contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason thereof.
 - iii) To immediately cancel the Contract. If already signed without giving any compensation to the BIDDER.
 - iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereof at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the BUYER in connection with any other Contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
 - vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
 - vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the BUYER.
 - viii) To recover from the Bidder all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the Contract.
 - ix) In case where irrevocable Letters of Credit have been received in respect of any Contract signed by the BUYER with the BIDDER, the same shall not be opened.
 - (x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason towards imposing sanction for violation of this Pact.
- 6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (x) of this Pact also on the commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive and shall be binding on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

- 7.1 The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the

Government or India or a PSU at a lower price, then that very price, with due allowance for elapsed time, if any, will be applicable to the present case and the difference in cost would be reduced/refunded by the BIDDER to the BUYER, if the Contract has already been concluded/payments made by the BUYER to the BIDDER.

8. Independent Monitors

8.1 The BUYER has appointed the following Independent monitors (hereinafter referred to as monitors) for this Pact in consultation with the Central Vigilance Commission

The details of Independent External Monitors are as below;

- (1) Shri. Arun Kumar,
Ex. Secretary, Oil Industry Development Board (OIDB),
B-38, Vrindavan Apartment, Plot No. 1,
Sector 6, Dwarka,
New Delhi -110075
Email :-kumararun_53@rediffmail.com
Mob. : 9810621113
- (2) Shri. Sushil Gupta,
Ex. Chairman, Central Ground Water Board (CGWB) & Central Ground Water Authority (CGWA),
No. B 702, Aravali Height,
Sector 21 C, Faridabad,
Haryana Pin - 121001
Email : - sushilanitagupta@yahoo.com
Mob. : 09999744061

- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of the meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to documentation by Subcontractors of the BIDDER. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with full confidentiality.
- 8.7 The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The Monitor will submit a written report to the designated Authority of the BUYER/Secretary in the Department/ within 8 to 10 weeks from the date of reference or intimation to him by the BUYER / BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

12.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the Contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of signing of the Contract.

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

13. The parties hereby sign this Integrity Pact at _____ on _____

BUYER
[Name of the Officer]
Designation
Deptt./Ministry/PSU
Witness Witness

BIDDER
[Name of the BIDDER'S firm.]

1. _____ 1. _____
2. _____ 2. _____

**CHECK LIST FOR FACTORY ACCEPTANCE TEST (FAT) OF
INSTRUMENTED AIRCRAFT SYSTEM**

Factory Acceptance Test (FAT1) at Bidder's place

- To check for all documentation and ensure its compliance as per criteria mutually agreed during PDR meeting
- Sensors tests as per sensor manufacturers guidelines and acceptance criteria
- Aircraft tests as per manufacturer's guidelines and acceptance criteria
- 5 hours of flying will be conducted during FAT1

Factory Acceptance Test (FAT2) at Bidder's place**a) AIRCRAFT:**

- To check for all documents against purchase of Aircraft- Certificate of origin, year of manufacturing, etc. as per Buyer's Contract requirements.
- Inspection / review of test reports submitted by Aircraft manufacturer.
- To check for all avionics being installed and functioning as per the list mentioned in the Contract and to check that all necessary interface connectors and cables are available in place.
- To check for paint & interiors and to check the toilet installations. In case of instrument integration done by the Bidder; check STC documentation.
- To check availability of all documents necessary for ferry of aircraft- including hull insurance and import permissions to integrator's country.
- Required certifications check, which are mandatory but not limited to carrying out the integration work.
- 15 hours of flying will be conducted during FAT2

b) SENSOR AND SYTEM INTEGRATION TEST:

- Visual Inspection (relevant to all sensors and its accessories, but not limited to; it should be exhaustive. These will be discussed in detail and mutually agreed upon during PDR meeting).
- Inspection / review of test reports submitted by sensor manufacturers
- Inventory check - Software and test equipment.
- Inventory and checklist verification of all the sensors and the required accessories receipt from sensor manufacturers as per Buyer's requirement mentioned in the Contract
- Document review and Inspection

Aircraft Installation

- Inspection of modifications to accommodate various sensors
- Inspection of mechanical installation for its correctness
- Inspection of cabin and mechanical details
- Inspection of connectors and interface cables to the sensors- Inspection of Pressurization systems after modification.

Aircraft Interface:

- For power, antenna, switches, cables, audio etc., ADDMS interface with cockpit

ADDMS Test

- ADDMS – if working condition ok.
- Built-in test and Status and software function test
- Functional test - as applicable

C) Test Flight

- Test flights of 15 hours of IAS with data logging will be conducted for faithful functioning of scientific sensors onboard at various altitudes on different terrain over land and ocean
- All the required permissions have to be obtained by supplier on behalf of Buyer. Necessary documentary support will be provided by the Buyer. Requirement of any documentation in this regard should be requested well in advance.

Aircraft Ferry, importation and delivery in India and SAT

- To check that Bidder has obtained all the necessary permissions to import the IAS in India and has done the necessary airborne testing in India.
- To prepare a checklist and get it signed from Buyer's representative as full compliance towards final testing at site and acceptance of 'IAS'.
- Test flights of 15 hours will be conducted during SAT.

BID SECURITY FORM

Whereas _____
(hereinafter called the tenderer)

has submitted their offer dated _____
for the supply of _____
(hereinafter called the tender)

Against the Purchaser's Tender No. _____
KNOW ALL MEN by these presents that WE _____
of _____ having our registered office at
_____ are bound unto _____ (hereinafter called the "Purchaser")

In the sum of _____

For which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20_____.

THE CONDITIONS OF THIS OBLIGATION ARE:

(1)	If the tenderer withdraws or amends or modifies or impairs or derogates from the Tender in any respect within the period of validity of this tender.
(2)	If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity
(3)	If the tenderer fails to furnish the Performance Security for the due Performance of the contract.
(4)	Fails or refuses to accept/execute the contract.

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

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer
Seal, name & address of the Bank and address of the Branch

Note: Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

DRAFT FORMAT OF BANK GUARANTEE FOR PERFORMANCE SECURITY**PERFORMANCE SECURITY BOND**

1. Bank Guarantee towards PERFORMANCE GUARANTEE against Purchase Order No..... dated arising in relation to Contract No. of IITM, Pune between M/S(herein after called the Bidder) and the Director, IITM, Pune (hereinafter called IITM).
2. In consideration of the Director, IITM, [address], Pune having agreed as per their order No mentioned above to accept Bank Guarantee for (quoted currency)for the due fulfilment of the Contract by the Bidder as per the terms and conditions contained in the said Order towards coverage against Performance and Warranty of Goods and services in the shape of Bank Guarantee for (quoted currency)
3. We the Bankers (Name of the bank) through our office at for and on behalf of our constituents hereby execute this Bank Guarantee and undertake to indemnify and keep indemnified the Director, IITM, Pune(the User) to the extent of (quoted currency) ... towards coverage against PO No..... for due performance by the Bidder and warranty to the Director, IITM Pune, (IITM). or their assignee by reason of any breach of terms and conditions as contained in the Contract by the Bidder (M/s) during the period of months from the date of issuance of this Guarantee.
4. And we (Name of the bank) hereby undertake to pay any claim under the Bank Guarantee on demand to the User without any reference to the Bidder a sum not exceeding (quoted currency) for non-fulfilment by the Bidder of all or any of the terms and conditions of the RFP No. IITM/NFAR/IAS/1 & Contract No..... , dated
5. We (the bank) further agree that if the demand is made by the Director, IITM, Pune or his assignee for honouring the Bank Guarantee constituted by these presents we.... (the bank) have no right to decline the same for any reason whatsoever and shall pay the amount without demur within a week from the date of such demand.
6. We... (the bank) further agree that a mere demand by IITM is sufficient for us to pay the amount covered by the Bank Guarantee in the manner within the time aforesaid without reference to the Bidder and no protest by the said Bidder can be availed as ground for us to decline or fail or neglect to make payment to IITM in the manner within time aforesaid.
7. We... (the bank) undertake not to revoke this Guarantee during its currency except with the previous consent of IITM in writing.
8. The Guarantee shall remain in force for a period of..... months from the date of issue subject further to the condition that IITM have no right under this bond after the expiry of the above period from the date of execution and we...(the bank) shall be relieved /discharged from all liabilities under this guarantee thereafter.
9. The conditions of these obligations are: -
 - [a] If the Bidder does not fulfil all or any of the conditions mentioned in the Contract Order No. dated

- [b] If performance of the supplied IAS or equipment or services is not found satisfactory and hampers any function in any manner even after attending to it by the Service Engineer(s) deputed by the Bidder, within a short and reasonable time.
10. We (the bank) undertake to pay to IITM up to the above amount upon receipt of its first written demand, without IITM, having to substantiate its demand, provided that in its demand, IITM will note that the amount claimed by it is due to it owing to the occurrence of one or all of the two conditions mentioned above, specifying the occurred conditions or conditions.
11. This guarantee will remain in force till and any demand in respect thereof should reach the bank in writing or by e-mail not later than the specified date/dates.
12. Notwithstanding anything contained herein:
- Our liability under this Guarantee shall not exceed (quoted currency)
 - This Bank Guarantee shall be valid up to
 - We are liable to pay the Guaranteed amount or any part thereof under this Bank Guarantee only and only if the user serves upon us a Claim or Demand in writing or by e-mail on or before

Note: The above guarantee will be submitted on Non Judicial Stamp paper of required cost and denomination as specified in the Act.

Bidder Information Form

- (a) [The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No : [insert number from Invitation for bids]

01.	Bidder's Legal Name [insert Bidder's legal name]
02.	In case of JV, legal name of each party: [insert legal name of each party in JV]
03.	Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
04.	Bidder's Year of Registration: [insert Bidder's year of registration]
05.	Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration]
06.	Bidder's Authorized Representative Information Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]
07.	Attached are copies of original documents of: Articles of Incorporation or Registration of firm named in 1, above.

Signature of Bidder _____

Name _____

Business Address _____

MANUFACTURER'S AUTHORIZATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date : *[insert date (as day, month and year) of Bid Submission]*

Tender No. : *[insert number from Invitation For Bids]*

To : *[insert complete name and address of Purchaser]*

WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clauses of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

PERFORMANCE STATEMENT FORM

Details of similar equipment / systems supplied & installed during past 3 years in India & Abroad

Name of the Firm _____

Order Placed by (full address of Purchaser)	Order No. and date	Description and quantity of ordered equipment	Value of order	Date of completion of deliver as per contract	Date of actual completion of delivery	Remarks indicating reasons for late delivery, if any	Has the equipment been installed/ working satisfactory? (Attach a certificate from the purchaser / Consignee)	Name of Contact person along with Telephone No., FAX No. and e-mail address

Signature and Seal of the manufacturer/Bidder

Place :

Date :

DEVIATION STATEMENT FORM

PART –I

The following are the particulars of deviations from the requirements of the tender specifications:

CLAUSE	DEVIATION	REMARKS (INCLUDING JUSTIFICATION)

Place:

Date:

Signature and seal of the
Manufacturer/Bidder

NOTE:

Where there is no deviation, the statement should be returned duly signed with an endorsement indicating “No Deviations”.

PART – II

Sr.No.	TENDER REQUIREMENT	COMPLIANCE	Document Submitted
1	Bid is Signed	Yes / No	Yes / NA
2	This is to certify that we are eligible to bid for this tender (Appendix-L)	Yes / No	Yes / NA
3	Bid Validity (180 Days after the date of Bid opening)	Yes / No Bid valid up to	Yes / NA
4	Warranty: As per Tender document from Installation & Commissioning and date of acceptance	Yes / No	Yes / NA
5	Agree to submit Performance Security 10% of PO Value.	Yes / No	Yes / NA
6	Bidder Information Form enclosed as per Appendix –E	Yes / No	Yes / NA
7	Manufacturer’s Authorisation Form (MAF) (If Applicable), Appendix-F	Yes / No	Yes / NA
8	Certification of non-black listing (Self Certification) (Appendix-M)	Yes / No	Yes / NA
9	Performance Statement Form enclosed as per Appendix- G	Yes / No	Yes / NA
10	Service Support details enclosed as per Appendix-I	Yes / No	Yes / NA
11	Copy of Firm’s / Company’s Permanent Account No. (PAN) issued by Income Tax Department, Govt. of India.	Yes/No.	Yes/NA
12	Copy of Firm’s / Company’s Goods & Service Tax (GST) Registration issued by GST Department / Authority of the respective state.	Yes/No.	Yes/NA
13	Agree to sign & submit the Pre-Contract Integrity Pact as per APPENDIX -A	Yes/No.	Yes/NA

The Bidder should **submit other documents** such as fulfilment of financial qualification criteria (MIRA Inform Report), Schedule of Requirement (Chapter-3) and various forms as specified in Chapter-8.

IMP Note: The prime bidder should submit the MAF from all OEMs of major scientific instruments and aircraft.

SERVICE SUPPORT DETAIL FORM

Sr. No.	List of similar type of equipment serviced in the past 3 years	Address, Telephone Nos., Fax No. and e-mail address of the Buyer	Nature of training Imparted/ service provided	Name and address of service provider

Signature and Seal of the manufacturer/Bidder.....

Place :

Date :

Bid Form

[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date : *[insert date (as day, month and year) of Bid Submission]*

Tender No. :

To : Director, IITM, Pune

We, the undersigned, declare that:

(a)	We have examined and have no reservations to the Bidding Documents, including Addenda No.: <i>[insert the number and issuing date of each Addenda]</i>
(b)	We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services <i>[insert a brief description of the Goods and Related Services] as specified in Chapter 4</i>
(c)	The total price of our Bid, excluding any discounts offered in item (d) below, is: <i>[insert the total bid price in words and figures, indicating the various amounts and the respective currencies]</i>
(d)	The discounts offered and the methodologies for their application are: Discounts. If our bid is accepted, the following discounts shall apply. <i>[Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]</i>
(e)	Our bid shall be valid for the period of time specified in ITB Clauses of the RFP, from the date fixed for the bid submission due date in accordance with ITB Clauses of the RFP and it shall remain binding upon us and may be accepted at any time before the expiration of that period
(f)	If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause and GCC Clauses of the RFP for the due performance of the Contract
(g)	The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: <i>[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]</i>

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(If none has been paid or is to be paid, indicate “none.”)

(h)	We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
(i)	We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed : *[insert signature of person whose name and capacity are shown]*

In the capacity of *[insert legal capacity of person signing the Bid Submission Form]*

Name : *[insert complete name of person signing the Bid Submission Form]*

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

INDEMNITY BOND

No. _____

Date:_____

1) Amalgamation/Acquisition

In the event of M/s. _____proposes for amalgamation, acquisition or sale of its business to any other firm during this contract period, M/s._____ and proposed Buyer/Successor of the Principal Company are liable to execute, fulfill contractual obligations without any deviations. For this purpose M/s. _____/M/s._____ and proposed Buyer/Successor of the Principal Company shall indemnify itself to the Director, INDIAN INSTITUTE OF TROPICAL METEOROLOGY , Pune to fulfill the contractual obligations as per the terms of the IITM Global Tender and quotation of M/s. _____No. _____ dated_____and INDIAN INSTITUTE OF TROPICAL METEOROLOGY P.O. No._____dated _____. The contractual obligations are supply, installation, commissioning, warranty maintenance/replacement of spares, accessories etc. as per the above mentioned Purchase Order.

2) JointVenture, Consortium or Association

If the Supplier is a joint venture, consortium, or association, all the parties shall be jointly and severally liable to the IITM for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the IITM.

3) Patent Indemnity

The Supplier shall, subject to IITM's compliance and indemnify and hold IITM and its employees and officers harmless from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which IITM may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Goods by the Supplier or the use of the Goods in India; and (b) the sale in any country of the products produced by the Goods.

For M/s. _____
Principal Supplier.

For M/s. _____
Indian Agent.

APPENDIX -L

Eligibility Certificate

This is to certify that we are not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids / Tender No. _____ dated _____.

Authorised Signatory

Name: _____

Designation: _____

APPENDIX -M

Non-Black listing Self Certificate

This is to certify that M/s. _____ has not been blacklisted by any Central / State Government Department / organization in last 3 years.

Authorised Signatory

Name: _____

Designation: _____

APPENDIX - N

This is an E- Procurement event of IITM, Pune. The E-Procurement service provider is MSTC Ltd., 225C, A.J.C. Bose Road, Kolkata-700 020.

Bidders are requested to read the terms & conditions of this tender before submitting their online tenders. Bidders who do not comply with the conditions with documentary proof (wherever required) will not qualify in the Tender process for opening of Commercial bid.

Process of E-Tender :

A) Registration: The process involves Bidder's registration with MSTC E- Procurement portal which is free of cost. Only after registration, the Bidder(s) can submit his/their bids electronically. Electronic Bidding for submission of Technical Bid as well as Commercial Bid will be done over the internet. The Bidder should possess Class III signing type digital certificate. Bidders have to make their own arrangement for bidding from a P.C. connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE: THE TECHNICAL BID, COMMERCIAL BID HAVE TO BE SUBMITTED ON-LINE AT
www.mstcecommerce.com/eprochome/iitm

- Bidders are required to register themselves online with www.mstcecommerce.com/eprochome/iitm/ -> Register as vendor - Filling up details and creating own user id and password and submit the details.
- Bidders will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form.

In case of any clarification, please contact IITM, Pune /MSTC, (before the scheduled time of the e- tender).

Contact person (IITM):

Shri. Ajit Prasad

Administrative Officer

Telephone No. : 020 25904210

Contact person (MSTC Ltd):**1. Shri Tejas V**

Executive

Tel: 022 22882854 / +91-9535718617

2. Shri. Jamil Akhtar

Sr. Manager

Tel. No.: 022 22022296 / +91-9869043055

e-mail: jakhtar@mstcindia.co.in

3. Smt. Lisbeth Dias

Sr. Manager

Tel No: 022 22883501 / +91-9820158988

email: lpadickan@mstcindia.co.in

B) System Requirement:

System Requirements are indicated under **Vendor Guide** available on Login Page of Website:

www.mstcecommerce.com/eprochome/iitm

Latest version of Java software to be downloaded and installed in the system. Security level should be medium

To enable ALL active X controls and disable 'use pop up blocker' under Tools→Internet Options→ custom level (Please run IE settings from the page www.mstcecommerce.com once). **Prospective vendors are suggested to refer to "Vendor Guide" at www.mstcecommerce.com/eprochome/iitm.**

- Part I Technical bid will be opened electronically on specified date and time as given in the NIT. Bidder(s) can witness electronic opening of bid.
- Part II Commercial bid will be opened electronically of only those bidder(s) whose Part-I Technical Bid is found to be acceptable by IITM, Pune. Such bidder(s) will be intimated date of opening of Part-II Commercial bid, through valid email confirmed by them.
- All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.

C) Special Note towards Transaction fee: Transaction fee is to be paid by RTGS/NEFT to **MSTC Limited**. Vendor required to use link "Transaction Fee Payment" for generating. The detail procedure and to generate Challan for bank account details can be checked under **Vendor Guide** provided on Login Page of Website : www.mstcecommerce.com/eprochome/iitm
OR

Vendor Guide Can be Downloaded from below URL:

<http://www.mstcecommerce.com/eprochome/Vendor-Guide-V5.pdf>

- **NOTE:** The bidders should submit the transaction fee ON OR BEFORE THE PRESCRIBED DATE as they will be authorized for bid submission only after receipt of transaction fee by MSTC.
- Click on Transaction Fee Payment -> Select event no from the drop down box -> Select NEFT/ RTGS or Online Payment.
On selecting NEFT, the vendor shall generate a challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. Take the printout of the challan and make the payment. There shall be auto authorization of payment. Bidder shall be receiving a system

<p>generated mail.</p> <ul style="list-style-type: none"> Bidders may please note that the transaction fee should be deposited by debiting the A/C of the bidder only; transaction fee deposited from or by debiting any other party's a/c will not be accepted. Transaction fee is non-refundable. In case of failure to submit the payment towards Transaction fee for any reason, the Bidder, will not have the access to online E-Tender.

<p>D) All notices, /corrigendum and correspondence to the bidder(s) shall be sent by email only during the process till finalization of tender by IITM, Pune. Hence the bidders are required to ensure that their corporate email I.D. provided is valid and updated at the stage of registration of Bidder with MSTC (i.e. Service Provider). Bidders are also requested to ensure validity of their DSC (Digital Signature Certificate).</p>
<p>E) E-Tender cannot be accessed after the due date and time mentioned in NIT.</p>
<p>F) Bidding in E-Tender:</p> <ul style="list-style-type: none"> Bidder(s) need to submit necessary Transaction fees to be eligible to bid online in the E-Tender. Transaction fees are non-refundable. The process involves Electronic Bidding for submission of Technical and Commercial Bid The bidder(s) who have submitted the above fees can only submit their Technical Bid and Commercial Bid through internet in MSTC website www.mstcecommerce.com/eprochome/iitm/ → Vendor Login → My menu→ Auction Floor Manager→ live event →Selection of the live event The bidder should allow to run an application namely enApple by accepting the risk and clicking on run. This exercise has to be done twice immediately after opening of Bid floor. Then they have to fill up Common terms/Commercial specification and save the same. After that clicking on the Technical bid. If this application is not run then the bidder will not be able to save/submit his Technical bid. After filling the Technical Bid, bidder should click 'save' for recording their Technical bid. Once the same is done, the Commercial Bid link becomes active and the same has to filled up and then bidder should click on "save" to record their Commercial bid. Then once both the Technical bid & Commercial bid has been saved, the bidder can click on the "Final submission" button to register their bid Bidders are instructed to use 'Attach Docs' link to upload documents in document library. Multiple documents can be uploaded. Maximum size of single document for upload is 5 MB.
<p>G) In all cases, bidder should use their own ID and Password along with Digital Signature at the time of submission of their bid.</p>
<p>H) During the entire E-Tender process, the bidders will remain completely anonymous to one another and also to everybody else.</p>
<p>I) The E-Tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.</p>
<p>J) All electronic bids submitted during the E-Tender process shall be legally binding on the bidder. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by the Buyer will form a binding contract between Buyer and the Bidder for execution of supply.</p>
<p>K) It is mandatory that all the bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.</p>
<p>L) Purchaser reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.</p>
<p>M) Submission of bid in the E-Tender floor by any bidder confirms his acceptance of terms & conditions for the tender.</p> <ul style="list-style-type: none"> Unit of Measure (UOM) is indicated in the E-Tender. Rate to be quoted should be as per UOM indicated in the E-Tender floor.
<ul style="list-style-type: none"> The Purchaser has the right to cancel this E-Tender or extend the due date of receipt of bid(s) without assigning any reason thereof.
<ul style="list-style-type: none"> The online tender should be submitted strictly as per the terms and conditions and procedures laid down on website www.mstcecommerce.com/eprochome/iitm/ of MSTC Ltd.
<ul style="list-style-type: none"> The bidders must upload all the documents required as per terms of NIT / Tender Document. Any other document uploaded which is not required as per the terms of the NIT / Tender Document shall not be considered. The bid will be evaluated based on the filled-in technical & commercial formats.
<ul style="list-style-type: none"> The documents uploaded by bidder(s) will be scrutinized. In case any of the information furnished by the bidder is found to be false during scrutiny, appropriate punitive action / legal action can also be taken against defaulting bidders.
<ul style="list-style-type: none"> Bidders are requested to read the Bidder guide and see the video in the page www.mstcecommerce.com/eprochome/iitm/ to familiarize them with the system before bidding.

SPECIFICATIONS FOR AN INSTRUMENTED AIRCRAFT SYSTEM (IAS)**Aircraft: General Characteristics**

	Note for calculation of Aircraft performance		
Note	Provide leading particulars and performance charts at ISA (International Standard Atmosphere),ISA+10,ISA+20,ISA+30 Degree Celsius to facilitate interpolation and extrapolation of required performance figures, especially following aspects: <ul style="list-style-type: none"> • Take off/balance field length/landing performance • Gross net climb rate • Weight altitude temperature gradients • Weight altitude temperature charts • Range Vs payload • Drift down altitude 		
Note	For the purpose of aircraft performance the average Indian reference atmosphere is taken as: <ul style="list-style-type: none"> • Ref temp for take-off and landing: ISA+20 • Sea level mean temp: ISA+15 • Upper air operating temp: ISA+15 • Lapse rate: 6.50 C/Km from SL to 16 Km • Temp at 16 Km: -74° C • Lapse rate from 16 Km to 20 Km: - 2.5° C/Km • Mean sea level pressure: 1005 hPa 		
Note	Surface temperature at elevated airfields would be calculated by assuming: <ul style="list-style-type: none"> • Lapse rate of one degree per 300 mtr. From the base of 35° C at mean sea level. • The temperature so worked out to be rounded off to nearest whole number. 		
	IITM REQUIREMENT	SPECIFIC REQ/VALUES	Bidder's Response
AIRCRAFT			
1.1	Aircraft : A newly manufactured aircraft to be modified as IAS from the Authorised Sales Representative (ASR) of aircraft OEM/ Integrator/ instrument manufacturer in India or abroad and OEM themselves.	The aircraft, its components and accessories should be of latest manufacture, conform to the current production standard and should have 100% of the defined life at the time of delivery. Deviations, if any, should be clearly brought out by the Bidder in the Technical Proposal <ul style="list-style-type: none"> • Type certified in India/ Internationally • Aircraft must be: • Twin-Engine Turbo-Prop. • Pressurized • Technical details and literature to 	

		be provided about the following: <ul style="list-style-type: none"> • Airframe • Engine • Avionics • Elect/Hydr • Control surface • Landing gear • Fuel • Safety aspects • Maintenance • POH (Pilot Operating Handbook) • Other relevant literature and manuals 	
1.2	Total no. of instrumented aircraft required is one • Delivery of instrumented aircraft, fulfilling all terms & conditions of Contract, shall be completed within 24 months from the effective date of Contract	The Bidder is required to submit a report indicating the methodology that they would follow to meet delivery schedules for the instrumented aircraft. The report is required to be submitted along with the Technical Proposal. The base for delivery of instrumented aircraft will be decided by IITM, Pune.	
1.3	The Total Technical Life (Fatigue life) of: Aircraft, engine, individual accessory systems, sub systems, components as applicable and defined in the tech document shall be stipulated	It is to be mentioned if fatigue life is established by actual tests or based on theoretical estimates. In case of modular engines, average/assured life of each module is to be specified.	
1.4	Cruise speed a) Long range b) With sensors	a) 200-220 Knots b) Sampling speed – 100-120 m/s c) Ascent rate :400 - 500 ft /min	
1.5	Operating altitude	500-30,000 ft	
1.6	Service Ceiling	30,000 ft Minimum	
1.7	MTOW (ISA,SL)	Please specify	
1.8	Max payload	(a) Minimum 900 kg consisting of Instrument : 540 kg 4 Pax : 360 kg (b) Maximum: 1200 kg	
1.9	Range	At maximum payload: 2500 km (Endurance ~ 5 hr @ max. payload)	
1.10	Take off performance at (ISA,SL) &10600ft AMSL	4,700ft (ISA,SL) Please fill format given below:	
Performance chart to be filled by Bidder: pay load 4 pax (360 kg) + Sensor (540 kg) at Take-off from:			

<ul style="list-style-type: none"> • MSL, • 5000 ft, • 10,000 ft ASL <p>At mission payload asked (900 Kg) for following distances:</p>							
Temp	Distance	Total pay load (kg)	MTOW (kg)	Flight time (h.min)	Fuel used (lt)	Cruise Alt. (ft)	Reserve Fuel (lt)
ISA+10	300Nm	900 kg					
ISA+10	500Nm	900kg					
ISA+10	1200Nm	900 kg					
ISA+10	1500Nm	900 kg					
1.11	O.E.I. (One engine Inoperative) (ISA,SL)			Performance at MTOW to be mentioned; also give: O.E.I climb performance (Attach separate page if required)			
	CAT 'A' performance, i.e. provide details given in next column			After the 'take-off decision' speed (i.e. V3), in case of one-engine failure, kindly explain the aircraft safety procedure			
1.12	Endurance			5 hrs with max payload			
1.13	Air conditioning & Pressurisation			<ul style="list-style-type: none"> • Robust air conditioning system to dissipate the heat generated by instruments and maintain cabin temperature of 24-26 °C • Maintain sea level pressure up to 15,000 ft • Cabin altitude at max cruising altitude should not exceed 8000ft 			
1.14	Cross wind capability at: <ul style="list-style-type: none"> • Take-off • Landing 			20 kts min.			
1.15	• Toilet			Must have toilet-cum-seat in rear with partition			
1.16	Aircraft numbers in India/ Internationally (for quoted aircraft)			Min. 2 must be registered and operating in India/ Internationally			
1.17	Certified for known icing conditions: airframe and engine should have de-icing system. Provision of windshield wipers or rain repellent coating, Lightning and EMI protection			Pl. give details. (De-icing and Anti-icing mechanism during flight and on ground shall also be explained)			

1.18	Aircraft should have the capability of cold start without adverse impact on engine	<ul style="list-style-type: none"> • Power plant should have self-contained starting system capable of min 3 or more consecutive internal starts without any adverse effect • Please give details and precautionary measures • Details of external power supply for cold start and equipment/GSE list for the same if any 	
1.19	Track record of Special Mission role for atmospheric research	Add extra sheet if required	
1.20	Govt agencies operating the proposed aircraft in India	Pl give the list	
1.21	Authorised Maintenance facility	Must have ASR in India. Give names and places, if any	
1.22	Aircraft should have sufficient pylons to mount atmospheric PMS canisters as listed simultaneously	Accordingly accommodate required structural modifications without adverse effect on structural design strength, reliability, airworthiness, and lifespan	
1.23	Environment conditions	The aircraft should be fully tropicalized and capable of prolonged operations in heat, dust, cold and high humidity conditions as prevalent in India	
1.24	The aircraft should be certified day and Night IFR/VFR flying and Reduced Vertical Separation Minimum (RVSM) compliant	Compliance with DGCA norms	
AVIONICS			
1.25	Aircraft must have DGCA mandatory Avionics and also the avionics equipment given in adjacent column. The aircraft shall be equipped with all equipment necessary for C of A (Certificate of Airworthiness) and C of R (Certificate of Registration) as listed down by Indian DGCA and responsibility will be of Bidder to get Aircraft C of A and C of R from	<p>Aircraft to be fitted with Glass cockpit.</p> <ul style="list-style-type: none"> • Dual VHF COM • Single HF COM • Dual Navigation receivers integrating VOR, LOC, • ILS • Single Flight Management System (FMS) • Optional dual FMS • Cabin paging system 	

	DGCA	<ul style="list-style-type: none"> • Flight Data Recorder/ CVFDR-120 min. • Dual Air Computers (ADC)/ Auto pilot • Attitude Heading Reference System (AHRS) • Automatic Flight Guidance System • Colour Weather Radar ($\geq 200\text{Nm}$ range) with storm scope • Traffic alert and Collision avoidance System (TCAS II) • Terrain Awareness and Warning System (TAWS) • RVSM (Reduced Vertical Separation Minimum) compliance • Intercom/headsets • Transponder C & S with data enabling • Dual GPS with R- NAV or P - RNAV compliance • ELT (Emergency Location Transmitter) • CAT II compliance (desirable) 	
POWER PLANT			
1.26	TWIN ENGINE	FOD tolerant design. FOD damage tolerance - PI explain.	
1.27	Modular construction or more for aircraft	<ul style="list-style-type: none"> • Yes/no, module no. • Approx. Fatigue life of each module to be mentioned • Min service life of 25 yrs 	
1.28	Time Between Overhaul (TBO)	Min 3000 hrs for engine	
1.29	Condition for Engine start	Cold start 3 times a) Extra engine as standby option to be quoted	
PROPELLOR			
1.30	Auto Feather		
LANDING GEAR			
1.31	Type	<ul style="list-style-type: none"> • Is it standard or High floating? • Retractable tricycle type? 	
1.32	Aircraft should be able to operate	Please mention size of gravel	

	from paved and unpaved surfaces	it can land/unpaved surface details and certified for the same	
CONTROL SURFACES/SAFETY ASPECT			
1.33	Trim tabs	Explain extra actuator is available as fail 5 safe mechanism, if any	
POWER SYSTEM ON AIRCRAFT			
1.34	Please provide details to give a fail-proof power system to sensors which shall not be affected in anyway. Electrical system should include A.C and D.C power points and battery back up	Research power of 5kW at 28VDC, 2kW at 220VAC 60Hz, 1kW at 115VAC 60Hz Additional research power requirement may be suggested (Due power audit may be provided for all the instrumentation listed, for justification) A fool-proof protection system to be provided by the supplier-load protection system. Please provide specs for this and details of power system.	
OXYGEN SYSTEM			
1.35	Aircraft should have provision of emergency oxygen system for crew and all passengers.		
CERTIFICATION			
1.36	DGCA -C of A, C of R and other requirements of DGCA for registration if any	It will be full responsibility of Bidder to submit all necessary STC as per EASA, FAA for the modifications, get C of A, C of R in appropriate category which will allow IITM to operate the aircraft for airborne measurements and taking all the necessary clearances. All the required permissions have to be obtained by supplier on behalf of Buyer. Necessary documentary support will be provided by the Buyer. Requirement of any	

		documentation in this regards should be requested well in advance.	
1.37	Details of STC procedure followed by OEM/Integrator to be submitted to DGCA	Please provide details	
1.38	Qualification test reports (from OEM)	Aircraft should be DGCA certified	
1.39	DGCA certification plan	To provide complete detail certification plan with DGCA to get CoA, CoR. Also mention assistance requirement from IITM in this regard, if any.	
FLIGHT SAFETY ASPECTS			
1.40	Flight Safety related information: All DGCA approved mandatory norms to be followed: a) as per air-worthiness criteria b) as per maintenance criteria c) as per Training criteria of DGCA CAR145 and CAMO		
1.41	Flight Safety Data: All DGCA approved mandatory norms to be followed: a) as per air-worthiness criteria b) as per maintenance criteria c) as per Training criteria of DGCA CAR145 and CAMO The Technical offer should include Statistical Summary of all accidents and design changes/ modifications introduced to enhance Flight Safety. Bidder should provide complete details (if possible).		
	The Aircraft should be equipped with all the necessary equipment for safe flying operations in clouds, and also over water bodies such as de-icing equipment, navigation equipment, communication equipment and life saving equipment.		
WARRANTY			
1.42	Standard warranty should be minimum 2 yrs from date of acceptance of IAS	Details for: • Airframe • Engine • Propellers • Landing Gear • Avionics, • Instruments and other parts	
PILOT TRAINING			
1.43	The supplier shall indicate if certified pilots and examiners for the proposed aircraft are available	Provide details of: • conversion training • simulator training (both	

	in India and should provide details given in next column	duration and place) <ul style="list-style-type: none"> Indicate number of hours required by pilots for training OEM's facility and cost of training for flight crew of 3 pilots (2 pilots + 1 co-pilot) 	
TECHNICIAN TRAINING			
1.44	a) Airframe b) Avionics Note: No IITM staff needs to be trained on aircraft except for operating the Atmospheric Data Display and Management System (ADDMS) on-board aircraft. Technicians to be provided by the AMC contracted party	One each should be complimentary. As IITM will be outsourcing the AMC, hence the OEM should give the complimentary training for 2 technicians of contracted AMC. <ul style="list-style-type: none"> Quality requirement (QRs) for technician training 	
CONSOLE OPERATOR TRAINING/ADDMS training			
1.45	Training on operations / calibrations of scientific instruments along with ADDMS for IITM personnel in India	Please provide details, duration of training at IITM	
ATMOSPHERIC SENSORS CAPABILITY			
1.46	No. of pylons installed outside aircraft:		
1.47	No. of sensors installed outside aircraft:		
1.48	Research Power supply:	Power supply to the system should be independent of aircraft power supply	
1.49	Atmospheric Data Display and Management System (ADDMS): An integrated console for display of all sensors data in cabin		
1.50	Mission Planning Software: Required		
1.51	Data Collection: Required. Through Solid state array hard disks for data collection by all atmospheric sensors		
1.52	Please give operating limitation of sensors, if any		
1.53	'Pre-study' report to accompany with the bid		
1.54	What are the tools required for integration of payloads on the aircraft	Please give details	
1.55	Provide the details/steps of calibration procedure: how every year calibration will be carried out (India /Abroad)	Schedule for first 3 years to be given	

SPECIFICATIONS FOR SENSORS INTEGRATOR'S TASK

INTEGRATOR'S TASK		BIDDER'S RESPONSE
1.1	The Supplier shall design, manufacture and install a Common Atmospheric Data Display and Management System (ADDMS)	
1.2	The ADDMS shall have a cabinet-structure of composite material; to be stable in the changing environmental conditions, be lightweight and to resist any corrosion	
1.3	The ADDMS shall be integrated to the required sensors onboard to provide common control- and management interaction for all the required sensors. The Supplier shall describe in the proposal how the ADDMS will manage, control and interact with all the required sensors.	
1.4	The ADDMS shall provide mission information on a dedicated information Liquid Crystal Display (LCD) in the cockpit, or alternatively directly on the aircraft MFD. The LCD display shall be of minimum 6 inches. The supplier shall install this dedicated information-LCD display in the cockpit and provide interface wiring from the ADDMS to this display. Mission signals to the LCD display shall be fed from the ADDMS	
1.5	The supplier shall be certified according to the Quality Management System standard ISO 9001:2008 and EN 9100:2003	
1.6	The ADDMS shall be easy to remove from the aircraft. The removal time of the ADDMS shall be less than 45 minutes	
1.7	For best possible scientist control, management, and view, the ADDMS shall have at least two large displays as common graphical user interfaces for the required sensors. At least one of the displays shall be of more than 20 inches and be an active color liquid crystal display with HD resolution. Layout, number of displays in the ADDMS and menus on the displays shall be documented in the proposal	
1.8	The Supplier shall have the previous experience with integration of mission systems on the aircraft being proposed. Documentary evidence shall accompany the proposal	
1.9	The Supplier shall provide the cockpit with flight-mission guidance from the ADDMS to the cockpit display.	
1.10	The Supplier shall design, manufacture and install an interconnection panel to ease disconnection/connection for removal and installation of various sensors, ADDMS and wiring harness	
1.11	Internal shielding shall be provided in the ADDMS. External shielding and circuit breakers shall be provided throughout the system and interfaces according to predefined specifications	
1.12	The ADDMS shall be mounted by the use of a removable mechanical seat rail adapter that shall be fitted to the existing cabin seat rails. The Supplier shall design, manufacture and install the adapter according to	

	EASA/FAA requirements. This shall be part of the STC design package	
1.13	The installation shall be performed so that the operator is seated in a forward looking position	
1.14	The Supplier shall be responsible for, and attend the Preliminary Design Review (PDR) meeting for the aircraft modification and sensors/ADDMS installation, in India.	
1.15	The Supplier shall attend the Critical Design Review (CDR) meeting for the aircraft modification and sensors/ADDMS installation. The CDR meeting will be held in order to clarify final installation issues and to make decisions for the finalization of the installation and intended interface between the aircraft, sensors and ADDMS to obtain a successful mission accomplishment in the supplier country	
1.16	The Supplier shall be responsible for, and attend the Post Installation Test at installation site under the responsibility of the Supplier	
1.17	The Supplier shall hide and route the wiring/cable harnesses to provide aesthetically pleasing cabin interior, even when the ADDMS is taken out of the cabin	
1.18	Supplier shall provide and verify appropriate bonding (grounding) between the systems and the aircraft to avoid adverse Electro Magnetic Interference (EMI) with the aircraft systems	
1.19	Supplier shall install the systems in such a way to avoid unnecessary use of cabin space. The ADDMS and sensors should take up as little space as possible so that a maximum number of cabin seats can be maintained when the systems are in place and operational	
1.20	Supplier shall design, supply and install a mission control panel in the cockpit. The mission control panel shall include a main power switch, intercom "call" and "intercom enable" buttons and momentary push-buttons (event buttons). The momentary push-buttons shall be installed one on each side of the mission control panel; the event push-buttons are to be used for pilot event inputs to the ADDMS. Supplier to provide comments about possibility to have common time stamping for all sensors on-board.	
1.21	Supplier shall provide interface wiring between the ADDMS audio system and cockpit for intercom connection between the ADDMS scientists and the Pilots	
1.22	The ADDMS must support set of headphone inputs for all the scientists	
1.23	Supplier shall supply and install one main power switch operated by power relays. The main power switch shall be located on the mission control panel in the Cockpit to allow the pilots to turn "ON/OFF" the ADDMS and sensors at any time it should be deemed necessary	
1.24	Supplier shall supply a load shed system in the aircraft.	
1.25	Bidder shall design, manufacture and supply an electrical interconnection (interface) panel in the aircraft for the purpose of a quickly being able to remove the interface cable harness' from the	

	cabin.	
1.26	The Supplier shall be responsible to obtain for the FAA or EASA STC to be approved by the DGCA of India. The Supplier shall describe where (country and facility) the modification will be done, and according to what rules (FAA, EASA, CAA) , for further approval by DGCA	
1.27	The Supplier shall assign a single Program Manager (PM) with full authority and responsibility to fulfill the requirements of the Contract. The Supplier shall establish, implement and maintain a management control systems and reports that shall support the management organization. The management control systems shall provide policies, procedures, methods and tools to be used in the managing of the Contract. The Management control systems shall provide 10 identification of Supplier's internal organizations and sub-Suppliers, manage the allocation of responsibilities to each organization, and provide guidance and administrative issues	
1.28	Supplier shall be responsible for Factory Acceptance Test in suppliers country	
1.29	Supplier shall be responsible for Site Acceptance Test at delivery of instrumented aircraft in India	

REQUIREMENT FOR AIRCRAFT MODIFICATIONS, INTEGRATION AND TESTING

INTEGRATOR'S TASK		BIDDER's RESPONSE
1.1	The Supplier should present drawings and preliminary engineering work to justify that the aircraft modification, sensors/ADDMS installation can be done (Integrator should adhere to strict tool based system engineering practices throughout the development/integration life cycle).	
1.2	The Supplier shall attach to the proposal, the proposed STC certification process for mission modification of the aircraft (Supplier to also provide reference to similar modifications)	
1.3	The Supplier shall attach to the proposal the proposed cabin layout and the number of seats remaining. The aircraft layout for mounting the sensors, operators and other systems in such a way that at least 10% growth potential is available in terms of weight volume and power	
1.4	The Supplier shall attach to the proposal, a description of any significant performance changes in the basic aircraft performance due to the modifications within this program in the proposal if any	
1.5	The Supplier to describe how the modifications will be documented. The integrator shall follow the plan and document all the incremental integrations performed and share it with IITM if done after the initial agreed plan	
1.6	Prior to delivery of IAS to IITM, all cost of the operation of the aircraft shall be borne by the Supplier	
1.7	The acceptance test program shall contain a series of tests to confirm that the sensor requirements and specifications are met in the relevant actual test conditions. The test program shall be mutually agreed but shall contain ground and flight tests representing the Total System Performance	
1.8	The number of flight hours per sensor will be mutually agreed. These tests shall commence after the installation is completed	
1.9	The Supplier to describe in detail how and where the Total System Performance will be tested for systems Verification & Validation (V&V) performance. The Acceptance Tests shall be performed in the Supplier's country at a full-scale site dedicated and commonly used for the purpose	
1.10	A preliminary plan for verification & validation (V&V) shall be attached to the RFP response and be evaluated as part of this RFP process. Proper functionality and accuracy of the aircraft with ADDMS and sensors installed are critical to the Verification and validation	
1.11	The full-scale test site shall be described in detail in the proposal	

1.12	After successful completion of the verification and validation, the aircraft shall be flown to India for delivery	
1.13	<p>The supplier shall attach to the proposal, a detailed project process time schedule from Contract signature to delivery In India. The project process time schedule shall include a calendar presented in weekly segments from Contract award to delivery with the following minimum milestones:</p> <ul style="list-style-type: none"> • Preliminary Design Review (PDR) in India • Final/ critical Design Review in suppliers country • Factory Acceptance Test (FAT 1- sensor testing at sensor factory) • Aircraft Delivery for modifications • Installation and aircraft modifications • Training • Testing, Verification & Validation • Factory Acceptance Test (FAT 2- modified IAS at factory) • Acceptance flight test in India • Delivery (IITM, India) <p>(These milestones can be used as guidelines for an acceptable payment milestones plan)</p>	
1.14	A draft of the Supplier Quality Plan for the complete project shall be submitted with the proposal	
1.15	A draft risk analysis shall be submitted with the proposal, identifying the project risks and any mitigation	
1.16	Proposal for all future modifications shall be intimated to the integrator and if the modification proposed do not affect the flight safety (as declared by the integrator) then it can be contracted to an approved 3rd party. In such case integrator should uphold the warranty clause and confirm	
1.17	Integrator shall provide all Interface Control Document (ICDs) between the aircraft interfaces .the sensor interfaces and Multi Media Interface (MMI)interfaces in both hard and soft copy The changes in ICDs during development/Integration stages shall be strictly under version control preferably tool based	
1.18	The integrator shall provide the vibration spectrum of the aircraft with the sensors mounted and its cost to do so. Shall also provide computation Fluid Dynamics (CFD) analysis of the aircraft to prove the laminar air flow to the inlets/ sensors	

REQUIREMENTS FOR MISSION AND INSTRUMENTED AIRCRAFT SYSTEMS

INTEGRATOR'S TASK		BIDDER'S RESPONSE
1.1	The Supplier should propose and describe in detail the Mission Navigation Planning capabilities. The capability of planning a mission and then loading this mission on board the ADDMS and/or aircraft Flight Management System (FMS) must be available.	
1.2	The aircraft FMS controlling the autopilot must have the capability to fly special mission patterns, or be able to load or receive flight plans from the ADDMS for special mission pilot guidance.	
1.3	The Supplier shall describe a solution for how the pilots can have access to basic on-board sensor data from the cockpit. Please describe solution in detail.	
1.4	In order to save space and optimize the operation of the sensors, the Buyer encourages the Supplier to offer innovative technical solutions for combining the sensor information	
1.5	It will be considered an advantage that the technical solutions provided is optimized for the weight of the mission equipment.	
1.6	The Supplier shall describe in detail about the data collection process of the sensor systems.	
1.7	The Supplier shall provide a system capable of collecting aircraft data (i.e. Air Data, Attitude Data, Heading Data, Navigation data, surveillance data, communication data) and to store and time correlate these data for use with the onboard sensor data	
1.8	In order for the Pilot to navigate accurately, navigation guidance solutions from the sensor system shall be provided to the pilot.	
1.9	It will be considered a great advantage if the navigation guidance solutions can be combined in the ADDMS, i.e. so that one common source for IMU (Inertial Measurement Unit) / IRU (Inertial Reference Unit) and GPS unit can be utilized for all sensors.	
1.10	In order to provide additional safety for the aircrew for preventing Controlled Flight Into Terrain (CFIT), an Enhanced Ground Proximity Warning System (EGPWS) with a terrain database shall be integrated into the aircraft.	
1.11	The Supplier shall provide a system for data transmission of automatically generated messages of actual aircraft position data from the aircraft to an Internet IP address. The position data should be transmitted at a given interval.	
1.12	There should be a possibility to receive simple text messages from the base with weather messages and flight plans.	
1.13	Both of these above messages should use SATCOM for data	

	communication	
1.14	During test phase of IAS in India , if the claimed performance values of various parameters of aircraft/or sensors are not met, then procedure to be followed for resolution of issues should be clearly spelled out, whether the performance of items will be upgraded through software control or some hardware based tweaking will be done by the firm to meet the desirable performance claim values to be clearly spelt out	

Note: -

- Any other relevant info on capability of roles & additional facilities may also be specified
- The Supplier to attach detailed technical specifications of the Aircraft system, integrator's task and aircraft maintenance being offered as response to the RFP.

SPECIFICATIONS FOR SCIENTIFIC INSTRUMENTS

NFAR instrumentation for airborne measurements as listed below should be procured, installed and commissioned with certification by OEM to carry out atmospheric research. All instruments should be airworthy and should have Supplementary Type Certificate (STC) for the same. Along with the scientific instruments suggested, suitable calibration suite should also be included.

Parameters/variables to be measured.

- State parameters
- Cloud Microphysics
- Aerosols
- Inlets
- Trace Gases
- Radiation
- Doppler Radar
- Lidar
- Dropsonde
- Research Aircraft Data Acquisition System
- Turbulence probe

All these instruments will not be operated simultaneously. Actual suite of instruments to be loaded/operated during a scientific flight will be fixed in the aircraft according to scientific objective of the program. However, it is not advisable to remove instruments (e.g., radar) that require factory settings/ alignment. Also, some are needed for all programmes.

NOTE:

The bidder should offer/ quote for latest specification instrument available in market along with calibration suite and operating software.

The Bidder should provide proper weather shielding for all outside installed sensors to protect the sensors from heat/dust/rain etc.

All sensors/ instrument racks should be mounted with perfect vibration isolation.

All software licenses should be perpetual and floating type. All post processing software for standard processing and correction of every parameter acquired should be provided.

All hardware upgrades at nominal cost and software upgrades at free of cost.

Instruments for Standard basic Parameters

VARIABLE	RANGE	ACCURACY
Air temperature	-50 to +50 °C	0.5 °C
Air temperature (Reverse flow)	-50 to +50 °C	0.5 °C
Dewpoint temp.	-50 to +50 °C	1.0 C if > 0 °C 2.0 C if < 0 °C
Static pressure	0-1080 mb	0.5 mb
Static pressure	0-1034 mb	0.5 mb
Geometric alt.	60000 ft(18288 m)	1%
Geometric alt.	2000 ft (610 m)	3% if < 500 ft 5% if > 500 ft(152 m)
Total pressure	0-85 mb	0.2 mb
Lat./long.	±90° lat. ±180° long.	100 m
Lat./long. Inertial Reference System (IRS)	±90° lat. ±180° long.	0.8 mm/h (50% CEP) 1.66 mm/h (95% CEP)
Ground velocity	0-4095 kts	13.5 ft/s
Vertical velocity	±3000 ft/min	0.5 ft/s
Pitch/roll angle	±90° pitch ±180° roll	0.05°
True heading	±180°	0.2°
Flow angle	±15°	0.2°
Engine torque (Engine gauge)	2230 ft-lbf	---
Video record (Forward-looking)	---	---
Audio record (Intercomm/Radios)	---	---

Cloud Physics Instruments

No	Instrument	Size
1	Cloud Droplet Measurements with K-tips	2-50 μm
2	Cloud Imaging Measurements	25 μm - 1550 μm ; LWC=0.01 to 3 g/m ³ ; A/S=200m/s
3	Cloud Condensation Nuclei Counter (Dual-Column with CPI)	0.75 - 10 μm in the ss range 0.07 to 2 %
4	Cloud Aerosol Precipitation Spectrometer with polarization and integrated with Hot- Wire LWC, Temp., RH and Nevzorov IWC	0.5 μm - 50 μm - aerosol and cloud droplets 25-1550 μm - Hydrometeor SD
5	Precipitation Imaging Measurements	100 μm to 6.2mm.
6	Two Dimensional Particle Imaging Measurements	10 μm - 2 mm
7	Aircraft Integrated Meteorological Measurement System with high resolution	Temp. RH, WS, WD, Aircraft attitude etc.
8	LWC sensor	0.03 to 5 g/m ³
9	Ice water Content (Nevzorov Probe)	0.003 to 3 g/m ³

Aerosol Instruments

	Instrument	Size
1	Aerosol Measurements	0.1 to 3 micron
2	Single Particle Soot Photometer (2 units) (New improved compact Aircraft version)	Black carbon mass in each aerosol particle, number concentration, number distribution as a function of particle size
3	High flow Differential mobility analyzer (DMA) with data system	0.01 - 0.5 microns.
4	Ultra High Sensitivity Aerosol Spectrometer (UHSAS) rack mounted with laminar flow element	0.06-1.0 micron
5	Bioaerosol Sensor	0.5 to 50 μm
6	Photoacoustic Extinctionmeter with CPI and shock mounts	
7	Cascade Impactor	Sub-micron to 20 micron

Chemistry/Trace Gas Instruments

Measurement	Range	Technique
O ₃	1 ppb – 100 ppm	CRDS technique
SO ₂	0.3-200 ppb	-do-
CO	<5 ppb	-do-
CO ₂		-do-
H ₂ O/CH ₄		-do-
NO/NO _y	0.2-200 ppb	Laser diode based
NO/NO ₂ /NO _y	NO ~10 ppt @ 10 s NO ₂ ~50 ppt @10 s NO _y ~100 ppt @10 s	-do-

Radiation Instruments with high sensitivity and Gimbal mounts for attitude correction

Measurement	Range
UV radiation, up- & downwelling	295-385 nm
Short-wave irradiance, up- & downwelling	285-2800 nm
Long-wave irradiance, up- & downwelling	4-50 μm
Solar Spectral Flux Radiometer, SSFR	350-2150 nm

Special Instruments**1. Airborne W-band Cloud Radar**

- 1.5 kW peak power, 1% duty cycle Extended Interaction Klystron Amplifier
- 12" Lens antenna (0.7 deg. Beam width) or 18" Cassegrain antenna (0.4 deg. Beam width)
- Complex T/R network with 5 antenna ports
- Dual-channel receiver
- PC-based digital receiver
- Real-time digital pulse compression
- Size: Compact for airborne applications.

2. Aerosol LIDAR (Light Detection And Ranging)

- Downward looking Lidar
- Laser: Pulsed Nd-YAG (Eye Safe)
Wavelength: 355 nm
Repetition rate: 1 - 20 Hz
Beam-divergence: 0.69 mrad
Range: below aircraft to ground

- Vertical Resolution :> 10 m
- Telescope: 200 mm
Field of View: typ. $\pm 2:5$ mrad
Size: Compact for airborne applications

3. Dropsonde Facility

- Dropsonde for high-altitude deployment from an aircraft.
- Parachute for Slowed descent through the atmosphere
- Atmospheric profiles of pressure, temperature, relative humidity and wind from the point of launch to the surface.
- Data transmission via a 400 MHz meteorological band with telemetry receiving system onboard the aircraft.
- Receiver tracking up to four sondes simultaneously.

4. Incident flow Turbulence Probe

- 5-Port probe
- Operating mode: In situ
- Dynamic Pressure (Airspeed) : 0-50hPa
- Static Pressure (Barometrical Altitude) : 450-1100hPa
- Angle of Attack and Sideslip $\pm 45^\circ$
- Anti-icing and deicing capability

Inlets (Total suite of 4 items)**1. Isokinetic Inlet System - ISO Inlet**

Transmission efficiency >90% for particle aerodynamic diameters <10 μ m

Aerodynamic, twin-diffuser and passive pumping

Low power blower to draw and actively control 150 lpm sample flow (up to 100 lpm of air flow for instruments)

Anti-icing system

Specifications

Parameter	Value
Particle aerodynamic diameter size range:	0.005-10 μ m
Sample flow at diffuser tip (@100 m/s):	300 lpm
Sample flow to cabin:	150 lpm
Maximum sample flow to instruments:	100 lpm
Operating temperature range:	-40 to 45 °C
Operating pressure range (absolute):	200-1,000 hPa

2. Counterflow Virtual Impactor Inlet System - CVI Inlet

Controllable droplet cut size (5.5 to 8 μ m)

15 lpm of instrument sample flow

Laminar flow element measures sample flow and automatically adjusts to changing instrument flows

Add flow rate adjustable between 16 and 25 lpm to vary droplet cut size

Heated Add Flow to evaporate cloud droplets

Specifications

Parameter	Value
Droplet diameter cut size range:	5.5-8 μ m
Add Flow rate range to tip:	16-25 lpm
Add Flow temperature range:	20-45 °C
Range of counterflow air flow rate:	1-10 lpm
Constant air sample flow rate:	15 lpm
Total air sample flow available to instruments:	15 lpm
Operating temperature range:	-40 to 45 °C
Operating pressure range:	200-1,000 hPa

3. Reverse flow inlet

4. Suitable inlet for trace gas measurements

Aircraft Data Acquisition System

- Rack-mount chassis with PCI and ISA slots
- Computer with Latest processor with internal math coprocessor and latest hardware configuration
- WINDOWS/LINUX operating system
- Rack-Mount Keyboard and Track-Ball, on slides
- ADC multiplexers with 32 channels each of 16-bit conversion at 10 kHz
- Interface cards for: GPS, INS, 1D and 2D PMS probes, and other instruments
- 16 channels digital I/O (expandable)
- 16 serial ports (expandable)
- Rack Mount 20" TFT LCD flat panel display, on slides
- Data acquisition, playback, and utilities software suitable for Multi-Probe Research Instrument Systems

The data from all sensors should be interfaced with ADDMS.

Some of the instruments having different data formats might not be compatible to integrate with the common ADDMS. Hence, such instruments should have separate data acquisition systems with display.

ADDMS should be capable to accommodate all instruments data and should have provision to accommodate for future additional instruments. The specifications given on page 88 for Aircraft Data Acquisition system are minimum requirements of hardware pertaining to ADDMS.

Aircraft Power Distribution System

Aircraft power distribution system to supply research power for all scientific instruments. Provision of additional power requirement for future upgradation

SPECIFICATIONS OF SCIENTIFIC INSTRUMENTS

The bidder has to provide and comply all the details as follows.

Specifications of IITM			Details to be complied by bidder				
VARIABLE	RANGE	ACCURACY	Instrument model	Make/ Company	Range	Airborne	STC Available/ Issued by STC No.
Instruments for State Parameters							
Air temperature	-50 to +50 °C	0.5 °C					
Air temperature (Reverse flow)	-50 to +50 °C	0.5 °C					
Dewpoint temp.	-50 to +50 °C	1.0 °C if > 0 °C 2.0 °C if < 0 °C					
Static pressure	0-1080 mb	0.5 mb					
Static pressure	0-1034 mb	0.5 mb					
Geometric alt.	60000 ft(18288 m)	1%					
Geometric alt.	2000 ft (610 m)	3% if < 500 ft 5% if > 500 ft(152 m)					
Total pressure	0-85 mb	0.2 mb					
Instruments for Aircraft Parameters							
Lat./long.	±90° lat. ±180° long.	100 m					
Lat./long. Inertial Reference System (IRS)	±90° lat. ±180° long.	0.8 mm/h (50% CEP) 1.66 mm/h (95% CEP)					
Ground velocity	0-4095 kts	13.5 ft/s					
Vertical velocity	±3000 ft/min	0.5 ft/s					
Pitch/roll angle	±90° pitch ±180° roll	0.05°					
True heading	±180°	0.2°					
Flow angle	±15°	0.2°					
Engine torque (Engine gauge)	2230 ft-lbf	--					
Video record (Forward-looking)	--	--					

Audio record (Intercomm/Radios)	--	--					
Cloud Physics Instruments							
Cloud Droplet Measurements with K-tips	2-50 μm						
Cloud Imaging Measurements	25 μm - 1550 μm ; LWC=0.01 to 3 g/m ³ ; A/S=200m/s						
Cloud Condensation Nuclei Counter (Dual-Column with CPI)	0.75 - 10 μm in the ss range 0.07 to 2 %						
Cloud Aerosol Precipitation Spectrometer with polarization integrated with Hot-Wire LWC, Temp., RH and Nevzerov IWC	0.5 μm - 50 μm - aerosol and cloud droplets 25-1550 μm - Hydrometeor SD						
Precipitation Imaging Measurements	100 μm to 6.2mm.						
Two Dimensional Particle Imaging Measurements	10 μm - 2 mm						
Aircraft Integrated Meteorological Measurement System with high resolution	Temp. RH, WS, WD, Aircraft attitude etc.						
LWC sensor	0.03 to 5 g/m ³						
Ice water Content (Nevzorov Probe)	0.003 to 3 g/m ³						
Aerosol Instruments							
Aerosol Measurements	0.1 to 3 micron						
Single Particle Soot Photometer (2 units) (New improved compact Aircraft version)	black carbon mass in each aerosol particle, number concentration						

High flow Differential mobility analyzer (DMA) with data system	0.01 - 0.5 microns.						
Ultra High Sensitivity Aerosol Spectrometer (UHSAS) rack mounted with laminar flow element	0.06-1.0 micron						
Bioaerosol Sensor	0.5 to 50 um						
Photoacoustic Extinctionmeter with CPI and shock mounts							
Cascade Impactor	Sub-micron to 20 micron						
Chemistry/Trace Gas Instruments							
O ₃	1 ppb – 100 ppm	CRDS technique					
SO ₂	0.3-200 ppb	-do-					
CO	<5 ppb	-do-					
CO ₂		-do-					
H ₂ O/CH ₄		-do-					
NO/NO _y	0.2-200 ppb	Laser diode based					
NO/NO ₂ /NO _y	NO ~10 ppt @ 10 s NO ₂ ~50 ppt @10 s NO _y ~100 ppt @10 s	-do-					
Radiation Instruments							
UV radiation, up- & down welling	295-385 nm						
Short-wave irradiance, up- & downwelling	285-2800 nm						
Long-wave irradiance, up- & downwelling	4-50 μm						
Solar Spectral Flux Radiometer, SSFR	350-2150 nm						
Special Instruments							

Airborne W-band Cloud Radar							
Aerosol LIDAR (Light Detection And Ranging)							
Drosonde Facility							
Incident flow Turbulence Probe							
Inlets							
Isokinetic Inlet System - ISO Inlet							
Counterflow Virtual Impactor Inlet System - CVI Inlet							
Reverse flow inlet							
Suitable inlet for trace gas measurements							
Aircraft Data Acquisition System							
Aircraft Power Distribution System							

REQUIREMENTS FOR LOGISTICAL SUPPORT**Logistical Support and Responsibilities of AMC contractor/Bidder:**

IITM will be outsourcing the AMC (Annual Maintenance Contract) to Indian Firm (nominated by the L1 Aircraft OEM) as turnkey solution provider and maintenance will be his responsibility. IITM will provide only:

- Hangar space with provision of office room for operations
- Fuel at base or any other base which needs to be purchased by AMC contractor on behalf of IITM
- Nitrogen

All other Ground handling equipment(s), etc. to be provided by AMC contractor, including manpower, calibration, taking required permissions for flying as per IITM flight schedule, maintaining airworthiness of aircraft all the time will be in scope of AMC Contractor/Bidder.

NFAR research operations will be about 400 flying hrs per year and will be conducted from different bases according to objectives of research missions. The permanent hangar facility will be designated in due course and will be informed at later stage.

The aircraft management system including pilots, flight operations all kind of services related to operation all the time will be in scope of AMC Contractor/Bidder.

Details for how the Logistic Support will be given (including in-country support) for the mission systems and integration will be carried out, has to be described in detail. A complete logistical support plan, valid for 5-10 years, shall be submitted for IAS:

1.1	<p>The Maintenance facility must be Authorized by the Aircraft OEM and approved by DGCA to carry out maintenance on the aircraft type also certified by DGCA complying with DGCA CAR 145 requirements. The aircraft management system with pilots must be provided.</p> <ul style="list-style-type: none"> • Should undertake CAMO functions on behalf of IITM 	BIDDER'S RESPONSE
1.2	<p>On job assistance (on yearly basis) for aircraft The details of AMC proposals must also be submitted separately by the Bidder with: Technical aspects being included in the technical offer Commercial aspects being included in the commercial offer.</p> <p>The details of aircraft management system proposal must also be submitted separately by the Bidder with:</p> <p>Technical aspects being included in the technical offer Commercial aspects being included in the commercial offer.</p>	

	<p>The same will be taken cognizance of while deciding the Lowest price Bidder (L1).</p> <p>A complete Local Support plan from within India must be provided/ proposed Flight hour programme for aircraft and aero engine to be quoted by Bidder On call support/AOG support</p> <p>Supplier should also provide field technical support for 12 months after aircraft is actually delivered</p> <p>Provide start up team with number of 3 or appropriate persons and technicians</p> <p>Provide 3 pilots (2 pilots + 1 Co-pilot) to fly about 400 hrs. per year for scientific missions</p>	
1.3	The activities proposed will include all the maintenance and services for the next 24 months after delivery as per terms of the Contract; extendable on an annual renewal post the 24 month commitment by AMC.	
1.4	Warranty Support for Aircraft and Sensors to be mentioned in detail	
1.5	<p>Spare Parts (provisioned by Bidder/AMC contractor) – as per DGCA CAR145</p> <ul style="list-style-type: none"> • Manufacturer’s recommended spares • Itemized spare parts list • Initial provisioning list/MRLS (if not covered by AMC) at IITM hangar • Ground support equipment (GSE) and Ground support equipment (GSE), (if not covered in AMC) at IITM hangar Should have provision as below but not limited to: • GPU (Ground power unit) – GSE • 3 Jacks in case of aircraft to be lifted - GSE • Tow bar with correct adapter to tow aircraft – GSE • Nitrogen for gear/tyres - GSE • Chokes- to stop aircraft from moving - GSE • Oxygen booster - Accessories • Wash equipment for inside outside - Accessories • Compressor wash kit - Accessories • Roller-Ice protection application – Accessories 	
1.6	<p>Documentation</p> <ul style="list-style-type: none"> • AMC contractor will be responsible for compliance with latest Technical publications and service bulletins, please confirm 	
1.7	Local partners should be identified within India and info shall be provided about how the responsibility will be shared? Explain	
1.8	<p>Apart from ASC (Auth. Service Centre) maintenance tools, what basic tools are required for day-to-day operations</p> <p>List to be provided and same should be provisioned by contractor</p>	

1.9	<ul style="list-style-type: none"> • A list of optional and essential spares part for aircraft shall be provided for 20-30 years • Support aircraft with spares for 20 to 30 years of span from purchase (Bidder to confirm, if possible) 	
1.10	In case, the aircraft becomes unoperable, how much will be the min. and max. down time of the items?	These time limits should be defined by the responding firm. Pl explain also.
1.11	What will be the procedure of correction/replacement and re- calibration of faulty parts? Where it will be carried out - India or abroad? Warranty for how much time? If store(s) to be taken out of India - whether supplier will provide bank guarantee or not?	
1.12	Aircraft needs to be maintained by Authorized Service Centre (ASC) in Pune and Mumbai or any other parts of India only. The operation cost (400hrs/year) and maintenance cost after warranty has to be clearly mentioned by the Bidder.	
1.13	Past records of heavy maintenance should be furnished by ASC/Bidder	
AMC CONTRACTOR / BIDDER RESPONSIBILITY- MANDATORY REQUIREMENTS		
1.1	<ul style="list-style-type: none"> • The operation cost/maintenance cost after warranty has to be clearly mentioned by the supplier. • The ASC shall carry out the agreed maintenance activities in the framework of the terms of Contract • Provision for all approved man power as recommended by manufacturer/OEM for the aircraft maintenance on approval from operator • The ASC shall perform all required tasks/duties to maintain CAMO (Continued Airworthiness Maintenance Organization) certification of the operator. • Arrange for initial and recurrent training for each flight crew member. Getting approval of such training from DGCA shall be the responsibility of Client at all times. • The ASC shall perform rectification of defects/snags pertaining to all systems within the scope of approval of ASC; as reported by the Pilots. • The ASC shall carry out all operator approved schedules/inspections and checks as recommended in the Maintenance Manual • Stock, handle and administrate the serviceable consumables/ rotables and components on behalf of the customer. • Provide warranty administration support for airframe, engine, avionics and part • The ASC shall issue Certificate of Release (CRS) following all maintenance and rectification performed • The ASC shall perform review of maintenance forecast (if applicable) to 	

	<p>monitor life limited parts and issue procurement notification to the operation</p> <ul style="list-style-type: none"> • Provide details of suitable agencies in India for the maintenance task of aircraft 	
1.2	<ul style="list-style-type: none"> • The ASC shall provide local ground support services to assist the operations of the aircraft; IITM shall contact and intimate the ASC of any movements on a lead time basis. Complete operations and maintenance support excluding heavy maintenance which requires maintenance of more than 04 days and also require heavy equipment and large team to be moved from base to maintenance location. The tasks shall include but not limited to below: <ul style="list-style-type: none"> • Perform the pre-flight inspections and the daily service requirements as agreed in the maintenance agreement • Plan flight routes and submit the same for approval by IITM before each flight • In case of international flights; apply for over-flight permits and other clearances as maybe required at the departure, transit or arrival airports and coordinate with the relevant authorities in respect of the same. • Deploy either own or outsourced personnel at the base of operations in order to assist the flight crew in performance of their duties; in order to achieve scheduling of flights and flight personnel, flight following and communication. • Ensure that the maintenance base at IITM hangar is be made compliant up to maintenance of 200 Hour Inspection/Phase-I. 	
1.3	<p>The Personnel to be stationed to Undertake tasks at IITM hangar on behalf of the Supplier shall be DGCA approved:</p> <ul style="list-style-type: none"> • One type-rated AME (Aircraft Maintenance Engineer) • One technician qualified • One helper (no DGCA approval required) 	
1.4	<p>Major Maintenance Schedule (I.e. Phase II, III & V Inspection), which will fall due on the aircraft during the Contract tenure, shall be carried out at ASC Hangar, Pune.</p>	
1.5	<p>CAMO Functions: Complete CAMO tasks shall also be undertaken on behalf of IITM from ASC to fulfill DGCA requirements</p>	
1.6	<p>Books and Records, Maintenance Management and Additional Support Services shall include but not limited to following:</p> <ul style="list-style-type: none"> • The ASC shall maintain records of flight duty time limit of all crew members • Assist in preparation of mandatory reports required to be filed with regulatory authorities. (However, the filing of such reports shall be the responsibility of the Client at all times) • All other maintenance related tasks, shall be the responsibility of ASC. 	

AIRCRAFT MANAGEMENT SYSTEM / BIDDER RESPONSIBILITY- MANDATORY REQUIREMENTS		
2	<ul style="list-style-type: none"> The aircraft management system cost including fixed charges and salaries of pilots for the following services after delivery of IAS to IITM has to be clearly mentioned by the Bidder. 	
2.1	Arrange for and coordinate and schedule use of Aircraft (including Pilot support)	
2.2	Plan flight routes and submit the same for approval by Client before each flight	
2.3	Apply for & coordinate with authorities for necessary clearances and/or permits required from airport operators, air traffic controllers, defense authorities, civil authorities or any such authorities as the case may be, for the movement of the Aircraft	
2.4	Arrange for pre flight medical checkup of every crew member	
2.5	Prepare load and trim sheet before every flight	
2.6	In case of international flights, apply for over-flight permits and other clearances as maybe required at the departure, transit or arrival airports and coordinate with the relevant authorities in respect of the same.	
2.7	Make arrangements for refueling of Aircraft as and when required as per flight route.	
2.8	Make arrangements for ground handling at international airports as required from time to time.	
2.9	Make arrangements for movement of baggage and/or other items being carried on the flight, subject to these being security cleared.	
2.10	Make arrangements for parking of Aircraft and coordination for night parking when necessary	
2.11	Coordinate slots for take-off and landing of Aircraft	
2.12	Make arrangements for watch hour extension and fuel set up beyond watch hour wherever required	
2.13	Monitor the progress of the flight and keep Client or Client's representatives informed.	
2.14	Maintain flight records for a period of Six months or as required by regulation.	

2.15	Make arrangements for concierge, catering and rental car or other ground transportation as requested by the Client	
2.16	Deploy either own or outsourced personnel at the base of operations in order to assist the flight crew in performance of their duties; in order to achieve scheduling of flights and flight personnel, flight following and communication	
2.17	Maintain all logbooks and records pertaining to the Aircraft in accordance with applicable DGCA regulations.	
2.18	Additional Support Services, if any.	

Note: -

- Any other relevant info on capability of roles & additional facilities may also be specified
- The Supplier to attach detailed technical specifications of the aircraft maintenance being offered as response to the RFP.
- It is expected that all services related to maintenance and management of aircraft and instruments of IAS are to be performed by the local partner identified by the bidder.

PROBABLE SCIENTIFIC INSTRUMENT SUPPLIER'S LIST *

Sr. No.	Vendor	Instrumentation
1	Droplet Measurement Technologies (DMT) 2545 Central Avenue Boulder, CO 80301	Cloud Physics, Aerosols
2	SPEC Inc (Stratton Park Engineering) 3022 Sterling Circle, #200 Boulder, CO 80301	Cloud Physics
3	Adventech Research Inc. 110 Anne Street South, Unit 23 Barrie, Ontario Canada, L4N 2E3	State parameters
4	Particle Measuring Systems 5475 Airport Blvd Boulder, CO 80301	Aerosols
5	ProSensing Inc. 107 Sunderland Rd, Amherst, MA 01002, United States	Radar
6	Kipp&Zonen B.V. Delft - The Netherlands	Radiation
7	Gerber Scientific, Inc., 1643 Bentana Way, Reston, VA 20190 USA	Aerosols
8	Science Engineering Associates, Inc. 114C Mansfield Hollow Road P.O. Box 605 Mansfield Center, CT 06250-0605 USA	Data acquisition Software
9	THE EPPLEY LABORATORY, INC. 12 Sheffield Avenue, PO Box 419 Newport, Rhode Island 02840 USA	Radiation
10	AzeoTech, Inc. 821 Indiana Street Ashland, Oregon 97520 United States	Software
11	Aerodyne Research, Inc. 45 Manning Road Billerica, MA 01821-3976	Aerosols
12	Teledyne Advanced Pollution Instrumentation 9480 Carroll Park Drive San Diego, California 92121-5201 USA	Gas Instruments
13	Ecotech Pty Ltd 1492 Ferntree Gully Road, Knoxfield, VIC, 3180	Aerosols

14	BRECHTEL MANUFACTURING INC. 1789 ADDISON WAY HAYWARD, CA 94544	Isokinetic Inlet, Aerosols
15	Vaisala Oyj, Vanha Nurmijärventie 21, 01670 Vantaa Helsinki	Dropsonde
16	Edge Tech Moisture & Humidity 19 Brigham Street Unit 8 Marlborough, MA 01752	Hygrometer
17	LI-COR 4647 Superior Street, P.O. Box 4425, Lincoln, Nebraska 68504	Gas measurements
18	TSI INCORPORATED 500 Cardigan Road Shoreview, MN 55126	Aerosols
19	LEOSPHERE FRANCE 14-16 rue Jean Rostand 91400 Orsay, France	Lidar

* The list of scientific instrument suppliers is not limited to referred above and bidders can quote with other manufacturers, if any.