



India Meteorological Department
Mausam Bhawan, Lodi Road
New Delhi-110003

Notice Inviting Tender (NIT)

e-Tender Enquiry No. CPU/52/0418/9848

Dated: 07.05.2018

1. Director General of Meteorology (DGM), India Meteorological Department (IMD), Ministry of Earth Sciences (MoES), Government of India, on behalf of president of India invites ONLINE e-TENDER in two bid systems from qualified bidders i.e. (i) Techno-commercial bid & (ii) Price bid from eligible and qualified firms for supply, installation & commissioning of following Goods/Articles/Services. Manual bids shall not be accepted.
2. Name of Goods/Article/Services: Procurement of 10 Nos. of Heliport Aviation Weather Observing System (H_AWOS).
3. Quantity & Specification: As per RFP section under tender enquiry document.
4. Tender schedule is as follows:

1.	Cost of Tender Document.	Nil.
2.	PRE BID Conference (A) Date & Time (B) Venue	17.05.2018 / 1100 Hrs CAMD, IMD, Mausam Bhawan, Lodi Road, New Delhi-110003.
3.	Closing date and time for submission of tender	08.06.2018/1800 Hrs
4.	Tender Opening date & time (Technical Bid)	11.06.2018/1200 Hrs
5.	Place of Tender opening	Central Purchase Unit, O/o DGM, IMD, Lodi Road, New Delhi-110003.

5. Earnest Money Deposit (EMD): Rs.8,91,000/- (Rupees Eight Lakh Ninety One Thousand only). EMD shall be accepted from the participating firm only in the form of Bank Guarantee (BG)/Fixed Deposit Receipt (FDR). Signed and scanned copy of EMD document and any other certificate must be uploaded on CPP portal at <https://eprocure.gov.in/eprocure/app> Original EMD in the form of BG/FDR and

any other certificate for exemption must be submitted in Central Purchase Unit (CPU) room No.517 on or before closing of bids submission date. EMD shall be valid for 240 days from the date of opening of tender.

6. (a) Micro and small Enterprises registered as OEM for stores and services specified in this tender with any government bodies specified by Ministry of Micro, Small & Medium Enterprises are exempted for submitting the earnest money deposit (EMD).
(b) Firms other than SSI registered as OEM for stores and services NSIC, are also exempted for submitting EMD.
(c) The exemption and relaxation in EMD are subject to validity of their registration on the date of opening of tender.
(d) The Indian partner/agent can upload single tender on behalf of their OEM, but the EMD must be submitted by the OEM in the respective foreign currency.
7. All prospective tenderers are requested to attend the Pre Bid meeting if mentioned above. The venue, date and time are indicated in the Para 4 above.
8. The bidder shall download the Tender Enquiry Document from <https://eprocure.gov.in/eprocure/app> and <http://www.imd.gov.in/pages/tenders.php> Bidder shall upload their tender ONLINE through <https://eprocure.gov.in/eprocure/app> along with scanned copies of EMD as mentioned in Para 5 above. Manual bids are not accepted.
9. EMD may be issued in the favour of “O/o Director General of Meteorology, IMD, New Delhi” and payable at New Delhi.
10. Purchaser: The President of India
Through Director General of Meteorology
India Meteorological Department
Lodi Road, New Delhi-110003
11. Consignee: Head (CAMD)
India Meteorological Department
Lodi Road, New Delhi-110003
12. Testing & Acceptance Authority: Head (CAMD)
Lodi Road, New Delhi-110003

Central Purchase Unit (CPU)
O/o Director General of Meteorology
Lodi Road, New Delhi-110003.
Email : cpu.imd@imd.gov.in

निविदा आमंत्रित करने की सूचना (एन आई टी)

ई-निविदा जाँच सं. e-Tender Enquiry No. CPU/52/0418/9848

दिनांक : 07.05.2018

1. मौसम विज्ञान के महानिदेशक (मौविमनि) भारत मौसम विज्ञान विभाग (भा.मौ.वि.वि.) पृथ्वी विज्ञान मंत्रालय, भारत सरकार, भारत के राष्ट्रपति की ओर से नीचे लिखे सामान / वस्तुएँ / सेवाओं की आपूर्ति, संस्थापन और आरंभ के लिए पात्र और अर्हक निविदाकारों से दो बिड प्रणाली अर्थात (एक) तकनीकी बिड और (दो) दर बिड में [ऑनलाइन](#) निविदा आमंत्रित करते हैं
13. सामान/ वस्तुएँ/ सेवाओं का नाम: Procurement of 10 Nos. of Heliport - Aviation Weather Observing System (H_AWOS).
2. विनिर्देशन और मात्रा: आर एफ पी के अनुसार,
3. निविदा अनुसूची इस प्रकार है:

1.	निविदा कागजात की लागत (अप्रतिदेय) डिमांड ड्राफ्ट/ पे आर्डर के रूप में	शून्य
2.	प्री बिड कांफ्रेंस (क) दिनांक व समय (ख) स्थान	17.05.2018 / 1100 Hrs CAMD, IMD, Mausam Bhawan, Lodi Road, New Delhi-110003.
3.	निविदा जमा करने की अंतिम तिथि व समय	08.06.2018/1800 Hrs
4.	निविदा खोलने की तिथि व समय (तकनीकी बिड)	11.06.2018/1200 Hrs
5.	निविदा खोलने का स्थान	केंद्रीय क्रय एकक, कार्यालय महानिदेशक, भारत मौसम विज्ञान विभाग, लोदी रोड, नई दिल्ली-110003

5. धरोहर राशि (ई एम डी): ₹ 8,91,000/- (रु.आठ लाख इक्यानवे हजार केवल), बैंक गारंटी अथवा मियादी जमा रसीद)एफ.डी.आर. (द्वारा ही स्वीकार की जायेंगी। ई. एम.डी., निविदा खुलने की तिथि से २४० दिन के लिये वैध होनी चाहिये। हस्ताक्षरित ई.एम.डी. तथा अन्य दस्तावेज की स्कैन की गई प्रति वेबसाईट <https://eprocure.gov.in/eprocure/app> पर आनलाइन अपलोड करे। मूल ईएमडी (B.G. /FDR के रूप) में और छूट के लिए किसी भी अन्य प्रमाण पत्र को केंद्रीय क्रय एकक (सीपीयू) कमरानंबर में बोलियों के 517जमा करने की अंतिम तिथि व समय से पहले जमा करना होगा।

6. (कलघु उद्योग (, कुटीर और छोटे पैमाने पर उद्यम जो किसी भी सरकारी निकायों के साथ इस निविदा में निर्दिष्ट समान और सेवाओं के लिए पंजीकृत है , उनको निविदा शुल्क और धरोहर राशि (EMD) प्रस्तुत करने के लिए छूट दी गई है।

एन.एस.आई.सी. के साथ इस निविदा में निर्दिष्ट समान और सेवाओं के लिए पंजीकृत अन्य (ख) कंपनियों को भी ईएमडी जमा करने के लिए छूट दी गई है।

(ग ई.एम.डी. में छूट निविदा खोलने की तारीख पर उनके पंजीकरण की वैधता के अधीन हैं। (

7. ऐसे निविदाकार जो रुचि रखते हैं इस आवश्यकता के बारे में और जानकारी परेषिति से ले सकते हैं । सभी भावी निविदाकर्ता प्री बिड बैठक समारोह स्थल), तारीख और समयमें भाग ले सक (ते है यदि ऊपर पैरा मे अनुरोध किया गया है। ऐसे निविदाकार जो रुचि रखते हैं इस आवश्यकता के बारे में और 4 जानकारी परेषिति से ले सकते हैं।

8. निविदाकर्ता <https://eprocure.gov.in/eprocure/app> और <http://www.imd.gov.in/pages/tenders.php> वेबसाइट से निविदा जांच कागजात डाउनलोड कर सकते हैं और डाउनलोड किए गए कागजात के अनुसार अपनी निविदा तथा हस्ताक्षरित ई.एम.डी. दस्तावेज की स्कैन की गई प्रति वेबसाइट <https://eprocure.gov.in/eprocure/app> पर आनलाइन अपलोड करे।

9. ई.एम.डी. दस्तावेज "O/o Director General of Meteorology, IMD, New Delhi" के पक्ष और नई दिल्ली में देय, जारी किया जा सकता है।

10. क्रयकर्ता: भारत के महामहिम राष्ट्रपति
भा.मौ.वि.वि.के माध्यम से
भारत मौसम विज्ञान विभाग,
लोदी रोड, नई दिल्ली-110003

11. परेषिति: प्रमुख(CAMD)
भारत मौसम विज्ञान विभाग
लोदी रोड, नई दिल्ली-110003

12. जाँच प्राधिकारी: प्रमुख(CAMD)
भारत मौसम विज्ञान विभाग
लोदी रोड, नई दिल्ली-110003

केंद्रीय क्रय एकक (CPU),
मौसम विज्ञान के महानिदेशक का कार्यालय,
लोदी रोड, नई दिल्ली -110003

Email : cpu.imd@imd.gov.in



**India Meteorological Department
Mausam Bhawan, Lodi Road
New Delhi -110003**

Tender Enquiry No.CPU/52/0418/9848

Dated: 07.05.2018

**SECTION – I
GENERAL INSTRUCTIONS TO TENDERERS (GIT)**

Note : The bidder shall submit their bid as per Scope of the RFP document.

1. Introduction :

The Purchaser has issued this TE documents for purchase of goods/stores/articles and related services as mentioned in “**Request for Proposal (RFP)** ” ,which also indicates, *inter alia*, the required stores, delivery schedule, terms and place of delivery etc. This section (“General Instructions to Tenderers”) provides the relevant information as well as instructions to assist the prospective Tenderers in preparation and submission of tenders.

Bidders shall have to agree/accept all the terms and conditions of tenders including payment terms etc. Acceptance shall be unconditional and bidders shall have no claim and right in future on their terms if any.

2. Language of Tender:

The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, shall be written in English language.

3. Eligible Goods and Services:

All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term “origin” used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

4. Tendering Expense

The tenderer shall bear all the costs and expenditure incurred and/or to be incurred by them in preparation, and uploading their tender including attending the pre-bid conference and or arranging demonstration of Product/Services or Field trials that may be deemed necessary by the Purchaser.

5. PRE-BID CONFERENCE:

Pre-bid conference shall be held as per NIT schedule so as to provide an opportunity to the participating bidders to interact with IMD with regard to various tender provisions/clauses, before the bids are submitted. Bidders should depute their authorised representative for pre-bid meeting. In case, due to the points/doubts raised by the prospective bidders, needs to be modified, and then the same will be considered for modification. After pre-bid conference, tender conditions will be frozen. **No change will be permissible after opening of Bids.** Clarification needed if any may be sent before commencement of pre-bid meeting. No reply in this regard shall be sent to individual bidders. **Pre-Bid minutes shall be uploaded on eProcurement portal at <https://eprocure.gov.in/eprocure/app>**

6. Regular visit of website:

Prospective bidders are advised to see IMD website at <http://www.imd.gov.in/pages/tenders.php> & CPP portal at <https://eprocure.gov.in/eprocure/app> on regular basis for any change in NIT schedule, amendment / corrigendum in Tender Document (T.E.) including technical requirement and pre-bid minutes etc.

7. Amendments to TE documents:

At any time, prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it. The amendment will be uploaded on IMD web site only. In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline. Prospective bidders are advised to visit/see eprocure.gov.in/eprocure/app on regular basis for any change in NIT schedule, amendment / corrigendum in Tender Document including technical requirement.

8. Documents Comprising the Tender:

The **Two Bid System**, i.e. “Techno – Commercial Bid” and “Price Bid” prepared by the tenderer shall comprise the followings:

(1).Techno - Commercial Tender (Un priced Tender)

The following documents are to be furnished by the tenderer along with their **Technical Bid**. Bidder shall upload following documents on CPP PORTAL <https://eprocure.gov.in/eprocure/app>

- (i) Registration certificate of bidding firm with government body in their country. Credential/document shall be attached.
- (ii) Checklist section (as per Annexure-I) properly filled and signed.
- (iii) Scanned copy Earnest Money Deposit (EMD) in the form of FDR/BG. Original EMD in physical form shall be submitted to Central Purchase Unit of IMD on or before closing of bids submission date.
- (iv) Documentary evidence for fulfillment of Eligibility /Qualification criteria(s).
- (v) Copy of agreement between bidding firm in India and their foreign principal indicating precise relationship between them and their mutual interest in this tender must be furnished along with their technical bid.
- (vi) Tender terms & Conditions Acceptance Form (as per Annexure-II) duly signed. (i:e tenderer has agreed to all the terms & condition of tender enquiry document).

- (vii) Authorization letter from principal authorizing Indian representative **to only submit /deposit the tender document** on behalf of foreign principal. Above documents must be enclosed with technical bids otherwise bids may be ignored and not to considered for technical evaluation.
- (viii) Technical Bid.
List of deliverables (un-priced/without price) with make & model etc. **This should be exactly same as attached in price bid.**

Note*

Indian firm (Supplier /Integrator /Distributors/ Distributors /Stockist etc) for imported stores shall quote in INR only. No foreign exchange shall be released by IMD and also no payment shall be made to their foreign principal.

(2) Price Bid:

- (i) All pages of the price bid should be page numbered, indexed and signed with company/firm seal by authorized signatory.
- (ii) Price Bid shall be preferred as per price schedule format (Annexure- IV).
- (iii) Costing, of each and every item, sub items offered in bidder's technical bid, shall be done with all breakup prices.
- (iv) The Tenderer shall indicate on the Price Schedule specifying all components (main units and sub units etc. of each item) of prices shown therein including the unit prices and total tender prices of the **goods (H/w & S/w), services, packing, inland transportation/freight/insurance to the sites, VAT, Service tax, GST etc** against the requirement.
- (v) Wherever, the Purchaser's invitation to tender calls for installation and commissioning or supervision of installation and commissioning of the instrument/equipment by the tenderer, the tenderer must clearly and separately quote the prices for the supply of the stores and the charges and the terms for installation and commissioning or supervision of installation and commissioning as the case may be. The charges towards installation and commissioning should not be included in the price of the stores.
- (vi) **The Supplier shall bear all the Income-tax liability as per rates prevailing** at the time of undertaking the job in accordance with the Income-tax Act in force in India.
- (vii) AMC shall be only for the maintenance of stores (equipment and software only) therefore prospective bidders are advised to quote AMC charges accordingly and specifically. **It should not be quoted in terms of percentage of project** as consumable, transportation, warranty; installations, training etc are not covered under AMC. **Price bids shall not be accepted if AMC charge quoted in percentage.**
- (viii) In case any charges not mentioned in the price bid, it will be treated as all the charges are free of cost for that item.
- (ix) Indian vendor shall quote prices on F.O.R destination (sites of consignee) basis and Payment to Indian supplier shall be paid into Indian rupees only.
- (x) The Indian bidder supplying imported goods shall quote only in Indian Rupees if purchase order to be placed to them. It is the responsibility of Indian firm to pay custom duty etc. IMD shall not be responsible for custom clearance. Prices quoted by the tenderer shall remain firm and fixed during the currency of the contract.
- (xi) Foreign bidders, for **imported goods** if supplied directly from abroad, prices shall be quoted on **FOB value basis** in any freely convertible currencies.
- (xii) Foreign bidder may quote in INR towards allied service in India to be taken by their local partner.

- (xiii) Indian Supplier /Integrator /Distributors /Stockiest shall quote in INR only for imported stores.
- (xiv) Statutory levies, taxes and duties etc., if any, chargeable on the goods are payable on actual basis as applicable.
- (xv) If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail.

Note*. Price bid shall prima-facia shall be rejected in case of any deviation from the technical bid of the bidder and found that any fact concealed or hided in price bid/technical bid.

9. Signing and uploading of Tender :

Tenderer shall upload their proposal ONLINE through CPP Portal at <https://eprocure.gov.in/eprocure/app> as manual bids shall not be accepted. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same shall be initialled by the person(s) signing the tender.

10. Alteration and Withdrawal of Tender :

No tender should be withdrawn after the deadline for submission of tender and before expiry of the tender validity period. If a tenderer withdraws the tender during this period, it will result in forfeiture of the earnest money furnished by the tenderer.

11. Opening of Tenders :

The purchaser will open the online tender at the specified date and time and at the specified place as indicated in the NIT. In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day. Authorized representatives of the tenderers, who have submitted tenders on time may attend the tender opening, provided they bring with them letters of authority from the corresponding tenderers. Two Bid system will be as follows. The **Technical Bids** are to be opened in the first instance, at the prescribed time and date. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. Thereafter, in the second stage, the Price Bids of technically qualified tenderers only shall be opened online for further scrutiny and evaluation on a date notified after evaluation of the techno commercial tender.

12. SCRUTINY AND EVALUATION OF TENDERS:

(1). Unresponsive bids:

The tenders will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the TE document. The tenders are liable to be treated as non – responsive and will be summarily ignored if followings are not provided along with technical bids.

- (i) Registration certificate of bidding firm with government body in their country. Credential/document not attached.
- (ii) Tender is unsigned.
- (iii) Checklist (Annexure-I) not enclosed.

- (iv) Tender Acceptance Form (Annexure-II) not duly signed and stamped. **(i:e all the terms & conditions of tender document are acceptable.** Original Letter shall be enclosed in technical bid.
- (v) Tender validity is shorter than the required period.
- (vi) Required EMD has not been provided unless exempted.
- (vii) Tenderer has not agreed to give the required performance security.
- (viii) Copy of agreement of bidding firm from India with its foreign principal with the precise relationship between them and nature of services which would be available from bidding firm in India. Copy of this agreement must be attached with the tender.

(2). Technical Evaluation:

Tenders shall be scrutinized and evaluated by the committee constituted by competent authority with reference to parameters prescribed in the TE document.

Minor Informality/Irregularity/Non-Conformity:

If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, **the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the tenderers.** Wherever necessary, the purchaser will convey its observation on such 'minor' issues to the tenderer asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

(3). Financial evaluation:

Thereafter, in the second stage, the Price Bids of technically qualified tenderers only shall be opened online for further scrutiny and evaluation on a date notified after evaluation of the techno commercial tender.

The purchaser shall evaluate the technically qualified financial bids for deciding lowest bidder (L-1) on the basis of ultimate landing cost. **Wherever, against a requirement, both indigenous as well as imported offers are received,** the offers for imported stores will be evaluated on the basis of the total landed cost after loading the custom duty and other levies etc as may be applicable from time to time for taking purchase decision.

The ultimate/landing cost in respect of store is arrived at by considering following below elements including AMC, Warranty, and Extended Warranty cost and etc if any unless these are optional requirements.

(A) Indigenous stores

1. Basic price
2. Excise duty (if applicable)
3. **As per prevailing taxes imposed by Govt. of India**
4. Insurance, freight and transportation of goods up to sites

(B) Imported stores

1. Total Net FOB price in foreign currency of the project.
2. Plus Freight & Insurance charge @10% of FOB price of shipment of stores coming through customs.
3. Plus Custom Duty in India (if not exempted i:e there is no mention in technical requirement to provide custom exemption certificate by consignee). Custom Duty Custom duty are applicable on hardware, software, equipments, instruments,

- consumables and other items etc coming through customs Clearance). Custom duties on services are not levied.
4. Plus Landing clearing and Bank charges @1.0% of total net FOB price of the project.
 5. Plus actual Inland freight/insurance/transportation of goods in India up to the user sites quoted by bidder.
 6. Plus Service tax applicable in India.

Conversion of currencies to Indian Rupees for Comparison of Tenders:

In case the TE document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the BC selling rate of exchange of State Bank of India prevailing on **the date of opening of financial bids.**

13. Packing and Marking :

The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc.

14. Inspection, Testing and Factory acceptance test(FAT)

The purchaser's/consignee's reserve the right to inspect goods at factory site/supplier site before their dispatch if required and mentioned in technical requirement (RFP) section.

Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract.

Purchaser will not undertake any Pre dispatch inspection ,unless mentioned, for imported stores in the suppliers country of origin and equipment will be sent to the supplier on the basis of supplier own inspection at the premises and guarantee and warranty. The equipment will be accepted subject to final inspection and test on commissioning and before handing over the equipment to consignee.

SECTION – II
GENERAL CONDITIONS OF CONTRACT (GCC)

1. Bidders shall have to agree/accept all the terms and conditions of tenders including payment terms etc. Acceptance shall be unconditional and bidders shall have no claim and right in future on their terms if any.

2. Whenever there is any conflict between the provision in the GCC **regards to specific Para under this section and that in the “RFP” “List of requirements/ technical specifications”**, the provision contained in the RFP shall prevail and have an over-riding effect. Any Special instructions as per “RFP-List of requirements/ technical specifications” section will also apply for this purchase. The conditions (like qualification criteria, delivery schedule, mode of delivery & sites of delivery etc.) mentioned in “RFP-List of requirements/ technical specifications section” will also apply for this purchase.

3. Alternative Tenders :

Alternative Tenders are not permitted. However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.

4. Tender Validity :

The tenders shall remain valid for acceptance for a period of 180 days (one hundred eighty days) after the date of tender opening, prescribed in the TE document.

5. Purchaser’s Right to accept any tender and to reject any or all tenders :

The purchaser reserves the right to accept in part or in full any tender or reject any tender without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.

6. Price preference:

Price preference shall be given to **Micro and Small Industries** registered for stores and services specified in this tender document with **National Small Industries Corporation** or any other government agencies as per the latest guidelines/orders from Government of India. Purchase preference and quantity etc shall be decided as per the Government of India orders. The tenderers shall have to attach valid registration certificate as OEM. Micro and small Enterprises are exempted for submitting fees/cost towards tender document and submission of earnest money deposit (EMD) also known as security deposit. However Micro and small Enterprises are not exempted for performance security. Micro and small Enterprises shall have to furnish performance security if purchase order is placed to them. There is no relaxation in this regard.

7. Eligibility & Qualification criterion for Tenderers:

Firms in given below category are eligible to participate in tender **subject to registration of the firm with government bodies as per act /rules in their country and also fulfil of other specific qualification criteria, terms and conditions mentioned in technical requirement section and tender enquiry document also.**

(i) Original Equipment Manufacturer (OEM).

(ii) Original Software Company (OSC), who developed the main application software.

- (iii) Authorized Supplier from Original Equipment manufacturer (OEM) /Developer of main application software company (OSC) etc. The tenderer shall have to submit authorization certificate from OEM /OSC etc. that they will provide service support after sale.
- (iv) Integrators/ Authorized dealer/ Supplier/ subsidiary/ Distributors/ Stockist having full back to back maintenance support agreement for hardware & software from OEM & OSC etc..
- (v) Firm from India quoting on behalf of their foreign principal:
 - (a) Copy of agreement, with their foreign principal with the precise relationship between them, their mutual interest and nature of services which would be available from bidding firm from India, shall be submitted along with their tender. Whether foreign principal has agreed to provide technical support and spares after sale services. The type and nature of after sales services to be rendered by the Indian Agent
 - (b) **Firm quoting on behalf of their foreign principal shall be responsible for furnishing performance security for the entire project.**
 - (c) Either the firm in India on behalf of their foreign principal or the foreign principal directly bid in a tender **but not the both.**
 - (d) Price to be quoted in Indian currency towards portion of allied work and services which are to be undertaken in India (like installation & Commissioning of equipment).
 - (e) The complete name and address of the bidding firm in India and its permanent income tax account number (PAN) as allotted by the Indian Income Tax authority must be submitted.
 - (f) India Supplier /Integrator /Distributors /stockiest etc for imported stores shall quote in INR only & no payment shall be made to their foreign principal.
- (vi) Foreign firms registered in their countries may participate in tender. Proof of registration shall be attached with technical bid. They may associate their local partner in allied services in India by their local partner; however the foreign firms shall be responsible for their local partner work. Cost towards allied work by their local partner shall be quoted in INR only and shall be paid to local partner dually certified by foreign firms. **Performance Security shall be furnished by foreign supplier including indigenous components to be taken by their representative.**

8. Earnest Money Deposit (EMD) :

The tenderer shall furnish along with its tender, earnest money for an amount as shown in the tender notice. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct.

The tenderers who are registered as OEM on Tender submission date with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi , shall be eligible for exemption from EMD. **Micro and small Enterprises** specified by Ministry of Micro , Small & Medium Enterprises (MoMSME) **are exempted from earnest money deposit (EMD). EMD also known as security deposit.**

The EMD shall be furnished in Fixed Deposit Receipt (FDR) or Bank Guarantee (BG) (as per Annexure-IV)) from any commercial bank doing government business. FDR may be issued in the favour of "DDO, O/o DGM, IMD, New Delhi". Bank Guarantee issued from the foreign banks must be authenticated by STATE BANK OF INDIA or any other Nationalized Bank of India. Demand draft for EMD in INR submitted by foreign bidders shall not be accepted.

The clause “encashment /release of FDR/BG requires clearance certificate from Purchaser i:e DGM, IMD” must be mentioned in issued FDR/BG by Bank.

The earnest money shall be valid for period of sixty (60) days beyond the validity period of the tender.

Refund of EMD: Unsuccessful tenderers’ earnest money will be returned to them **without any interest**, after expiry of the tender validity period. Successful tenderer’s earnest money will be returned without any interest, after receipt of performance security from the tenderer.

Forfeit of EMD: Earnest money of a Tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer’s earnest money will be forfeited without prejudice to other rights of Purchaser if supplier fails to furnish the required performance security within the specified period.

Firm shall have to extend the validity of EMD if extension of tender validity is agreed on the request of purchaser in exceptional cases.

9. Performance Security:

1. Successful bidder shall submit performance security within thirty (30) days from date of dispatch of supply order/award of contract by the purchaser or within twenty one (21) days from the receipt of supply order by the supplier whichever is earlier.
2. The purchaser may consider annulment/cancellation of supply order/ award of contract if performance security not received in stipulated time.
3. There is no relaxation/exemption in submitting of performance security.
4. The supplier, shall furnish performance security to the purchaser for an amount equal to ten percent (10%) of the total value of the contract excluding AMC if any, valid up to sixty (60) days beyond the warranty period.
5. **Performance Security shall be furnished by foreign supplier (participated directly in the tender) including indigenous components to be taken by their representative.**
6. The AMC service provider shall furnish performance security to the purchaser for an amount equal to five per cent (5%) of the total value of the AMC Value, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier/service provider.
7. **Performance Security has to be submitted irrespective of its registration NSIC etc. Performance security is not relaxed to any supplier/service provider. Submission of Performance Security is must for all suppliers/service providers.**
8. It shall be in any one of the forms namely Fixed Deposit Receipt or Bank Guarantee drawn/issued issued by a commercial bank doing government business in the prescribed form in favour of the purchaser. In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended. Foreign tenderer may submit in the form of Bank Guarantee. **Bank Guarantee issued from the foreign banks must be authenticated by STATE BANK OF INDIA or any other Nationalized Bank of India.**

9. The purchaser will release the Performance Security without any interest to the supplier/ service provider on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of performance security for AMC (if applicable) . The supplier shall submit pre receipt for obtaining back their security.

10. Terms of Delivery:

Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the contract. Generally it is **F.O.R destination** (in case of domestic supply) and **F.O.B** in case of foreign supplier. Time for inland transportation in India by foreign supplier for Installation and commissioning etc of stores shall be taken from the date on which stores are handed over to supplier by IMD after custom clearance. Suppliers should not deliver the goods without any valid delivery period. Purchaser shall not be held responsible for any thing (payment and loss of stores etc) if stores supplied without any valid delivery period as purchaser reserve the right to reject the delivery and terminate the supply order.

11. Delivery schedule: As per section under RFP-List of Requirements.

Date, on which all the stores as per supply order have been delivered to the consignee shall be treated as final date of delivery of stores for calculating liquidated damages etc.

12. Force Majeure:

Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable. Such events may include, but are not restricted to, acts of the purchaser either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, and freight embargoes. If there is delay in performance or other failures by the supplier to perform its obligation under its contract due to event of a Force Majeure, the supplier shall not be held responsible for such delays/failures. **If a Force Majeure situation arises, the supplier shall promptly notify the purchaser in writing of such conditions** and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side. There may be a Force Majeure situation affecting the purchase organization only. In such a situation the purchase organization shall take up with the supplier on similar lines as above for further necessary action.

13. Warranty:

The warranty shall be **Onsite warranty**. All stores to be supplied should be free from all defects and faults in material workmanship and manufacture. They should be of the highest grade and consistent with the established and generally accepted standards for material of the type used and in full conformity with the specifications, drawings, or samples and shall, if operable, operate properly. **The Seller shall be bound to furnish a clear written warranty regarding the same**. The Seller will be required to replace them free of cost inclusive of all freight and handling charges. The supplier shall provide warranty certificate from the OEM for the goods along with date of manufacturing of stores/products.

The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. Custom charges if any, for Re-export/re-import of defective parts/repairs or replaced parts to the foreign supplier country for repairs etc shall be borne by supplier only. Transportation cost and Octroi etc, for sending defective parts for repairs and sending back repaired or replaced one to IMD site(s), shall be borne by supplier itself.

Other condition under warranty clause of “List of requirements/ technical specifications” section shall also be applicable.

14. Annual Maintenance Contract:

The Purchaser/Consignee reserves the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier after the completion of warranty period. AMC shall be only for the maintenance of stores (equipment and software only). Prospective bidders are advised to quote accordingly and specifically. **It should not be quoted in terms of percentage of project** as consumable, transportation, warranty; installations, training etc are not covered. **The cost components towards AMC are to mentioned and added in bid by tenderers for its evaluation on overall basis to decide the ranking of tender.** Generally, payment for maintenance contract is made on quarterly basis unless it is specified in technical section.. The supplier shall enter into agreement with consignee if required.

15. Penalty clause/Liquidated damages clause (LD) for delayed stores & Services:

1. The supplier shall deliver the goods and perform the services (like installation & commissioning etc) under the contract within the time schedule specified by the purchaser in the “List of requirements/ technical specifications” section and as incorporated in the contract. **The delivery date, unless delivery is divided, on which all the items/stores/materials/services etc as per supply/purchase order are delivered shall be taken into account for penalty/LD purpose.**

The purchaser shall, without prejudice to other rights and remedies available to the purchaser under the contract, deduct as penalty/liquidate damage from the contract price a sum equivalent to 0.5% (half percent) per week of delay or part thereof on delayed supply of goods and/or delayed services subject to a maximum of 10% of the contract price of delayed items. L/D shall not be imposed under force majeure conditions.

Once the maximum is reached purchaser may also consider followings:

- (i) Forfeiture of its performance security and
- (ii) Termination of the contract for default.

Note*

The supplier shall not be held responsible for delay in delivery of stores and their installation for the followings reasons:

- (a) Delay in providing Entry permits/Road Permits (if required) to the supplier by the consignee.
- (b) Delay in providing proper site(s) by the consignee to the supplier. Site is not ready in all respect (i:e all civil & electrical at site completed) for installation of stores.
- (c) Delay in providing No Objection Certificate (N O C) required from any other government agency/agencies.
- (d) Communication facility required for project to be provided to the supplier by the consignee if it is not the responsibility of supplier.
- (e) Any other reason for which supplier is not responsible.

2. (a) Penalty/Liquidated damages shall be calculated on the purchase/contract price including the element of sales tax, excise duty, service tax etc mentioned in the price bids.

(b) Custom duty shall not be taken for the purpose of Penalty/LD calculations.
3. The supplier shall not be held responsible for any delay in custom clearance by purchaser, handing over proper site by consignee and any other delay in part of consignee/purchaser if responsible. These periods shall not be counted in LD. The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the purchaser for extension of delivery period and obtain the same before despatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall be against the purchaser. **The supplier shall inform to the purchaser (CPU) directly in writing about these delays on part of IMD.**

16. Award Criteria and Tolerance Clause:

The purchase order /supply order shall be awarded to the eligible responsive tender evaluated as the most economical, technically qualified and suitable to the requirements subject to the availability of funds. The purchaser reserves the right to increase or decrease the quantity of required goods upto plus minus fifteen percent (+ - 15%) till the placement of supply/purchase order or contract without any change in the terms & conditions and prices quoted by the tenderers.

17. Modification of contract

If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract. If the supplier doesn't agree to the adjustment made by the purchaser, the supplier shall convey its views to the purchaser within fifteen (15) days from the date of the supplier's receipt of the purchaser's amendment / modification of the contract.

18. Custom Duty

Custom clearance shall be done by IMD through its clearing agent if purchase order is placed to foreign supplier. IMD shall pay the custom duty on imported goods. Foreign supplier or its representative shall assist in the process and provide the entire required document for custom clearance of the goods.

IMD shall not have any custom responsibility in case of supply order placed to Indian supplier for imported stores.

19. Taxes and Duties in India:

(a) Duty and Local Taxes:

As per prevailing taxes imposed by Govt. of India.

Normally materials to be supplied to Govt. Department against Govt. contracts are exempted from levy of town duty, Octroi duty, 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. Contractors should

ensure that stores ordered against contracts placed by this office are exempted from levy of town duty/Octroi duty, Terminal tax or other local taxes and duties. Wherever required, they should obtain the exemption certificate from the indentor /consignee concerned, to avoid payment of such local taxes or duties. The supplier shall pay the Octroi, entry tax etc. if exemption certificate not agreed by local authorities and same may be got reimbursed from purchaser on proof of payments.

Supply of Road Permits by the indentor /consignees: In all such cases where the requirement of Road Permit for entry of goods into a particular State is mandatory, the following provisions shall be strictly followed: -.

(a) The supplier shall request the indentor /consignee for providing Road permit/ Way bill within 10 days of the receipt of the Supply order. The supplier shall furnish all the necessary information and documents in this regard to Indentor/consignee.

(b) On receipt of the above request from the supplier, the indentor/consignee concerned shall arrange to provide the Road permit/Way Bill in the prescribed form to the supplier within a maximum period of two weeks so that the same reaches the supplier before the dispatch of the stores. However, in cases where the Road permit/Way Bill is issued on proof of actual invoice of the material, the consignee shall arrange to provide the Road permit/Way Bill from appropriate authorities within a maximum period of 5 days from the receipt of invoice.

(c) The supplier shall pay the local charges/taxes (Octroi etc.) if exemption certificate not agreed by local authority and same will be reimbursed by purchaser on submission of receipt.

The supplier shall not be held responsible for any delay in supply due to non- supply/delayed supply of Road permit.

(1) **Income Tax and service tax etc:**

Tax deducted at source (TDS) shall be done before making payment to the suppliers as per existing law of Ministry of Finance, Govt. of India in force. The bidders (foreign as well as Indian tenderers) may visit website of Income Tax Department of India for details of Tax Liabilities, Rules, and Procedures etc. The bidders shall have to provide their Permanent Income Tax Number (PAN) and TAN. Firm may also mention the applicable rates of TDS as per DTAA with India. Copy of same may also be enclosed. Foreign vendor shall have to mention the details of establishment in India if any.

20. Terms and Mode of Payment

Payment Terms: Payment, as per term mentioned below, shall be made subject to recoveries, if any, by way of liquidated damages /penalty clause /TDS or any other charges as per terms & conditions of contract if not specified elsewhere in the document.

1. Cases where installation & Commissioning not to be done by bidder

(i) Domestic goods:

100 % payment shall be made to domestic supplier in Indian currency on receipt of entire goods/stores at sites and acceptance by consignee. No payment shall be made for partial delivery. The following documents shall be submitted:

- (i) Three copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount.
- (ii) Consignee Receipt Certificate in original issued by the authorized representative of the consignee
- (iii) Copies of delivery challan identifying contents of each package.
- (iv) Inspection certificate by the nominated Inspection agency, if any.
- (v) Insurance Certificate
- (vi) Final Acceptance Report from consignee.

(ii) Imported Goods:

Ninety (90) % payment, against proof of despatch of goods/stores as per S.O, shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the foreign supplier and upon submission of following documents:

- (i) supplier's commercial invoice showing contract number, goods description, quantity, unit price and total amount
- (ii) Original on-board Bill of Lading/Air way billing
- (iii) Copies of packing list identifying contents of each package
- (iv) Manufacturer's/Supplier's warranty certificate
- (v) Inspection certificate issued by the nominated inspection agency, if applicable as per contract
- (vi) Manufacturer's own factory inspection report
- (vii) Certificate of origin
- (viii) Insurance certificate
- (ix) Port of Loading
- (x) Port of Discharge
- (xi) Expected date of arrival

Balance payment of 10 % of net FOB price of goods would be made against 'Final Acceptance Certificate' to be issued by the consignees.

2. OR Cases where installation & Commissioning to be done by supplier:

Seventy percent (70%) of **contract value of stores** after proof of despatch of complete foreign goods or receipt of goods at sites in case of domestic goods and balance 30% payment towards stores after their successful installation and acceptance at site.

- (i) 100% payments towards services like FAT, Training, SAT, Installation & commissioning charges etc if any after their executions and completions.
- (ii) Necessary documents must be submitted for the release of payments.

3. Payment to the foreign supplier shall be made through IRREVOCABLE LC .LC shall be established for a specific period depending on delivery schedule only after receipt of unconditional acceptance of supply/purchase order and performance security from the supplier.LC extension charges shall be borne by the supplier in case of extension of delivery period requested by the supplier and request agreed by the purchaser.

4. Payment towards Annual Maintenance Contract Charges:

Payment shall be made as per "RFP-List of requirements/ technical specifications" section. The consignee will enter into AMC if required for selective items with the supplier at the rates as stipulated in the contract after warranty period .The payment of AMC will be made after satisfactory completion of said period and duly certified by the consignee. The consignee shall deal this issue separately and directly. The supplier shall deal AMC agreement and payment etc directly with the consignee.

- 5. The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.
- 6. Bills/invoices must be submitted separately for stores and services.

7. The bidder shall submit particulars of his bank account required for making payments.
(a) Account Number (b) Bank Name (c) Branch Name (d) Address
(e) IFS code (f) MICR No. (g) Telephone No.(h) SWIFT code etc.

21. Fall Clause

The bidder undertakes that it has not supplied/is not supplying similar products/systems or subsystems at a price lower than that offered in the present bid in respect of Ministry/Department of the Government of India or Public Sector Unit (PSU) and if it is found at any stage that similar products/systems or subsystems was supplied by the BIDDER to any Ministry/Department of the Government of India or Public Sector Unit (PSU) at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and difference in the cost would be refunded by the BIDDER to the BUYER (India Meteorological Department) or it will adjusted from their bills, if the contract has already been concluded.

22. Termination of tender/contract by the Purchaser:

From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.

In case a tenderer attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the purchaser.

The purchaser, without prejudice to any other contractual rights and remedies available to it (the purchaser), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the purchaser. In the event of the purchaser terminates the contract in whole or in part, the purchaser may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the purchaser for the extra expenditure, if any, incurred by the purchaser for arranging such procurement. If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the purchaser.

23. Arbitration clause:

If dispute or difference of any kind shall arise between the purchaser and the supplier in connection with or relating to the extension of contract, the parties shall make every effort to resolve the same amicably by mutual consultations. If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the "List of requirements/ technical specifications" section either the purchaser or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per Indian Arbitration and Conciliation Act, 1996. In the case of a dispute or difference arising between the Purchaser/ Consignee and all suppliers relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration of an officer,

appointed to be the arbitrator by the Director General of Meteorology. The award of the arbitrator shall be final and binding on the parties to the contract. Each party shall bear its own cost. **Venue of Arbitration:** The venue of arbitration shall be the place from where the contract has been issued, i.e., DGM, New Delhi. The contract shall be interpreted in accordance with the laws of India.

24. List of Deliverables:

The tenderer shall submit the final list (List of Deliverables) of their proposal in given below format for all the stores, H/w, S/w, items, subunits etc and all other services which bidder is going to offer in their technical proposal to meet the requirement under “**List of requirement & Technical specifications**” of this tender document. The list of deliverables shall be same as submitted in the price bid. The price bid shall not be considered if it is not matching with the list of deliverables submitted with technical bids.

S.N	Name of Item/Store	Quantity	Make and Model
(1)	(2)	(3)	(4)
Stores (H/w & software)			
Services			

Note*: It is mandatory to mention the make and model of each offered stores.

CHECKLIST

S. N	Activity	Compliance Yes/ No/ NA	Page No. of your bid
1	Is Firm Registration certificate from Government bodies in their country attached with technical bid?		
	(i) Have you enclosed EMD (Bank Guarantee /FDR) of required amount?		
	(ii) Is the EMD submitted by other firm other than participating firm? If yes, then bid is likely to be ignored.		
	(iii)Is Registration certificate from NSIC/Government bodies on SSI attached for relaxation of EMD?		
	(iv)EMD shall be valid for 240 days.		
3.	Have you kept validity of your bid as per the TE document?		
4.	Have you enclosed <u>Tender Terms & Conditions Acceptance Form</u> duly filled and signed (i:e terms and conditions are acceptable) with original set of tender. Tenders may be ignored if not signed.		
5.	Have you enclosed clause-by-clause <u>compliance statement</u> for the "List of requirements/ technical specifications" section?		
6.	Have you submitted copy of the last purchase order(s) and end user certificate?		
7.	Is tender Submitted by an OEM?		
	Is tender Submitted by an integrator Agent/Dealer/Supplier/Distributor/ Stockist etc of OEM? ? Whether Back-to-back support agreement with equipment manufacturer and software developer company attached?		
8.	(i) Permanent Account No. of bidding firm with proof.		
	(ii) Is sales & service tax /GST number with registration certificate attached?		
9.	Name of the firm who quoted the price		
10.	Name of tender currency given in which order to be placed?		
11.	Name of the supplier with complete address to whom supply order to be placed to be submitted on company's letter head in original from authorized signatory.		

(Name & Signature with date and firm/company seal)

Tender Terms & Conditions Acceptance Form

(For all the terms & conditions of tender document are acceptable to tenderer)

To
The Director General of Meteorology,
India Meteorological Department,
Lodi Road, New Delhi-110003

Ref: TE document No. CPU/_____ dated _____

I/We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____ (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver *the goods and services in conformity with your above referred document.*

If our tender is accepted, we undertake to supply the goods and perform the services (Installation & commissioning etc.) as mentioned in tender document with the delivery schedule specified in the “RFP-List of requirements/ technical specifications”..

I/We further confirm that, if supply / purchase order is placed to firm, we shall provide performance security of required amount in an acceptable form for due performance of the contract.

I/We agree to keep our tender valid for acceptance as required in tender document or for subsequently extended period, if any, agreed to by us. I/We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period.

I/We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

I/We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.

I/We confirm that we fully accept and agree to all the terms and conditions specified in above mentioned TE document, including amendment/ corrigendum etc. if any.

(Signature with date and seal of the company)

(Name and designation)

Duly authorised to sign tender for and on behalf of tenderer

Note*: 1. Firm/company shall use their own printed letter head for issuing this certificate.

2. Acceptance shall be unconditional.

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

(Format only)

Whereas
 (hereinafter called the “tenderer”)
 has submitted their offer dated.....
 for the supply of
 (hereinafter called the “tender”)
 against the purchaser’s tender enquiry 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, 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:-
 - a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - b) Fails or refuses to accept/execute the contract.

WE undertake to pay the “Director General of Meteorology, India Meteorological Department”, 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 upto and including 60 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

Bank Guarantee issued with the tender enquiry reference No. CPU/..... Dated.....

.....
 (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

PRICE SCHEDULE (Financial Bid format)

S. N	Name of Item/Store	Quantity	Make & Model	Base price	Applicable taxes & duties	Unit Price 5+6	Total price (3x7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Store Components (hardware & Software etc.)							
Services components							

Total Tender price in figure:

And in words:

Note/instruction:

1. **The bidder shall use their own letter head for quoting the prices.**
2. Price shall be preferred in above format.
3. The names of each stores/items offered in technical proposal must be mentioned with make & Model including services etc if any. The deliverables list attached with financial bid must be exactly same as per the technical bids.
4. Charges, if any, for inland (within the India) Transportation /freight/insurance of stores shall be mentioned. In case not mentioned, it is treated as free of cost.
5. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
6. All applicable taxes must be mentioned against each item. Rate of each applicable tax must be mentioned in price bid. If taxes not mentioned, then it is treated that price quoted is inclusive of taxes.
7. Costing for each and every items and sub items which is offered in technical bid shall be done with all breakups. Charges for FAT, Trainings, installation, SAT and other services etc. are to be mentioned clearly in price bid.
8. Price Bid (in pdf format excluding note/instruction) shall be uploaded on eprocure.gov.in

Signature of Tenderer_____

Seal of the Tenderer_____

PROCUREMENT OF
Heliport- AVIATION WEATHER OBSERVING
SYSTEM (H-AWOS)
10 Systems

March 2018



Government of India
Ministry of Earth Science
India Meteorological Department

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QUALIFICATION CRITERIA FOR BIDDERS

- 1) Bids are invited from Original Equipment Manufacturers(OEM) or their registered Indian agent or a System Integrator having full back up support from OEM of sensors, for successful execution of entire contract
- 2) The firm must have experience of supplying, installing and integration of H-AWOS at different heliports/airports, this includes the supplying, installing and commissioning of at least 2 H-AWOS systems of similar specification as indicated in the technical requirements of bid documents during the last five years ending on 31st March 2018.
- 3) The bidding firm or leading firm in case of joint venture should have the necessary financial resources to successfully execute the projects. The annual turnover of the firm should be at least 2.5 Crore (or equivalent of 2.5 Crore in other currency) during last three years. For example, in case of firm accounting cycle 1st January to 31st December, the reference date shall be 31st December 2013, 31st December 2014 & 31st December 2015 or in case of firm having accounting cycle of 1st April to 31st March, the reference date shall be 31st March 2014, 31st March 2015 and 31st March 2016.
- 4) The principal bidder or Indian representative firm must have a registered and/or incorporated office in India in existing for the last five years or more as 31st March 2018. The said firm must be fulfilling the requirement of having valid permanent account number (PAN) and /GST account number.
- 5) Verifiable documents in support of above requirements must be submitted along with the technical bid. A bid SHALL NOT be considered in absence of the above mentioned documents.

Heliports AWOS

Introduction:

India Meteorological Department (IMD) is the national service provider of meteorological services for international air navigation in India. The Aeronautical MET Services which is part of Communication, Navigation, Surveillance-Air Traffic Management (CNS-ATM) service is provided through number of MWO, AMO and AMS spread across Indian region. In addition IMD has the responsibility to provide MET Services to helicopter operation which generally operates from Heliport and small uncontrolled airstrips. In order to cater the specific requirement of these helicopter operations, the IMD has planned to install and operate a number of Heliports – Aviation Weather Observing System (H-AWOS) at selected airports, heliports. These H-AWOS are required to operate in a semi-automated mode under relatively harsh weather conditions.

1 General description of HAWOS:

WOS is an aeronautical support facility comprising of a suit of meteorological sensors, camera, data acquisition system, communication module and Computer with appropriate software for data processing, storage and visualization. The H- AWOS performs the measurement or assessment of meteorological parameters, data processing including quality and consistency, auto generation of Local, (MET REPORT and its dissemination through suitable communication means including broadcast over assigned VHF frequency on request and reply basis. The sensor suit consists following sensors.

- I. Wind (Speed & Direction) sensor for measurement and reporting of surface wind (speed & direction), gusts, and variable wind.
- II. Pressure sensor for measurement and reporting of surface pressure, altimeter setting and density altitude
- III. Temperature and Humidity sensor for measurement and reporting of air temperature, dew point temperature / relative humidity.
- IV. Visibility / Present Weather sensor.
- V. High resolution camera

A schematic diagram depicting the layout of the H-AWOS is included **as Appendix 1** to this document.

2 Requirement of H-AWOS

In general the H-AWOS shall comply with the relevant provisions of ICAO and WMO towards data acquisition, validation, processing, generation of the MET report etc meant for aeronautical purposes. Besides it shall also meet the following technical requirements.

The supplier shall have full responsibility to execute the project on a **TURN-KEY BASIS** by taking up the supply, installation, integration and commissioning of all equipment as given below:

- I. The H-AWOS shall be capable of operating uninterrupted, unattended in harsh weather condition.
- II. Comprehensive Warranty for ONE year and Comprehensive Annual Maintenance Contract for FOUR years as per warranty and maintenance clauses.
- III. As the report generated by the H-AWOS shall be transmitted over VHF to overflying, approaching or departing aircrafts without human intervention, and the same shall be used by the Pilots to navigate often in bad weather condition, the data must be of absolute reliable quality and under no circumstances any erroneous data shall be allowed to be disseminated. Field units of H-AWOS such as Data acquisition system, sensors, RF Modem shall be capable of operating on solar power charged UPS supply as the primary power source. Towards this end the power requirement of the system shall be kept minimal by using energy efficient devices.
- IV. The H-AWOS system should return to normal operation without human intervention after an event of power outage and upon resumption it must not generate any erroneous data.
- V. H-AWOS shall broadcast current weather information over assigned band on request reply basis in ATIS format within a coverage area of 50 Kilometers.
- VI. There shall be provision to freeze and later retrieve 24 hours data in case of any incident or accident. There shall be sufficient safeguard to ensure that the raw sensor data is not tempered with in case of any incident or accident.
- VII. The processing and visualization software shall have facility to take additional input for weather parameters in METAR form, for which sensors are not installed.

3 Scope of works

The following shall be broadly considered while implementing the complete project on turnkey basis for supply, installation, testing and commissioning of the H-AWOS at each of the selected sites.

- I. Installation, integration and commissioning of 10 H-AWOS at specified field sites including the required civil & Electrical work.
- II. Supply, transportation and delivery of all equipment consisting of Sensors, Data Acquisition Systems, Computer, RF Modem, UPS, Batteries, Solar panels, IP-66 Enclosures.

- III. Supply of 6 Meters tiltable frangible mast & mounting accessories such as mounting arms/booms connectors, conduits, switches, transient protectors etc for field installation of sensors. The mast shall be lighted with LED obstruction light.
- IV. H-AWOS sensor suit consisting of pressure, temperature / humidity, wind (speed & direction) and Visibility / Present Weather sensors and camera.
- V. Data acquisition system and data switch for acquisition and logging of sensor data.
- VI. GSM modem,
- VII. Solar panel and SMF battery bank, charge controller and UPS of appropriate capacity
- VIII. **IP-66** enclosure
- IX. Voice subsystem for audio output of H-AWOS data in ATIS format.
- X. VHF Trans-receiver set with peripheral for ATIS broadcast on request reply basis.
- XI. Two numbers of Hand held Transceiver compatible with above Transmitter.
- XII. Construction of two maintenance free Earth pits, one for Signal/ Power and other for protecting systems from Lightning at each field site.
- XIII. Supply and installation of Lighting & Surge protection System for safety of Power Supply units, Sensors, Data Acquisition System, RF Modems.
- XIV. Field training of IMD officials at respective sites.

4 System Documentations & Licenses

The vender shall supply one hard copy and one soft copy in permanent media like DVD, CD the following document at each installation site.

- I. System description containing the description of each sensor and component including the name & address of the manufactures of the sensors and Data Acquisition System, performance parameter and principal of operation. Interface control document.
- II. Maintenance manual containing step by step description of routine maintenance, trouble shooting and list of test equipments required to carry out the activities.
- III. Operator's manual containing basic details for system operation, shutdown- restart procedure, procedure for system health monitoring and fault reporting.
- IV. Traceability certificate for each sensor.
- V. Description of the software used.
- VI. Copy of all software and firmware license valid for entire period of warranty and AMC.
- VII. Supplier's declaration of conformity of supplied and installed system meeting the relevant ICAO and WMO (ICAO Annex-3, Annex-14, ICAO DOC- 8896, 9328, CIMO Guide), requirements for observation and transmission of meteorological report for aeronautical purposes.

5 Technical Specifications

I. **Sensors specifications.**

All sensors for Wind Speed, Direction and Temperature & Humidity shall be installed on a 6mts Tilttable frangible wind mast

S No	Sensor		Specifications			
	Parameter	Sensor Type	Range	Accuracy	Resolution	Thresh hold
1	Wind speed	Ultrasonic	0 to 120 Knots	± 1 Knot up to 10 Knots ± 10% or better above 10 Knots	0.1 Knots	Less than 1 Knot
2	Wind direction	Ultrasonic	0 to 360 Degree	5 Degree or better	1 Degree	Less than 1 Knot
3	Temperature	PT-100	-20°C to +60°C	±0.2 °C for entire range	0.1°C	Not applicable
4	Relative Humidity	Solid state Capacitive	1% to 99%	3% for entire range	1%	Not applicable
5	Atmospheric Pressure	Class-A type pressure sensor	700hpa - 1100hpA	0.2 hPa for entire range	0.1 hPa	Not applicable
6	Visibility & Present Weather	Relevant weather parameters as per Table A3-1 of ICAO Annexure-3, 19 th edition.				
7	Camera	360 FOV			15 Megapixel or better	

II. **Specifications for sampling, averaging, and message generation:**

Wind:

The wind speed shall be reported in KTS, KMPH, MPS (Users selectable).

Mean wind speed and direction, significant variation, gust, variable wind, maximum wind, minimum wind, shall be reported.

The averaging period shall be two minutes and 10 minutes.

The averaging period for measuring variations from the mean wind speed (gusts) shall be 3 seconds.

Temperature:

The unit for reporting shall be degree Celsius.

Temperature and Dew point shall be reported in whole degree. Observed value not fitting the reporting scale in use shall be rounded to the nearest whole degree Celsius, 0.3°C (or better) and shall be rounded up to the next higher whole degree Celsius.

The temperature below 0°C shall be identified with M

The averaging period shall be one minute.

Pressure

The unit for reporting Pressure shall be hectopascals (hPa).

The QNH, QFE shall be reported in whole hPa in four digits. Fraction shall be rounded down to nearest lower whole hectopascals.

The averaging period shall be one minute.

Visibility & Present Weather

Relevant weather parameters as per Table A3-1 of ICAO Annexure-3, 19th edition enclosed as **Appendix-3**

Camera: The camera is intended to be used for visual appreciation of overall meteorological condition besides the detection of non uniform fog patches. The image in compressed from the camera shall be sent continuously to a separate folder in the server.

FOV: 360 Degree

Resolution: 15 mega Pixels or better

Output : IP based

Image compression feature: Yes

Power consumption: Device specific

III. Data acquisition system specifications:

The Data acquisition system (DAS) shall be an IP based device.

a)	Reference	Standard DAS with data communication facilities.
b)	Memory	At least 2GB or more flash memory expandable via SD card
c)	Power Supply	10 – 14 V DC
d)	Internal Battery	Li - ion
e)	Serial ports & Ethernet Port	Three RS232 and one Ethernet and one USB. The ports of Data Acquisition Systems shall have facility for configuration by the user to accommodate sensors of Make/Modal other than sensors quoted in the Bid document

f)	Analog Channels	Eight differential analogue input channels.
g)	Removable media	SD card & USB thumb drive
h)	Digital I/O	Expandable minimum 8 digital I/O
i)	A/D convertor	16 Bit A/D convertor or better
j)	Communication	Through RF Modem
k)	Input protection	Surge protection of IEC 61000-4-5 standard
l)	Input impedance	More than 10M Ω
m)	Scan rate	At least once every second for all channels.
n)	Logging Mode	User selectable
o)	Averaging & integration period	User selectable
p)	Time synchronisation	DAS and server to be synchronised with GPS time
q)	RTC	In built RTC synchronised with GPS receiver and Li- ion battery support.

The Data Acquisition System shall have facility to sample the output of the attached sensors with user selected sampling frequency and sampling time, process the samples so collected to obtain instantaneous, average (including vector average for wind) values of the given parameter.

The Data Acquisition System should have a facility to apply Quality Control procedures such as gross error check and time consistency check for sensors interfaced. Detailed QC procedures and algorithms proposed to be implemented at field sites shall be in accordance with WMO No.8 "Guide to Meteorological Instruments and Methods of Observation" Part-III Chapter 1 and Part-II Chapter 1, 2014 Edition.

The stored data shall be retrievable via serial port/USB port to a PC/laptop and a pen drive or any other compact and commercially available solid state memory device in standard text file format without requirement of specific software to retrieve the data.

The Data Acquisition System shall have facility to store measurement of parameters along with time in internal RAM which shall be sufficient to store the data of about 12 parameters for at least One year with measurement interval of 1 min. Data shall be available even if the power supply to the system has failed.

RAM Backup battery shall be provided. It should be possible to upgrade the memory size at a later date without any hardware replacements.

Plausible value check (The gross error check on measured value): Each sample should be examined to check if its value lies within the measurement range of a particular station. If the value fails the check it is rejected and not used in the further computation of the relevant parameter.

Check on Plausible rate of change (The time consistency check on measured values): This check is to verify the rate of change (unrealistic jumps in the values). After each signal measurement, the current sample shall be compared to the proceeding one. If the difference of these two samples is more than specified limit then the current sample is identified as suspect and not used for the computation of average. However it is still used for checking temporal consistency of sample.

IV RF Modem:

The Radio Frequency Modem should communicate the data from all sensors and imagery data(Camera) from field site to the Computer installed at MET Office / Air Traffic control through wireless license free band.

Operating band: 2.4 GHZ

Ports : Built in Configurable ports for communicating both Sensor & Imagery data.

LED indicators: Power, LAN, WLAN, Three Signal Strength indicating LED's

Range : 5KM or better.

Power : 27dBm or better.

V System and Application Software for work stations

All software shall be with enterprise licence, media, documentation and warranty.

- a) Operating system: Window latest version or LINUX. (Enterprise server with unlimited user Licence).
- b) Communication system software: Ethernet LAN, TCP/IP Socket, FTP
- c) Back up of software on any other media shall be provided.
- d) Application software: software which the Firm may feel necessary to meet the requirement, shall be included in the offer. and shall be supported during warranty and CAMC.

- e) The Firm shall demonstrate step by step Back-up and restoration of full system to IMD officers during the Site Acceptance Test (SAT) and IMD officers shall test the same by their own.

VI Computer:

Two computers to support the functionality as mentioned at (V) above. The computers must be of COTS nature.

VII: Audio Broadcast to Aircraft/Helicopter

A suitable module either software or hardware should perform the following functions

1. It identifies the authorized user for data broadcasting.
2. The request will be command input from VHF Transceiver unit on-board of helicopter/aircraft.
3. The module should then generate the standard voice meteorological reports as per the ICAO phraseology and vocabulary for subsequent broadcast over VHF radio communication.

VIII VHF Transceiver

VHF transceiver should be capable of handling following functions

1. Receive the request command, for the data, from the pilot on-board, in aviation band (in the frequency range of 118 to 135 MHz) through PTT function.
2. Request is then demodulated in 2/3 Pulse form and sends to Audio Broadcast module.
3. Receives voice ATIS from audio broadcast Module and transmit the same in aviation band to broadcast on board up- to a range of 50KM.
4. The module will remain in sleep mode until the next request is received for the data

6. Special Instructions to bidders

- a) The bidder must be responsible for full compliance of the supply order as per RFP document like installation, maintenance and supply of spares etc.
- b) The bidder should provide a regular comprehensive warranty for ONE year from the date of satisfactory commissioning of the H-AWOS without any additional cost to the purchaser. The bidder should also provide Comprehensive AMC for FOUR years after the expiry of regular warranty. The bidder should quote the price for year wise AMC in list of deliverables.

- c) The authorization certificate for back up and life cycle support from the original manufacturer is required to be produced, for the main systems Data Acquisition System and sensors in order to prove their support to the system integrators. Otherwise the bids will not be considered.
- d) For the reason of severe weather conditions, the system should be well proven. The bidder should provide a list of client in different parts of the world, where these systems are working at operational level for minimum H-AWOS. Customer satisfaction reports from minimum 2 users for past one year should be provided. Non compliance of this will lead to outright rejection of bid.

7: COMPLIANCE/NON-COMPLIANCE STATEMENT

The tenderer shall submit a detailed item-wise compliance/non-compliance statement referring para-wise to the requirements given in this document, for quick evaluation of tender and for any future reference. The technical specifications and other requirements contained in this document are essentially required by the indenter. However, reasons for non-compliance, if any, for certain limited paras or even sub-paras of document may also be given by the tenderer. Silence on any part of the technical specifications will be treated as non-compliance. All non-compliance of specifications, even of small nature, shall be clearly brought out.

8 TESTING AND ACCEPTANCE

Factory Acceptance Test (FAT): NIL

Site Acceptance Test (SAT)

SAT programme for each heliport/airport shall be provided by OEM. SAT will be conducted at each airport in which representatives from IMD and from the OEM will test the system after its complete installation as per the specifications. NIST traceable Calibration Certificate is mandatory for all the sensors for acceptance of the System. SAT will be for each airport for period of **two** days.

9 Delivery Terms & Conditions

All H-AWOS Systems to be delivered at sites within **six months** from the date of placement of supply order or within **six months** from the opening of LC (in case of bidder is from foreign origin).

LC will be opened after getting the store readiness confirmation from the successful bidder, however the confirmation should not exceed two months from the date of execution of contract document.

Date of Airways bill in case of airlift and date of bill of lading in case of shipping will be taken as date of delivery.

Installation & commissioning of H-AWOS shall be completed within **six months** from date of delivery of equipments at site.

10 Warranty & Annual Maintenance Contract:

The firm shall provide comprehensive warranty of ONE year after installation and commissioning of the H-AWOS and four years of AMC after the expiry of warranty.

During the warranty period, if any product or component is proven to be defective such product shall be repaired or replaced by the firm at no additional cost. The firm shall be responsible for payment of to and fro shipping charges if the defective product/components are required to be sent to manufacturer for repair or replacement. Any design defects or installations deficiencies, if noticed during the warranty/ maintenance period, shall be rectified promptly by the firm, free of cost at all the places. All hardware and software deliverables shall be covered under the warranty. The firm should give an undertaking to provide support for customization/modification of software deliverables free of cost, if required, by IMD during the warranty period.

- a. Reports of maintenance visits should be submitted on a quarterly basis to specified office during Warranty or AMC period.
- b. Failure of any component/ unit of H-AWOS shall be repaired/ replaced within seven days in case of inland stations and 15 days in case of island stations.
- c. In case of continued unservicability of a system beyond the grace period, during the warranty, the Warranty period shall be extended by the entire duration of unservicability.
- d. In case of continued unservicability of a system beyond the grace period during AMC, there will a deduction of 0.5 % of yearly AMC cost for each day of unservicability.

Failure of any individual module shall be treated as the unservicability of the complete H-AWOS for the above purpose.

11. Calibration of Sensors of H-AWOS during Warranty & AMC

Hand held travelling digital standards for all sensors should be carried by maintenance party to the H-AWOS sites to compare and evaluate the data quality. Sensors shall be calibrated once in a year during preventive maintenance tours. However, rain gauge and snow gauge shall be calibrated every four months.

It is mandatory to provide calibration certificate every year from OEM for each sensor installed at each site. For this purpose, vendor is supposed to send the sensors to OEM for calibration and necessary certification.

The sensor shall be removed from field sites and sent to OEM for calibration. Availability of data shall be ensured by the vendor during this period.

Errors values obtained as result of calibration shall be incorporated in respective Data Acquisition Systems at field sites after every annual calibration.

Calibration certificates from OEM for each sensor shall be submitted to respective RMCs and MCs. IMD may independently verify the calibration status of sensors by randomly visiting the sites.

12 Preventive maintenance

Firm shall undertake work of servicing and routine preventive maintenance of equipment once in **every Six months to keep the system in optimum working condition.**

13 List of deliverables

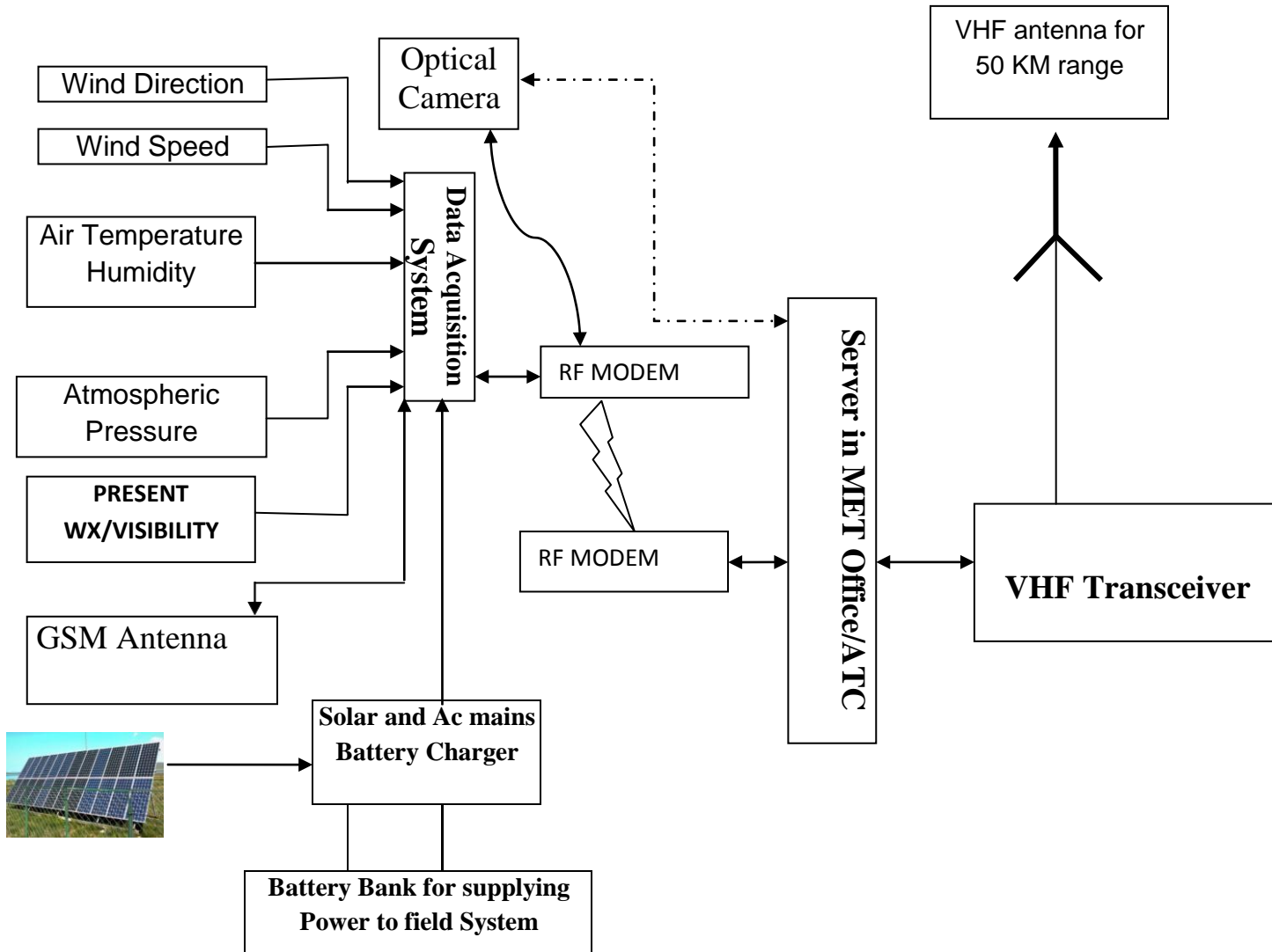
The firm should be able to complete the installation of H-AWOS with following list of deliverables and hence these items only will be considered for price comparison.

S No	Item/Store	Make & Country of origin	UNIT PRICE			Total Unit price	Quantity	Total Price
			Base price	Applicable taxes and duties	Total price			
1	2	3	5	6	7	8	9	
1	Wind speed direction sensor						10 Nos	
2	Temperature / Humidity sensor with radiation shield						10 Nos	
3	Pressure sensor						10 Nos	
4	Visibility & Present Weather sensor						10 Nos	
5	Camera						10 Nos	
6	6 m tiltable frangible Mast and accessories						10 Nos	
7	Data acquisition system						10 Nos	
8	VHF trans-receiver						10 Nos	
9	Portable VHF Transceiver for Testing.						2 Nos	

10	Computer with UPS						10 Nos	
11	Audio Broadcast Module						10 Nos	
12	R F Modem						20 Nos	
13	Solar panel and Battery charger						10 Sets	
14	Battery bank						10 sets	
15	GPS for time synchronization of DAS						10 Nos	
16	Transportation at site						10 sites	
17	Documentations						10 Nos	
16	Software License						10 Nos	
18	2 days SAT						10 sites	
19	Maintenance tool kit for installation and dismounting of sensors and equipments						10 Sets	
20	Surge and lightening protection						10 Systems	
21	Civil work related to construction of platforms						10 Sites	

22	Electrical work						10 Sites	
23	Integration and commissioning of system						10 Sites	
24	On site training						10 Sites	
25a	1 st year of AMC						10 Nos	
25b	2 nd year of AMC						10 Nos	
25c	3 rd year of AMC						10 Nos	
25d	4 th year of AMC						10 Nos	

BLOCK DIAGRAM OF HELIPORT AWOS



LIST OF Heliport / AIRPORTS

S No	Location	State
1	Safdarjung Airport	Delhi
2	ROHINI Heliport	Delhi, New Capital Region
3	Agati Airport	Union Territory of Laksh Dweep
4	Aizwal Airport	Mizoram
5	Naharlougun Arunachal (Itanager)	Arunachal Pradesh
6	Tawang Heliport	Arunachal Pradesh
7	Passighat Airport	Arunachal Pradesh
8	Barapani Airport	Meghalaya
9	State Helipad, Lerie -Kohima	Nagaland
10	Diu Airport	Union Territory of Daman & Diu

NOTE: There may be some variation in the list at the time of placement of order owing to operational exigencies.

Table A3-1. Template for the local routine (MET REPORT) and local special (SPECIAL) reports

Key: M = inclusion mandatory, part of every message;
 C = inclusion conditional, dependent on meteorological conditions;
 O = inclusion optional.

Note 1.— The ranges and resolutions for the numerical elements included in the local routine and special reports are shown in Table A3-4 of this appendix.

Note 2.— The explanations for the abbreviations can be found in the Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS-ABC, Doc 8400).

Element as specified in Chapter 4	Detailed content	Template(s)			Examples
Identification of the type of report (M)	Type of report	MET REPORT or SPECIAL			MET REPORT SPECIAL
Location indicator (M)	ICAO location indicator (M)	nnnn			YUDO ¹
Time of the observation (M)	Day and actual time of the observation in UTC	nnnnnZ			221630Z
Identification of an automated report (C)	Automated report identifier (C)	AUTO			AUTO
Surface wind (M)	Name of the element (M)	WIND			WIND 240/4MPS (WIND 240/8KT)
	Runway (O) ²	RWY nn[L] or RWY nn[C] or RWY nn[R]			
	Runway section (O) ³	TDZ			WIND RWY 18 TDZ 190/6MPS (WIND RWY 18 TDZ 190/12KT)
	Wind direction (M)	nnn/	VRB BTN nnn/ AND nnn/ or VRB	C A L M	WIND VRB1MPS (WIND VRB2KT)
	Wind speed (M)	[ABV]n[n]MPS (or [ABV]n[n]KT)			WIND CALM
	Significant speed variations (C) ⁴	MAX[ABV]nn[n] MNMn[n]			WIND VRB BTN 350/ AND 050/1MPS (WIND VRB BTN 350/ AND 050/2KT)
	Significant directional variations (C) ⁵	VRB BTN nnn/ AND nnn/	—		WIND 270/ABV49MPS (WIND 270/ABV99KT)
	Runway section (O) ³	MID			WIND 120/3MPS MAX9 MNM2 (WIND 120/6KT MAX18 MNM4)
	Wind direction (O) ³	nnn/	VRB BTN nnn/ AND nnn/ or VRB	C A L M	WIND 020/5MPS VRB BTN 350/ AND 070/ (WIND 020/10KT VRB BTN 350/ AND 070/)
	Wind speed (O) ³	[ABV]n[n]MPS (or [ABV]n[n]KT)			WIND RWY 14R MID 140/6MPS (WIND RWY 14R MID 140/12KT)
	Significant speed variations (C) ⁴	MAX[ABV]nn[n] MNMn[n]			WIND RWY 27 TDZ 240/8MPS MAX14 MNM5 END 250/7MPS (WIND RWY 27 TDZ 240/16KT MAX28 MNM10 END 250/14KT)
	Significant directional variations (C) ⁵	VRB BTN nnn/ AND nnn/	—		
	Runway section (O) ³	END			
	Wind direction (O) ³	nnn/	VRB BTN nnn/ AND nnn/ or VRB	C A L M	
Wind speed (O) ³	[ABV]n[n]MPS (or [ABV]n[n]KT)				
Significant speed variations (C) ⁴	MAX[ABV]nn[n] MNMn[n]				
Significant directional variations (C) ⁵	VRB BTN nnn/ AND nnn/	—			

Element as specified in Chapter 4	Detailed content		Template(s)		Examples
Visibility (M)	Name of the element (M)	VIS		C A V O K	VIS 350M CAVOK VIS 7KM VIS 10KM VIS RWY 09 TDZ 800M END 1200M VIS RWY 18C TDZ 6KM RWY 27 TDZ 4000M
	Runway (O) ²	RWY nn[L] or RWY nn[C] or RWY nn[R]			
	Runway section (O) ³	TDZ			
	Visibility (M)	n[n][n][n]M or n[n]KM			
	Runway section (O) ³	MID			
	Visibility (O) ³	n[n][n][n]M or n[n]KM			
	Runway section (O) ³	END			
	Visibility (O) ³	n[n][n][n]M or n[n]KM			
Runway visual range (C) ⁶	Name of the element (M)	RVR			RVR RWY 32 400M RVR RWY 20 1600M RVR RWY 10L BLW 50M RVR RWY 14 ABV 2000M RVR RWY 10 BLW 150M RVR RWY 12 ABV 1200M RVR RWY 12 TDZ 1100M MID ABV 1400M RVR RWY 16 TDZ 600M MID 500M END 400M RVR RWY 26 500M RWY 20 800M
	Runway (C) ⁷	RWY nn[L] or RWY nn[C] or RWY nn[R]			
	Runway section (C) ⁸	TDZ			
	Runway visual range (M)	[ABV or BLW] nn[n][n]M			
	Runway section (C) ⁸	MID			
	Runway visual range (C) ⁸	[ABV or BLW] nn[n][n]M			
	Runway section (C) ⁸	END			
	Runway visual range (C) ⁸	[ABV or BLW] nn[n][n]M			
Present weather (C) ^{9, 10}	Intensity of present weather (C) ⁹	FBL or MOD or HVY	—		MOD RA HVY TSRA HVY DZ FBL SN HZ FG VA MIFG HVY TSRASN FBL SNRA FBL DZ FG HVY SHSN BLSN HVY TSUP //
	Characteristics and type of present weather (C) ^{9, 11}	DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZUP ¹² or FC ¹³ or FZRA or SHGR or SHGS or SHRA or SHSN or SHUP ¹² or TSGR or TSGS or TSRA or TSSN or TSUP ¹² or UP ¹²	FG or BR or SA or DU or HZ or FU or VA or SQ or PO or TS or BCFG or BLDU or BLSA or BLSN or DRDU or DRSA or DRSN or FZFG or MIFG or PRFG or // ¹²		
Cloud (M) ¹⁴	Name of the element (M)	CLD			CLD NSC CLD SCT 300M OVC 600M (CLD SCT 1000FT OVC 2000FT) CLD OBSC VER VIS 150M (CLD OBSC VER VIS 500FT) CLD BKN TCU 270M (CLD BKN TCU 900FT) CLD RWY 08R BKN 60M RWY 26 BKN 90M (CLD RWY 08R BKN 200FT RWY 26 BKN 300FT) CLD /// CB ///M (CLD /// CB ///FT)
	Runway (O) ²	RWY nn[L] or RWY nn[C] or RWY nn[R]			
	Cloud amount (M) or vertical visibility (O) ⁹	FEW or SCT or BKN or OVC or /// ¹²	OBSC	NSC or NCD ¹²	
	Cloud type (C) ⁹	CB or TCU or /// ¹²	—		

Element as specified in Chapter 4	Detailed content	Template(s)			Examples
	Height of cloud base or the value of vertical visibility (C) ⁹	n[n][n][n]M (or n[n][n][n]FT) or ///M (or ///FT) ¹²	[VER VIS n[n][n]M (or VER VIS n[n][n][n]FT)] or VER VIS ///M (or VER VIS ///FT) ¹²		CLD /// CB 400M (CLD /// CB 1200FT) CLD NCD
Air temperature (M)	Name of the element (M)	T			T17
	Air temperature (M)	[MS]nn			TMS08
Dew-point temperature (M)	Name of the element (M)	DP			DP15
	Dew-point temperature (M)	[MS]nn			DPMS18
Pressure values (M)	Name of the element (M)	QNH			QNH 0995HPA
	QNH (M)	nnnnHPA			QNH 1009HPA
	Name of the element (O)	QFE			QNH 1022HPA QFE 1001HPA
	QFE (O)	[RWY nn[L] or RWY nn[C] or RWY nn[R]] nnnnHPA [RWY nn[L] or RWY nn[C] or RWY nn[R]] nnnnHPA			QNH 0987HPA QFE RWY 18 0956HPA RWY 24 0955HPA
Supplementary information (C) ⁹	Significant meteorological phenomena (C) ⁹	CB or TS or MOD TURB or SEV TURB or WS or GR or SEV SQL or MOD ICE or SEV ICE or FZDZ or FZRA or SEV MTW or SS or DS or BLSN or FC ¹⁵			FC IN APCH WS IN APCH 60M-WIND 360/13MPS WS RWY 12
	Location of the phenomena (C) ⁹	IN APCH [n][n][n]M-WIND nnn/n[n]MPS] or IN CLIMB-OUT [n][n][n]M-WIND nnn/n[n]MPS] (IN APCH [n][n][n]FT-WIND nnn/n[n]KT] or IN CLIMB-OUT [n][n][n]FT-WIND nnn/n[n]KT]) or RWY nn[L] or RWY nn[C] or RWY nn[R]			REFZRA CB IN CLIMB-OUT RETSRA
	Recent weather (C) ^{9, 10}	REFZDZ or REFZRA or REDZ or RE[SH]RA or RE[SH]SN or RESG or RESHGR or RESHGS or REBLSN or RESS or REDS or RETSRA or RETSSN or RETSGR or RETSGS or REFC or REPL or REUP ¹² or REFZUP ¹² or RETSUP ¹² or RESHUP ¹² or REVA or RETS			
Trend forecast (O) ¹⁶	Name of the element (M)	TREND			TREND NOSIG TREND BECMG FEW 600M (TREND BECMG FEW 2000FT)
	Change indicator (M) ¹⁷	NOSIG	BECMG or TEMPO		
	Period of change (C) ⁹		FMnnnn and/or TLnnnn or ATnnnn		TREND TEMPO 250/18 MPS MAX25 (TREND TEMPO 250/36KT MAX50)
	Wind (C) ⁹		nnn/[ABV]n[n][n]MPS [MAX[ABV]nn[n]] (or nnn/[ABV]n[n]KT [MAX[ABV]nn])		
	Visibility (C) ⁹		VIS n[n][n][n]M or VIS n[n]KM		TREND BECMG AT1800 VIS 10KM NSW TREND BECMG TL1700 VIS 800M FG TREND BECMG FM1030 TL1130 CAVOK
	Weather phenomenon: intensity (C) ⁹	FBL or MOD or HVY	—	NSW	TREND TEMPO TL1200 VIS 600M BECMG AT1230 VIS 8KM NSW CLD NSC

Element as specified in Chapter 4	Detailed content	Template(s)			Examples	
	Weather phenomenon: characteristics and type (C) ^{9, 10, 11}		DZ or RA or SN or SG or PL or DS or SS or FZDZ or FZRA or SHGR or SHGS or SHRA or SHSN or TSGR or TSGS or TSRA or TSSN	FG or BR or SA or DU or HZ or FU or VA or SQ Or PO or FC or TS or BCFG or BLDU or BLSA or BLSN or DRDU or DRSA or DRSN or FZFG or MIFG or PRFG		TREND TEMPO FM0300 TL0430 MOD FZRA TREND BECMG FM1900 VIS 500M HVY SNRA TREND BECMG FM1100 MOD SN TEMPO FM1130 BLSN TREND BECMG AT1130 CLD OVC 300M (TREND BECMG AT1130 CLD OVC 1000FT) TREND TEMPO TL1530 HVY SHRA CLD BKN CB 360M (TREND TEMPO TL1530 HVY SHRA CLD BKN CB 1200FT)
	Name of the element (C) ⁹	CLD				
	Cloud amount and vertical visibility (C) ^{9,14}	FEW or SCT or BKN or OVC	OBSC	NSC		
	Cloud type (C) ^{9,14}	CB or TCU	—			
	Height of cloud base or the value of vertical visibility (C) ^{9,14}	n[n][n][n] M (or n[n][n][n] FT)	[VER VIS n[n][n]M (or VER VIS n[n][n][n] FT)]			

Notes.—

1. Fictitious location.
2. Optional values for one or more runways.
3. Optional values for one or more sections of the runway.
4. To be included in accordance with 4.1.5.2 c).
5. To be included in accordance with 4.1.5.2 b) 1).
6. To be included if visibility or runway visual range < 1 500 m.
7. To be included in accordance with 4.3.6.4 d).
8. To be included in accordance with 4.3.6.4 c).
9. To be included whenever applicable.
10. One or more, up to a maximum of three groups, in accordance with 4.4.2.9 a), 4.8.1.1 and Appendix 5, 2.2.4.3.
11. Precipitation types listed under 4.4.2.3 a) may be combined in accordance with 4.4.2.9 c) and Appendix 5, 2.2.4.1. Only moderate or heavy precipitation to be indicated in trend forecasts in accordance with Appendix 5, 2.2.4.1.
12. For automated reports only.
13. Heavy used to indicate tornado or waterspout; moderate used to indicate funnel cloud not reaching the ground.
14. Up to four cloud layers in accordance with 4.5.4.3 e).
15. Abbreviated plain language may be used in accordance with 4.8.1.2.
16. To be included in accordance with Chapter 6, 6.3.2.
17. Number of change indicators to be kept to a minimum in accordance with Appendix 5, 2.2.1, normally not exceeding three groups.