



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

NOTICE INVITING TENDER (NIT)

Tender Enquiry No. **CPU/53/1221/1547**

Dated: 09.12.2021

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 tenders in two bid system i.e. (i) Technical bid & (ii) Price bid (Separately) from eligible and qualified **Indian Bidders** for procurement of following Goods/Articles/Services.
2. Name of Goods/Articles/Services : **Comprehensive Annual Maintenance Contract (CAMC) of 12 Nos. of Metstar Make (China) Doppler Weather Radars**
3. Specification and Quantity : As per "RFP" Section under tender enquiry document
4. Tender schedule is as follows:

1.	PRE BID Conference	20.12.2021 / 1100 Hrs. Place – Mausam Bhawan, Lodi Road, New Delhi-110003 Tele : 011 - 43824224
2.	Closing date and time for submission of tender	20.01.2022 / 1700 Hrs.
3.	Tender Opening date & time (Technical Bid)	24.01.2022/ 1200 Hrs.
4.	Place of Tender Opening	Central Purchase Unit, O/o DGM, IMD, Lodi Road, New Delhi.

5. **Earnest Money Deposit (EMD):** As per office memorandum No.F.9/4/2020-PPO dated 12/11/2020 of Ministry of Finance, Department of Expenditure PPD, No EMD is required for the tenders. The firm has to submit a signed Bid Security Declaration as per Annexure –II of tender document on their company letter head failing which their bid will be declared as unresponsive.
6. All prospective bidders are requested to attend the **Pre-bid meeting** as per venue, date and time indicated in the Para 4 above. Maximum two representatives of a firm with proof of their COVID-19 Vaccination Certificate of 2nd dose, will be allowed to participate in Pre-Bid meeting. The prospective bidders are requested to send their queries preferably 5 days in advance before scheduled pre-bid meeting, on Email: radarlab@gmail.com.

7. The bidder shall download the Tender Enquiry Document from <https://eprocure.gov.in/eprocure/app> and <https://internal.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 documents as mentioned in Para 5 above. Manual bids are NOT accepted.
8. In the event of the tender opening date being declared as holiday for the purchase organization, the tender will be opened on the next working day. The venue and time of tender opening will remain the same.
9. Purchaser : The President of India
Through Director General of Meteorology,
India Meteorological Department,
Lodi Road, New Delhi-110003
10. Consignee: Head (UAID),
India Meteorological Department,
Lodi Road, New Delhi-110003
11. Inspecting Authority: Head (UAID),
India Meteorological Department,
Lodi Road, New Delhi-110003.
12. Inspection officer: Authorized Representative of Inspecting Authority

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



भारत मौसम विज्ञान विभाग
लोदी रोड, नई दिल्ली -110003

निविदा आमंत्रित करने की सूचना (एन आई टी)

निविदा जाँच सं. CPU/53/1221/1547

दिनांक: 09.12.2021

1. भारत के राष्ट्रपति की ओर से भारत मौसम विज्ञान विभाग (IMD), पृथ्वी विज्ञान मंत्रालय (MoES), दो बिड प्रणाली में ऑनलाइन निविदाएं अर्थात (एक) तकनीकी बिड और (दो) दर बिड में निम्नलिखित सामान / सेवाओं की खरीद के लिए पात्र और योग्य भारतीय बोलीदाताओं से टेंडर आमंत्रित करते हैं :
2. सामान/ वस्तुएँ/ सेवाओं का नाम: **Comprehensive Annual Maintenance Contract (CAMC) of 12 Nos. of Metstar Make (China) Doppler Weather Radars**
3. विनिर्देशन और मात्रा : विनिर्देशन आर एफ पी के अनुसार |
4. निविदा अनुसूची इस प्रकार है:

1	प्री बिड कांफ्रेंस	दिनांक 20.12.2021 / 1100 बजे Place – Mausam Bhawan, Lodi Road, New Delhi-110003 Tele : 011 - 43824224
2.	निविदा जमा करने की अंतिम तिथि व समय	दिनांक 20.01.2022 / 1700 बजे
3.	निविदा खोलने की तिथि व समय (तकनीकी बिड)	दिनांक 24.01.2022/ 1200 बजे
4.	निविदा खोलने का स्थान	केंद्रीय क्रय एकक, मौसम विज्ञान विभाग का कार्यालय भा.मौ.वि.वि , लोदी रोड, नई दिल्ली

5. **EMD:** वित्त मंत्रालय, व्यय विभाग पीपीडी के कार्यालय ज्ञापन संख्या एफ.9/4/2020-पीपीओ दिनांक 12/11/2020 के अनुसार, निविदाओं के लिए किसी ईएमडी की आवश्यकता नहीं है। फर्म को अपनी कंपनी के लेटर हेड पर निविदा दस्तावेज के अनुबंध-II के अनुसार एक हस्ताक्षरित बोली सुरक्षा घोषणा प्रस्तुत करनी होगी, ऐसा न करने पर उनकी बोली को अनुत्तरदायी घोषित कर दिया जाएगा।

6. सभी संभावित बोलीदाताओं से अनुरोध है कि वे उपरोक्त पैरा 4 में उल्लिखित स्थल, तिथि और समय अनुसार **बोली पूर्व बैठक में भाग लें**। एक फर्म के अधिकतम दो प्रतिनिधियों को उनके द्वितीय खुराक के कोविड-१९ टीकाकरण प्रमाण पत्र के प्रमाण के साथ बोली पूर्व बैठक में भाग लेने की अनुमति दी जाएगी। संभावित बोलीदाता अपने प्रश्नों को अधिमानित 5 दिन पहले निर्धारित प्री-बिड मीटिंग से पहले ईमेल : radarlab@gmail.com पर भेजे।

7. बोलीदाता को <https://eprocure.gov.in/eprocure/app> और <https://internal.imd.gov.in/pages/tenders.php> से निविदा पूछताछ दस्तावेज डाउनलोड करना होगा। <https://eprocure.gov.in/eprocure/app> ईएमडी दस्तावेजों की स्कैन की गई प्रतियों के साथ जैसा कि ऊपर पैरा 5 में उल्लेख किया गया है। मैन्युअल बोलियां स्वीकार नहीं की जाती हैं

8. यदि निविदा खोलने की तारीख के दिन क्रय संगठन का अवकाश घोषित होता है तो निविदा अगले कार्य दिवस को खोली जाएगी। निविदा खोलने का स्थान और तारीख वही रहेंगे।

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

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

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

12. जाँच अधिकारी: जाँच प्राधिकारी का प्राधिकृत प्रतिनिधि
प्रमुख, केंद्रीय क्रय एकक (कें.क्र.ए),
मौसम विज्ञान के महानिदेशक का कार्यालय,
लोदी रोड, नई दिल्ली- 110003
Email- cpu.imd@imd.gov.in



**TENDER DOCUMENT FOR COMPREHENSIVE
ANNUAL MAINTENANCE CONTRACT(CAMC) OF S-
BAND DOPPLER WEATHER RADAR SYSTEM AT
TWELVE STATIONS AT NEW DELHI , PATIALA,
BHOPAL, HYDERABAD, MOHANBARI, AGARTALA,
NAGPUR, PATNA ,LUCKNOW, GOA, KARAIKAL AND
PARADEEP**

The Director General of Meteorology,
Mausam Bhawan Complex,
Lodi Road, New Delhi-110003

(*G. Suresh*)
(G. SURESH)

(*Y. K. Reddy*)
(Y. K. REDDY)

(*Rohit Shukla*)
(ROHIT SHUKLA)

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CHAPTER-1
General instructions to Bidders

1. Introduction:

1.1 The Purchaser has issued this Tender Enquiry (TE) document for purchase of goods/stores/articles and related services as mentioned in Chapter 2 and Chapter 3, which also indicates, inter alia, the required stores, delivery schedule, terms and place of delivery etc. This section “General Instructions to Bidders” (GIB) provides the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of tenders.

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

1.3 Whenever there is any conflict between the provision in the “General Instructions to Bidders” with regard to specific item/para/clause under this section and that in the RFP (Chapter 3), the provision contained in the RFP shall have an over-riding effect and treated as final. Any special instructions as per “RFP” section will also apply for this purchase. The conditions (like qualification criteria, maintenance services, penalty charges, etc.) mentioned in “RFP” will also apply for this purchase.

2. Tender Language: The tender submitted by the Bidder and all subsequent correspondence and documents relating to the tender exchanged between the Bidder and the purchaser shall be written in English language.


3. Indian vendors only can participate in this Bid and should quote in Indian Rupees only.

4. 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.

5. IMD is following and abides with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and subsequent amendments to the order including order even no. dated 16th Sep 2020. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.

6. The Provision of restrictions under Rule 144(xi) of the GFR 2017 [Order No. 6/18/2019-PPD (Public Procurement No. 1&2) dated 23rd Jul 2020] for the bidder from a country sharing land border with India shall also be applicable.

7. Procurement will be as per Provision of public Procurement (Preference to Make in India) order 2017 as amended on 16.09.2020 and Vendors/Bidders have to produce Registration Certificate from competent authority constituted by Department for Promotion of Industries and Internal Trade (DPIIT) for provisions under Rule 144 (XI) of the GFR which mandates the bidders of a country sharing land border with India.
8. **Tendering Expenses:** The Bidder 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 Services or Presentations before the Committee that may be deemed necessary by the Purchaser.
9. **Pre-bid Conference:**
- 9.1 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 authorized representative for pre-bid meeting. In case, due to the points/doubts raised by the prospective Bidders, the RFP 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 pre-bid meeting.** 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 e-Procurement portal <https://eprocure.gov.in/eprocure/app> or IMD website <https://internal.imd.gov.in/pages/tenders.php>
- 9.2 IMD shall hold a pre-bid meeting with the prospective Bidders as per Notice Inviting Tender(NIT) details. Queries received in writing, from the Bidders, prior to the pre-bid meeting only shall be addressed. The queries can be sent to IMD through Email at cpu.imd@imd.gov.in with a CC to radarlab@gmail.com
- 9.3 Conditional tenders shall not be accepted on any ground and shall be rejected straightway. If any clarification is required, the same should be obtained on or before pre-bid meeting. No correspondence will be entertained after pre-bid meeting.
- 9.4 **Regular visit of website:** Prospective Bidders are advised to visit e-Procurement portal <https://eprocure.gov.in/eprocure/app> or IMD website <https://internal.imd.gov.in/pages/tenders.php> on regular basis for any change in NIT schedule, amendment/corrigendum in Tender Document including technical requirements and Pre-Bid minutes etc.
10. **Amendments to the TE documents:** At any time, prior to the deadline for submission of tenders, the purchaser (IMD) 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 website and CPP portal only. In order to provide reasonable time to the prospective bidders 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 e-Procurement portal <https://eprocure.gov.in/eprocure/app> and IMD website <https://internal.imd.gov.in/pages/tenders.php> on regular basis for any change in NIT schedule, amendment/corrigendum in Tender Document including technical requirement.

11. Document comprising the tender:

11.1 Tender Enquiry Document seeks quotation in two parts by following **TWO Bid System**. The First Part will be known as '**Techno-Commercial Bid**', and the Second Part will be known as '**Price Bid**' (Details given below)

11.2 Techno-Commercial Bid (Un-priced Bid): Comprising of following :

11.2.1 Registration certificate of the Bidding firm with the Government of India. Credential/Document shall be attached.

11.2.2 Checklist section (**Annexure-I**) properly filled and signed.

11.2.3 Documentary evidence for fulfillment of Eligibility/Qualifications criteria(s)

11.2.4 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.

11.2.5 Tender terms & Conditions Acceptance Form (as per **Annexure-VI**) duly signed. (i.e., Bidder has agreed to all the terms & condition of tender enquiry document).

11.2.6 Technical proposal.

11.2.7 All pages of the Technical bid should be page numbered, indexed and signed with company/firm seal by authorized signatory.

11.2.8 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.

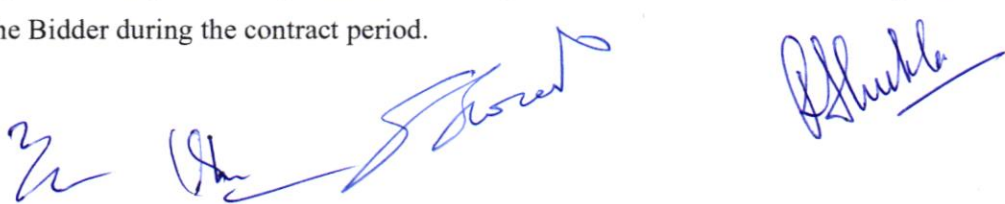
11.2.9 Compliance statement/table.

11.2.10 A copy of the blank price bid as per **Annexure V**.

11.2.11 Tender Acceptance Letter (**Annexure-VI**) Duly Stamped & Signed. (Bidder has to agree to accept all the terms & conditions of the Tender Enquiry Document).

11.2.12 All the above documents must be enclosed with technical bids, otherwise bids may be either ignored or not considered for technical evaluation.

11.2.13 The proposed services are Comprehensive AMC at the site. All the expenditure towards replacements parts, transportation, servicing etc. at the site level are the responsibility of the Bidder during the contract period.



11.3 PRICE BID:

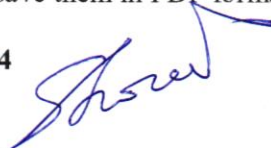
- 11.3.1** All the pages of the price bid should be numbered, indexed and duly signed and stamped by the authorized signatory.
- 11.3.2** In case any charges are not mentioned in the price bid, it will be treated as “all the charges are free of cost for that item”.
- 11.3.3** Indian vendor shall quote prices on F.O.R destination (sites of consignee) basis. Payment will be made in Indian Rupees only. No payment will be made in foreign currency.
- 11.3.4** The bidder supplying indigenous goods or already imported goods shall quote only in Indian Rupees.
- 11.3.5** If there is a discrepancy between the amount expressed in words and figures, the amount expressed in words shall prevail and will be treated as final.
- 11.3.6** The Supplier shall bear all the taxes (IGST/SGST/CGST/Income-tax/or any other taxes) levied by the state/central government, as per the rates prevailing at the time of undertaking the job in accordance with the Income-tax in India.
- 11.3.7** Price bid shall prima-facia be rejected in case of any deviation from the technical bid of the bidder and if there is any fact concealed or hidden in price bid/technical bid.
- 11.3.8** Foreign bidders are disallowed to directly submit their bid documents directly to quote in foreign currency as per notification published by Ministry of Finance, Govt of India on 15-05-2020.
- 11.3.9** Hence bids from Indian bidders in single Indian currency (INR) are acceptable. Bids from foreign bidder are not acceptable and shall be rejected.
- 11.3.10** Statutory levies, taxes and duties etc., if any, chargeable on the goods are on actual basis as applicable.
- 11.3.11** In case of shifting of Radar from Palam (Delhi) to Sambalpur (Odisha), the same quote/AMC charges shall be applicable for Sambalpur site with the same terms and conditions, and penalty charges.

11.3.11.1 CAMC charges for this particular component from the date of dismantling at Palam to commissioning at Sambalpur, will not be paid by the Purchaser.

11.3.11.2 After successful commissioning at Sambalpur, the CAMC should be continued under the same payment terms and conditions.

11.4 The Bidder shall have to agree/accept all the terms and conditions of the tender including payment etc. Acceptance shall be unconditional and bidders shall have no claim and right in future on their terms

12. Preparation of Tender: A bidder shall complete all the documents of its tender, duly signed and stamped. The bidder shall scan all the documents and save them in PDF format.



13. Submission of Tender: The bidders shall upload the soft copy of the tenders (In PDF Format) on CPP Portal <https://eprocure.gov.in/cppp/> within the specified date/time of submission of the tender as mentioned in the NIT document. Manual submission of bids will not be entertained.

13.1 Uploading of bids on e-Procurement portal is an essential requirement. Bids not submitted through e-Procurement portal will not be considered for tender evaluation. The bids submitted by fax/E-mail/manually etc. shall not be considered. No correspondence will be entertained on this matter.

13.2 A hard copy of Technical bid only in a sealed cover should be submitted to “**The Director(CPU), Room No. 513, Mausam Bhavan, O/o DGM, IMD Lodi Road, New Delhi (Tel No. 011-43824389/43824236)**”. The copy must be same to the one which had been uploaded on e-procurement portal.

14. Alteration of Tender: The bidder, after submitting its tender, is permitted to alter/modify and upload its tender any number of times before the last date/time for submission of tender. The earlier tenders will get cancelled automatically and the latest uploaded tender will remain effective.



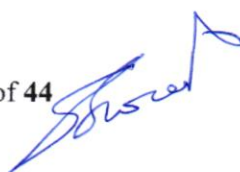

15. Opening of Tenders: The purchaser shall open the tenders after the specified date/time and at the place as indicated in the NIT document. In case the specified date of tender opening falls on a holiday (or subsequently declared a closed day for the purchaser), then the tenders will be opened at the appointed time and place on the next working day. The bids downloaded by this office from CPP Portal will be available for the bidders automatically. The bidders need not come to this office as they can also download the opened bids directly from the CPP Portal. In case the bidders wish to come to this office during tender opening, they must bring an Authorization Certificate from their respective firms. The process of opening of the tenders in Two Bid System is as follows.

15.1 First Stage: The Technical Bids are to be opened in the first stage on/after the prescribed date and time. These Bids are scrutinized and evaluated by Technical Evaluation Committee (TEC) constituted by the competent authority with reference to parameters prescribed in the Tender Enquiry Document. The bidders whose Technical Bids are found responsive and acceptable will pass on to the second stage. The details of the bidders, whose Technical bids have been accepted, will be uploaded on the CPP Portal along with the Report of TEC. The date of opening of Financial/Price Bids will also be published.

15.2 Second Stage: In the Second Stage, the Price Bids of technically qualified bids only will be opened. The Price Bids will be scrutinized by Financial Evaluation Committee (FEC) constituted by the competent authority. The report of the FEC will decide the lowest bidder. This report will also be uploaded on CPP Portal. Supply Order will then be issued to the lowest bidder.

16. Scrutiny and Evaluation of Tenders

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 Tender Enquiry

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Document. The tenders are liable to be treated as non-responsive and will be summarily ignored if following documents are not provided along with technical bids.

16.1 Checklist (Annexure-I).

16.2 Registration certificate of bidding firm with government body in their country. Credential/document not attached

16.3 Tender Acceptance Letter (**Annexure-VI**) is not duly signed and stamped. (Bidder has to agree to accept all the terms & conditions of the Tender Enquiry Document).

16.4 Tender Validity Period is shorter than the required period.

16.5 Tender is unsigned on each page.

16.6 Bidder has not agreed to deposit the required performance security (In case of allotment of the tender).

16.7 Copy of agreement of Indian agent with its foreign principal with the precise relationship between them and nature of services which would be available from Indian agent. Copy of this agreement must be attached with the tender.

16.8 By any means/reason, the in-complete bid uploaded on e-procurement portal <http://eprocure.gov.in/eprocure/app> shall also be treated as Unresponsive.

16.9 Technical Evaluation:

16.9.1 A duly constituted Technical Evaluation Committee (TEC) will first select Bidders on the basis of eligibility criteria of this tender. The Bids conforming to the eligibility criterion will be considered for further evaluation.

16.9.2 If during the preliminary examination, the purchaser find any minor discrepancy and/or irregularity and/or non-conformity/ or no-clarity on specific item offered, 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 Bidder. Wherever necessary, the purchaser will convey its observation on such 'minor' issues to the Bidder asking the Bidder to respond by a specified date. If the Bidder does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that bid will be liable to be ignored.

16.9.3 Technical Evaluation Committee (TEC) will shortlist Technical Bids on the basis of technical parameters, offered technical solutions/products and their features. The TEC can make any enquiry/seek clarification from the Bidders on the offered Service Solution. In such a situation, the Bidder shall extend full co-operation. The Bidders can also be asked to give technical presentation/discussion on the offered solution, in a short period notice, as such the Bidders have to be ready for the same.

16.9.4 During the detailed Technical Presentations/Discussions, Bidder has to ensure availability of appropriate specialist, along with required documentation for interacting with Technical

Evaluation Committee. If the required specialist along with proper documentation is not made available by Bidders, then such defaulting Bidders are likely to be debarred from further tender evaluation process.

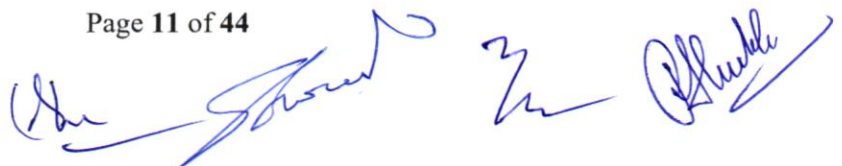
- 16.9.5** Compliance statement in the form of '**Complied**' or '**Not Complied**' shall be given against each term and specification mentioned in the tender document. The compliance statement should contain the signature of the authorized person and the seal of the company. Any deviation should be mentioned/explained by the Bidder in Compliance Statement. The compliance statements should be supported by authentic documentation. Deviations in lower side will not be accepted.
- 16.9.6** No enquiry shall be made by the Bidder(s) during the course of evaluation of the tender, after opening of bid, till final decision is conveyed to the successful Bidder(s).
- 16.9.7** The names of technically short listed Bidders will be announced to only those Bidders whose bids will qualify for opening of the Price/Financial/Commercial Bids.
- 16.10 Financial Evaluation:** In the second stage, the Price Bids of technically qualified bidders only shall be opened for further scrutiny and evaluation.
- 16.10.1** The Financial Bids of only those Bidders short-listed from the Technical Bids by TEC will be opened in the presence of their representatives on a specified date and time to be intimated to the respective Bidders, and the same will be evaluated by a duly constituted Finance Evaluation Committee (FEC).
- 16.10.2** No enquiry shall be made by the Bidder(s) during the course of evaluation of the tender, after opening of bid, till final decision is conveyed to the successful Bidder(s). However, the Committee/its authorized representative and office of IMD can make any enquiry/seek clarification from the Bidders, which the Bidders must furnish within the stipulated time else bid of such defaulting Bidders will be rejected.
- 16.10.3** If there is a discrepancy between the unit price and total price, The Unit Price shall prevail.
- 16.10.4** The ultimate/landing cost in respect of store is arrived at by considering following elements:
- a. Basic price
 - b. Goods and Service Tax (GST), as applicable in India
 - c. Insurance, freight and transportation of goods up to user-sites
- 17.** Whenever there is any conflict between the provision in the General Instructions to Bidders (GIB) specified in the present and earlier sections and that in the section "**RFP**", the provision contained in the section "**RFP**" shall prevail and have an over-riding effect, i.e. the details given in the RFP will be treated as final.
- 18.** Any Special instructions or conditions like delivery schedule, mode of delivery & sites of delivery etc. mentioned in "**RFP**" section will also be applicable.

CHAPTER-2

General Conditions of the Contract (GCC)

1. **Alternative Tenders:** Alternative Tenders are not permitted.
2. **Tender Validity:** If not mentioned otherwise, 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 Tender Enquiry Document. Any tender kept valid for a shorter period shall be treated as unresponsive and rejected. In case the day up-to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.
3. **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 bidder(s).
4. **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 bidders shall have to attach valid registration certificate as OEM. 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.
5. **ELIGIBILITY AND QUALIFICATION CRITERIA :**
The bidder must fulfill following conditions to participate in the bidding process:
 - 5.1 The bidder must have manufactured or installed or maintained Doppler Weather Radars (DWR) at least for one year period in the recent past 5 years.
 - 5.2 The bidder must have average annual turnover of minimum **Rs.2.0 Crores** in the past three years. The audited balance sheet must be enclosed.
 - 5.3 The bidder must have qualified service engineers having full technical knowledge of the existing system or similar Doppler Weather Radar. *The bidder has to produce proof of back to back technical support from the OEMs for maintenance of any Doppler weather radar. Original copy needs to be submitted and non-compliance will lead to rejection of the bid.*
 - 5.4 The bidder should furnish the information on all past experience of maintenance and satisfactory performance from the users with complete user name and contact details, order details and performance certificate done by them. In case bidder is not meeting any one of the above criteria, the bid will be rejected without any further reference to the bidder.

6. **Terms of Delivery:** Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the Supply Order. Suppliers should not deliver the goods without any valid delivery period. Purchaser shall not be held responsible for anything (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.
7. **Award Criteria and Tolerance Clause:** The Supply Order shall be issued 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/services up to twenty five percent ($\pm 25\%$) till the placement of supply order without any change in the terms & conditions and prices quoted by the bidders.
8. **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.
9. **Taxes and Duties in India:**
- 9.1 **Duty and Local Taxes:** As per Govt. of India Rules, the applicable GST shall be paid to the successful bidder/supplier. Normally, the materials to be supplied to Govt. Departments against Govt. contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, the local Town/Municipal Body regulations, at times, provide for such exemption only on production of exemption certificate from any authorized officer. The suppliers should ensure that the 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 indenter/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.
- 9.2 **Supply of Road Permits by the 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 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 consignee 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.

- B. The supplier shall pay the local charges/taxes if exemption certificate not agreed by local authority and same will be reimbursed by purchaser on submission of receipt.
- C. The supplier shall not be held responsible for any delay in supply due to non-supply/delayed supply of Road permit.
- D. **Income Tax:** Deduction of Income Tax at Source from the payment to the suppliers shall be done as per existing law in force. The bidders (Foreign as well as Indian) may visit the 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.

10. **Earnest Money Deposit (EMD):** As per Office Memorandum No. F.9/4/2020-PPD dated 12.11.2020 issued by Ministry of Finance Department of Expenditure PPD, **No EMD** is required for this tender. The firm has to submit a signed Bid Security Declaration as per Annexure-II of tender document on their company letter head failing which their bid will be declared as unresponsive.
11. **Tender Validity:** If not mentioned otherwise, 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 Tender Enquiry Document. Any tender kept valid for a shorter period shall be treated as unresponsive and rejected. In case the day up-to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.
12. **Performance Security:** Within twenty one (21) days from date of the issue of notification of award by the IMD, the supplier shall furnish performance security to the purchaser for an amount equal to three percent (3%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the service provider. **Performance Security has to be submitted irrespective of its Micro and Small Industries/ MSME / NSIC. Performance security is not relaxed.** Performance security shall be submitted in any one of the forms namely Fixed Deposit Receipt or Demand draft or Bank Guarantee drawn/issued by a commercial bank in India, in the prescribed form in favour of the Director General of Meteorology, IMD, Lodi Road, New Delhi. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to 2 months beyond the contract period. **Bank Guarantee should be issued from any Nationalized bank in India.** The purchaser will release the Performance Security without any interest to the firm on completion of all contractual obligations. The supplier shall submit pre receipt for obtaining their security.

13. Penalty Clause:

- 13.1** If the DWR under maintenance is non-operational for more than 6 (SIX) days from the date of report of technical fault by the Station-In-Charge/Head (Radar lab at New Delhi) through by Email to the dedicated Project Manager assigned by the Bidder for this contract, 50% of the CAMC value of the particular station per day per non-operational station will be deducted from the quarterly bills.
- 13.2** If the radar is continuously non-operational for more than 30 (THIRTY) days, NO quarterly payment will be made against that particular station.
- 13.3** During the completed Quarterly period, if 3 (THREE) or more Radar at each of any twelve stations were non-operational simultaneously for more than 6 (SIX) days (excluding the date of Email notification from Scientist-In-Charge of that particular station to the Bidder's dedicated Project manager), NO AMC charges will be made for that corresponding completed quarterly period.
- 13.4** The effect of Force Majeure events, such as bad weather cancelling all airplane flights, shall be deducted from the down time in determining the start time of the penalty. In such cases, the Bidder should provide information (through Email) with supporting proof and details, to the Nodal Officer of that particular Station and Radar Lab at HQ and obtain necessary prior permission for applicability of force majeure clause.

14. Validity of the contract: Comprehensive maintenance contract shall be awarded to lowest technically qualified bidder for 12 No. DWRs for a period of **one year initially** from the date of award of contract **or date of acceptance of Supply Order whichever** is later.

- 14.1** After completion of ONE year of Comprehensive maintenance contract, IMD may extend the contract under the same payment terms and conditions. There will be no price escalation during the extended contract period

15. Price-Bids: Firm shall quote price of CAMC with breakup of each systems and subsystems. The firm shall also mention the service tax or any other applicable taxes. The rates quoted by the tenderer shall include the comprehensive repairs and maintenance including spares needed. The bids have to include the break up charges for routine / preventive maintenance. The financial bid shall consist of rates for one year. Taxes and other levies should be clearly mentioned. In case equipment included in the contract is replaced during the period of contract with an equipment of similar make, model and specification, the CAMC charges shall remain the same.

16. Payment Terms: Payment shall be released on quarterly basis on completion of quarterly period after deducting penalty charges amount (**Clause 13**) and TDS etc. on the submission of certificate of satisfactory services during the period from nodal officers of each Radar Systems. No advance payment shall be paid. Firms must have PAN and Service tax registration etc. to avoid deduction of taxes at higher rates. The bidder will have to bear all Income Tax liability. The contractor shall submit a certificate at the time of payment of the fact that the prices charged by him does not exceed the prevailing rates charged by him from others for similar services.

17. Termination of contract: It will be the responsibility of the company/firm to keep entire 12 systems all over India in working condition. If the company/firm fails to do so or could not provide satisfactory services as per expectation of IMD, the contract may be discontinued/terminated by the IMD by giving a THREE months' notice to the company/firm. The contract shall be terminated automatically after



the expiry of contract period unless extended by IMD. The Contractor shall be required to hand over all the equipments in working condition at the time of termination of the Contract, otherwise the equipment, found faulty, shall be rectified from any external agencies and whole replacement/repair cost will be borne by the Contractor only.

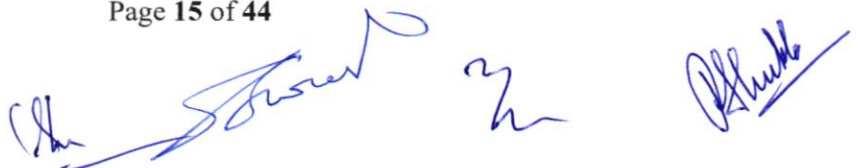
- 18. Arbitration clause:** If dispute or difference of any kind shall arise between the purchaser and the Contractor (or Service Provider) in connection with or relating to the extension of contract, the parties shall make every effort to resolve the same amicably by mutual consultations. If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the "Tender document" 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 Contractor (or Service Provider) 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. The venue of arbitration shall be the place from where the contract has been issued, i.e., New Delhi. The contract shall be interpreted in accordance with the laws of India.

19. Provisions for "Make In India":

- 19.1** IMD is following and abides with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E.II dated 15th June 2017 and subsequent amendments to the order including order even no. dated 16th Sep 2020. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.
- 19.2** The Provision of restrictions under Rule 144(xi) of the GFR 2017 [Order No. 6/18/2019-PPD (Public Procurement No. 1&2) dated 23rd Jul 2020] for the bidder from a country sharing land border with India shall also be applicable.
- 19.3** Bidders who have a valid/approved ongoing 'Make in India' agreement/program with Government of India and who, while meeting all other criteria above, would also be considered to be qualified provided:
- i. Their foreign "Make in India" associates meet all the criteria above without exemption, and
 - ii. The bidder submits appropriate documentary proof for a valid/approved ongoing 'Make in India' agreement / program.
 - iii. The Bidder furnishes along with the bid, a legally enforceable undertaking, jointly executed by himself and principals, for manufacture, supply (and erection, commissioning) and performance of the product offered including all warranty obligations as per the general conditions of contract.

As prescribed by the Department for Promotion of Industry and Internal Trade, Govt. of India, vide OM No. P-45021/2/2017-PP (BE-II) dated 4th June, 2020, bidder shall be required to provide following (at the time of bidding) for verification of local content:

- a) The 'Class-I local supplier'/'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification (**as per Annexure-IX**) that the item offered meets the local content requirement for 'Class-I local supplier'/'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
 - b) In cases of procurement for a value in excess of Rs. 10 Crores, the 'Class-I local supplier'/'Class-II local supplier' shall be required to provide a certificate from the statutory or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
- 20. Force Majeure:** The contractor shall not be considered in default or in breach of its obligations if the fulfillment of such obligations is prevented by overwhelming and abnormal impediment or occurrence which neither Party had reason to take into account when entering into the contract and which is independent of any action by either Party and could not be averted or prevented without unreasonable expense or loss of time. Such force majeure cases may result from war, Pandemic, mutiny, internal unrest, expropriation or confiscation for public needs, embargo, acts of God, and act of government authorities, discontinuation of public transportation or supply of energy, labour conflict or fire or some other unusual event with equally drastic effects beyond both Parties' control. If the fulfillment of a contractual obligation is delayed due to any cause of force majeure clause or to an act or omission by the other Party, the time for fulfillment of the contractual obligation shall be extended by a period which taking into account all relevant circumstances deemed reasonable.
- 21. Award Criteria:** The work 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.
- 22. 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.
- 23. 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.

- 24. Termination of tender/contract by the Purchaser:** From the time of submission of tender to the time of awarding the contract, if a bidder 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 bidder attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the bidder shall be liable for rejection in addition to appropriate administrative actions being taken against that bidder, 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.



CHAPTER 3

REQUEST FOR PROPOSAL (RFP) FOR COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT(CAMC) OF S-BAND DOPPLER WEATHER RADAR SYSTEM AT TWELVE STATIONS AT NEW DELHI , PATIALA, BHOPAL, HYDERABAD, MOHANBARI, AGARTALA, NAGPUR, PATNA ,LUCKNOW, GOA, KARAIKAL AND PARADEEP & CENTRAL SERVER AT IMD HQ, NEW DELHI

1. INTRODUCTION (Brief about RADAR system):

The Doppler Weather Radar WSR-98D/S, hereafter referred to as the WSR-98D, is a standalone system which detects, processes, distributes, and displays radar weather data. The WSR-98D/S uses Doppler radar technology to acquire particle velocity data in addition to range, direction, and reflectivity data. The WSR-98D/S is a software-driven system. Software processing is used to control the radar operating characteristics, to produce the optimum radar volume coverage patterns and to optimize the radar returns. The resulting base weather data is then processed through the application of meteorological algorithms to generate base and derived weather products. These products are further processed using graphics algorithms to produce readily interpretable weather data displays on color monitors. The WSR-98D/S supplies information on the location, intensity and movement of both routine and hazardous weather phenomena.

The WSR-98D/S is the S-band Weather Surveillance Radar having Doppler capability. It is manufactured by M/S METSTAR CHINA, Model: WSR-98D/S. The WSR-98D/S system basically consists of four equipment groups, which are interconnected to provide the WSR-98D/S operational requirements.

These four equipment groups and their brief description are given below:

RDA Group
RVP8 Group
RCP8 Group
IRIS Group

- 1.1 RDA Group:** The RDA is the Doppler radar subsystem which generates and radiates RF pulses, then acquires and processes reflected RF signals to obtain weather radar base data. The base data consists of measurements of reflectivity, mean radial velocity, and velocity spectrum width. Base data is available in digital format for archiving and for transmission to the RPG Group. The RDA is a self-contained unit designed for continuous, unattended operation. The RDA includes the Radar Transmitter, Antenna/Pedestal, Radar Receiver, and Data Processor Cabinet.
- 1.2 RVP8 Group:** The performance of an entry level RVP8 (currently dual 2.4 GHz Pentium processors). Aside from the open hardware approach, the RVP8 has an open software approach as well. The RVP8 runs in the context of the Linux operating system (REDHAT 5). The code is structured and public API's are provided so that research customers can modify/replace existing SIGMET algorithms, or write their own software from scratch using the RVP8 software structure as a foundation on which to build.



1.3 RCP8 Group: The RCP8 provides position and velocity servo control for both the AZ and the EL axes of the antenna, the status monitoring of the transmitter/receiver/ antenna servo systems and the control functions such as Radiate On/Off and Servo On/Off. The Ethernet interface can be connected to virtually any workstation or PC and is fully compatible with SIGMET's RVP8 signal processor and IRIS software system.

1.4 IRIS Group: Three configurations of the IRIS system are used in the WSR-98D:

IRIS/Radar Installed at the radar site on the RCP8 computer, the IRIS/Radar system runs the radar and signal processing hardware and generates ingest files (input data) and raw data for other IRIS sites. It can support either the basic or the full product set.

IRIS/Analysis Installed at a central office, the IRIS/Analysis system receives raw data products from the radar site over the network or from an archive device, such as a tape or disk. It supports the full product set. Remote control and monitoring are also supported.

IRIS/Display Installed at remote workstations, the IRIS/Display system receives processed product files or raw data over the network or from an archive, and uses them for display purposes. It supports the basic product set. Remote control and monitoring are also supported.

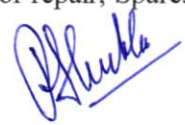
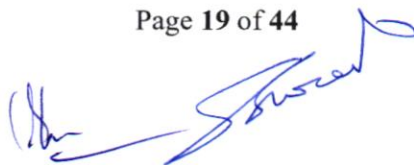
2. SCOPE OF WORK

Scope of Service of Comprehensive Annual Maintenance Contract (CAMC) of DWRs

- 2.1** This Comprehensive Annual Maintenance Contract includes complete hardware and software including consumables items like batteries etc. at 12 DWR sites and the Central Server at Mausam Bhavan, New Delhi **as per the brief specification given in the Tender Document. List of hardware and software components and equipments at each station as per the Tender Document, List of stations where DWRs are installed in Annexure IV and Network and Block Diagram in the Tender Document.**
- 2.2** **The Central Server comprises of 3 (Three) servers having model no: HP ML 350G5.**
- 2.3** The bidder should provide comprehensive annual maintenance contract (CAMC) service for **one year** except RVP8, RCP8 and Klystron, as same are available at DWR stations in stock. The contract will be valid for a period of one year from the date of award of AMC initially.
- 2.4** The bidder should **quote the price for ONE year of CAMC**. Same can be extended for one more year if their services are found satisfactory and certified by the nodal officer at HQ with the same terms and conditions of awarded contract for first year.
- 2.5** Maintenance service provided by the supplier during the CAMC period should be comprehensive including all spares and manpower. Charges for freight delivery, custom duty and transportation, if any, for importing and exporting of defective parts/cards/sensors for repairs/replacement/replacement of consumable items/minor civil and electrical works shall be borne by the bidder.
- 2.6** The firm should stock with them essential consumable spares required for maintenance of the radar systems at any central location in India to avoid delay in service and list of consumable spares available may be submitted to Radar Lab (HQ).
- 2.7** The comprehensive service includes preventive and corrective maintenance and repair/replacement

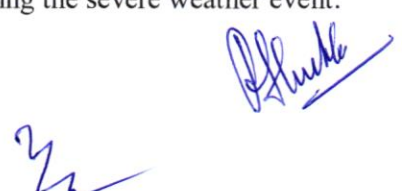
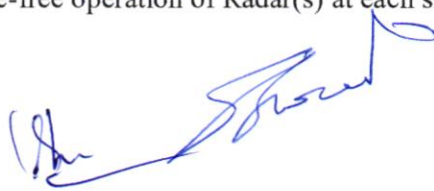
of all defective parts/devices without any financial implications to IMD.

- 2.8 DWR's have very crucial communication facility which works round the clock to the Central Receiver Station. In case of any problem, the Service Provider (Bidder) should address the technical problems and make the radar operational **within 6 days to avoid penalty charges.** The contractor should inform IMD HQ on phone or WhatsApp Group or designated E-mail about the nature of fault and rectification details.
- 2.9 The Contractor should nominate a Project Manager, who is the nodal contact point for all technical matters relating to the project. He shall have the overall responsibility for coordination of the CAMC Services at each of the station. He shall act as a focal point for all correspondence, provide the necessary inputs with schedules and Progress reports, and inform in advance to the local In - Charge of Radar stations and HQ, New Delhi about the action plans, working status, maintenance engineer scheduled visit, periodic performance status reports etc. All the maintenance issues will be monitored and handled by him/her for a speedy resolution of the technical problems. In case of Contractor proposes the change of Project Manager (Focal point), then Contractor must inform all Station-In-Charge and IMD HQ before one month about the change. The Project Manager shall provide site-wise uptime along with working status on **daily basis** in the form of a Performance Report in respect of each site containing the details of faults attended with snap-shots, regular back-ups, firmware/software updates, complete log about the spares replaced etc. The contractor shall supply the contact details like Mobile nos., Phone nos., E-mail address and names of its project manager and service engineers for lodging complaints for each location.
- 2.10 The Contractor shall get the maintenance of the system, including the systems & equipment cleaning thereof, done by his maintenance staff solely at his own risk. The department shall not, in any way, be liable to make any payment, incur any expenditure or face any law suit in any court of law for any injury or death suffered by the Contractor's maintenance staff during the course of maintenance under the CAMC. All liabilities, legal or monetary, shall be borne by the Contractor/Service provider.
- 2.11 The Contractor shall be required to hand over all the equipments in working condition at the time of termination/expiry of the contract, otherwise the equipment, found faulty, shall be rectified from any external agencies and whole replacement/repair cost will be borne by the contractor only.
- 2.12 Klystron, RCP8 and RVP8 are not covered under CAMC. Spare Klystron RCP8 and RVP8 available at site may be utilized by firm for repair of Radar.
- 2.13 Firm shall always associate IMD officers in resolving the hardware/software issue and provide detailed write-up about how the problem was resolved.
- 2.14 Detailed compliance statement should be submitted with the offer.
- 2.15 The company should maintain regular backups of all the software (O.S. and Application software). The firm is also required to restore the existing Software from the backups whenever required.
- 2.16 The company will also be responsible for configuring the networking components at station.
- 2.17 Workstations including hard disks and monitors should be included in the CAMC proposal.
- 2.18 Performance deposit at the rate of 3% of the total year contract value valid for 2 months beyond the CAMC period should be deposited by the contractor within 21 days from the award of the contract.
- 2.19 The contractor's engineer attending to the fault must send a detailed & well explained maintenance report along with snap shot to HQ and the respective IMD office once the fault is resolved.
- 2.20 A complete log of maintenance activity including type of fault, procedure adopted for repair, Spares



replaced etc.

- 2.21** In addition to attending the faults, firm's engineer has to check/monitor the health of the system.
- 2.22** The contractor should maintain regular backups of all the software (OS and Application software). The firm is also required to restore the existing software from the backups, provided the location of the system is unchanged.
- 2.23** The contractor will maintain a complete inventory of Spares at the Centralized location and essential spares such as switches, cables etc. at each location for quick repair of the fault. The inventory detail of each location will be submitted to respective station and the HQ. The inventory should be updated every month by the contractor.
- 2.24** The contractor has to give an undertaking that it will not use the IMD data for any commercial purpose and also not share/divulge any information without prior written consent from the IMD.
- 2.25** This contract shall be governed in all respects by Indian laws.
- 2.26** The firm may visit Radar Lab, O/o. UAID office to understand the working of the system and also allowed to visit the site at Palam, New Delhi for inspection to understand the scope of work.
- 2.27** Maintenance and up-gradation of software will be responsibility of the contractor.
- 2.28** Consumables: The vendor will be responsible for providing the consumables and spares for all peripherals for all the printers up to a maximum of 3 sets per year. The vendor would also be responsible for consumables like oil, Grease or any consumables etc. required at the time of servicing the radar.
- 2.29** Preventive servicing of radar: The preventive servicing of the radar should be conducted twice in a year with an interval of 5-6 months as per the site conditions. The vendor should change all the system oils, clean the radome from exterior and interior and also clean all the assemblies/sub-assemblies during the preventive maintenance. The down time for preventive maintenance will not be included in regret charges. Preventive maintenance month for Coastal and NE stations is January, for NW station is May. Calibration of each radar is to be performed after the preventive maintenance and the calibration report should be provided to respective station in-charge with copy to Radar Lab O/o, UAID, New Delhi.
- 2.30** Any other item of work, which is felt essential in smooth functioning of system after mutual discussion, after contract is awarded, will also be binding to the contractor within the scope of work.
- 2.31** The Director General of Meteorology also reserves the right to reject any or all quotations without assigning any reason.
- 2.32** The nodal officer in UAID, O/o. DGM, New Delhi will nominate to monitor the performance of all radars during CAMC period. Payment shall be released after certificate issued by Nodal Officer.
- 2.33** One existing Radar at Palam, New Delhi is going to be shifted and re-installed/ commissioned at Sambalpur, Odisha, in near future. Bidder should consider this point while submitting the tender.
- 2.34** The bidder should depute Service Engineer before nucleation of severe weather events like cyclone/Cyclonic-Depression at the concerned Radar site(s) as per instructions of Head (UAID) for assisting and trouble-free operation of Radar(s) at each site(s) during the severe weather event.



SPECIFICATIONS OF
S-BAND DOPPLER WEATHER RADAR SYSTEM MODEL WSR-98D/S
PROPOSED FOR THE PRESENT CAMC

1. GENERAL

1.1 The specifications described herein refer to S-band Doppler Weather Radar of make M/s. Beijing Metstar, China Model WSR - 98D/S, hereafter referred to as "the System".

1.2 The System is computer based with operator interaction through standard man- machine interface such as keyboard, mouse etc.

1.3 Latest state of art computer system is used for the generation of data and it's processing.

2. OVERALL SYSTEM SPECIFICATIONS (BEIJING METSTAR Model No: WSR-98D/S)

2.1 Modes of Operation

The system is capable of operation in computer controlled mode for round the clock observations and archival of raw data and radar images in GIF format:

2.2 Parameters to be measured

- a) Reflectivity
- b) Radial velocity hereafter referred to as velocity.
- c) Spectrum Width

2.3 Observation Range

- a) Reflectivity- 500 Km
- b) Velocity- 250 Km

2.4 Spatial Resolution

- a) Reflectivity- 300m or better
- b) Velocity- 150m or better

2.5 Measurement Accuracy

- a) Reflectivity- Minimum 2 dB absolute accuracy at 250 Km for rainfall equivalent to 23 dBZ (1 mm/hr) at antenna rotation of 2 revolutions per minute (RPM).
- b) Velocity- Minimum 1 m/sec at 250 km for rainfall equivalent to 23 dBZ reflectivity at antenna rotation of 2 RPM.
- c) Spectrum Width- Minimum 1 m/sec at 250 km for rainfall equivalent to 23 dBZ reflectivity at antenna rotation of 2 RPM.

2.6 Unambiguous Range

- a) Reflectivity mode - 500 km or better.
- b) Doppler mode - 125 km (subject to para 2.6.1 b)

2.6.1 Ambiguity resolution: Ambiguity resolution techniques for automatic generation of unambiguous velocity at least up to +60 m/sec at 250km range and 2 RPM scan rate shall be provided. More than one technique may be proposed as options.

2.7 Product Generation

The system is capable of generating the following types of products:

- a) Base products
- b) Primary products
- c) Derived products

The System has provision for display and archival of the products.

2.7.1 Product range:

- a) Reflectivity - 0 - 500 km
- b) Velocity - 0 - 250 km
- c) Spectrum Width - 0 - 250 km

3. Manual Mode/Maintenance Mode

The System is capable of the following:

- a) Manual operation using the maintenance workstation, independent of the Main workstation and moving antenna at a single scan level for PPI and at a selectable azimuth for RHI.
- b) Antenna position, reflectivity and velocity data shall be displayed on an independent color monitor in a format stimulating conventional PPI / RHI.

4. Product Generation Control And Display System

The system has seven workstations, as detailed below to perform various tasks of data acquisition, product generation, archival, display and housekeeping. Workstation is on same hardware platform.

- a) Two workstations with identical features having 21" LCD color monitor (one main and the other as hot standby) for control and operations involved in data acquisition, product generation, display and archival.
- b) One workstation with 21" LCD color monitor for maintenance, calibration and housekeeping tasks.
- c) One workstation with 29" LCD color monitor for simultaneous real time display of Z, V, W and BITE parameters.
- d) One workstation with 21" LCD color monitor for collecting products, networking and dissemination of products over internet.
- e) One workstation with 21" LCD color monitor for remote display and passive monitoring of system performance.
- f) One workstation with 43" LED smart Television for display and demonstration of various products.

4.1 Display capabilities

- 4.1.1 The system displays full radar field up to the maximum range or short ranges as selected by the operator.
- 4.1.2 It also provides facilities for sectoral display and freedom to locate the origin of display field corresponding to the radar location at any point on the active part of the display.
- 4.1.3 It is capable of displaying in real time all or any of the three parameters (Z, V, a) in synchronized mode.
- 4.1.4 It is capable of displaying products generated from archived data in the playback mode.
- 4.1.5 Suitable controls for freeze and animation using time lapse display is provided.
- 4.1.6 Facilities for color coding of reflectivity, velocity, and spectrum width fields up to 32 user



selectable levels with user selectable color tables is provided.

5 ARCHIVAL OF RADAR DATA

- 5.1.1** The base data (output of radar processor) is stored automatically on hard disk in compressed form.
- 5.1.2** Plain paper high-resolution color laser printer and color inkjet printer (size A4) for taking hard copies of images and products is provided.
- 5.1.3** Laser black and white printer (size A4) for system and data management is provided.
- 5.1.4** Provision of DVD Writer in all workstations.

5.2. Data format

- 5.2.1** System is capable of archiving and transferring I and Q data in any universal binary and ASCII format.
- 5.2.2.** System is capable of archiving and transferring raw data (base data i.e. reflectivity, velocity and spectrum width) in universal format like HDF5 / NETCDF / ASCII and LEVEL-II format.
- 5.2.3.** System is capable of generating Doppler Weather Radar products in BUFR format. BUFR encoding and decoding software may also be provided.
- 5.2.4.** Platform and software independent software utility for converting binary and universal formatted raw data in readable ASCII format is provided.

6. Product Generation

The System is capable of generating the following products from the initial data output from the radar processor.

6.1. Base Products

The system is capable of generating PPI, RHI of base data obtained from the radar processed after applying different corrections to the data (e.g. beam blockage, incomplete beam filling, attenuation effects, earth curvature, range normalized etc.)

6.1.1. Products generated online are based on PDF parameters of the products already selected and stored in workstation against the various scan schedule programmed.

6.1.2. Provision is also there to generate products off line using the archived raw data.

6.2 Primary Products

6.2.1 Maximum Display

The System computes maximum values of base data elements (Z, V, σ) in horizontal (East west and North South) and vertical columns between user defined heights and display the partial images in a single frame.

6.2.2 CAPPI (Constant Altitude Plan Position Indicator)

The System interpolates each primary data from the volume scan data set for a horizontal plane at user vertical height and display same pertaining to user selectable data form Z, V and σ .

6.2.3 PCAPPI (PSEUDO CAPPI)

The system incorporates the data from the highest elevation scan near the radar and from lowest elevation scan for areas far away from the radar for which radar beams are not intersected by user defined plane for CAPPI and display same pertaining to data selected by user.

6.2.4 VCUT (Vertical Cut)

The system interpolates all the basic parameters (Z, V, a) in any vertical plane passing through two user defined points and display the same for the user selectable parameters.

6.2.5 EBASE (ECHO BASE)

The system identifies from the volume scan data the minimum height up to which the user defined threshold value for each base data exists and display them for user selectable data.

6.2.6 ETOP (ECHO TOP)

The system also identifies from the volume scan data the maximum height up to which the user defined threshold value for each base data exists and display them for user selectable data.

6.3 DERIVED METEOROLOGICAL PRODUCTS

6.3.1 VELOCITY PRODUCTS

The system generates and display following velocity products:

- a) Radial velocity versus the azimuth for a fixed elevation and a fixed slant range (VAD).
- b) Radial velocity at a fixed user defined range on height and azimuth angles (Radial velocity display for fixed range, azimuth angles for various height and azimuth.
- c) Horizontal wind velocity and wind direction using barbs in a vertical column above the radar site for different heights including divergence & convergence product.
- d) Horizontal wind vectors (UWT) using barbs at user defined layer height with or without underlay of reflectivity or velocity in PPI/CAPPI format.

6.3.2 HYDROLOGICAL PRODUCTS

The system generates and display following hydrological products:


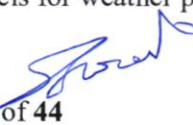


- a) Rainfall intensity using Z-R relationship in a user selectable surface layer with constant height above ground. Instantaneous estimation of Vertically Integrated Liquid water content (VIL) residing in a user defined atmosphere layer in the atmosphere to be displayed in PPI type of display.
- b) Rainfall intensity histogram at selectable locations within radar coverage during a user defined time period.
- c) Precipitation accumulation (PAC) in a user definable time period.
- d) Rainfall amount in user defined basins for user defined time span.
- e) Rainfall amount for any user defined past number of hours.
- f) Shall provide comparison between rainfall intensity derived from reflectivity and measured by rain gauge within the radar coverage area.

6.3.3 AVIATION PRODUCTS

- a) The system evaluates derivatives of wind velocity in radial, azimuth, elevation, North South, East West directions and derive horizontal, vertical and three dimensional shears.
- b) The system is also be able to generate warning product on microburst.
- c) The system evaluates maximum turbulence within user defined atmospheric layer and display in top view.

6.4 ALPHANUMERIC PRODUCTS

The system also provides data on Reflectivity (Z), Radial velocity (V), Horizontal wind velocity and Rain rate in terms of latitude and longitude and heights at user defined height grid point up to 200 km from radar site in tabular form for ingesting these data into numerical models for weather predictions.

7. SYSTEM CHARACTERISTICS

7.1 General

- a) Frequency range - 2700-2900 MHz
- b) Peak power - Higher than 500 KW at the antenna feed
- c) Pulse width Low PRF mode - 2 μ sec ; Velocity mode - 1 μ sec
- d) Primary Power - 440 V, 3 Phases, 50 Hz

7.2 Transmitter

- a) Power device - Klystron
- b) Spectral purity - RMS phase error, pulse jitter consistent with accuracy stated in **section 2.5**
- c) Pulse Repetition - 250 to 1200 PPS, variable, computer control Frequency (PRF) consistent with requirements indicated in **section 2.6**
- d) T.R. Switching - Ferrite duplexer with 5 μ sec or less recovery time.
Total isolation 60 dB Minimum.
- e) Sector blanking - Transmission should be off between two selectable angle intervals in Azimuth & Elevation respectively.

7.3 Receiver

- a) Frequency range - 2700-2900 MHz
- b) System noise figure - Better than 2 dB and consistent with the measurement accuracy requirements of **Section 2.5**.
- c) Type of Receiver - Fully coherent digital receiver.

Linear channel shall have dynamic range of 95 dB or better and dynamic range sufficient to ensure sensitivity mentioned under measurement accuracy in **section 2.5** and prevent saturation for all the meteorological phenomena within operating range.

7.4 Antenna system

- a) Type - Horn feed onto parabolic solid surface reflector
- b) Diameter - 8.6 meters i.e. 28 feet (nominal)
- c) Beam Width - 0.95 degree pencil beam at 2800 MHz measured at 3 dB points.
- d) Polarization - Linear Horizontal
- e) Side lobes - 28 dB or better down from the main lobe to 12 degrees, 30 dB or lower thereafter.
- f) VSWR (Voltage 1.15 : 1 maximum (with radome) Standing Wave Ratio)
- g) Safety Switch Provided on antenna pedestal and at servo amplifier assembly.
- h) Wave guide - Material Aluminum. The entire R.F. plumbing shall be capable of operating satisfactorily at the environmental condition specified under **Section 8**.
- i) Type of pedestal - Elevation over azimuth.

7.5 Antenna Scan Details:

7.5.1 Azimuth Movements:

- a) Automatic mode 360 degrees continuous
- b) Manual mode Manually settable to any azimuth angle.
- c) Azimuth rate Variable from 0 to 6 RPM



- d) Azimuth Accuracy 0.2 degrees or better
- e) Azimuth Resolution 0.1 degrees

7.5.2 Elevation Movement

- a) Automatic mode: -1 degrees to +70 degrees
- b) Manual mode: -1 degrees to +92 degrees
- c) Elevation speed in automatic mode: Variable up to 5 scans per minute.
- d) Elevation Speed in Manual mode: Variable from 1 to 6 degrees per second.
- e) Elevation limit Upper and lower limit switches for elevation limit protection with hard stops
- f) Elevation Accuracy: 0.2 degrees or better.
- g) Elevation Resolution : 0.1 degrees

7.5.3 Scan Modes

7.5.3.1. PPI Mode

- a) Continuous azimuth rotation at Selectable elevation angle.
- b) Sector scan with selectable width and Centre angle.
- c) Volume scan at selected elevation steps.

7.5.3.2 RHI Mode

- a) Automatic RHI Scanning at selected azimuth angle.
- b) Manual control of any azimuth and elevation angle at selected elevation PPI Scan and at selected azimuth RHI Scan.

7.6 Radome

- a) Type : Foam sandwich rigid spherical curved panel.
- b) Color : White
- c) Size Compatible with the dish supplied. Shall have adequate space for maintenance personnel to enter and work.
- d) Wind load : Average 200 km/hr gusting 300 km/hr
- e) Transmission loss : Less than 0.15 dB (one way)
- f) Lightning Protection : Lightning rod with dual ground wires
- g) Obstruction lights : Twin Light System with solar powered auto switch
- h) Entry one door and entry from bottom
- i) Ventilation Three ventilators protected from entry of rain water, Insects and rodents.
- j) Ladder Approachable to obstruction lights.

7.7 Displays and computers are installed as per the list attached

7.8 Radar Signal Processor

- a) Processor type based on pulse pair algorithm.
- b) Averaging compatible with accuracy and scan rate requirements specified in section 2.5. Optionally selectable from 4 to 256 pulses as per operational requirement.
- c) Clutter rejection compatible with clutter rejection requirements of the system as per accuracy

limits specified in section 2.5, standard IIR (Infinite Impulse Response) filtering (minimum 5 poles) with 30 dB and 50 dB (nominal values) rejection and selectable width with facilities for site optimization.

- d) Output 12 bit or better
- e) Design Provision shall exist for user programming with easy to use assembly language and standard C & C++ language.
- f) Data quality: The processor to have thresholds on clutter and signal quality index etc. to discard questionable data.

7.9 Built In Test Equipment (BITE) Processor

7.9.1 A modem system making use of latest technology for continuous monitoring of the operational status of functions and utilities of the radar system shall be supplied.

7.9.2 BITE Processor measures and process a number of real time analog and digital parameters in the radar system and generate and display an error message whenever their value falls outside the specified permissible range. BITE processor shall continuously monitor input and output signals of every module PCB for any deviation from the standard value. Whenever any error message is generated, BITE Processor shall also hierarchically indicate failure from equipment, bay down to PCB and sub-module level. The BITE information shall be available online on any workstation as well as on radar system monitoring unit.

7.9.3 BITE Processor causes the malfunctioning units to be switched off. An acoustical alarm shall also be generated for warning the operator.

8. ENVIRONMENTAL CONDITIONS

The system is capable of operation in a tropical coastal environment under conditions specified below:

8.1 Antenna, Pedestal and Radome

- a) Temperature 0 to 55° c
- b) Relative Humidity up to 100%

8.2 Transmitter, Receiver and Servo unit

- a) Temperature 0 to 50° C
- b) Relative humidity up to 90%

8.3 Computer system:

- a) Temperature 25° C \pm 10° C
- b) Relative humidity up to 90%

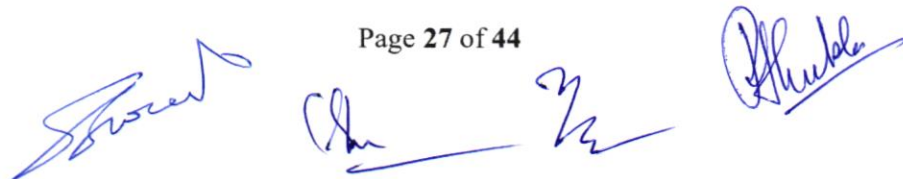
9. COMPUTER SYSTEM, NETWORKING AND COMMUNICATION

9.1 Applications functions

9.1.1 The applications functions are handled by a separate work stations without interfering with the operation functions.

9.1.2 The applications workstation provides capability for software development and integration.

9.1.3 The applications workstations is capable of reading past archived data for development applications.



9.2 Redundancy

Although the operations and applications functions are separated, it is possible for the application processor to take over the functions of the entire system in the event of a failure of the operations processor and vice versa.

9.3 Provision for Satellite Data Input

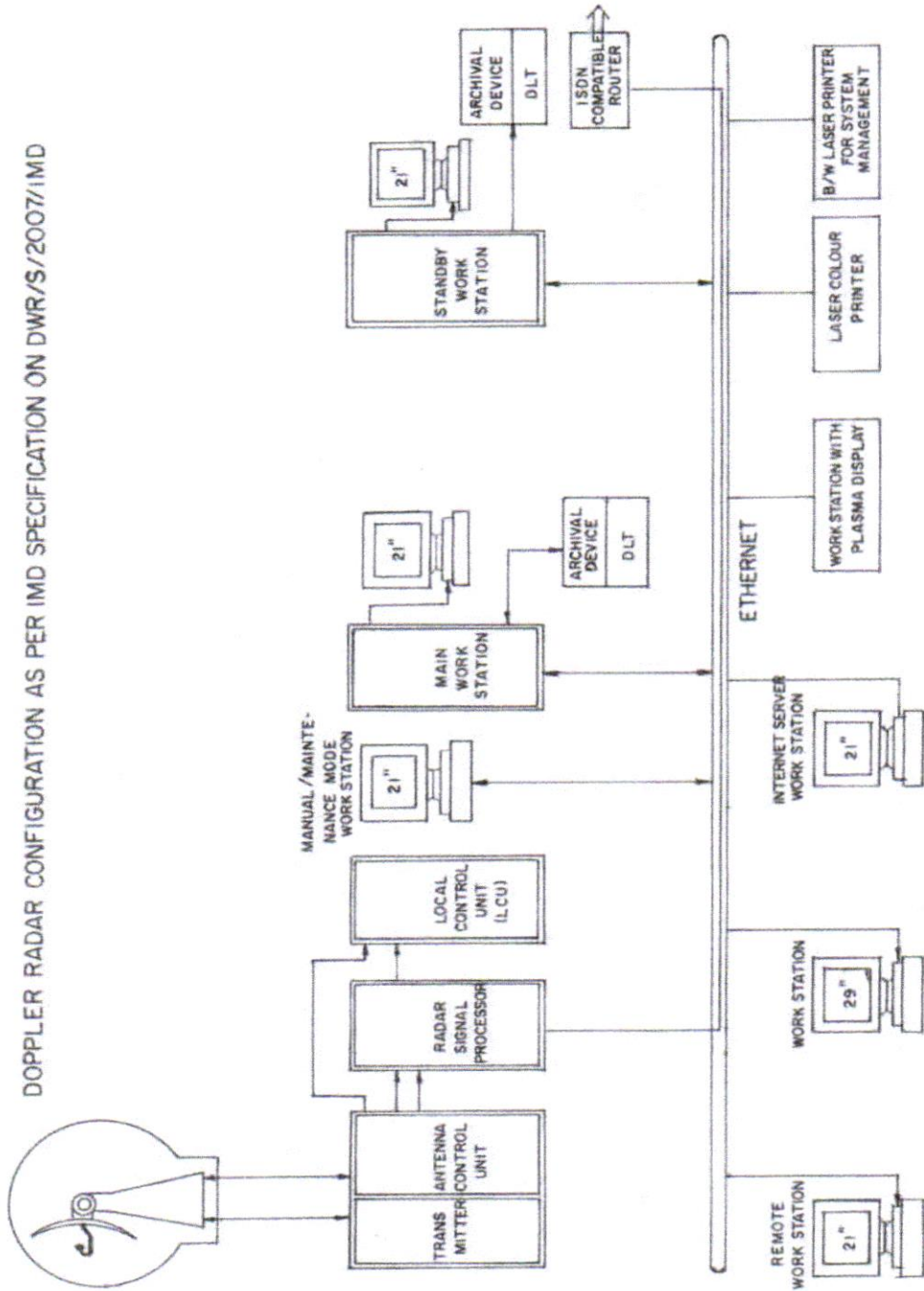
The system has provision for generating composite radar & satellite products, required at a later date (compatible with format of INSAT and other Geo Stationary satellites).

9.4 Networking and Communication

The radar system data processing computers, maintenance computer, printers are suitably interconnected over a LAN. The LAN is connected to a WAN using standard communication devices like routers and modems over standard communication channels like ISDN etc. using standard communication protocol like TCP, IP, FTP etc.



DOPPLER RADAR CONFIGURATION AS PER IMD SPECIFICATION ON DWR/S/2007/IMD



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List of items available at each DWR Station
Detailed hardware and software installed at each site.

BASIC ITEMS		Qty
	S-Band Single Polarization Doppler Weather Radar Make: Metstar China; Model: WSR-98D/S consisting of:	
1	Hardware Items	
1.1	Radome (Make: Metstar China)	1
1.2	Antenna Sub-System (Including Antenna/Pedestal and Antenna Control Unit) Make: Metstar China)	1
1.3	Transmitter Sub-System (Including Transmitter, Waveguide Feed Components and Dehydrator) (Make: Metstar China)	1
1.4	Receiver Subsystem (Make: Metstar China)	1
1.5	Radar Signal Processor (SIGMET RVP8) (Make: SIGMET)	1
1.6	Local Control Unit & Manual/Maintenance station (Including RDASC Cabinet, Data Acquisition Unit, SIGMET RCP8, Keyboard, Mouse, 21" Display, Alarm Panel, Power Control Cabinet and system cables)	1
1.7	Local Control Unit & Manual/Maintenance Workstation Make: HP; Model: HP ProLiant with 21" Display Monitor(Make: HP)	1
1.8	Main Workstation Make: HP; Model: HP ProLiant , HP StorageWorks DAT 120 SCSI Archive Device along with 21" Display Monitor(Make: HP)	1
1.9	Standby Workstation Make: HP; Model: HP ProLiant , HP StorageWorks DAT 120 SCSI Archive Device along with 21" Display Monitor(Make: HP)	1
1.10	Large Screen Display Workstation Make: HP; Model: HP ProLiant including 32" High resolution HP Display Monitor (Make: HP)	1
1.11	Internet Server Workstation Make: HP; Model: HP ProLiant , HP StorageWorks DAT 120 SCSI Archive Device along with 21" Display Monitor (Make: HP)	1
1.12	Remote Workstation Make: HP; Model: HP ProLiant, HP StorageWorks DAT 120 SCSI Archive Device along with 21" Display Monitor (Make: HP)	1
1.13	Very Large Screen Display Workstation Make: HP; Model HP ProLiant ML150G3 including 43" LED smart Television Display Monitor	1
1.14	Color Laser printer Make: HP; Model: HP 2700, 20 ppm	1
1.15	Color Inkjet Printer Make: HP; Model: HP photosmart 5168, 31 ppm	1
1.16	Laser Black and White Printer Make: HP; Model:HP 1320, 22 ppm, Linux Comp	1
1.17	Network Components	1 Set
2.	Software Items	
2.1	Red Hat RHEL 5 Operating system	7 per each Radar site
2.2	RVP8 Signal Processing Software and RCP8 Control Processing Software (Make: Vaisala)	1
2.3	IRIS/Radar on RCP8 (Make: Vaisala)	1
2.4	IRIS/Display software on Manual/Maintenance Mode for Control WS (21" display) (Make: Vaisala)	1

2.5	IRIS/Analysis/Hydroment/Shear software on Standby WS (21" display) (Make: Vaisala)	1
2.6	IRIS/Analysis/Hydroment/Shear software on Main WS (21" display) (Make: Vaisala)	1
2.7	IRIS/Display software on Real Time Display WS (29" display) (Make: Vaisala)	1
2.8	IRIS/Web software on Internet Server WS (21" display) (Make: Vaisala)	1
2.9	IRIS/Display software on Remote Display & Monitoring WS (21" display)(Make: Vaisala)	1
2.10	IRIS/Display software on Display and Demonstration WS (36" × 24" display) (Make: Vaisala)	1
3 Items For Central Receive Station at IMD Headquarters , New Delhi		
3.1	SERVER for the Mosaic at IMD headquarters Make: HP; Model: HP ProLiant ML350G5 including 21" Display Monitor (Make: HP)	1
3.2	Red Hat RHEL 5 Operating system	1
3.3	Network Components (including 1 Router and 1 LAN Switch)	1 Set
3.4	IRIS/Composite Software for networking and mosaic (Make: Vaisala)	1

The Following Test and Measuring Equipments are available at each DWR site, these are not the part of CAMC.

	Test and Measuring Equipments	
1	Digital Storage Oscilloscope 100MHz, Make: Tektronix TDS1012B	
2	Spectrum Analyzer 9KHz to 6GHz, Make : Rohde& Schwarz FSL 6	
3	RF Signal Generator 9 kHz to 3 GHz, Make : Rohde& Schwarz SM 300	
4	RF Power Meter : Kithley 3500	
5	6 and half digit DMM Multi meter with USB interface,Make: Kithley 2100-230-240	
6	Piccoammeter, Make: Kithley 6485	

List of Spares-

Essential spares (At least the mentioned quantity should be maintain by the bidder)

1	2WG03 EL Rotary Joint	Rotary Joint	1
2	2WG04 AZ Rotary Joint	Rotary Joint	1
3	Antenna Feed Horn Window	Feed Horn Window	1
4	2A1A3A3 Speed Reducer	Speed Reducer	1
5	2A1A1RT1 Oil Level Sensor	Oil Level Sensor	1
6	2A1A3RT2 Oil Level Sensor	Oil Level Sensor	1
7	UD6 Waveguide Pressure Unit	Dehydrator	1
8	3A12 Modulator Assembly	Modulator Assembly	1
9	2A3 T/R Limiter	Receiver Protector Assy	1
10	3A2 Rectifier	Rectifier Module	1
11	3A4 Transmitter Driver Amplifier	RF Driver Amplifier Assy	1
12	3A5 Transmitter RF Pulse Shaper	RF Pulse Shaper Assy	1
13	3A6 W/G Arc Detector Assy	W/G Arc Detector Assy	1
14	3A8 Post Charge Regulator Assy	Post Charge Regulator Assy	1
15	3A9 Filter Capacitor Bank Assy	Filter Capacitor Bank Assy	1

CHAPTER 5

ANNEXURE-V

PRICE BID FORMAT

Table: A Charges for CAMC of DWRs at 12(Twelve) locations across India

S. No.	Item Description	Quantity	Unit CAMC charges (per annum) (₹)	GST (₹) per unit cost	Total (₹)
A	B	C	D	E	F=C x (D+E)
1	CAMC charges of one year for DWR at Agartala	1(One)			
2	CAMC charges of one year for DWR at Bhopal	1(One)			
3	CAMC charges of one year for DWR at Palam (New Delhi)	1(One)			
4	CAMC charges of one year for DWR at Goa	1(One)			
5	CAMC charges of one year for DWR at Hyderabad	1(One)			
6	CAMC charges of one year for DWR at Karaikal	1(One)			
7	CAMC charges of one year for DWR at Lucknow	1(One)			
8	CAMC charges of one year for DWR at Mohanbari	1(One)			
9	CAMC charges of one year for DWR at Nagpur	1(One)			
10	CAMC charges of one year for DWR at Paradeep	1(One)			
11	CAMC charges of one year for DWR at Patiala	1(One)			
12	CAMC charges of one year for DWR at Patna	1(One)			

13	Comprehensive AMC of Central Processing System comprising of 3 servers (Model: HP ML 350G5) installed at IMD HQ, New Delhi	3 servers including network equipments and softwares			
14	Any other charges to meet the RFP requirements (break-up expenditure with quantity / details of services etc.to be mentioned clearly); if any (per annum)	-			
Total (₹)					

(Amount in Words per annum)

Table: B Total Price of the contract per annum

S.No.	Details	Cost(₹)
1.	Total from Table A (Recurring charges)	
2.	Final Contract value	

(Total quoted price in Rs. in words)

Note:

1. No cell should be left blank. Write 'Nil' or 'Not Applicable' wherever required.
2. All the costs should be quoted in Indian Rupees and no escalation of cost will be allowed.
3. Total quoted price will be calculated for the entire duration of the contract to decide L1.
4. Above rates shall remain fixed during the contract period. No hidden charges will be allowed.
5. Unpriced Bill of Materials (BoM) should be submitted with the technical bid.
6. Price bid (in pdf format excluding note/instructions) shall be uploaded on e-procurement portal <https://eprocure.gov.in/eprocure/app>.
7. Payments will be made as per AMC services for completed quarterly period after deduction of penalty charges, if any.
8. In case of shifting of Radar from Palam (Delhi) to Sambalpur (Odisha), the same quote/AMC charges quoted for Palam (Delhi) shall be applicable for the Sambalpur site.

Signature of the Bidder: _____

Name & Designation: _____

Date _____

Place _____

Company Seal: _____

Email ID: _____

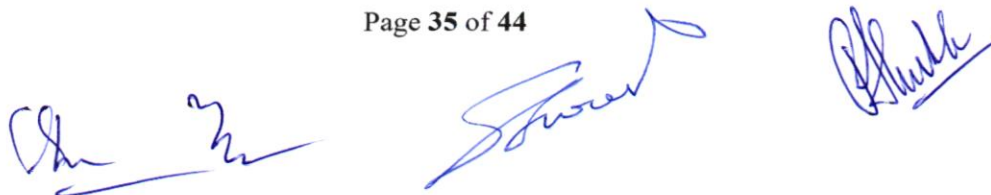
CHAPTER 6

**CONTRACT, ANNEXURES
AND
OTHER STANDARD FORMS**

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CHECK LIST

S. No.	Activity	Compliance Yes/No/N.A.	Page No. of your bid
1.	Company Profile, Infrastructure, and Registration Certificate, ISO certification of Services (if applicable).		
2.	Is the copy of PAN, issued by Income Tax Department of India submitted?		
3.	Have you noted that a Dedicated Project Manager is required to be assigned as per Clause 2.9 (Chapter 3)		
4.	<p>a) Supporting documents for the terms mentioned under “Bidders Eligibility Criteria”.</p> <p>b) Back-to-back support agreement with OEM (details of OEM) for support during the CAMC.</p> <p>c) State whether the business dealings with you have been banned/blacklisted by the Ministry of Earth Sciences (MoES) or any other State/Central Government Department, in the past? In this regard, self-declaration certificate as per Annexure-VIII is to be enclosed. Have you enclosed this certificate?</p> <p>d) Is the information on all past experience of maintenance and satisfactory performance from the users with complete user name and contact details, order details and performance certificate done by them furnished? Please provide the details with supporting documents.</p>	Have you enclosed Bid Security Declaration form as per Annexure-II	
5.	Is the stock list of essential consumable spares required for maintenance of the radar systems at any central location in India to avoid delay in service and list of consumable spares maintained submitted?	Details of Permanent Income Tax account number & GST number? (Attach a copy)	
6.	Has the firm submitted the undertaking that it will not use the IMD data for any commercial purpose and also not share/divulge any information without prior written consent from the IMD? Supporting documents may be attached.		
7.	Copy of Tender document with each page signed and stamped.		
8.	Have you enclosed Tender Acceptance Form (Annexure-VI) duly filled and signed (i.e., terms and conditions are acceptable) with original set of tender. Tenders may be ignored if not signed.		
9.	Available Spares (Quantity in numbers) are held in stock by you for maintenance of DWRs for entire period of the contract?		
10.	All the documents attached to the tender for considering offer are supposed to be complete in all respects. Therefore, it is important that all tender documents are dully filled in, duly signed in and		



	duly stamped, in all respects and the scanned copy of the same (in PDF format) should be uploaded in CPP portal, failing which the tender will be treated as incomplete and is liable to be rejected.		
11.	One hard-copy of the Technical Bid identical to the copy uploaded, should be submitted (by post or by hand) to "The Director (CPU), Room No. 513, Mausam Bhavan, O/o DGM, IMD Lodi Road, New Delhi-03".		
12.	Have you enclosed clause-by-clause compliance statement for the general terms and RFP requirements?		
13.	Have you submitted copy of the last purchase order(s) and performance certificate from users?		
14.	Is tender Submitted by an OEM?		
15.	Is tender Submitted by an authorized Representative/ Agent/Dealer/Supplier/Distributor/ Stockist of OEM? If so is authorisation certificate attached?		
16.	Have you indicated the percentage of local content and provided the self-certification (as per Annexure-IX) that the item offered meets the local content requirements?		
17.	Is tender Submitted by an integrator Representative/ Agent/Dealer/Supplier/Distributor/ Stockist of OEM? If so whether Back-to-back support agreement with equipment manufacturer and software developer company attached? (Refer Chapter 2, Clause no.5.3)		
18.	Have you submitted the Un-priced bid containing Bill of Materials for work components (copy of the blank price bid)?		
19.	Name of Bidder representative to be contacted in case any clarifications needed in the tender-bid submitted by the firm (Name, Office Phone number, Fax Number & Email ID)		
20.	Please mention the Name, Designation and contact Email details of the Authorized signatory who signed on each page of the Bid document.		
21.	Name of the Bidder with complete address to whom supply order to be placed.		

Signature of Bidder:
Full name, designation, and address of the person signing (in block letters):
Whether signing as proprietor/partner/ Constituted attorney/duly Authorized by the company:






BID SECURITY DECLARATION FORM

Whereas _____
(hereinafter called the tenderer)

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

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

In _____ the _____ sum _____ of _____

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

THE CONDITIONS OF THIS OBLIGATION ARE:

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

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

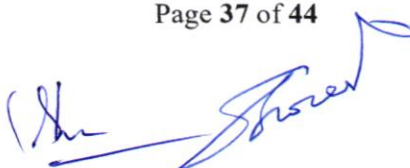
This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

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



ANNEXURE III

BANK GUARANTEE MODEL FORMAT FOR PERFORMANCE SECURITY

To
The President of India
Through:- Director General of Meteorology,
India Meteorological Department,
Lodhi Road, New Delhi-110003

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract no _____ dated _____ to supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;
AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein. We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification. This guarantee shall be valid up to and including the _____ day of _____, 20____

(Signature with date of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch



List of Location of DWR Stations

S. No.	Name of Station	Name of state	Address of station	Date of comissioning
1	Goa	Goa	Officer -in- charge Doppler Weather Radar, Altino, Panaji Goa 403001	22-04-2010
2	Karaikal	Puducherry	Officer -in- charge Doppler Weather Radar Meteorological center, Karaikal-609602-Puducherry	29-10-2015
3	Paradeep	Odisha	Officer -in- charge Doppler Weather Radar Doppler Weather Radar Building (Opposite Empires Hotel),Paradeep Jagatsinghpur, Odisha-754142	10-12-2015
4.	Palam	Delhi	Officer -in- charge Doppler Weather Radar Vill Shahbad Mohammadpur Near Railway station, Delhi-110061 (proposed to be shifted to Sambalpur (Odisha))	22-04-2010
5.	Patiala	Punjab	Officer -in- charge Doppler Weather Radar Physics Department,Punjabi University PATIALA-147002	16=10-2011
6.	Patna	Bihar	Officer -in- charge Doppler Weather Radar Meteorological Centre,JPNI Airport Patna-800014	27-05-2011
7.	Bhopal	M.P.	Officer -in- charge Doppler Weather Radar CIVIL AERODROME, BAIRAGARH, BHOPAL-462035	06-11-2013
8.	Mohanbari	Assam	Officer -in- charge Doppler Weather Radar Meteorological Office Mohanbari	02-06-2012
9.	Agartala	Tripura	Officer -in- charge Doppler Weather Radar Meteorological Centre, Agartala Airport, AGARTALA-799009	13-03-2011
10.	Nagpur	Maharastra	Officer -in- charge Doppler Weather Radar REGIONAL METEOROLOGICAL CENTRE , Airport , Nagpur,Maharastra-440005	28-02-2011
11.	Hyderabad	Telangana	Officer -in- charge Doppler Weather Radar Meteorological Centre N T Rama Rao Airport, Begumpet, Hyderabad-500019	16-07-2010
12.	Lucknow	U.P.	Officer -in- charge Doppler Weather Radar Choudhary Charan Singh Airport, Lucknow-226009	16-08-2011

These Doppler Weather Radars are already installed and commissioned at above respective stations.

Central Receiver Station Location - IMD Headquarter (1st Floor SatMet Building), Lodhi Road, New Delhi -110003

ANNEXURE-VI

TENDER ACCEPTANCE FORM

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

To

The Director General of Meteorology,

Mausam Bhawan Complex,

Lodi Road, New Delhi-110003

Ref: TE document No. _____/_____ 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 Warranty in conformity with your above referred document.

If our tender is accepted, we undertake to supply the goods and perform the services of (Installation & commissioning etc.), as mentioned in tender document with the requirements, terms and conditions specified in the Chapter 1 and Chapter 2 of tender document.

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 agree to 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 Bidder / Tenderer

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



UNDERTAKING FOR
TENDER/BID SECURITY DECLARATION

We, _____ (Legal Name of Tenderer / Bidder) hereby confirm that we are submitting the tender for _____ (Name of the work as per Para 2 of NIT) floated by India Meteorological Department, Ministry of Earth Sciences, Govt. of India, New Delhi.

We do hereby undertake that in the following cases, we shall be debarred from participating in the retender of this work and also will be debarred from participating in any tender of India Meteorological Department, Ministry of Earth Sciences, Govt. of India, New Delhi for a period as specified in table below:

Sr. No.	Case	Period of Ban*
1	If we resile or withdraw our Tender during the period of Tender evaluation before opening of Financial Bids or	2 Years
2	If, having been notified of the acceptance of our Tender by Office of the DGM, India Meteorological Department, Ministry of Earth Sciences, Govt. of India, New Delhi during the period of tender validity, we a) Fail or refuse to enter into rate contract with O/o the DGM, India Meteorological Department, Ministry of Earth Sciences, Govt. of India, New Delhi within the time limit specified and/or b) Fail or refuse to submit unconditional acceptance of Supply Order within the time limit specified and/or c) Fail or refuse to furnish the performance security in accordance with Para 8 of Chapter 2 within the time limit specified	3 Years

****Period of ban shall be from the date of resiling / withdrawal of this tender or from date of issue of Supply Order, as the case may be.***

(Signature with date and seal of the company) (Name and designation)

Note: The undertaking shall be signed by authorized signatory, duly authorised to sign tender for and on behalf of Bidder.

FORMAT OF
UNDERTAKING, TO BE FURNISHED ON COMPANY LETTER HEAD

To
The Director General of Meteorology,
Mausam Bhawan Complex,
Lodi Road, New Delhi-110003

Sub: Declaration with regard to BLACKLISTING/ NON- DEBARMENT by any Organization

Sir,

- 1) We hereby confirm and declare that we, M/s -----, is having unblemished record and is not blacklisted/ De-registered/ debarred by any Central and State Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services at any time and for any kind of fraudulent activities.
- 2) We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this present tender assignment.
- 3) If this declaration is found to be incorrect then without prejudice to any other action that may be taken, PBG should be forfeited in full and the tender if any to the extent accepted may be cancelled.



Authorized Signatory:

Date:

Company Seal:

Annexure (IX)

Format for
Affidavit of Self Certification regarding Local Content in a Doppler Weather Radar

Date: _____

I, _____ S/o, D/o, W/o _____ Resident of
_____ do hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the policy of Government of India issued vide Notification – Public Procurement (preference to make in India) Order 2017 dated 15th June , 2017 and subsequently 04th June 2020 and 16th September. 2020.

That the information furnished hereinafter is correct to be of my knowledge and belief and I undertake to produce relevant records before the procuring entity or any authority so nominated for the purpose of assessing the local content.

That the local content for all inputs which constitute the said equipment has been verified by me and I am responsible for the correctness of the claims made therein.

That in the event of domestic value addition of the product mentioned herein is found to be incorrect and not meeting the prescribed value addition norms, based on the assessment of an authority so nominated for the purpose of assessing the local content, action will be taken against me as per Order No. P-45021/2/2017/-E.E.-II dated 15.06.2017.

I agree to maintain the following information in the Company's record for a period of 03 years and shall make this available for verification to any statutory authority:

(Kindly fill up the below mentioned particulars)

- i. Name and details of the Domestic Manufacturer/Service Provider (Registered Office, Manufacturing Unit location, nature of legal entity):
- ii. Date on which this certificate is issued:
- iii. Doppler weather radar for which the certificate is produced:
- iv. Procuring entity to whom the certificate is furnished:
- v. Percentage of local content claimed:
- vi. Name and contact details of the unit of the manufacturer:




- vii. Sale Price of the Product:
- viii. Ex-Factory Price of the product:
- ix. Freight, insurance and handling:
- x. Total bill of Material:
- xi. List and total cost value of inputs used for manufacture of the Doppler weather radar:
- xii. List and total cost of inputs which are imported, directly or indirectly:

For and on behalf of (Name of firm/entity)

Authorized signatory

(To be duly signed by the Board of Director)


(G. SURESH)


(ROHIT SHUKLA)

-x-


(Suresh Chand)


(Y.K. REDDY)