



NATIONAL CENTER FOR SEISMOLOGY
SATMET Building, Mausam Bhawan Complex
Lodi Road, New Delhi-110003

NOTICE INVITING TENDER (NIT)

Tender Enquiry No. NCS/ISGN/VSAT/CAMC/2017 Dated: 30.11.2017

1. Director, National Centre for Seismology, Ministry of Earth Sciences (MoES), Government of India, on behalf of president of India invites ONLINE tenders in two bid systems i.e. (i) Technical bid, and (ii) Price bid from eligible and qualified Bidders for **Comprehensive Annual Maintenance Contract (CAMC) of VSAT Hubs (2 nos) and VSAT terminals (126 nos.) for a period of 3 years.**
2. **Name of Services:** Comprehensive Annual Maintenance Contract (CAMC) of VSAT Hubs (2 nos) and VSAT terminals (126 nos.)
3. **Specification and quantity:** As per RFP
4. **Tender schedule** is as follows:

Date of publication & availability of Tender	30.11.2017 e-Procurement site: https://eprocure.gov.in/eprocure/app IMD website: http://www.imd.gov.in/pages/tenders.php
Seek clarification start date:	01.12.2017
Seek Clarification end date:	14.12.2017 till 6:00 PM
Pre-bid Meeting (Date & Venue):	15.12.2017 at 1100 Hrs at NCS, EREC Conference Hall, Mausam Bhawan Complex, Lodi Road, New Delhi-110 003
Issue of Addendum /Corrigendum, if any:	Shall be informed in the pre-bid meeting
Bid submission start date:	26.12.2017 at 10:00 AM onwards
Bid submission end date:	05.01.2018 upto 15:00 Hrs
Opening of Tender Bids (EMD, Eligibility & Technical):	05.01.2018 at 15:30 Hrs
Place of Tender Opening:	Room No. 303, III Floor, SatMet Building, Mausam Bhawan Complex, Lodi road, New Delhi-03.
Bid Validity period:	180 days from the date of opening of tender
Cost of Tender Document (non-refundable) in the form of demand draft:	Rs.1,000/- in the form of Bank Demand Draft drawn in favour of "DDO, NCS" payable at Delhi.

5. **Earnest Money Deposit (EMD):** Rs. Onelakh (Rupees Onelakh only). EMD will be accepted in the form of FDR/ Bank Guarantee, and its validity period is 210 days from the date of opening of tender.
6. (a). Small Scale Industries (SSI), Micro and Small Enterprises registered with any Government bodies are exempted from submitting the Tender Fees and Earnest Money Deposit (EMD).
(b). Other Firms, registered with DGS&D / NSIC, are also exempted for submitting Tender fees and EMD.
(c). Exemption for submitting the Tender Fee and Earnest Money Deposit (EMD) will be valid only for validity of registration as on date of opening of tender.
(d) The Bidder shall download the Tender Enquiry Document from the website <https://eprocure.gov.in/eprocure/app> and upload their tender ONLINE on <https://eprocure.gov.in/eprocure/app>, along with scanned copies of EMD in the form of Demand Draft/Bank Guarantee/FDR;and tender fee (tender document cost) in the form of Demand Draft (non-refundable) drawn on a commercial bank in India as mentioned in Para 4 above. Manual bids are not accepted.
7. Demand Draft for tender document cost may be issued in the favour of “DDO, NCS” and payable at Delhi and the original copies of Demand Draft/FDR/Bank Guarantee should be submitted to Mr KamalleshChowdhary, Meteorologist-A, Room No. 303, III Floor, SatMet Building, Mausam Bhavan Complex, Lodi road, New Delhi-03, within due date and time of tender opening.
8. All prospective Bidders are requested to attend the Pre Bid meeting. The venue, date and time of the Pre-Bid meeting are indicated in the Para 4 above.
9. 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 remains the same.
10. Purchaser: The President of India
Through Director, National Centre for Seismology
MoES, Lodi Road, New Delhi-110003
11. Consignee: Director, National Centre for Seismology
MoES, Lodi Road, New Delhi-110003
12. Testing & Acceptance Authority : Director, National Centre for Seismology
MoES, Lodi Road, New Delhi-110003

Purchase Unit (NCS)
O/o Director National Centre for Seismology
SATMET Building, Mausam Bhawan Complex,
Lodi Road, New Delhi-110003
Telephone No: 011-43824593

**Request for Proposal (RFP) for Comprehensive
Annual Maintenance Contract (CAMC) of VSAT
Hubs (2 nos) and VSAT terminals (126 nos.)**

**National Center for Seismology (NCS)
Ministry of Earth Sciences(MoES)
Government of India**

Nov' 2017

SECTION – I

GENERAL INSTRUCTIONS TO BIDDERS

1.0 Introduction:

- 1.01** The Purchaser has issued this Tender Enquiry(TE)document for offering VSAT Services as detailed in “Request for Proposal (RFP)”, which also indicates, inter alia, the required Services for comprehensive maintenance of VSAT Hub (2 nos.), VSAT terminals and its accessories, 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.
- 1.02** 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.
- 1.03** 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”, 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.

1.1 Language of Tender: 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.

1.2 Tender Validity:

- 1.2.1** The tenders shall remain valid for acceptance for a period of 180 days (one hundred eighty days) after the date of tender opening prescribed in the TE document.
- 1.2.2** Purchaser’s Right to accept any tender and to reject any or all tenders.
- 1.2.3** 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 or Bidders.

1.3 Tender Fee: The Bidder shall have to submit non-refundable tender fee as mentioned in Notice Inviting Tender (NIT), however Micro and Small Enterprises registered with Government bodies specified by Ministry of Micro, Small & Medium Enterprises (MoMSME) are exempted for submitting the tender fee. The scanned copies of Demand draft shall be uploaded on

eprocure.gov.in portal and original shall be submitted to Mr. Kamallesh Chowdhary, Meteorologist-A, National Centre for Seismology, III Floor, SatMet Building, Mausam Bhawan Complex, Lodi Road, New Delhi-03 on or before opening of tenders. Refer to the “Bid Submission” section in subsequent para of this document, for more details.

1.4 Tendering Expense: 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.

1.5 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. Micro and Small Enterprises are exempted for submitting fees/cost towards tender document and submission of Earnest Money Deposit (EMD) also known as security deposit. However Micro and Small Enterprises are not exempted for Performance Security. Micro and Small Enterprises shall have to furnish Performance Security, if purchase order is placed to them. There is no relaxation in this regard.

1.6 Pre-Bid Meeting:

1.6.1 Pre-bid conference shall be held as per NIT schedule so as to provide an opportunity to the participating Bidders to interact with NCS with regard to various tender provisions/clauses, before the bids are submitted. Bidders should depute their authorised representative for pre-bid meeting. In case, due to the points/doubts raised by the prospective Bidders, needs to be modified, and then the same will be considered for modification. After pre-bid conference, tender conditions will be frozen. No change will be permissible after 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>) and IMD website (<http://www.imd.gov.in/pages/tenders.php>).

- 1.6.2** NCS shall hold a pre bid meeting with the prospective Bidders at 11:30 AM on **15.12.2017** in the EREC Conference Hall, Annexe Building, Near SatMet Building, Mausam Bhawan Complex, Lodi Road, New Delhi-03. Queries received in writing, from the Bidders, prior to the pre-bid meeting shall be addressed. The queries can be sent to NCS through email at g.suresh@imd.gov.in and/ or faxed on 91-11-24619943.
- 1.6.3** 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.
- 1.6.4 Regular visit of website:** Prospective Bidders are advised to see e-Procurement portal <http://eprocure.gov.in/eprocure> or IMD website (www.imd.gov.in) on regular basis for any change in NIT schedule, amendment / corrigendum in Tender Document including technical requirement and pre-bid minutes etc.

1.7 Bidder's Eligibility Criteria:

- 1.7.1 Qualification/Experience:** The Bidder should have expertise and "hands-on" experience in India in the field of satellite communication, including Wide Area Network design involving VSATs, system integration, supply, installation and commissioning, comprehensive maintenance of VSAT terminals etc.
- 1.7.2** The Bidder MUST have maintained at least 50 numbers of VSATs and ONE VSAT Hub of Gilat Sky Edge DVB technology during the past FIVE years (from the date of publication of tender). Requisite document to support this claim should be furnished. The document should clearly indicate the number of terminals and VSAT-HUBs maintained along with date of maintenance order/contract.
- 1.7.3** The average annual turnover of the Bidder for the last two consecutive years should be a minimum of Rs.1.0 Cr (Rupees One crore). The Balance sheet, Profit and Loss Statement copies of the last two years may be attached.
- 1.7.4** If the quote is from a foreign firm it should be through an Indian partner who meets the above experience criteria. The Bidder should have end-to-end arrangement with the OEM M/s Gilat, Israel to supply and maintain the equipments. The Bidder as consortium can also quote meeting the required qualification.

- 1.7.5** The Bidder (Service Provider) should have back-to-back support agreement with OEM M/s Gilat for this contract. A letter from OEM M/s Gilat, Israel also needs to be furnished as per **Annexure-3** along with the tender document ensuring the availability of service support for the entire period of the contract. The issue date of the letter from the OEM should be after the date of publishing of the present tender enquiry in e-Procurement Portal.
- 1.7.6** The Bidder must have countrywide support and provide the details on technical manpower. The Bidder should indicate their business model for providing the service support. NCS reserves the right to verify the coverage of tech-support base as indicated by Bidder. In case of false or un-true claims found for any Bidder, such Bidder could be accordingly disqualified from further evaluation & processing of their bids for this tender. In this regard, no further communication with the Bidder shall be entertained.
- 1.7.7** The registration number, GST and PAN numbers of the firm should be submitted, failing which Bidder's bid-offer would become invalid & same shall be rejected.
- 1.7.8** The Bidder should submit the details of agreements entered into with various Manufacturers/Partners/Sub-contractors for providing CAMC of VSAT Hub and VSAT terminals and their experience to meet the qualification & experience criteria.
- 1.7.9** A self-certificate stating that the Bidder is not presently blacklisted and hasn't been black listed by any institution of the Central/State Government in the past three years should be submitted.
- 1.7.10** The Bidder is requested to furnish documents to establish their eligibility for each of the above clauses. Relevant portions, in the documents submitted in pursuance of eligibility criteria mentioned above, should be highlighted. If tender were not accompanied by all the above documents mentioned, the same would be rejected. Undertaking for subsequent submission of any of the above document will not be entertained. However, NCS reserves the right to seek fresh set of documents or seek clarifications on the already submitted documents. All documents should be submitted electronically in PDF format. Upon verification, evaluation / assessment, if in case any information furnished by the Bidder is found to be false / incorrect, their bid shall be summarily rejected and no correspondence on the same shall be entertained.
- 1.7.11** THE BID SUBMITTED BY ANY BIDDER NOT FULFILLING THE ELIGIBILITY CONDITIONS / CRITERIA DETAILED ABOVE, WILL NOT BE CONSIDERED.

1.8 Bid Submission:

- 1.8.1** The Bidder has to quote for all items mentioned in Scope of the Services, as per Price-bid format given in Annexure-7
- 1.8.2 No deviations in terms & conditions of the tender document will be accepted in any case.
- 1.8.3 Uploading of bids on e-Procurement portal is 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.
- 1.8.4 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 (scanned copies in PDF format) are duly filled in, duly signed-in and duly stamped, in all respects before uploading.
- 1.8.5 All the bids documents should be signed by the authorized signatory with company seal. All pages of the bid being submitted must be sequentially numbered by the Bidder.
- 1.8.6 NCS will not be responsible for any delay on the part of the vendor in obtaining the terms and conditions of the tender notice or submission of the online bids.
- 1.8.7 Without Tender fees and EMD unless exempted, bid will be treated as cancelled.
- 1.8.8 Part-I (Technical Bid) and Part-II (Commercial Bid) should be uploaded in the prescribed format in the e-Procurement portal. Original Bank Draft(s) towards EMD and TENDER FEES in one cover sealed and super scribed “EMD and Tender Fee– for Comprehensive AMC of VSAT terminals and VSAT Hubs due on 05.01.2018 at 15:00 hrs.” should be submitted physically to Mr Kamallesh Chowdhary, Meteorologist-A, Room No. 303, III Floor, SatMet Building, Mausam Bhavan Complex, Lodi road, New Delhi-03. However, the scanned copies of Bank drafts related to Tender fees and EMD, must be uploaded (PDF format) electronically (along with Technical Bid) on e-Procurement Portal (<https://eprocure.gov.in>).
- 1.8.9 Part-1 Technical Bid should contain the following details, should be titled as “Technical Bid – NCS Tender for Comprehensive Annual Maintenance Contract of VSAT Hub and VSAT terminals.”
- a.** Company profile and Infrastructure
 - b.** Registration certificate of bidding firm with Government body in their country. Credential/document shall be attached.
 - c.** All the documents asked for Eligibility Criteria.
 - d.** Copy of Tender document in each page which was duly signed and stamped.
 - e.** Compliance sheet and the deviations, if any, as per Annexure-6 and the supporting documents.

- f. PDF files (scanned document) of Tender fees and EMD.
- g. Un-priced-bid (without price) containing Bill of Materials (BoM) indicating various components of works relating to AMC services, should be submitted. This should be exactly same as price bid format (**Annexure- 7**) mentioned in the tender document.
- h. **DSG&D Enlistment Certificate**: It is compulsory for all firms in India (agent/ Authorised supplier/ Dealer/ Subsidiary/Integrators/ Distributors/ Stockist etc of their foreign principals) desirous to quote in Foreign Currency directly on behalf of their foreign principal and payment has to be made to their foreign principal, to get themselves enlisted with DGS&D as per directive of Department of Expenditure, Ministry of Finance.
- i. Proof of enlistment with Department of Expenditure, Ministry of Finance through DGS&D for bidding firm in India who desires to quote directly on behalf of their foreign principal in foreign currency must be attached with the technical bid.
- j. 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.
- k. Checklist section (as per **Annexure-1**) properly filled and signed.
- l. Submission of Tender Acceptance form as per format given in **Annexure-2**.
- m. Any deviations to the Terms and Conditions including Financial shall clearly be brought out in the Technical proposal with specific reasons
- n. The Technical bid file in PDF format, NOT containing the above documents or containing the financial bid (with price quote details) in explicit/implicit form will lead to rejection of the bid.

1.8.10 Price Bid (Part-II) The financial bid (as per the Price bid format specified in **Annexure-7**) needs to be submitted in PDF format.

- a. The rates are to be quoted in strict compliance to the format (**specified in Annexure-7**) otherwise the bid is liable to be rejected.
- b. The rates are to be quoted by the Bidders in Indian Currency and payment shall be made to successful Bidders in Indian currency only.
- c. The Bidder shall bear all the Income-tax liability as per rates prevailing at the time of undertaking the job in accordance with the Income-tax Act in force in India.

- d. Percentage (%) of taxes etc. if any to be claimed shall be indicated in the Price bid, otherwise it will be presumed that rates are inclusive of all taxes and no plea would be accepted in this regard after opening of the Tender bids.
- e. Any firm in India (Agent/ Authorised Supplier /Dealer/ Subsidiary/ Integrators/ Distributors/ Stockist etc. of their foreign principal) quoting prices in foreign-currency and payment (in foreign currency) has to go to his foreign principal, then bidding firm in India must have enlistment with DGS&D. Indian firm shall not be paid in foreign currency.
- f. Statutory levies, taxes and duties etc., if any, chargeable on the goods/services are payable on actual basis as applicable.
- g. If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail.

1.9 Alterations and Withdrawal of Tender:

- 1.9.1 The Bidder, after uploading its Tender in PDF format, is permitted to alter / modify its tender so long as such alterations / modifications are received duly signed, sealed and marked like the original tender, within the deadline for submission of tenders.
- 1.9.2 No tender should be withdrawn after the deadline for submission of tender and before expiry of the tender validity period. If a Bidder withdraws the tender during this period, it will result in forfeiture of the EMD furnished by the Bidder.

1.10 Opening of Tenders:

The purchaser will open the tenders at the specified date and time and at the specified place as indicated in the NIT. In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day. Authorized representatives of the Bidders, who have submitted tenders on time may attend the tender opening, provided they bring with them letters of authority from the corresponding Bidders. Two Bid system will be as follows. The Technical Bids are to be opened in the first instance, at the prescribed time and date. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. During the Technical Bids opening, the tender opening official(s) will read the salient features of the tenders like Eligibility Criteria, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender opening

official(s). Thereafter, in the second stage, the Price Bids of technically qualified Bidders only shall be opened for further scrutiny and evaluation on a date notified to the technically qualified Bidders.

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

- a) Registration certificate of bidding firm with Government body in their country. Credential/document not attached.
- b) Tender is unsigned.
- c) Checklist (**Annexure-1**) not enclosed.
- d) Tender Acceptance Form (**Annexure-2**) not duly signed and stamped. (i.e., all the terms & conditions) of tender document are acceptable. Original Letter shall be enclosed in technical bid.
- e) Tender validity is shorter than the required period.
- f) Required EMD has not been provided unless exempted.
- g) Bidder has not agreed to give the required Performance Security, after issue of Supply Order.
- h) Proof of enlistment with Department of Expenditure, Ministry of Finance through DGS&D not attached with the tender (in case bidding firm in India quoting on behalf of its foreign principal in foreign currency and payment has to be made to foreign principal).
- i) Copy of agreement of bidding firm from India with its foreign principal with the precise relationship between them and nature of services which would be available from bidding firm in India. Copy of this agreement must be attached with the tender.

1.12 Technical Evaluation:

1.12.1 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.

1.12.2 If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the 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 tender will be liable to be ignored.

1.12.3 Technical Evaluation Committee (TEC) will shortlist Technical Bids on the basis of technical parameters and features offered. 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.

1.12.4 For 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 shall be debarred from the tender evaluation process and shall forfeit the EMD.

1.12.5 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.

1.12.6 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).

1.12.7 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.

1.13 Financial Evaluations:

1.13.1 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).

1.13.2 There will be **NO NEGOTIATION** regarding the financial bid.

1.13.3 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 NCS 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.

1.13.4 The price of Optional Items will not be considered to decide on the lowest commercial offer (L1).

1.13.5 If there is a discrepancy between the unit price and total price, The Unit Price shall prevail.

1.14 Earnest Money Deposit (EMD):

1.14.1 The Bidder shall furnish along with its tender, Earnest Money for an amount as shown in the tender notice. The Earnest Money is required to protect the purchaser rights against the risk of the Bidders unwarranted conduct. EMD also known as security deposit.

1.14.2 EMD of Rs. 1,00,000/- (Rupees One lakh only) has to be submitted through FDR/Bank Guarantee of any Scheduled Commercial Bank drawn in favour of “DDO, National Centre for Seismology, New Delhi”, physically before 1500hrs on 05.01.2018. Otherwise, bid will be rejected. However the scanned copy of FDR/BG along with the Bid must be uploaded electronically on e-Procurement site.

1.14.3 The Bidder who are registered on Tender submission date with Directorate General of Supplies & Disposals (DGS&D) or with National Small Industries Corporation, New Delhi, shall be eligible for exemption from EMD. Micro and Small Enterprises specified by Ministry of Micro, Small & Medium Enterprises (MoMSME) are exempted from the submission of Earnest Money Deposit (EMD).

1.14.4 The earnest money shall be valid for a period of Thirty (30) days beyond the validity period of the tender.

1.15 Refund of EMD:

1.15.1 In the case of those Bidders who fail to qualify the eligibility criteria, the Earnest Money Deposit (EMD) will be refunded without any interest accrued immediately thereafter.

1.15.2 In the case of those Bidders whose technical bids do not qualify, the EMD will be refunded without any interest accrued within one month of the acceptance of TEC’s recommendations.

1.15.3 In the case of those Bidders whose technical bids have qualified but are not selected, the EMD will be refunded without any interest accrued within one month of the acceptance of Financial Evaluation Committee’s (FEC) recommendations.

1.15.4 Bidder whose bid was accepted and selected, the EMD will be refunded without any interest accrued after the submission of Performance Bank Guarantee (PBG).

1.15.5 Application of request for refund of EMD is given at **Annexure-4**

1.16 Forfeit of EMD:

1.16.1 Earnest money of a Bidder will be forfeited, if the Bidder withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser.

1.16.2 The successful Bidder's earnest money will be forfeited without prejudice to other rights of Purchaser if supplier fails to furnish the required performance security within the specified period mentioned in clause 1.17 / Supply Order.

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

1.17 Performance Security:

1.17.1 Successful Bidder shall submit performance security within thirty (30) days from date of dispatch of supply order/award of contract by the purchaser or within twenty one (21) days from the receipt of supply order by the supplier whichever is earlier.

1.17.2 The purchaser may consider annulment/cancellation of supply order/ award of contract if performance security not received in stipulated time.

1.17.3 There is no relaxation/exemption in submitting of Performance Security.

1.17.4 The supplier, shall furnish performance security to the purchaser for an amount equal to ten percent (10%) of the total value of the contract (excluding optional items), valid up to sixty (60) days beyond the CAMC period. The format of bank guarantee to be submitted as performance security, is given in **Annexure-5**.

1.17.5 Performance Security shall be furnished by foreign supplier (participated directly in the tender) including indigenous components to be taken by their representative.

1.17.6 Bank Guarantee issued from the foreign banks must be authenticated by State Bank of India (SBI) or any other Nationalized Bank of India.

1.17.7 Firm, enlisted with DGS&D, quoting on behalf of their foreign principal shall be responsible for furnishing performance security for the entire project tenure.

- 1.17.8** The successful Bidder will have to deposit Performance Security within specified time limit given above, equivalent to 10% (Ten Percent) of the total value of the work order, in the form of FDR or Bank Guarantee from a Nationalized/ Scheduled Commercial Bank in favour of “DDO, National Centre for Seismology, New Delhi”. If the Security Deposit is not paid within time specified, the Earnest Money Deposit of the Bidder shall be forfeited. No interest will be payable for “Performance Security”.
- 1.17.9** Performance Security has to be submitted irrespective of its registration DGS&D/NSIC etc. Performance security is not relaxed to any supplier/service provider. Submission of Performance Security is must for all suppliers/service providers.
- 1.17.10** It shall be in any one of the forms namely Fixed Deposit Receipt or Bank Guarantee drawn/issued issued by a commercial bank doing Government business in the prescribed form in favour of the purchaser. In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended. Foreign Bidder may submit in the form of Bank Guarantee. Bank Guarantee issued from the foreign banks must be authenticated by STATE BANK OF INDIA or any other Nationalized Bank of India.
- 1.17.11** The purchaser will release the Performance Security without any interest to the supplier/ service provider on completion of the supplier’s all contractual obligations including the warranty obligations & after receipt of performance security for AMC (if applicable).
- 1.17.12** In the event of non-providing the services, the Performance Security shall be forfeited to the extent the services are not provided. Further, if the purchaser has to get the services from any other Bidder because of failure to provide in full or part by the successful Bidder, the difference in payment may be made from such amount. Also, the amount retained towards “Performance Security” is subject to forfeiture if it is found at any point of time during the period of contract that the services offered by the supplier are not in conformity to the accepted specifications mentioned in RFP by the purchaser.
- 1.17.13** In case the Bidder backs out of the contract in mid stream without explicit consent of the NCS, the PBG will stand forfeited.
- 1.17.14** On completion of the AMC period, the Performance Bank Guarantee without any interest accrued shall be released after ascertaining that satisfactory support that has been provided during AMC period. In case, it is found that appropriate satisfactory support has not been

provided by the Bidder, NCS will ensure that the prescribed penalty for the default in service has been realized or shall be recovered from the Bidder out of already due payments.

1.18 Payment Terms:

1.18.1 No advance payment will be made in any case.

1.18.2 Payment for Comprehensive Annual Maintenance Charges for Hubs and VSAT communication equipments at field/remote stations shall be on quarterly basis on completion of quarterly period after making statutory deductions like TDS; Penalties, if any; etc.

1.18.3 Bidder needs to submit monthly performance report duly certified by the NCS/INCOIS/user along with the bill.

1.18.4 Payment towards VSAT Hub AMC would be made on quarterly basis, after providing satisfactory service for the quarter. Vendor need to submit quarterly performance report duly certified by the NCS/INCOIS/user along with the bill. Vendor need to submit copy of Preventive Maintenance (PM) (to be done once in six month period for each VSAT Hub) certificate duly certified by NCS along with bill.

1.18.5 Payment for Services of AMC of VSAT terminals would be made quarterly basis, after providing satisfactory service for the quarter. Vendor need to submit quarterly performance report duly certified by the NCS/user along with the bill.

1.18.6 Payments shall be subject to deductions of any amount for which the Bidder is liable under the Service Contract. Further, all payments shall be made subject to deduction of TDS (Tax Deduction at Source) as per the Income-Tax Act, 1961 and any other applicable taxes; and also penalty charges due to deficiency in service (if any).

1.18.7 All payments will be made through RTGS only. In this connection, Bidder shall submit particulars of his Bank Account details – a) Account Number b) Branch Name and Address c) IFS code d) MICR number e) PAN etc.

1.18.8 During the AMC period the vendor is expected to maintain the services as per RFP Service level requirements mentioned in RFP, failing which the penalties will be charged by NCS and payments are made after adjusting the penalties for not meeting the service levels. A Service Level Agreement is required to be signed within two months from the date of issue of Supply Order.

1.19 Extension of the contract: The selected Bidders shall provide services for a period of THREE years. If NCS desires, the Bidder must agree for extension of the contract for one more year under the same payment terms and conditions. Beyond this one year, the extension of contract on yearly basis shall be considered on mutually agreed payment terms and conditions.

1.20 Arbitration:

1.20.1 In case any dispute or difference arises out of or in connection with or the carrying out of AMC Services (whether during the progress of the Services or after their completion & whether before or after the termination, abandonments or breach of contract) except as any of the accepted matters, provided hereunder, the parties hereto, shall first endeavour to settle such disputes of differences amicably.

1.20.2 If both the parties fail to reach such amicable settlement, then either party (The Purchaser or Bidder) may (within 30 days of such failure) give a written notice to the other party requiring that all matter in dispute or difference be arbitrated upon. Such written notice shall specify the matters which are in difference or differences of which such written notice has been given and no other shall be reoffered to the arbitration of a single arbitrator, to be appointed by both the parties or in case of disagreement as to the appointment of a single arbitrator, to that of two arbitrators, one to be appointed by each party or in case of said arbitrators not agreeing then, to the umpire to be appointed by the arbitrators in writing before entering upon the references. Provisions of Indian Arbitration & Conciliations Act, 1996 or any statutory modification or re-enactment thereof and rules framed there under from time to time shall apply to such arbitration.

1.20.3 Venue of arbitration shall be New Delhi.

1.20.4 The arbitrators or arbitrators appointed under this Article shall have the power to extend the time to make the award with the consent of parties.

1.20.5 Pending reference to arbitration, the parties shall make all endeavours to complete the work in all respect. Disputes, if any, will finally be settled in the arbitration.

1.20.6 Upon every or any such references to the arbitration, as provided herein the cost of and incidental to the reference and Award respectively shall at the discretion of the arbitrator, or the umpire, as case may be.

1.20.7 The award of arbitrator or arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of

any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence. The Purchaser and the Contractor hereby also agree that arbitration under this clause shall be the condition precedent to any right of action under the contract except for as provided for in the Tender.

1.21 Force Majeure Clause:

Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable. If at any time, during the continuance of the Service contract, the performance of VSAT Hubs and VSAT terminals in whole or in part by either party of any obligation under the Service contract is prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, devastating earthquake, epidemics quarantine restrictions, strikes, lockouts or acts of God (hereinafter referred to as "events") etc, provided notice of happenings of any such event is duly endorsed by the appropriate authorities/chamber of commerce in the country of the party giving notice, is given by party seeking concession to the other as soon as practicable, but within 21 days from the date of occurrence and termination thereof and satisfies the party adequately of the measures taken by it, neither party shall, by reason of such event, be entitled to terminate the Service Contract, nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and deliveries under the service contract. The maintenance services shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of the purchaser as to whether the Services have so resumed or not, shall be final and conclusive, provided further, that if the performance in whole or in part or any obligation under the Service contract is prevented or delayed by reason of any such event for a period exceeding 60 days, the purchaser may at his option, terminate the Service contract. In such cases, Director, NCS decision shall be final, conclusive and binding between the two parties. There may be a Force Majeure situation affecting the purchase organization only. In such a situation the purchase organization shall take up with the supplier on similar lines as above for further necessary action.

1.22 Termination of tender by the Purchaser:

- 1.22.1** 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.
- 1.22.2** 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.
- 1.22.3** 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.

SECTION-II
REQUEST FOR PROPOSAL (RFP)

FOR

“Comprehensive Annual Maintenance Contract (CAMC) of VSAT Hub (2 nos) and VSAT terminals (126 nos.) for a period of 3 years”

2.0 Background:

- 2.01** Seismological activities of India Meteorological Department (IMD) has been separated and brought under a newly established office - National Centre for Seismology (NCS). The National Centre for Seismology, is an attached office under the body of Earth System Sciences Organization (ESSO), under Ministry of Earth Sciences (MoES) and is a nodal agency of Government of India for earthquake monitoring and related activities in the country. NCS is now entrusted to maintain the Indian Seismic and GNSS Network (ISGN) which was earlier established and maintained by the INCOIS. The details of the project is available at <http://www.isgn.gov.in>.
- 2.02** Under the ISGN project, the seismic and GPS observatories spread across the country, have been integrated through VSAT communication to the data centres at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad and National Centre for Seismology (NCS), New Delhi for obtaining real-time continuous data from these observatories to meet the operational activities of both data centres at INCOIS and NCS.
- 2.03** The ISGN comprises of two VSAT Hubs, one at INCOIS Office campus, Hyderabad (Telangana State) and another at National Centre for Medium Range Weather Forecasting (NCMRWF) office campus, Sector-62, Noida (U.P); and about 126 numbers of VSAT terminals installed at various Seismological and GPS field observatories spread across Indian mainland and Island regions of the country.
- 2.04** The VSAT network was supplied by M/s Nelco Ltd, Hyderabad during 2011-12 and is presently under Comprehensive AMC contract with the same firm till March 2018.
- 2.05** The network operates in Ext-C band using GSAT-12 satellite with INCOIS Hub and GSAT- 16 satellite with NCMRWF Noida Hub. Presently there are around 126 VSAT terminals spread across the country in the network. The VSAT system is based on M/s Gilat SkyEdge-IP DVB-S platform. The satellite bandwidth requirements of VSAT Hub has been provided through M/s Antrix Corporation Limited (ACL), Bangalore and is taken care by this office. Therefore, the

satellite bandwidth requirements of this project do not come under the purview of this present tender. The VSAT Hub at NCMRWF, Noida is connected through a 2 Mbps MPLS link to NCS HQ, Lodi Road, New Delhi; and Data centres at INCOIS, Hyderabad and NCS, New Delhi have been connected through 4 Mbps MPLS link. Among 126 stations, each half number of stations have been pointed to GSAT-12 and configured to receive data at VSAT Hub, INCOIS and other half of field stations have been pointed to GSAT-16 and configured to receive data at VSAT Hub, NCMRWF, Noida. The data thus received at each data centre through its VSAT-Hub, is re-transmitted to another data centre in real time through existing MPLS connectivity. In similar lines with the satellite bandwidth requirements, the MPLS connectivity do not come under the scope of this present tender.

2.06 At present, equipments installed at each VSAT Hub (at INCOIS and NCMRWF), and all 126 VSAT terminals are working satisfactorily. The two Hubs are working on 24 x 7 basis and at present they are presently managed by M/s Nelco Limited.

2.07 The VSAT terminals at each field station are presently operating with power supplied from battery- bank of 4 batteries (each of 12V/100AH) which are being mainly charged through solar panels. Apart from solar power, the batteries are also being charged through Battery Charger (24V) connected to 230V AC main supply, in case if solar power is insufficient to charge the batteries.

2.08 The site details of two VSAT Hubs and 126 field VSAT terminals are given in **Annexure-8**. The block diagram of VSAT network is shown in **Annexure-9**.

2.09 The details of equipments installed at each location of VSAT Hub are given at **Annexure-10 and Annexure-11**.

2.10 The details of VSAT equipments installed at field location is given at **Annexure-12**.

2.11 All the operating license of VSAT Hubs and VSAT terminals are presently issued to INCOIS. Actions are in progress and taken-up with DoT for transfer of license from INCOIS to NCS.

2.1 Scope of the Services:

2.1.1 Following Services are required for a period of THREE years:

Comprehensive on-site maintenance on 24 x 7 basis for existing VSAT Hubs installed at INCOIS office complex, Hyderabad and NCMRWF, Noida.

2.1.2 Comprehensive on-site maintenance of existing VSAT terminals installed at 126 locations spread across India.

- 2.1.3 Manpower deployment at each VSAT Hub:** One number of Senior Engineer (Level-2, L-2) for VSAT Hub operation & maintenance (during working hours i.e. 9:00AM to 5.30PM on week days from Monday to Friday); AND One number of Junior Engineer (Level-1, L-1) performing duty round-the-clock (24 x7 basis) to monitor VSAT Hub operations at each VSAT Hub location i.e., INCOIS, Hyderabad and NCMRWF, Noida.
- 2.1.4** Comprehensive maintenance of VSAT equipment, Solar Panels, Solar Charge controller, battery charger installed at field stations.
- 2.1.5** Bidder is responsible for obtaining license from DoT for migration of VSAT terminals and VSAT Hubs from INCOIS to NCS. Necessary co-ordination with WPC /DoT/ NOCC /SACFA for VSAT's for the VSAT Migration/Installation and payment of royalty/license and any other charges to WPC, NOCC & DoT. The charges will be borne by NCS. Collection of information / data and prepare documents of Remote VASTs on behalf of NCS, submission of documents and coordination to obtain WPC/SACFA licenses from DoT & regulatory agencies.
- 2.1.6** Bidder is responsible for maintenance of existing electrical-earthing of VSAT terminal at all field stations and at each location of VSAT Hubs.
- 2.1.7** Bidder is responsible for re-location of VSAT terminal and its accessories including solar and battery bank, if required. The firm should quote for dismantling and packing of the material from the existing site; re-installation and commissioning of VSAT and its accessories at new site including electrical earthing at new site. The transportation charges shall be paid as per actual.
- 2.1.8** Bidder is responsible reorientation / reconfiguration of VSAT from one satellite transponder to another by visiting remote VSAT site, if desired by the Purchaser.
- 2.1.9** Firm should quote for replacement of Batteries of VSAT terminal under the arrangement of buy-back of old batteries, if desired by the Purchaser. The quote should be for one number of battery bank (comprising of 4 nos. of dry maintenance free batteries, each of rating 12V 100AH) for each region of operation.
- 2.1.10** Bidder should quote for Iron-caging around VSAT antenna and solar panels in each region of operation. The quote should be for one field station located in each region of operation.
- 2.1.11** Bidder should quote for one unit of supply, installation and commission of solar system and one unit of battery charger for one field VSAT terminal, if desired by the Purchaser.

2.2 CAMC of existing VSAT HUBs at INCOIS & NCMRWF; VSAT terminals with solar power and batteries & Penalty Charges

- 2.2.1** The Bidder shall provide on-site comprehensive maintenance services of all hardware & software of existing Gilat's SkyEdge IP DVB-S platform VSAT Hub at two sites and VSAT terminals at 126 sites. Desirous bidders may visit VSAT Hub location at Noida or at Hyderabad; and VSAT terminal location at Ridge, near Delhi University north campus, Delhi or at any location among 126 locations with prior appointment to check the equipments installed.
- 2.2.2** The Bidder is required to undertake the comprehensive AMC of the VSAT Hub and field VSAT terminals with solar power accessories in existing power, environmental and earthing conditions, as is where is basis.
- 2.2.3** The successful Bidder should ensure that taking over the maintenance of existing Hub and VSAT terminals will be done without any disruption in the operational activity of both centres at Hyderabad and Delhi.
- 2.2.4** Bidder should ensure availability of sufficient number of equipments/ critical spares etc. in their stock to replace the defective equipment on priority basis.
- 2.2.5** Bidder should ensure migration of VSAT network from one satellite to another, in the case of satellite end of life or functional problem in satellite or satellite failure.
- 2.2.6** Any addition and deletion of VSAT terminal at any station, is at sole discretion of User/Purchaser.
- 2.2.7** The Bidder on behalf of NCS/INCOIS shall collect information / data and prepare documents for the remote VSATs for obtaining WPC / SACFA Clearances, submit at DoT/regulatory agencies for getting required licenses / regulatory clearances from DoT / WPC / SACFA/NOCC. The above work involves online filing of application, physical submission of hard copies, follow-up with concerned agencies and any other work necessary for obtaining the clearances.
- 2.2.8** To meet regulatory requirements, the Bidder shall provide all such documents to NCS at no extra cost, as asked by regulatory authority (such as undertaking towards security of equipments supplied, equipment details etc) or required by NCS/INCOIS to prepare documents for regulatory authority (such as spec sheet for Link budget calculation) as and when required.

2.2.9 The Bidder needs to carryout preventive maintenance (PM) of Remote VSAT systems at least once in six months during the AMC period. The Bidder may carryout PM while attending service call.

2.2.10 Mean Time To Repair (MTTR) for field/remote VSAT terminals from the time of reporting of fault at field/remote VSATs.

Region of operation	No. of days
Mainland (M)	2
Himalayan & North-East region (HNE)	10
Andaman & Nicobar Islands (A&N)	15
Lakshadweep Islands* (LD)	45

*At present, no VSAT terminal under ISGN, installed in Lakshadweep Islands.

However, it may come up in future.

The features of AMC of field VSAT

- a) 24X7MonitoringOperation.
- b) VSAT network Performance report per site basis.
- c) Network latency period not to exceed 5 seconds.
- d) Review and setting of routing policies.
- e) QoS implementation and review.

2.2.11 Complaint shall be lodged over Email, telephone, Letter, FAX, etc. with the designated officials of the Bidder. Subsequently, the Bidder has to provide the call registration process and escalation matrix. The bidder shall issue a unique number identifying the complaint lodged by the staff of NCS irrespective of the mode used.

2.2.12 Bidder will also provide a status report every THREE months through email to INCOIS and NCS about the support related complaints logged and actions taken to resolve them.

2.2.13 The ON Site comprehensive AMC covers keeping the VSAT with optimum level for the CW signal, co polarization and cross polarization value.

2.2.14 The Bidder shall provide site-wise uptime along with bandwidth utilization on monthly basis in the form of a report. Bidder should provide the detailed methodology of monitoring and calculating the up-time in the technical bid. The Purchaser reserves the right to evaluate the methodology suggested by the Bidder. In case the suggested methodology is not acceptable to

the Purchaser (NCS), the NCS shall prescribe a suitable method at the time of implementation of the AMC of the project.

- 2.2.15** The Bidder should replace the batteries as per the user request for a particular field / remote site. The charges towards replacement of the batteries will be made in the subsequent quarterly period after successful completion of works.
- 2.2.16** Bidder should carry out the works related to cleaning of grass and jungle bush; and cutting of tree branches in the premises of VSAT terminal, if desired by the Purchaser. The charges towards the bush-cutting will be made in the subsequent quarterly period after successful completion of works.
- 2.2.17** The Bidder should carry-out the installation of iron-caging for VSAT antenna and solar panels as per the user request for a particular field / remote site. The charges towards installation of iron-caging will be made in the subsequent quarterly period after successful completion of works. The specifications of iron-caging is given at **Annexure-13**.
- 2.2.18** The bidder should carry out the shifting of VSAT terminal and its accessories like batteries, solar panels etc. within city premises or any other distant site, as per user request. The charges towards shifting of VSAT terminal and its accessories will be made in the subsequent quarterly period after successful completion of works.
- 2.2.19** Maintenance and upkeep of all Hub network equipment shall be the responsibility of the selected bidder. This office will provide necessary power (power supply will be provided through UPS). However, if any of the equipment being faulty due to electricity condition at Hub (through UPS), physical damage to the equipment due to mishandling or natural calamity and in case of theft etc. Bidder will not be liable to replace or repair the damaged equipment and user will have to bear the approved cost of replacement thereof. The extent of damage to the equipment will be evaluated by Bidder in their lab; and lab-report will be given in writing declaring the equipment faulty and beyond repair within 3 weeks of taking the damaged equipment from the location / user as the case may be. In case of physical damage visible to naked eye, equipment being beyond repair will be admissible on approval of user and a pre-designated nodal officer. In case the damaged equipment is declared to be repairable by the lab report, Bidder will have to provide the replacement of damaged equipment in working condition to the location / user as the case may be within one month of submission of lab report.

2.2.20 Penalty Charges in respect of service disruption of remote VSATs: If a remote VSAT is down beyond the stipulated period after the problem was reported formally through email or logged with Helpdesk with a call-ticket number; penalty at the percent as detailed below, of the total AMC price of the VSAT per day per affected location will be recovered / deducted from the Bidder out of the withheld amount towards AMC maintenance or from the PBG/security deposits or by raising bills for the entire period for which VSAT was down.

Region	No of days taken to resolve the fault	Penalty of AMC charges corresponding to one unit VSAT
Mainland (M)	3-15	5%
	16-25	15%
	26-40	30%
	>40	No payment
Himalayan & North-East region (HNE)	11-25	5%
	26-40	15%
	41-50	30%
	>50	No payment
Andaman & Nicobar Islands (A&N)	16-35	5%
	36-50	15%
	51-65	30%
	>65	No payment
*Lakshadweep Islands (LD)	45-60	5%
	61-75	15%
	76-90	30%
	>90	No payment

*At present, no VSAT terminal under ISGN, installed in Lakshadweep Islands. However, it may come up in future.

2.2.21 Penalty Charges in respect of service disruption of VSAT Hubs at INCOIS and NCMRWF: In case of failure of any equipment (hardware/software) resulting in total service disruption of VSAT Hub at any location of INCOIS, Hyderabad and NCMRWF, Noida, Bidder

shall try to rectify the fault immediately and start the service as soon as possible but not later than 6 hours beyond which bidder shall pay penalty of Rs. 10,000/-per day to NCS, counted from the time of reporting the fault. In any case if the services are not made operational within 7 days from the time of reporting of fault, the Performance Bank Guarantee (PBG) provided by the bidder in respect of the purchase order shall be invoked.

2.2.22 In case of failure of any equipment(hardware/software) which does not result in service disruption of VSAT Hub at any location, it shall be repaired / replaced immediately, but not later than 24 hours beyond which Bidder shall pay penalty of Rs. 5,000/- per day to NCS, counted from the time of reporting the fault. Maximum amount of penalty per annum would not exceed the Value of AMC payable with regard to that faulty VSAT Hub.

2.3 Manpower Services for VSAT hub operation & maintenance:

2.3.1 Bidder shall provide technically qualified & experienced Level-2 (L-2) Senior Engineer and Junior Engineer (Level-I, L-1) for VSAT Hub operations at NCMRWF (Noida) and INCOIS, Hyderabad.

2.3.2 ONE numbers of Level-I (L-1) Junior engineer performing the duty round-the-clock at each location of VSAT Hub. He will work on shifts to provide round-the-clock (24x7 basis) operational and maintenance support at each location of VSAT Hub.

2.3.3 In addition to L-1 Junior Engineer; One Level-2 (L-2) Senior engineer would be performing duty at each Hub location i.e., INCOIS, Hyderabad and NCMRWF, Noida. The L-2 Senior Engineer would be performing duty as per INCOIS and NCS office working hours (9.00 AM to 5:30 PM on week days from Mon day to Fri day).

2.3.4 The L-1 Engineer should be BE/B.Tech (with Nil or some working experience in the field of VSAT communication) or Diploma with 2 years experience. He should be capable of handling basic operation and maintenance of Gilat's SkyEdge VSAT Hub.

2.3.5 The L-2 Engineer shall be technically qualified & experienced (B.E./B.Tech or equivalent with minimum 2 years' experience) on VSAT Hub operation/maintenance/configuration of Gilat's SKyEdge VSAT Hub.

2.3.6 A brief description of work profile of Engineers is given below:

The engineers activities will include operation and maintenance of VSAT Network including site creation/deletion, Bandwidth/Frequency allocation to sites, QoS implementation, all necessary support to establish data link/ circuits, carrying out necessary changes in Network as

required by NCS from time to time, creation of log reports on performance of network, maintaining records of user details, interaction with field engineers for smooth installation, checking co-pole and x-pole signal of remote VSATs, interaction with users for trouble shooting, rectification of down VSATs, generation of various utilization/management reports on daily/weekly/monthly basis, call logging and status updation on NCS/INCOIS's complaint database/centralized call center, etc.

- 2.3.7** Bidder shall ensure to provide replacement engineer at each VSAT-Hub site in case the L-1 & L-2 engineer, proceed on leave or remain absent from the duty.
- 2.3.8** In case the Bidder fails to provide replacement engineer within two working days, penalty at the rate of Rs.2,000/- per day in case of L-1 Junior Engineer and Rs.3,000/- per day in case of L-2 Senior Engineer, from the time of reporting till replacement engineer is placed.
- 2.3.9** The Bidder shall ensure that under no circumstances the VSAT Hub at each site, is left unmanned. In case the VSAT hub is left unmanned and the same is intimated to Bidder, the Bidder would immediately arrange to provide replacement engineer. However, if the hub is left unmanned after 8 hours from the time of reporting to Bidder, the Bidder shall be liable to pay penalty at a rate of Rs.1,000/- per hour from the period of reporting of absence till replacement engineer is placed, in addition to above penalties.

2.4 Short listed & Successful Bidder Responsibility:

- 2.4.1** It shall be the responsibility of the selected bidder to manage the VSAT network using network management software/tools for the two VSAT Hubs.
- 2.4.2** As per the NCS and INCOIS requirement, bidder shall be in a position to provide VSAT connectivity and services at any location in the country.
- 2.4.3** The Bidder shall treat all data and information about ISGN network, obtained in the execution of the services as confidential and will not reveal any information to any other party without prior written approval of NCS/INCOIS.
- 2.4.4** The selected bidders shall have to provide acceptance to the offer issued by NCS for honouring all tender conditions and adherence to all aspects of fair trade practices in executing the purchase orders placed by NCS for its own use or on behalf of INCOIS.
- 2.4.5** In the event of an Selected Company or the concerned division of the Company is taken over /bought over by another company, all the obligations and execution responsibilities under the

agreement with the NCS, should be passed on for compliance by the new company in the negotiation for their transfer.

- 2.4.6** In case of selected bidder is found in breach of any condition(s) of tender or supply order, at any stage during the course of contract service period, the legal action as per rules/laws, shall be initiated against the bidder and Bank Guarantee/Security Deposits shall be forfeited, besides debarring and blacklisting the bidder concerned for at least three years, for further dealings with NCS, INCOIS and offices under control of MoES.
- 2.4.7** The Bidder should not assign or sublet the service contract or any part of it to any other agency in any form. Any such eventuality shall result in termination of contract and forfeiture of Security Deposit/EMD/PBG concerning such Bidders / parties.
- 2.4.8** NCS may, at any time, terminate the Service Contract by giving written notice to the Bidder without any compensation, if the recommended bidder becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to NCS.
- 2.4.9** No deviations from these terms and conditions will be accepted; violation thereof will lead to rejection of the bid and forfeiture of EMD/PBG.
- 2.4.10** NCS shall not be responsible for damages of any kind for any mishap/injury/accident caused to any service engineer of the Service provider while performing duty at the VSAT Hub in INCOIS and NCMRWF premises and field/remote stations. All liabilities, legal or monetary, shall be borne by the Service provider.
- 2.4.11** The Director, NCS reserves its right to terminate the maintenance contract at any time without assigning any reason. The bidder will not be entitled to claim any compensation against such termination. However, while terminating the contract, if any payment is due to the contractor for maintenance services already performed in terms of the contract, the same would be paid to it as per contract terms.
- 2.4.12** The contract can be terminated by NCS with prior notice of THREE months, without assigning any reason. In this connection the decision of Director, NCS shall be final and binding on the Bidder/Service Provider.
- 2.4.13** The vendor should support to add more VSAT stations or withdraw any VSAT field terminals as desired by the purchaser including VSAT configuration.
- 2.4.14** The bidder should be ready to support to any upgradation or change in technology (DVB-S to DVB-S2) if desired by purchaser.

- 2.4.15** The vendor should support configuration, integration of digitizers/sirens/sensors etc with VSATs as desired by NCS/INCOIS/field engineers during their visits.
- 2.4.16** The bidder should co-ordinate with data integrator, MPLS service provider and any other vendor part of this project for smooth running of the network.
- 2.4.17** The vendor should support existing VOIP network including its configuration in GILAT NMS.
- 2.4.18** The vendor should support any addition of hardware for integration in to the network like routers, switches etc as part of the network.

CHECK LIST

SNo.	Activity	Compliance Yes/No/N.A	Page No. of your bid
1	Company Profile, Infrastructure, and Registration Certificate		
2	Is DD (Rs.1,000) enclosed for tender fee? (as per clause no. 1.3)		
3	Have you enclosed EMD (Bank Guarantee /FDR) of required amount Rs.1.0 lakh (as per Clause no. 1.14)?		
4	Is the EMD submitted by other firm other than participating firm? If yes, then bid is likely to be ignored.		
5	Is Registration certificate from Ministry of Micro, Small & Medium Enterprises (MoMSME), DGS&D /NSIC attached for relaxation of Tender Fee and EMD?		
6	Details of Permanent Income Tax account number& GST number? (Attach a copy)		
7	Have you kept EMD validity (210 days)?		
8	Have you enclosed all supporting documents as mentioned in 1.8.9 (a to n) and 1.8.10 (a to g).		
9	Copy of Tender document with each page signed and stamped as per Clause no. 1.8.9 (d)		
10	Have you enclosed Tender Acceptance Form (Annexure-2) duly filled and signed (i.e., terms and conditions are acceptable) with original set of tender. Tenders may be ignored if not signed.		
11	Have you enclosed clause-by-clause compliance statement for the general terms and RFP requirements mentioned under Section-1 and Section-II?		
12	Supporting documents for the terms mentioned under "Bidders Eligibility Criteria" (Clause no. 1.7)		
13	Have you submitted copy of the last purchase order(s) and performance certificate from users?		
14	List of Service Centres/authorized service centres in India		
15	Document as manufacturer's (M/s Gilat Limited) authorized agent & back-to-back support agreement with OEM (M/s Gilat Limited) for support during the CAMC contract as mentioned in Clause no. 1.7.6		

16	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, as per clause no. 1.7.9		
17	Is tender Submitted by an OEM?		
18	Is tender Submitted by an authorized Agent/Dealer/Supplier/Distributor/ Stockist of OEM? If so is authorisation certificate attached?		
19	Is tender Submitted by an integrator Agent/Dealer/Supplier/Distributor/ Stockist of OEM? If so whether Back-to-back support agreement with equipment manufacturer and software developer company attached?		
20	Have you submitted the Un-priced bid containing Bill of Materials as per Clause no.1.8.9 (g)		
21	Name of the firm who quoted the price		
22	Name of tender currency		
23	Name of the supplier 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:

TENDER ACCEPTANCE FORM

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

To

The Director, National Centre for Seismology,

Mausam Bhawan Complex, Lodi Road, New Delhi-110003

Ref: TE document No. NCS/_____ 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 CAMC services in conformity with your above referred document.

If our tender is accepted, we undertake to supply the goods and perform the Services of **“Comprehensive Annual Maintenance Contract (CAMC) of VSAT Hubs (2 no’s) and VSAT terminals (126 nos.)”**, as mentioned in tender document with the requirements, terms and conditions specified in the Section 1 and Section II 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

MANUFACTURER'S AUTHORISATION FORM

(Bidders, quoting products other than his own manufactured products, shall submit this certificate in following format on the Letter Head of the firm)

To,

The Director, National Centre for Seismology

IMD Campus, Mausam Bhawan, Lodi Road, New Delhi-110003

Sub: Manufacturer Authorization for Tender No _____.

Sir,

We, <**OEM/ Manufacturer name**>having our registered office at<**OEM/ Manufacturer address**>, are an established and reputed manufacturer of VSAT equipments.

We confirm that <**Bidder Name**> having its registered office at <**Bidder Address**> is our authorized partner for our VSAT equipments. We authorize them to quote for VSAT Services (SkyEdge-IP DVB-S platform) in the above-mentioned tender.

We hereby confirm that we shall provide all service and maintenance support to our authorized partner during the entire contract period. We also ensure to provide required spares and service support to the above authorized partner while offering onsite maintenance services of Hardware and software of the VSAT HUB equipments installed at INCOIS, Hyderabad and NCMRWF, Noida and VSAT terminals spread across the country during the contract period.

Yours faithfully,

[Signature with date, name and designation]
for and on behalf of Messrs _____

[Name & address of the manufacturers along with Seal of the firm]

Note: This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having legal binding to the manufacturer (original letter to be attached or to be shown at the time of opening of bids).

APPLICATION-CUM-BILL FOR REFUND OF EMD

Director, (Kind Attn. to: DDO) National Centre for Seismology
IMD Campus, Mausam Bhawan, Lodi Road, New Delhi-110003

MONTH.....BILL NO.

Original Challan or Receipt No. & date	Bank/Office in which deposited	Name of depositor	Amount Originally deposited
1	2	3	4

Received this day of20..... the sum of ₹(₹) only being repayable on Account of release of deposited described above.

Claimant's Signature.

(with revenue stamp affixed)

For use in Departmental Office

1. Received payment of ₹..... (₹.....) for arranging disbursement to claimant.

2. Passed for Payment of ₹(₹) to claimant(s) Shri/Smt./Ms..... against personal deposit account administered by me.

DDO(NCS)

For Director National Centre for Seismology
In case of endorsement of above

For use in Pay & Account office incase of endorsement of 1 above

Passed for payment of Rs.Payment by Cheque No.

.....

Pay & Account Office

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

(format only)

Whereas
 (hereinafter called the “tenderer”)has submitted their offer
 dated.....for offering the VSAT
 services of(hereinafter called the “tender”)
 against the purchaser’s tender enquiry No.KNOW
 ALL MEN by these presents that WEof
 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 of20.....

THE CONDITIONS OF THIS OBLIGATION ARE:

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

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

This guarantee will remain in force upto and including 60 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

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

.....

(Signature of the authorized officer of the Bank)

.....

Name and designation of the office

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

COMPLIANCE STATEMENT

SNo.	Tender Clause No.	Compliance
1	Undertaking for the compliance of each and every term and conditions mentioned under Section-1 and Section-II of Tender document.	Yes/No

STATEMENT OF DEVIATIONS FROM TECHNICAL CONDITIONS

CLAUSE NUMBER OF TENDER DOCUMENT	DESCRIPTION OF ITEM SPECIFICATION WHERE DEVIATING	DEVIATION IN THE OFFER	BRIEF REASON FOR THE DEVIATION

Note: Deviations on the lower side of technical specs/services will not be accepted

Signature of the Bidder
Name & Designation:
Date
Place
Company Seal

PRICE BID FORMAT

SNo.	Item Description	Quantity	Unit Cost (₹)	Applicable GST (₹)	Total (₹)
A	B	C	D	E	F=C x(D+E)
1	Comprehensive Annual Maintenance Contract of VSAT HUB (Hyderabad and Noida) as per RFP (Rate is Per site per annum)	2			
2	One L-1 (Junior) Engineers each at INCOIS, Hyderabad and NCMRWF, Noida for round the clock VSAT Hub operation & maintenance as per RFP(Rate is Per site per annum)	2			
3	One L-2 (Senior) Engineers each at INCOIS, Hyderabad and NCMRWF, Noida for round the clock VSAT Hub operation & maintenance as per RFP(Rate is Per site per annum)	2			
4	Comprehensive Annual Maintenance Contract of VSAT Field Terminals (including electrical earthing) as per RFP (Rate is Per site per annum)	M	75		
		HNE	31		
		AN	20		
		LD*	0		
5	Comprehensive Annual Maintenance of Solar panels, Solar Charge controller, and its accessories; and battery charger for VSAT Field Terminals as per RFP (Rate is Per site per annum)	M	75		
		HNE	31		
		AN	20		
		LD*	0		
6	Transportation Charges as per RFP (Per site Per Km)	M	1		
		HNE	1		
		AN	1		
		LD*	1		
7	Shifting of VSAT terminal: - Dismantling, Packing, Reinstallation and Commissioning Charges as per RFP (Per site)	M	1		
		HNE	1		
		AN	1		
		LD*	1		
8	Battery replacement at field station under buy back arrangement of old batteries (Per site per battery)	M	1		
		HNE	1		
		AN	1		
		LD*	1		
9	Charges for making new chemical - electrical earthing (per site)	M	1		
		HNE	1		
		AN	1		
		LD*	1		
10	Installation charges of iron cage around VSAT antenna and solar panel as per RFP (Per site)	M	1		
		HNE	1		
		AN	1		
		LD*	1		

11	Charges for supply ; installation and commissioning of Solar system(480W solar panel with mounting structure, solar charge controller) and one battery charger for VSAT field terminal (Per site)	M	1			
		HNE	1			
		AN	1			
		LD*	1			
12	Any other charges to meet the RFP requirements					
13	Total (₹) (1+2+3+4+5+6+7+8+9+10+11+12)					

Note:

1. **Financial evaluation shall be based on unit cost of all items except 1 to 5. However quarterly bills should be submitted as per actual.**
2. **Above rates shall remain fixed during the contract period.**
3. **Unpriced Bill of Materials (BoM) should be submitted with the technical bid.**
4. **Price bid (in pdf format excluding Note / Instructions shall be uploaded on eprocure.gov.in)**
5. **HNE: Himalayan North East**
6. **AN: Andaman & Nicobar Islands**
7. **M: Mainland.**
8. **LD: Lakshadweep (*At present, no VSAT terminal under ISGN, installed in Lakshadweep Islands. However, it may come up in future.)**

Signature of Tenderer_____

Seal of Tenderer_____

DETAILS OF VSAT HUB AND VSAT FIELD STATIONS

VSAT field stations are of two categories – 1) Field stations maintained by various National Institutes/Universities/A&N Administration and 2) Field stations maintained by National Centre for Seismology (NCS).

List of field stations maintained by various National Institutes / Universities/A&N Administration

SNo.	Location	Antenna Size	Antenna Type	Solar	Region	Address
1	Ukhrul	1.8 M	PM	640 W	HNE	Deptt. of Earth Sciences C/O- Piter Headman , Vill- Hung Pung , Pin-795142, Dist-Ukhrul, Manipur
2	Manipur University	1.8 M	PM	640 W	HNE	Seismological Observatory, Dept of Earth and Science, Manipur University, Pin- 795003
3	Chalunka	1.8 M	PM	640 W	HNE	Post -9 post , Chalunka, Ladakh, Pin-908002
4	Dhaulchina	1.8 M	NPM	480 W	HNE	Gram shabha - Kanchulla, PO-Dhaulchina, Dist- Almora, Uttarakhand Pin- 263681
5	Narayannagar	1.8 M	NPM	480 W	HNE	Residence of school, Village Post- Narayan Nagar, DD Hatt Dist- Pithoragarh Pin-262550. Landmark-Degree College Campus - old building. Uttarakhand (state)
6	Toli	1.8 M	NPM	480 W	HNE	Village -Tolli, PO -Toli, Dist-Pithoragarh, , Pin- 262544, Uttarakhand (state)
7	Munsiari	1.8 M	NPM	480 W	HNE	VPO- Munsayari, Near Nanda Devi Mandir, Dist- Pithoragarh, Uttarakhand (state) Pin-262501
8	Toribari	1.8 M	PM	640 W	HNE	Dept of Earth Sciences, Toribari, Kangpokpi, Pin- 795129, Dist Senapati - Manipur
9	Bhararisain	1.8 M	NPM	480 W	HNE	In-campus of Dairy farm, Bhararisian, Gairsen Dist. Chamoli Utrtrakhand, Pin- 246428

10	Shillong	1.8 M	NPM	640 W	HNE	Magnetic Observatory Indian Institute of Geomagnetism, Wilton Hall Estate, three and half mile Upper Shillong, East Khasi Hills Dist, 793005
11	Ravangla - Sikkim	1.8 M	NPM	640 W	HNE	South Sikkim, Jawahar Navodaya Vidyalaya, near S.D.M complex, Ravangla, South Sikkim, Sikkim-737139
12	Tamenglong	1.8 M	PM	640 W	HNE	Jawahar Navodaya Tamenglong, Duigailong Village, Tamenglong Manipur- Pin-795141
13	Jammu	1.8 M	PM	640 W	HNE	Jammu University, Geology Department. Jammu, Pin-180001
14	Duru	1.8 M	NPM	640 W	HNE	Geology Department, Village Duru Dist-Anantnag, J & K- 192211
15	Tangdhar	1.8 M	NPM	640 W	HNE	Geology Department, Tangdhar, Dist- Kupwara J&K, 193225
16	Moreh	1.8 M	NPM	480 W	HNE	Saint John's High School Moreh, Ward No: 8, Chandel Dist, Pin:795131, Manipur
17	Kohima	1.8 M	PM	480 W	HNE	Battise High School, Mission Compound, Kohima 797003, Nagaland
18	Base Camp	1.8 M	PM	640 W	HNE	SASE Base Camp Siachen, Pin-908615,Leh
19	Partapur	1.8 M	PM	640 W	HNE	SASE Pratapur Pin-908102,Leh
20	Sasoma	1.8 M	PM	640 W	HNE	SASE Observatory Sasoma, Siachen Glacier Sasoma, Pin-908615,Leh
21	Hanle	1.8 M	PM	640 W	HNE	Indian Astronomical Observatory Hanle, Leh, J&K
22	Tezpur	1.8 M	NPM	480 W	HNE	Dept of Earth Sciences Kanaklata Udyan, Ouguri Hill, Rock Garden, Tezpur, Pin- 784001, Assam
23	Aizwal	1.8 M	PM	640 W	HNE	GPS Station Aizwal, Department of Geology, Mizoram University, Tanhril, Aizwal, Mizoram, Pin-796004

24	Lumami	1.8 M	NPM	640 W	HNE	Nagaland University, Dept. of Geography, Dist: Zunsebvoto, Pin:798627 Lumami HQ
25	Bomdila	1.8 M	NPM	640 W	HNE	Nagmandhir, Bomdila Dist West Komeng, Arunachal Pradesh, Pin:790001
26	Saiha	1.8 M	PM	640 W	HNE	Near DC Bangalow, Saiha, Mizoram, Pin-796901
27	Imphal	1.8 M	PM	480 W	HNE	Multiparameter Geophysical Observatory Langthabal Khoupum Dist-Imphal West, Imphal, pin 795001
28	Guttu	1.8 M	PM	480 W	HNE	Seismology Observatory, Koperdhar Post. Bhatthaon, Dist Tihari Gadhwal, Uttarkhand. 245591
29	Lakadia	1.2 M	PM	480 W	M	Institute of Seismological Research, General Health Centre, Lakadia Post, Bhachau - Taluk, Kutch - Dist, Gujarat
30	Bharudia	1.2 M	NPM	480 W	M	Talaxhi Office, Bharudia, Taluka-Bachau, Dist-Kutch, Gujarat
31	Nalia	1.2 M	PM	480 W	M	Institute of Seismological Research, Mitti Dam, Rampur Village, Nalia, Kutch-Dist, Gujarat - 370 655
32	Dholavira	1.2 M	PM	480 W	M	Institute of Seismological Research, C/O Murar bai Gadavi, Opp Busstand, Dholavira-370 165, Bhachau - Taluka, Kutch-Dist. Gujarat
33	Kharagpur	1.2 M	NPM	480 W	M	Department of Geology & Geo-Physics, IIT Kharagpur, Midnapori, West Bengal-721302
34	Kadamtala	1.8 M	PM	480 W	AN	APWD J.E Office, Kadamtala. Near Kali temple, Andaman Islands.
35	IISc Bangalore	1.2 M	PM	480 W	M	Civil Dept. Indian Institute of Science, Bangalore
36	Bela	1.2 M	NPM	480 W	M	Institute of Seismological Research, Opp. Govt Hospital, C/o Bachchu Bai, Bela – 370165, Rapar-Taluk, Kutch - Dist.

37	Sipu	1.2 M	NPM	480 W	M	Atal Gam, Sipu, Dhadiwada, dist-Banas Kada, Pin-385505
38	ISM Dhanbad	1.2 M	PM	480 W	M	Indian School Of Mines, Department Of Applied Geophysics, ISM Dhanbad, Pin-826004
39	Ongole	1.8 M	NPM	480 W	M	In Premises-CSR Sharma college, Ongole, Prakasham Dist, Andhra Pradesh Pin-523001
40	Visakhapatnam	1.8 M	NPM	480 W	M	Dept. Of Geophysics, Andhra University Visakhapatnam- 530003
41	Mumbai	1.2 M	PM	480 W	M	Indian Institute of Geomagnetism, Kalamboli Highway, New Panvel, Navi Mumbai
42	Kanpur	1.2 M	NPM	480 W	M	WLE-115, Geo-Information Lab Civil Engg. IIT Kanpur, Uttar Pradesh- 208016
43	Tirunelveli	1.2 M	NPM	480 W	M	Equatorial, Geo-Physical Research Center, Vittalapuram, Vilakku, Krishnapuram, Maharajanager, Tirunelveli, 627011. Tamil-Nadu
44	Udaipur	1.2 M	PM	480 W	M	Dept. of Geology, M L Sukhadia University, 51, Saraswati Marg, Udaipur-313001
45	Kota	1.2 M	NPM	480 W	M	Technical University Rawatvata road, Kota (Rajasthan)
46	Bikaner	1.2 M	NPM	480 W	M	Jaisalmer road, Bikaner, Qanja Singh University, Rajasthan.
47	Dharoi	1.2 M	NPM	480 W	M	Assistant Research Officer, Quality sub division, No. A, Taluk- Satlasana, Taluk-Satlasana, Dist-Mahsana Dharoi - 384360,
48	Kolhapur	1.2 M	NPM	480 W	M	Indian Institute of Geomagnetism, Physics Dept, Shivaji University, Kolhapur- 416004
49	Noida Hub, co-located	1.2 M	NPM	NA	M	NCMRWF, Sector 62, Noida, UP.
50	Mohanpur	1.8 M	PM	480 W	AN	Govt. Secondary School

						No. 5 school campus, Opposite JE office APWD, Mohanpur
51	Shoalbay	1.8 M	PM	480 W	AN	Govt Primary School No-14, school campus (Near school play ground, Shoal bay. Andaman Islands
52	Bakultala	1.8 M	PM	480 W	AN	Forest rest house campus (Near APWD Junior Engineer office), Bakultala. Pin:744203, Andaman islands
53	Baratang	1.8 M	PM	480 W	AN	Mangrove forest Guest House, back site of Guest house (forest quarters), Baratang. Andaman Islands.
54	Betapur	1.8 M	PM	480 W	AN	Padmanabhapuram, Govt. Middle School campus (back site of school), Betapur.
55	Portblair	1.8 M	PM	480 W	AN	Near Pondicherry University, Burukshabad, Portblair. Andaman Islands.
56	Diglipur	1.8 M	NPM	480 W	AN	Navagram APWD office near, Mayabunder road, Kalara Junction, Diglipur pin 744202
57	Carnicobar	1.8 M	NPM	480 W	AN	Car Nicobar, Arong Village, South Andaman, Andaman & Nicobar Islands-744301
58	Campbell Bay	1.8 M	PM	480 W	AN	GPS Campbellbay, B'Querry, Cambellbay, South Andaman-744302 / (Landmark: B.Pori Beach 1Km from town)
59	Mayabunder	1.8 M	NPM	480 W	AN	Mayabunder, churchtickery, North & Middle Andaman-744203
60	Havelock	1.8 M	PM	480 W	AN	Vijay Nagar, Havelock Island-Andaman & Nicobar Island-744211

61	Hutbay	1.8 M	PM	480 W	AN	GPS Station Punchu tekry hutbay little Andaman, Andaman & Nicobar Islands
62	Portblair , SEOC	1.8 M	PM	480 W	AN	Directorate of Disaster Management office, Middle point PortBlair, south Andaman,744301
63	Portblair , (DC Office)	1.8 M	PM	480 W	AN	District control room, DC south Andaman and Nicobar islands, Portblair 744103
64	Campbellbay	1.8 M	NPM	480 W	AN	EOC Campbell Bay Great Nicobar, Campbell Bay, Pin:744302,Andaman Islands
65	Mayabunder	1.8 M	PM	480 W	AN	EOC Headquarters Mayabunder, 744204,Andaman Islands
66	Kamorta	1.8 M	PM	480 W	AN	EOC Kamorta Nancowry south Andaman 744303
67	INCOIS Hub Co-located	1.2 M	NPM	NA	M	INCOIS Pragati nagar, Hyderabad-500090
68	INCOIS Remote(GPS)	1.2M	NPM	480 W	M	INCOIS Pragati nagar, Hyderabad-500090
69	Gandhinagar	1.2M	NPM	480 W	M	Institute of Seismological Research, Next to PDP University, Raisan, Gandhinagar-382009, Gujarat
70	EOC Hutbay	1.8M	PM	480 W	AN	Hutbay, Tehsil Office, Little Andaman-744207
71	EOC Carnicobar	1.8M	PM	480 W	AN	EOC Head quarters, Car Nicobar-744301, Andaman Islands

List of stations under NCS

SNo.	Location	Antenna Size	Antenna Type	Solar	Region	Address
01	Jammu	1.8 M	NPM	640 W	HNE	Seismological Observatory, Field maintenance Hub, Rajinder nagar, Phase-I, Bantalab, Jammu-181 123
02	Srinagar	1.8 M	NPM	640 W	HNE	Seismological Observatory Met.Centre, Rambagh Srinagar – 190 015, J&K
03	Kalpa	1.2 M	NPM	480 W	HNE	Vill & P.O. Duni, Tehsil Kalpa, Distt. Kinnaur,

						Himachal Pradesh
04	Bhubaneshwar	1.2 M	NPM	480 W	M	Seismological Observatory Meteorological Centre, India Meteorological Department , Biju patnaik Airport, Bhubaneswar-751 020 scsahuimd@yahoo.co.uk
05	Allahabad	1.2 M	NPM	480 W	M	Seismological Observatory, India Meteorological Department, Garha Road, Ghoorpur Allahabad-211 003(U.P.)
06	Jarsuguda	1.2 M	NPM	480 W	M	District Collector Office, Jarsuguda,Odisha
07	Rayagada	1.2 M	NPM	480 W	M	District Collector Office,, Rayagada,Odisha
08	Mangalore	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Panambur (P.O) Mangalore-575 010 Karnataka
09	Vijayawada	1.2 M	NPM	480 W	M	Seismological Observatory House No. 32-30-15 1st Mayor Street Maruthi Nagar Vijayawada-520 004
10	Pithoragarh	1.2 M	NPM	480 W	M	Seismological Observatory GIC Road Near Pandey Gaon Bazaar Pithoragarh-262 501, Uttaranchal
11	Karad	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Vidya Nagar, Karad-415 124 Maharashtra
12	Varanasi	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Department of Geophysics Banaras Hindu University (B.H.U), Varanasi-221 005
13	Mumbai	1.2 M	NPM	480 W	M	Seismology Division Regional Meteorological Centre India Meteorological Department Nanabhai Moos Marg Colaba (Post), MUMBAI – 400 005
14	Bisrakh	1.2 M	NPM	480 W	M	Block Development Officer Village - Bisrakh Distt. – Gautam Budh Nagar (U.P)201301
15	Akola	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department C/o A.P.Raghuvansi House

						Piple Nagar Behind Govt. Milk Scheme Nagpur Road, Akola-444 101
16	Latur	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department D-13 & D-14, Govt. colony Barsi Road, Latur-413531 Maharashtra
17	Lohaghat	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Bageecha Ward Near Hanuman Mandir Lohaghat-262 524 Distt. Champavat, Uttaranchal
18	New Delhi	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Flag Staff Road, Kamala Nehru Ridge, Delhi-110007
19	Kurukshetra	1.2 M	NPM	480 W	M	Department of Geophysics, Kurukshetra University, Kurukshetra, Haryana
20	Ausora	1.2 M	NPM	480 W	M	Gram Panchayat Village - Ausora Tahsil - Hapur Distt. - Ghaziabad (U.P.)245101
21	Jhansi	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department House No.1, Brahm Nagar Panchawati, Lahargird Sipri Bazaar, Jhansi-284 003 (U.P.)
22	Bilaspur	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Near Gitanjali City Bahatrai Road, Bilaspur-495 009 Chhattisgarh State
23	Bhakra-Nangal	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department 16 LVR Bungalow Nangal Town Ship Nangal-140124 (Punjab)
24	Ajmer	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Chandravardai Nagar, Taragarh Road, opp. Ramganj Thana, AJMER-305 003, Rajasthan
25	Siliguri	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Plot No. 507/10 ITI Road, Near Akashwani

						Bhavan, Shastri Nagar P.O.Ektiasal, Siliguri-734002,W.B
26	Khetri	1.2 M	NPM	480 W	M	Hindustan Copper Ltd. Khetri Copper Complex. Distt.- Jhunjhunu Rajasthan. Pin-333504.
27	Thein Dam	1.2 M	NPM	480 W	M	Village Uparlathala Dharkala (P.O) Thein Dam-145 021 Distt. Pathankot (Punjab)
28	Jaisalmer	1.2 M	NPM	480 W	M	Weather Radar Dept., IMD, Jaisalmer , Rajasthan
29	Baharaich	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department House No. 390(A) Raipur Raja Colony, Jail Road Baharaich (U.P.)-271 801
30	Salem	1.2 M	NPM	480 W	M	Officer-In-Charge Met Observatory India Meteorological Dept. Room No.9, Ground Floor, Collectorate Building, Salem-636 001 ,Tamilnadu
31	Bahadurgarh	1.2 M	NPM	480 W	M	DC Office, Old secretariat , Bahadurgarh.
32	Valmiki nagar	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Valmikinagar-845 107 West Champaran(Distt.), Bihar
33	Bhavnagar	1.2 M	NPM	480 W	M	Seismological Observatory Government Guest House Waghawadi Road Bhavnagar-364 002 Gujarat Ram Mandir Road, Sehere (4 km from ST stand, 3km from Tehsil office, 30 km from Bhavanagar)
34	Kolkata	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Regional Meteorological Centre 4, Duel Avenue, Alipore, Kolkata-700 027
35	Rewari	1.2 M	NPM	480 W	M	Smt. Seo Bai w/o Sh. Puran Singh, Village – Kundal, Distt. – Rewari, Haryana)123101

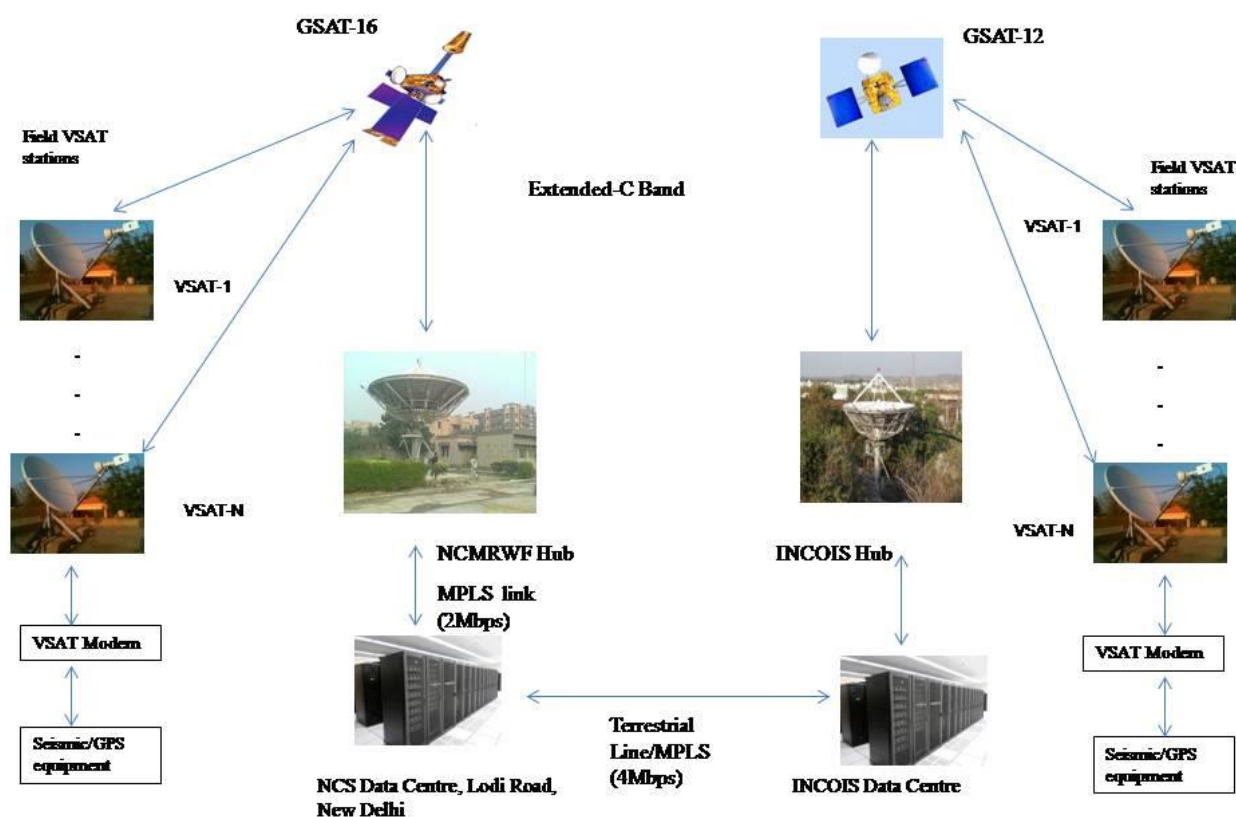
36	Sohna	1.2 M	NPM	480 W	M	Smt. Ram Murti, Ward No. 11, Village –Thakurwada, Distt. – Gurgaon (Haryana)
37	Ayanagar	1.2 M	NPM	480 W	M	IMD, Ayanagar, New Delhi
38	Meerut	1.2 M	NPM	480 W	M	Meerut University, Meerut , UP
39	Nagpur	1.2 M	NPM	480 W	M	Geological Survey of India Seminary Hills Nagpur-400 006 Dr. Siddhi Shastri 09415796662 Mr. Mishra-07588514714 P.K.Rout -07588185846 / 2511673 / 2511671 / 2510036 Mr. Saha (HOD) 08888823237 Jaikamal 08390366002
40	Sahibganj	1.2 M	NPM	480 W	M	Seismological Observatory India Meteorological Department Shirdukanhu Stadium Compound Sahibganj-816109, Jharkhand
41	Kodaikanal	1.2 M	NPM	480 W	M	Officer-In-Charge (Seismic Unit) Met Unit Observatory Kodaikanal-624 103 Dindigul District, Tamilnadu
42	Narmada Nagar	1.2 M	NPM	480 W	M	Indira Sagar Power Station, NHDC Office Complex, Narmada Nagar (Post), Pin Code 450 119, Distt. Khandwa.
43	Guna	1.2 M	NPM	480 W	M	Old Collectorate Building, Treasury office room. Guna (Post)- 473001 M.P.
44	Banda	1.2 M	NPM	480 W	M	Collectorate building, room no:1, (Old Khanij office room, Behind old Meeting Hall, District H.Q. Banda (Uttar Pradesh) - 210001
45	Farukhabad	1.2 M	NPM	480 W	M	Ladies Jail, Tehsil Farukhabad Sadar, Dist. Fatehgarh, U.P 209625.
46	Thakurdawara	1.2 M	NPM	480 W	M	Principal, Jawahar Navodaya Vidyalaya, Kalewala, Thakurdwara (Post), Distt- Moradabad. Pincode:244 601
47	IMD New Delhi	1.2 M	NPM	480 W	M	Mausam Bhavan, Lodhi Road, New Delhi-110003
48	Jamia New Delhi	1.2 M	NPM	480 W	M	Department of Geography, Jamia Millia Islamia, Jamia Nagar, New Delhi - 110025
49	Ganaur	1.2 M	NPM	480 W	M	Old SDM office Ganaur, Haryana

50	Rohatak	1.2 M	NPM	480 W	M	Sh. Khushabi Lal Maggu S/o Sh. Ram Lal Maggu Village & P.O.– Bansi, Tehsil- Maham Distt. – Rohtak (Haryana) Pin-124111
51	Shri Ganganagar	1.2 M	NPM	480 W	M	Mausam vibhag, India Meteorological Department Ashoknagar A, Near Meera Chowk, Sriganganagar (Post), Rajasthan-335 001
52	Joshimath	1.2 M	NPM	480 W	M	Sub Divisional Magistrate, Compound Joshimath (Post) Distt. – Chamoli (Uttarakhand)
53	Khunti, Jharkhand	1.2 M	NPM	480 W	M	District Transport office, District Court complex, Khunti (Post), Jharkhand-835210
54	Lucknow, U.P	1.2 M	NPM	480 W	M	Seismological observatory, India Meteorological Department Meteorological Center, Chaudhary Charan Singh Airport, Amausi, Lucknow-226023.
55	Unchagaon	1.8 M	PM	480 W	M	Block development office village, Unchagaon (Post), Bulandshahar(dist),U.P,Pin:202398

* PM Penetrating Mount
NPM Non Penetrating Mount

*Solar Panel 480W = 80W x 6
640W = 80W x 8

BLOCK DIAGRAM OF VSAT NETWORK



Indian Seismic and GPS Network (ISGN)

Address of INCOIS, Hyderabad:

Indian National Centre for Ocean Information Services (INCOIS),
 "Ocean Valley",
 Pragathi Nagar (BO), Nizampet (SO)
 Hyderabad-500090.

Address of NCMRWF, Noida:

National Center for Medium Range Weather Forecast (NCMRWF),
 Ministry of Earth Sciences,
 A-50, Sector-62,
 NOIDA, Uttar Pradesh, Pin: 201 309.

Annexure-10

DETAILS OF EQUIPMENTS INSTALLED AT VSAT HUB INCOIS, HYDERABAD

SNo.	Description	Make	Model
1	42U Rack - Baseband	Gilat	Sky Edge
2	QOS Server (Nx Server)	Gilat	Gilat
3	HRU (Hub Receiver Unit) with 12 cards	Gilat	18 slots
4	Sync Module 1	Gilat	Sky Edge
5	Sync Module 2	Gilat	Sky Edge
6	Terminal Switch (Gilat)	Gilat	Gilat
7	CPCI Cage (with 3 cards)	Gilat	6 slots
8	NMS 1	Gilat	Gilat
9	NMS 2	Gilat	Gilat
10	Remote PC	Gilat	Gilat
11	NMS Client PC	Gilat	Gilat
12	Low Fly Simulator	Gilat	Gilat
13	Allot Net Enforcer Box 1	Allot	AC-402
14	Allot Net Enforcer Box 2	Allot	AC-402
15	IPE 1 (Source Media Router)	Skystream Networks	SMR24
16	IPE 2 (Source Media Router)	Skystream Networks	SMR24
17	RF Switch	Newtec	AZ200
18	DVB Modulator 1	Newtec	AZ110
19	DVB Modulator 2	Newtec	AZ110
20	KVM Switch	Minicom	16 ports
21	Remote Access Router (Cisco-1811)	Cisco	1811
22	Satellite Switch (Cisco-2960)	Cisco	2960
23	Application Switch (Cisco-2960)	Cisco	2960
24	9m Cassegrain Antenna System with 4-port feed assembly (Ext-C band)	Vertex	9m Cassegrain Antenna with 4 port Linearly Polarized feed
25	ACU (Antenna Controller Unit)	Vertex	7200
26	DTR1 (Digital Tracking Receiver)	Vertex	Digital Tracking Receiver
27	DTR2	Vertex	Digital Tracking Receiver
28	LNA Controller (Comtech)	Comtech	RC1160
29	Down Converter - Primary	Comtech	DT-4503
30	Down Converter - Backup	Comtech	DT-4503
31	UP Converter - Primary	Comtech	UT-4505
32	UP Converter - Backup	Comtech	UT-4505
33	SSPA 1 (125w (P1), 150w (sat))	Comtech	SPOD PS2
34	SSPA 1 (125w (P1), 150w (sat))	Comtech	SPOD PS2
35	LNA 1	Comtech	REDXLNA
36	LNA 2	Comtech	REDXLNA
37	Monitors (Gilat)	LG	FlatronW2243T

38	Monitors (Gilat)	LG	FlatronW2243T
39	42U Rack - RF	Wallrack	42U
40	IP To Serial Converter	Lantronix	EDS32PR

SNo.	Description	Make	Model
1	9m Cassegrain Antenna System with 4-port feed assembly (Ext-C band), King post pedestal, Jack screws, Reflector panels with back-up structure, Lightning arrestor down conductors. Ladder and Platforms for 9m extended travel pedestal, Az/El verniers, Front Rain shield and Rear hub cover-Aluminium, Utility light, Vent fan	Vertex	Model 9.0 m kpc Cassegrain with 4-port feed
2	Antenna Control System with three axis control (consisting Antenna Control Unit, Motor and motor control unit, Hand held Portable Maintenance Unit) with extension cable (Control & Resolver), Motor power cable	Vertex	Model 7200
3	Digital Tracking Receiver in redundant mode	Vertex	DTR C-band digital tracking receiver
4	Integration materials (wave guides, cables, connectors etc) include Tx-axis cross over wave guide.		

Annexure-11

DETAILS OF EQUIPMENTS INSTALLED AT VSAT HUB NCMRWF, NOIDA

SNo.	Description	Make	Model
1	42U Rack - Baseband	Gilat	Sky Edge
2	QOS Server (Nx Server)	Gilat	Gilat
3	HRU (Hub Receiver Unit) with 12 cards	Gilat	18 slots
4	Sync Module 1	Gilat	Sky Edge
5	Sync Module 2	Gilat	Sky Edge
6	Terminal Switch (Gilat)	Gilat	Gilat
7	CPCI Cage (with 3 cards)	Gilat	6 slots
8	NMS 1	Gilat	Gilat
9	NMS 2	Gilat	Gilat
10	Remote PC	Gilat	Gilat
11	NMS Client PC	Gilat	Gilat
12	Allot Box 1	Allot	AC-402
13	Allot Box 2	Allot	AC-402
14	IPE 1 (Source Media Router)	Skystream Networks	SMR24
15	IPE 2 (Source Media Router)	Skystream Networks	SMR24
16	DVB Modulator 1	Sencore	ASN988A
17	DVB Modulator 2	Sencore	ASN988A
18	Remote Access Router (Cisco-1811)	Cisco	1811
19	Satellite Switch (Cisco-2960)	Cisco	2960
20	Application Switch (Cisco-2960)	Cisco	2960
21	9m Cassegrain Antenna System with 4-port feed assembly (Ext-C band)	Vertex	9m Cassegrain Antenna with 4 port Linearly Polarized feed
22	ACU (Antenna Controller Unit)	Vertex	7200
23	DTR1 (Digital Tracking Receiver)	Vertex	Digital Tracking Receiver
24	DTR2	Vertex	Digital Tracking Receiver
25	LNA Controller (Comtech)	Comtech	RC1160
26	Down Converter - Primary	Comtech	DT-4503
27	Down Converter - Backup	Comtech	DT-4503
28	UP Converter - Primary	Comtech	UT-4505
29	UP Converter - Backup	Comtech	UT-4505
30	SSPA 1 (125w (P1), 150w (sat))	Comtech	SPOD PS2
31	LNA 1	Comtech	REDXLNA

32	LNA 2	Comtech	REDXLNA
33	KVM Switch	Minicom	16 ports
34	RF Switch	Newtec	AZ200
35	42U Rack - RF	Wallrack	42U
36	Monitors (Gilat)	LG	FlatronW2243T
37	Monitors (Gilat)	LG	FlatronW2243T

SNo.	Description	Make	Model
1	9m Cassegrain Antenna System with 4-port feed assembly (Ext-C band), King post pedestal, Jack screws, Reflector panels with back-up structure, Lightning arrestor down conductors. Ladder and Platforms for 9m extended travel pedestal, Az/El verniers, Front Rain shield and Rear hub cover-Aluminium, Utility light, Vent fan	Vertex	Model 9.0 m kpc Cassegrain with 4-port feed
2	Antenna Control System with three axis control (consisting Antenna Control Unit, Motor and motor control unit, Hand held Portable Maintenance Unit) with extension cable (Control & Resolver), Motor power cable	Vertex	Model 7200
3	Digital Tracking Receiver in redundant mode	Vertex	DTR C-band digital tracking receiver
4	Integration materials (wave guides, cables, connectors etc) include Tx-axis cross over wave guide.		

LIST OF APPLICATION SOFTWARES INSTALLED AT EACH HUB

S.No.	Description of Software	Make	Version
1	NMS Tool and NMS Bowser Application	Gilat	Sky Edge NMS version 15.1.17.4

LIST OF VSAT TERMINAL EQUIPMENT AT FIELD STATION

SNo.	Description	Make	Model
1	Antenna 1.2 / 1.8 Mtr	Prodelin	XC, 1.2/1.8, PM/NPM
2	9 U Rack	Wallrack	9 U
3	Armadillo IDU	Gilat	Armadillo
4	BUC (2W)	Gilat	XC
5	LNBC	NJR	NJS8488S
6	5-port switch	ICP-DAS	NS-205
7	Solar System 480 / 640 pw	Tata Solar / Vistar	TBP1280 / 12V80W
8	Solar Charge Regulator	Tata Solar / Vistar	SSR1530 / 24V-20Amp
9	AC Charger	Tata Solar / Vistar	RSP 300 BC / 24V 10A
10	Load Interface Unit	Tata Solar / Vistar	NA
11	24 V / 200 Ah Battery-bank (derived from 4 numbers of 12V 100AH batteries, each of rating 12V 100AH)	HBL / Exide	T-200 HP / EP 100-12
12	Integration materials (IFLcables, connectors ,metal conduits etc)		

MONKEY CAGING

1. Dimensions of the Caging for antenna
 - Length =15 feet
 - Breadth = 10 feet
 - Height = 11 feet
2. Provision of a Gate with lock and key arrangement. The gate dimensions are 7feet X 3feet.
3. A good quality Lock (Make: Godrej) with key should be provided for the gate.
4. A wire mesh of thickness about 3-4mm should be provided all-around the cage.
5. Iron Angle – gauge 40 X 60 mm
6. Black color painting to the Iron Cage.
7. Similarly, caging should be provided for Solar Panels.