
Request for Proposal (RFP) Document for procurement of Global Positioning System (GPS) (15 nos.) for Crustal Deformation studies



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**NATIONAL CENTRE FOR SEISMOLOGY (NCS)
MINISTRY OF EARTH SCIENCES
LODI ROAD, NEW DELHI – 110 003**

Request for Proposal (RFP) Document for procurement of GPS equipment for Crustal deformation studies

SECTION – I

GENERAL INSTRUCTIONS TO BIDDERS

1. Introduction:

1.1 The Purchaser has issued this Tender Enquiry (TE) document for purchase of GPS (Global Positioning System) equipment (15 nos.) and its accessories as mentioned in Request for proposal (RFP section “List of requirements / Technical specifications”, which also indicates, inter alia, the required stores, delivery schedule, terms and place of delivery etc. This section “General Instructions to Bidders” (GIB) provides the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of tenders.

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

1.3 Whenever there is any conflict between the provision in the “General Instructions to Bidders” with regard to a 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 mentioned under different sections including, qualification criteria, check list, annexures, and technical specifications etc. as per “RFP” will also apply for this purchase.

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

2. Tender Language:

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

3. Tender Validity:

3.1 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 Tender document.

3.2 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.

4. Tendering Expenses:

4.1 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.

5. Pre-bid Meeting:

5.1 Pre-bid conference shall be held as per Notice Inviting Tender (NIT) schedule in order to provide an opportunity to the participating Bidders to interact with NCS (National Centre for Seismology) with regard to various tender provisions/clauses, before the bids are submitted. Bidders should depute their authorized representative for pre-bid meeting. In case, due to the points/doubts raised by the prospective Bidders, 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 the 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 NCS website (<https://www.seismo.gov.in/content/tenders>).

5.2 NCS shall hold a pre-bid meeting with the prospective Bidders as per Notice Inviting Tender (NIT) details. Queries received in writing, from the Bidders, prior to the pre-bid meeting shall be addressed. The queries can be sent to NCS through email at sanjay.kp@nic.in and/ or faxed on 91-11-24619943.

5.3 Conditional tenders/bid 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.

5.4 Prospective Bidders are advised to see e-Procurement portal <http://eprocure.gov.in/eprocure> or NCS website (www.seismo.gov.in) on regular basis for any change in NIT schedule, amendment / corrigendum in Tender Document including technical requirement and pre-bid minutes etc.

6. Bidder's Eligibility Criteria:

6.1 The Bidder should be an Indian firm and have at least five years' experience as on submission of bid document for supplying and integrating at least 100 GNSS/geodetic equipment for a national institution in consecutive last FIVE years. The bidder should furnish the information on past supplies (during last FIVE years as on last date of bid submission). The completion certificate from such client and; at least (02) two completion certificate preferably from Central / State Government agencies /PSUs.

6.2 Bidder should submit the following documents- Copies of original documents defining the constitution or legal status, place of registration and principle place of business of the company or firm or partnership, etc. The bidder should furnish a brief write-up supported by adequate relevant documents explaining the available experience (both technical and financial) for the supply and integration of the GPS equipment within the stipulated time frame of completion, meeting their all commitments.

6.2.1 Profit –Loss statement for last three financial years should be submitted.

6.3 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 the 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.

6.4 The bidder should have a valid ISO 9001:2015 or 90001:2008 certificate.

7. Bid Submission:

7.1 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.

7.2 The Bidder should submit the details of agreements entered into with OEM's (Original Equipment Manufacturer) for executing the work as per RFP and their experience to meet the qualification & experience criteria. The Manufacturer Authorisation form duly filled-up as per **Annexure-3**.

7.3 **A self-certificate stating that the Bidder is not presently blacklisted and hasn't been blacklisted by any institution of the Central/State Government in the past three years should be submitted.**

7.4 The Bidder has to quote for all items mentioned in Scope of the Services, as per Price-bid format given in **Annexure-7**.

7.5 No deviations in terms & conditions of the tender document will be accepted in any case.

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

7.7 All the documents attached to the tender for considering offer are supposed to be complete in all respects. **Therefore, it is important that all tender documents are to be duly filled in, duly signed-in and duly stamped in all respects before uploading (scanned copies in PDF format).**

7.8 All the bids documents should be signed by the authorized signatory with company seal. All pages of the bid that is being submitted **must be sequentially numbered, each pages of the complete bid should be signed and stamped by the bidder (prior to uploading).**

7.9 NCS will not be responsible for any delay on the part of the bidder in obtaining the terms and conditions of the tender notice or submission of the online bids.

7.10 Without EMD unless exempted, bid will be treated as cancelled.

7.11 Part-I (Technical Bid) and Part-II (Financial Bid) should be uploaded in the prescribed format in the e-Procurement portal. EMD through FDR/Bank Guarantee from any Scheduled Commercial Bank drawn in favour of "DDO, National Center for Seismology, New Delhi" in one cover sealed and superscribed **"EMD- "Procurement of GPS system"** as per NIT details, should be submitted physically to Dr. Sanjay K Prajapati, Scientist-E, Room No. 512, V Floor, Sat. Met. Building, Mausam Bhavan Complex, Lodi Road, New Delhi-03. However, the scanned copies of FDR/Bank Guarantee towards EMD, must be

uploaded (PDF format) electronically (along with Technical Bid) on e-Procurement Portal (<https://eprocure.gov.in>). The model of Bank Guarantee Form is given at **Annexure-5**.

7.12 A hard copy of Technical bid only in a sealed cover should be submitted to Dr. Sanjay K Prajapati, Scientist-E, NCS, MoES, Lodhi Road New Delhi. The copy must be same to the one which had been uploaded on e-procurement portal.

7.13 **Part-1 Technical Bid should contain the following details, should be titled as “Technical Bid – NCS Tender for “Procurement of of GPS system”**

7.13.1 Company profile and Infrastructure

7.13.2 Registration certificate with Government. Credential/document shall be attached.

7.13.3 All the documents asked for Eligibility Criteria.

7.13.4 A Blank Tender document which is duly signed and stamped is also to be submitted.

7.13.5 Compliance sheet as per **Annexure-6** and the supporting documents.

7.13.6 PDF file (scanned document) of EMD.

7.13.7 Un-priced-bid (without price) containing Bill of Materials (BoM) indicating various components of work relating to RFP, should be submitted. This should be exactly same as price bid format (**Annexure- 7**) mentioned in the tender document.

7.13.8 Checklist section (as per **Annexure-1**) properly filled and signed.

7.13.9 Submission of Tender Acceptance form as per format given in **Annexure-2**.

7.13.10 Any deviations to the Terms and Conditions including Financial shall clearly be brought out in the Technical proposal with specific reasons.

7.13.11 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.

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

7.14.1 The rates are to be quoted in strict compliance to the format (specified in **Annexure-7**) otherwise the bid is liable to be rejected.

7.14.2 The rates are to be quoted by the Bidders in Indian Currency and payment shall be made to successful Bidders in Indian currency only.

7.14.3 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.

7.14.4 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.

7.14.5 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail.

8. Alterations and Withdrawal of Tender:

8.1 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.

8.2 No tender should be withdrawn after the deadline for submission of tender and before the 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.

9. 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 Tender 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.

10. Unresponsive Bids:

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

10.1 Registration certificate of bidding firm with Government. Credential/document not attached.

10.2 Tender is unsigned.

10.3 Checklist (**Annexure-1**) not enclosed.

10.4 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.

10.5 Tender validity is shorter than the required period.

10.6 Required EMD has not been provided unless exempted.

10.7 Bidder has not agreed to give the required Performance Security, after issue of Supply Order.

10.8 Proof of MSME on the date of tender submission for exemption of EMD.

10.9 Blank copy of tender with signature and seal of the authorised signatory on each page is also should be submitted.

11. Technical Evaluation:

11.1 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.

11.2 If during the preliminary examination, the purchaser finds 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.

11.3 Technical Evaluation Committee (TEC) will shortlist Technical Bids on the basis of technical parameters, presentation on offered product and features offered (if required). The TEC can make any enquiry/seek clarification from the Bidders on the offered Service. In such a situation, the Bidder shall extend full co-operation.

11.4 For Detailed Technical Discussions, Bidder has to ensure the availability of appropriate specialist, along with required documentation for interacting with the 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.

11.5 Compliance statement in the form of '**Complied**' or '**Not Complied**' shall be given in Tabular form 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 the lower side will not be accepted.

11.6 No enquiry shall be made by the Bidder(s) during the course of evaluation of the tender, after opening of bid, till the final decision is conveyed to the successful Bidder(s).

11.7 The names of technically shortlisted Bidders will be announced to only those Bidders whose bids will qualify for the opening of the Price/Financial/Commercial Bids.

12. Financial Evaluation:

12.1 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).

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

12.3 No enquiry shall be made by the Bidder(s) during the course of evaluation of the tender, after opening of bid, till the 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.

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

13. Earnest Money Deposit (EMD):

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

13.2 The bidders who are registered on Tender submission date 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 (MSME) are also exempted from the submission of Earnest Money Deposit (EMD).

13.3 EMD of an amount as shown in NIT 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 the date/time mentioned in NIT. Otherwise, bid will be rejected. However, the scanned copy of FDR/BG along with the Bid must be uploaded electronically on e-Procurement site.**

13.4 The EMD shall be valid for a minimum period of 240 days from the date of Publishing of tender.

14. Refund of EMD:

14.1 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.

14.2 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.

14.3 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.

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

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

15. Forfeit of EMD:

15.1 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.

15.2 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 16.1**.

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

16. Performance Security:

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

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

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

16.4 The supplier shall furnish performance security to the purchaser for an amount equal to three percent (3%) of the total value of the order(including taxes), valid up to sixty (60) days beyond the warranty period. The format of bank guarantee to be submitted as performance security is given in **Annexure-5**.

16.5 Performance Security shall be furnished by the supplier.

16.6 Bank Guarantee should be submitted from State Bank of India (SBI) or any other Nationalized Bank of India.

16.7 The successful Bidder will have to deposit Performance Security within the specified time limit given above, equivalent to 3% (Three Percent) of the total value of the work order (including Taxes), 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 the time specified, the Earnest Money Deposit of the Bidder shall be forfeited. No interest will be payable for "Performance Security".

16.8 Performance Security has to be submitted irrespective of its registration NSIC etc. Performance security is not relaxed to any supplier/service provider. Submission of Performance Security is a must for all suppliers/service providers.

16.9 It shall be in any one of the forms namely Fixed Deposit Receipt or Bank Guarantee drawn/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.

16.10 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.

16.11 In the event of non-providing the services, the Performance Security shall be forfeited. 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 the contract that the services offered by the supplier are not in conformity to the accepted specifications mentioned in RFP by the purchaser.

16.12 In case the Bidder backs out of the contract in midstream without the explicit consent of the NCS, the PBG will stand forfeited.

16.13 On completion of the Project, the Performance Bank Guarantee without any interest accrued shall be released after ascertaining the satisfactory support that has been provided by the service provider during the warranty period. In case, it is found that appropriate satisfactory support has not been provided, NCS will ensure that the prescribed penalty as per **Clause 21** for the default in service has been realized or shall be recovered from the service provider out of already due payments.

17. Payment Terms:

17.1 No advance payment will be made in any case.

17.2 Payment shall be done as per following

17.2.1 60% payment shall be released on successful Delivery of equipment and its accessories

17.2.2 40% payment shall be released on successful testing by supplier and field installation by purchaser.

17.3 Payments shall be subject to deductions of any admissible 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 the deficiency in service (if any).

17.4 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.

18. Arbitration:

18.1 In case any dispute or difference arises out of or in connection with execution of the project (whether during the progress of the supply and warranty period or after their 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.

18.2 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 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 referred 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.

18.3 The venue of arbitration shall be New Delhi.

18.4 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.

18.5 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.

18.6 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.

18.7 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.

19. Force Majeure:

Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable. If at any time, during the continuance of the Service contract, 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.

20. Termination of Tender by Purchaser:

20.1 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.

20.2 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.

20.3 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.

21. Penalty Clause:

The tenderers should give onsite warranty for satisfactory functioning of overall system and all of its subsystems (both hardware & software components) for a period of 3 years from the date of acceptance. All faults on the system & various sub-systems encountered during the warranty period will be promptly attended to by the firm's engineers. Defective equipment and its accessories should be replaced immediately by working equipment within a period of 7 days otherwise a suitable penalty i.e. 0.5% to total work order subject to a ceiling of 10% will be imposed. Any design defects or installations deficiencies, if noticed during the warranty period, will be rectified promptly by the service provider at free of cost at all places.

22. Delivery schedule

Delivery of GPS equipment and all its accessories shall be done at Ridge office of NCS, New Delhi within 60 days from the date of placement of supply order.

23. Late Delivery Charges

If bidder is unable to meet above delivery schedule a **Late Delivery** charges of 0.5% of the contract value per week will be levied, subject to maximum value of 10% of the contract value. Late delivery charges will be deducted from the final payment.

24. Terms of Delivery

Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the RFP under Clause No. 22. Purchaser shall not be held responsible for anything (payment and loss of stores etc.) if stores supplied without any valid delivery period as purchaser reserve the right to reject the delivery and terminate the supply order.

Section-II

Technical Specifications

1. Background

National Centre for Seismology (NCS) is the nodal agency of the Government of India for monitoring of earthquake activity in the country. NCS maintains National Seismological Network of 115 stations each having state of art equipment and spreading all across the country. NCS monitors earthquake activity all across the country through its 24x7 round the clock monitoring centre. NCS also monitors earthquake swarm and aftershock through deploying temporary observatory close to the affected region.

Apart from earthquake monitoring, NCS is also actively involved in the Seismic Hazard Microzonation and seismological research.

As NCS is involved in monitoring the earthquake and swarm's activity and also involved in R&D to understand the earthquake process. Therefore, to understand the earthquake sources process and crustal deformation in Delhi NCT region. NCS is planning to establish dense GPS Network in Delhi NCT region. This study will be useful in direct estimation of continuous strain rate, strain budget, and stress direction along the fault zones/lineaments etc. in the region. Further, these estimates together with the seismicity would be helpful in understanding the mode of deformation in the region. Eventually, the outcome of the study would effectively be used for precise assessment of seismic hazard in the region.

This document gives detailed specifications and requirements for procurement of 15 Nos. GPS/GNSS system along with its accessories. Keeping in view of these, bidders are required to make a full technical proposal and send it appropriately in response to this tender enquiry issued by NCS.

All stations will be made as permanent reference Stations. Equipment should be capable of receiving signals from multi constellation satellites such as GPS and GLONASS round the clock, 365 days in a year.

2. Scope of present tender enquiry

For estimation of continuous strain rate, strain budget, and stress direction along the fault zones/lineaments, NCS requires 15 GNSS systems consisting of following important components-

(i) GNSS Receiver embedded with data communication facility with at least three (03) years warranty

(ii) GNSS Antenna with at least three (03) years warranty.

2.1 Specifications for GNSS receiver (15 nos.)

2.1.1 Multi-frequency GNSS receiver having internal/embedded/removable memory of at least 64 GB. It should have facility to select sampling rate in the range 50 Hz – 600 second as per the user requirement. Also, the receiver should be capable of recording simultaneous

sampling at least 4 different rates and log/streaming of raw data. Such provision should enable the user to retain the higher frequency data in the receiver for a specified number of days say, 3-7 days.

2.1.2 The GNSS receiver should have the facility to accommodate met-package (MET sensors of all the major OEM's) so that, if required, met data can automatically be stored in binary file and it can produce separate met file on rinexing. The MET Interface should be directly configurable either over a Web Interface or using Reference Station Software. Further, if any software is required for data conversion, the same is to be supplied with no extra cost.

2.1.3 The receiver should have minimum 120 channels and should be capable of tracking all the signals of GPS and GLONASS.

2.1.4 It should be equipped with a display and/or control unit/panel. Further, the unit/panel should be configurable with the receiver (reference station) without any external powered device (Display / control unit must be capable to configure receiver and able to see all the parameters of the receiver)

2.1.5 Power Consumption should not be exceeding 5 Watt (Receiver, Antenna, controller: nominal) with external Battery voltage in the range of 11-28 volts D.C. It must be powered by AC and DC simultaneously.

2.1.7 Data logging

- (i) Support of logging rates from 50Hz to 600 seconds.
- (ii) Must contain internal/external/embedded memory at least 64 GB of logging space.
- (iii) In addition to the internal/external memory, the receiver must have a port for removable media.
- (iv) Must support a minimum of 4 independent and concurrent logging sessions.
- (v) Logged data shall have a file size of less than 6 MB (unzipped) for a 24 hour, 15 second file to maximize storage capacity.
- (vi) Must be capable of producing both RINEX and BINEX file formats internal to the receiver without the need for external tools/converters.
- (vii) Must be capable of pushing logged and converted data files to at least two separate FTP servers.
- (viii) Receiver must support both a configurable ring buffer style memory deletion scheme as well as session specific "pools" with similar functionality.
- (ix) Receiver must support the configurable input, output and logging of Met/Tilt measurements.

2.1.8 Remote monitoring and online data downloading capability should be available directly through radio modem/ telephone line/ RS232 and Ethernet. The receiver must have GSM or radio module for real-time data transmission. In case of external GSM/radio module, the following should be adhered:

- (i) It must be IP67 compliant without any external casing.
- (iii) It should not affect the functioning of receiver's accessories, communication, and power (Met sensor, external storage, POE, web interface and data downloading).

2.1.9 Data Ports:

- (i) It should have at least one USB/mini USB Port for extended USB storage. One D9 full 9-wire RS-232 serial port.
- (ii) One RJ45 port which must support data downloading using web interface and must be capable of providing external power to the receiver.
- (iii) The receiver must be able to support met-package without disturbing data I/O device and VSAT, simultaneously.
- (iv) One TNC connector to connect GNSS antenna.

2.1.10 Operating temperature range should be between - 40 deg. C and + 65 deg. C.

2.1.11 It should be waterproof (IP67), shockproof, dustproof, humidity-proof (100%) and condensation-proof.

2.1.12 All necessary OEM power, data cables, internal battery with charger, storage card, Y cable for simultaneous supply from AC and DC, are required.

2.1.13 Automatic power-on and data-logging after power failure, with same configuration (should not restore to factory defaults).

2.1.14 It should be capable of tracking all available satellites to 0 degree elevation.

2.1.15 Vendors will be required to satisfy the following tests (for GPS data) for verification purpose:

2.1.15.1 Quality Control Statistics (10-90 degree)

2.1.15.2 MP1 (Multi-path on L1) and MP2 values < 0.8 m

2.1.15.3 Not more than 1 cycle slip per 20,000 observations on an average; i.e.

(total observations/total slips) > 20,000.

2.1.15.5 Functionality in short baseline processing:

2.1.16. Input / Output data format

The receiver must support the following streaming data types: CMR, CMR+, RTCM v2.x, RTCM v3x, BINEX, and NMEA.

2.1.17. Security

2.1.17.1 The receiver shall support dynamic domain name system (DDNS). Receiver must implement a secure network connection (secure means via an encrypted, authenticated session) as well as provide various access levels to the receiver controls.

2.1.17.2 Support Real time stream authentication.

2.1.18. Power Supply

2.1.18.1 The offered receiver shall offer a minimum of two power inputs supporting both AC and DC operation.

2.1.18.2 The offered receiver shall contain an internal battery (Li-Ion) and with battery charger. The internal battery shall be capable of operating the unit standalone for up to 12 hours.

2.1.18.3 External power ports must be equipped with automatic switching facility between AC and DC, physical over-voltage protection, and polarity protection (for DC). The power ports should not be connected internally. The receiver should support Power On Ethernet (POE). The offered receiver shall contain capability to automatic swapping between power sources without affecting data recorded.

2.1.18.4 Internal battery must be capable of operating as an internal battery backup system (UPS) with user configurability to enable/disable this functionality.

2.1.18.5 Receiver must be capable of charging from (Power over Ethernet (PoE) input.

2.1.18.6 The receiver must automatically restart after loss of power and must power up in the same configuration when powered down (or loss of power).

2.1.18.7 10V to 16V DC operation, 230VAC, 50Hz input with built in charger in the unit and automatic-switching.

2.1.19 State of Health Display Indicators

The receiver must have provision to view satellite tracking, Memory, Network connectivity, Battery status etc through the in-built display.

2.2 Specification of GNSS Antenna:

Multi frequencies Choke Ring Antenna (GNSS) provide geodetic-quality measurements for different purposes like, surveying, mapping, atmospheric, seismic and research applications. Typical multi-frequency choke ring antennas maintain a stable phase centre that has less than 1 mm of drift. The choke ring antenna is based on the geodetic research standard and it features a Dorne Margolin (DM) antenna element. The specification of GNSS Antenna as detailed below and its future up gradation are acceptable.

2.2.1 The antenna must be choke ring with Dorne Margolin (DM) element to reject multi-path signals and should be capable of tracking GPS and GLONASS.

2.2.2 Phase center stability better than 2 mm or better and repeatability 2 mm or less.

2.2.3 Antenna gain 20dB or more.

2.2.4 Supply current 125 mA maximum

2.2.5 Minimum tracking elevation: 0 degree.

2.2.6 Absolute calibration file from IGS must be available. For antenna calibrations to be valid the GNSS antenna must be orientated to within $\pm 5^\circ$ of True North while installation at site.

2.2.7 Antenna shall operate in humidity, high winds, sand storm and blowing rain

2.2.8 The antenna should be delivered with an external Radom.

2.2.9 Antenna and Radom combination must have a valid antenna calibration.

2.2.10 Antenna should be separate from the receiver, and should be supplied with radome.

2.2.11 Antenna gain patterns must be reproducible, i.e., all antennas must have identical phase patterns.

- 2.2.12 Repeatability of Antenna phase center variation with elevation angle (10 – 90 degree) should not be greater than 0.2 mm in horizontal and 0.5 mm in vertical.
- 2.2.13 Antenna Should be waterproof, shock proof, dust proof, 100% humidity proof and condensation proof with IP67 ratings.
- 2.2.14 Multipath rejections: - In order to receive signals directly from the satellite the antenna design should have feature to reject RF signals of the satellite refracted from ground vehicles or nearby high-rise buildings (multipath). At the same time, the system should be able to receive good signals at very low elevation angles. In the range of 5 to 90 degrees elevation, observed to expect ratio (Epochs) should be 98%, below 3 degrees epoch should be better than 60%.
- 2.2.15 Good signal to noise ratio: - The circular polarization required to effectively track the Right-Hand Circular Polarization (RHCP) of GPS signals should not be lost thereby maintaining a good signal to noise ratio (SNR) enabling wider bandwidth to be tracked. It should have a high rejection of Left-Hand Circular Polarization (LHCP) arising out of multi-path.
- 2.2.16 Antenna should operate in a temperature range -20 to +55 degree Celsius, 100% humidity proof.
- 2.2.17 Low noise amplifier should be integral to the antenna.

2.3 Antenna Cable

- 2.3.1 Antenna Cable operational without amplifier (length: 20 m).
- 2.3.2 The Supplied cables and components should be of high quality and offer minimum signal loss.
- 2.3.3 Surge and lightning protectors: EMP Protector/surge arrestor & capsule kit (GNSS antenna).
- 2.3.4 Lightning Conductor and Surge protector of reputed brand as per the UNAVCO specs
- 2.3.5 A short loop of excess cable at the antenna and receiver connections should be provided to avoid tension in cable.

2.4 Details of Accessories for 15 nos. GNSS receivers

- 2.4.1 Storage card/drive (32 GB) -2 each (Industrial grade) with connecting cable
- 2.4.2 Pig tail cable of 1.5 meter with same thickness as that of antenna cable
- 2.4.3 The receiver configuration and data conversion software must be provided with no extra cost.
- 2.4.4 One hard copy of the full user guide and a CD/DVD of all the hardware and software manuals for the complete set of instruments.

2.5 Other Technical Terms and Condition

- 2.5.1 The Bidder will test all hardware & software operations and carry-out all adjustments necessary for successful and continuous operation of the equipment to fulfill the project goal.

- 2.5.2 The safe delivery of the instruments at the Ridge office of NCS/ respective field stations will be the responsibility of the bidder.
- 2.5.3 The Bidder further warrants that all Goods supplied under this Contract should have no defect.
- 2.5.4 The Bidder shall indicate on the Price Schedule specifying all components (main units and sub units etc. of each item) of prices shown therein including the unit prices and total tender prices of the **goods (H/w & S/w), GST etc.** against the requirement.
- 2.5.5 The supplier must submit a table indicating the compliance of all the features of the model of the equipment being quoted with those given in the indent verifiable through Printed brochures.
- 2.5.6 Additional features in the quoted equipment which are better than those in the indent – may be clearly mentioned.
- 2.5.7 The supplier should supply upgraded software whenever there is an up-gradation during warranty period.

CHECKLIST

| S.No. | Activity | Compliance Yes/No. | Page No. of Your bid |
|-------|--|--------------------|----------------------|
| 1 | Company Profile, Infrastructure, ISO Certification etc. (Clause 6.2) and Registration Certificate. | | |
| 2 | Have you enclosed EMD (Bank Guarantee /FDR) of required amount (as per Clause no. 7.11). The format of BG is given at Annexure-5. | | |
| 3 | Is the EMD submitted by other firm other than participating firm? If yes, then bid is likely to be ignored. | | |
| 4 | Is Registration certificate from Ministry of Micro, Small & Medium Enterprises (MSME), NSIC attached for relaxation of EMD? (Clause no. 10.8, and 13.2) | | |
| 5 | Details of Permanent Income Tax account number& GST number? (Attach a copy) (Clause no.7.1) | | |
| 6 | Have you kept EMD validity (240 days from the date of tender publishing)? (Clause no.13.4) | | |
| 7 | Have you enclosed all supporting documents like registration certificate, GST , PAN, details of agreements, self certificate etc. as mentioned in Clause no. 6.1 to 6.4, 7.1, 7.2, and 7.3. | | |
| 8 | 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. | | |
| 9 | Have you enclosed clause-by-clause compliance statement for the General terms and RFP requirements mentioned under Section-1 and Section-II, in addition to Annexure-6 ? | | |
| 10 | Have you submitted copy of the last purchase order(s) and performance certificate from users? (as per clause 6.1 and 6.2) | | |
| 11 | 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. 7.3 . A certificate need to be submitted on the letter head of the firm, with seal and signature and date. | | |
| 12 | Is tender Submitted by an OEM? | | |
| 13 | Have you submitted the Un-priced bid containing Bill of Materials as per Clause no. 7.13.7. | | |
| 14 | Have you submitted a hard copy of Technical bid (Clause no.7.12) | | |

| | | | |
|----|---|--|--|
| 15 | Name and Email ID of the representative of the firm, for seeking necessary clarifications on the technical bid. | | |
| 16 | Name of the firm who quoted the price | | |
| 17 | Name of the supplier with complete address to whom supply order to be placed. | | |
| 18 | Have you given details of persons for correspondence? | | |
| 19 | Name of the authorized signatory for the contract work (as per clause 7.8) | | |

Signature of Bidder:

Full name, designation, and address of the person signing (in block letters)

Whether signing as proprietor/ partner/ Constituted attorney / company/ CEO or his representative:

Company representative signature with company seal

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: Tender document No. NCS/_____ dated _____

I/We, the undersigned have examined the above-mentioned Tender document, including amendment/corrigendum No. _____, dated _____ (if any), the receipt of which is hereby confirmed.

If our tender is accepted, we undertake to supply the goods and perform the Services of “GPS System and its accessories”, 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 Tender document, including amendment/ corrigendum etc. if any.

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

Duly authorised to sign tender for and on behalf of Bidder / Tenderer

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

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

We confirm that <**Bidder Name**> having its registered office at <**Bidder Address**> is our authorized partner for

We hereby confirm that we shall provide all services and maintenance support to our authorized partner for the contract work. We also ensure to provide required spares and service support to the above authorized partner while offering onsite maintenance services during warranty 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 disbursal 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 in case 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
“Procurement of GPS system” (hereinafter called the “tender”) against the purchaser’s tender
enquiry No.....NOW ALL MEN by these presents that WE
.....ofhaving 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

| S.no. | Tender Clause No. | Compliance |
|--------------|---|-------------------|
| 1. | Undertaking for the pointwise compliance of each and every term and conditions mentioned under Section-I and Section-II of Tender Document. | Yes/No |

Signature of the Bidder

Name & Designation:**Date****Place****Company Seal**

Price bid form

Note: No cell should be left blank. Write 'Nil' or 'Not Applicable' wherever required.

| S. No. | Item | Quantity | Detailed specification/model (supporting document should be attached) | Rate (₹) | GST (if any) | Total (₹) |
|--------|--|----------|---|----------|--------------|-----------|
| 1. | GNSS receiver (GPS & GLONASS) having internal/embedded/removable memory of at least 64 GB with minimum 120 channels | 15 | | | | |
| 2. | Control Panel for Receiver to configure the Reference GPS station | 15 | | | | |
| 3. | Multi frequencies Choke Ring Antenna (GNSS) provide geodetic-quality measurements. The Choke ring antenna should be Dorne Margolin (DM) element and should be capable to track GPS and GLONASS. | 15 | | | | |
| 4. | Antenna Radome | 15 | | | | |
| 5. | Antenna Cable operational without amplifier (length: 20 m) | 15 | | | | |
| 6. | EMP Protector/surge arrestor & capsule kit (GNSS antenna) | 15 | | | | |
| 7. | Storage card/drive (32 GB) -2 each (Industrial grade) with connecting cable. | 30 | | | | |
| 8. | Pig tail cable of 1.5 meter with same thickness as that of antenna cable. | | | | | |
| 9. | Receiver configuration and data conversion software (free of cost). | 01 | | | | |
| 10. | Full user guide and a CD/DVD of all the hardware and software manuals for the complete set of instruments | 01 | | | | |