

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LABORATORY FOR ELECTRO OPTICS SYSTEM (LEOS)
BANGALORE**

Tender for Optical Telescope under NETRA

Bids to be submitted online

Tender No.: LEOS/LEOS/LE202100005901 dated 28-04-2021

A. Tender Details

Tender No : **LEOS/LEOS/LE202100005901**

Tender Date : **28-04-2021**

Tender Classification: **GOODS**

Purchase Entity : **LEOS**

Centre : **LABORATORY FOR ELECTRO OPTICS SYSTEM (LEOS)**

Procurement of Optical Telescope under NETRA

(1) Wherever URSC is mentioned, please read as LEOS (LABORATORY FOR ELECTRO OPTICS SYSTEMS).

(2) NO EMD AND TENDER FEE.

(3) VENDORS HAS TO REFLECT THE POINT NO (4), (5) AND (6) IN THEIR BID.

(4) Successful vendor has to submit the security deposit. (3 % of the value of the purchase order). Central PSUs/PSE/Autonomous bodies shall be exempted from the payment of security deposit, and instead, an indemnity bond shall be secured from them.

(5) Performance Bank Guarantee (PBG) to be furnished as a security for fulfilment of warranty obligations by the successful vendor after satisfactory execution of purchase order/Contract (3% of the value of the purchase order/Contract). Central SUs/PSE/Autonomous bodies are exempted from the production of Performance Bank Guarantee. Instead; an indemnity bond shall be furnished in lieu of PBG.

(6) Liquidated damages: If the vendor fails to deliver the items on or before the delivery date, or any extension thereafter purchaser shall recover from the vendor as liquidated damages a sum of 0.5% of the contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed 10% of the contract price of the unit or units so delayed.

(7) WE ARE HAVING CONCESSIONAL GST UNDER NOTIFICATION NO 47(IGST) & 45 (CGST) OF INTEGRATED TAX (RATE), NECESSARY EXEMPTION CERTIFICATE WILL BE PROVIDED. APPLICABLE TAXES ARE 5 %(SGST 2.5 %, CGST 2.5%)

(8) **SECRECY**: The technical information, drawings, specifications and other related documents, forming part of the CONTRACT, are the property of the Purchaser and shall not be used for any other purpose, except for execution of the CONTRACT. All rights, including rights in the event of grant of patent and registration of designs are reserved. The technical information, drawings, specifications, records and other documents shall not be copied, transcribed, traced or reproduced in any other form or otherwise in whole and/or duplicated, modified, divulged and/or disclosed to a third party nor misused in any other form whatsoever without Purchasers consent in writing except to the extent

required for the execution of this CONTRACT. These technical informations, drawings, specifications and other related documents shall be returned to the Purchaser with approved copies and duplicates, if any, immediately after they have been used for the agreed purpose.

(9) Delivery Terms: Imports Supply: FOR LEOS

(10) PUBLICITY: No publicity of any kind whatsoever in case of PURCHASE ORDER shall be given by the Supplier without prior permission of the Purchaser.

(11) Submit the bid on or before due date.

(11.1) All information in Vendor Specified Terms shall be provided without fail to avoid unnecessary correspondence / delay in process. The same should reach before technical bid opening date and time without fail.

(12) THIS IS A TWO PART TENDER. DO NOT MENTION THE PRICE IN TECHNICAL BID. REFLECT THE PRICE IN PRICE BID ONLY (PRICE BID FORM). DISCLOSURE OF PRICE IN TECHNICAL BID AMOUNTS TO REJECTION OF YOUR BID.

(13) In case of any difficulties, you can call in

080 2268 5014 / 5015 or through mail: purchase@leos.gov.in

14. Purchase Officer, LEOS, reserves the right to accept or reject any/or all the tenders in part or full without assigning any reasons thereof.

15. In this tender either the Indian agent on behalf of the principal/OEM or the principal /OEM itself can bid, but both cannot bid simultaneously for the same item. Indian agents while quoting on behalf of their principals shall provide necessary latest authorisation letter obtained from their principals/manufacturers.

16. If an agent submit bid on behalf of the principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in this tender for the same item. If submitted, all offers will be liable for rejection.

17. In case the bidders propose any other payment terms in deviation with the standard terms mentioned in the tender enquiry, it may be noted that applicable cash flow implications will be loaded on the prices quoted for commercial comparison of the offers. If advance payments are insisted by the bidders, interest at the rate of MCLR (Marginal Cost Linked Rate) as notified by State Bank of India from time to time shall be loaded on the prices for price comparison.

18. GENERAL TERMS & CONDITIONS FOR BIDDERS:

For this procurement, bids from Class I & class II Local Suppliers are admissible. hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P 45021/2/2017 PP(BE II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:

a) Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).

b) Class I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.

c) Class II local supplier means a supplier or service provider, whose goods, services or works offered

for procurement, has local content more than 20% but less than 50%, as defined under this Order

d)Verification of local content:

i.The Class I local supplier/ Class II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self certification that the item offered meets the local content requirement for Class I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.

ii.In case bid value is in excess of Rs. 10 Cr., Class I local supplier/ Class II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

iii.False declarations will be in breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the general Financial Rules along with such other actions as may be permissible under Law.

A supplier who has been debarred by any procuring entry for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed.

19. Product Scope: Class I local supplier/ Class II local supplier shall offer only standard and catalogued product for Equipment / Spares Cards / assemblies. If the above offered Equipment / Cards / Assemblies are under development / to be developed the bid will not be considered.

20. As per Rule 144(xi) of General Financial Rules, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority (i.e., Department for Promotion of Industry and Internal Trade) in line with Order (Public Procurement No. 1, 2 and 3) dated 23/07/2020 and 24/07/2020 or any amendments thereon issued by the Public Procurement Division, Department of Expenditure, Ministry of Finance. Hence, Vendors or Agents of a Vendor (Indian or Others) from a country sharing border with India shall submit the copy of Valid Registration made with DPIIT along with the tender mandatorily, without which the offer will be treated as invalid.

21. Model Certificate for Tenders

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

22. Model Certificates for Tenders for Work involving possibility of sub contracting

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub contracting to contracting from such countries I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub contract any work to a contract form such countries unless such contractor is

registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

Provide Compliance for the above in Vendor Specified Commercial Terms.

A.1 Tender Schedule

Bid Submission Start Date : **28-04-2021 10:00**

Bid Clarification Due Date : **27-05-2021 16:00**

Bid Submission Due Date : **27-05-2021 17:00**

Bid Opening Date : **28-05-2021 10:30**

Price Bid Opening Date : **21-06-2021 10:30**

B. Tender Attachments

Technical Write-up/Drawings

Document : NETRA RFP

Instructions To Vendors

1. NETHRA TERMS & CONDITIONS

1. GUARANTEE & REPLACEMENT:

- a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down for material, workmanship and performance.
- b) For a period of 36 months after the acceptance of the stores, if any defects are discovered therein or any defects therein are found to have developed under proper use arising from faulty materials, design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 36 months from the date of acceptance thereof by the Purchaser who shall state in writing in what respect the stores or any parts thereof are faulty.
- c) If in the opinion of the purchaser it becomes necessary to replace or renew any defective stores, such replacements or renewals shall be made by the Contractor free of all costs to the purchaser provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 36 months from the date of acceptance thereof.
- d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
- e) The decision of the Purchaser, notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defects has developed within the said period of 36 months or as to whether the nature of the defects requires renewal or replacement shall be final, conclusive and binding on the Contractor.
- f) To fulfill guarantee conditions outlined in Clause 20 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser - Bank Guarantee format enclosed) from a Bank approved by the purchaser for an amount equivalent to 3% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.
- g) All the replacement stores shall also be guaranteed for a period of 36 months from the date of arrival of stores at purchaser's site.
- h) Even while the 36 months guarantee applies to all stores, in case where a greater period is called for by our specifications, then such a specification shall apply, and in such cases, the period of 36 months referred to in Clause 20 (b) and (c) shall be asked for guarantee period plus two months.

2. REQUIREMENT OF ADDITIONAL NUMBERS OF THE STORES/SPARE PARTS ORDERED:
The Contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.

3. PACKING:

- a) The Contractor wherever applicable shall pack and crate all stores for sea / air shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail or sea for space qualified stores. The Contractors shall be held responsible for all damages due to improper packing.
- b) The Contractor shall ensure that each box / unit of shipment is legible and properly marked for correct identification. The failure to comply with this requirement shall make the Contractor liable for additional expenses involved.
- c) The Contractor shall notify the purchaser of the date of shipment from the port of embarkation as well as the expected date of arrival of such shipment at the designated port of arrival.
- d) The Contractor shall give complete shipment information concerning the weight, size, content of each packages, etc.
- e) Transshipment of equipment shall not be permitted except with the written permission of the purchaser.
- f) Apart from the despatch documents negotiated through Bank, the following documents shall also be airmailed to the purchaser within 7 days from the date of shipment by sea and within 3 days in case of air-consignments:
 - a) Commercial Bill of Lading / Air Way Bill / Post parcel Receipt. (Two non-negotiable copies)
 - b) Invoice (3 copies)
 - c) Packing List (3 copies)
 - d) Test Certificate (3 copies)
 - e) Certificate of Origin.

The Contractor shall also ensure that one copy of the packing list is enclosed in each case

4. ARBITRATION:

If at any time any question, dispute or difference whatsoever shall arise between the purchaser and the Contractor upon or in connection with this Contract, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by purchaser, other by a Contractor and in the event of any difference of opinion, the arbitrators will refer the matter to the umpire. The arbitration shall be conducted in accordance with the rules and procedure for arbitration of the International Chamber of Commerce at Paris. The expenses of the arbitrators and umpire shall be paid as may be determined by them. However, the venue of such arbitration should be in India.

5. LANGUAGE AND MEASURES:

All documents pertaining to the Contract including specification, schedule, notice, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English language. The metric system of measurement shall be used exclusively in the Contract

6. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all Stores supplied against this Contract are free and clean of infringement of any patent, copyright or trade mark and shall at all times indemnify the purchaser against all claims which may be made in respect of stores for infringement of any right protected by Patent, Registration of design or Trade Mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the Contract

7. COUNTER TERMS AND CONDITIONS OF SUPPLIERS:

Where counter terms and conditions/printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the purchaser unless specific written acceptance thereof is obtained.

8. SECURITY INTEREST:

On each item to be delivered under this Contract, including an item of work in progress in respect of which payments have been made in accordance with the terms of the Contract, purchaser shall have a security interest in such items which shall be deemed to be released only at the time when the applicable deliverable item is finally accepted and delivered to the purchaser in accordance with the terms of the Contract. Such security interest of the purchaser shall constitute a prior charge as against any other charge or interest created in respect of such items by any entity.

9. BANK CHARGES:

While the purchaser shall bear the bank charge payable to his Bankers (State Bank of India), the Contractor shall bear the Bank charges payable to his Bankers including the cheques towards advising amendment commissions.

10. TRAINING:

The Contractor shall, if required by the purchaser, provide facilities for the practical training of Purchaser's engineering / technical personnel from India and for their active association on the manufacturing processes throughout the manufacturing period of the Contract / stores, number of such personnel to be mutually agreed upon.

11. APPLICABLE LAW :

The Contract shall be interpreted, construed and governed by the laws of India

12. GENERAL TERMS & CONDITIONS FOR BIDDERS:

For this procurement, bids from Class-I & class-II Local Suppliers are admissible. hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:

a) Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).

b) Class-I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.

c) Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order

d) Verification of local content:

i. The Class I local supplier/ Class- II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for Class-I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.

ii. In case bid value is in excess of Rs. 10 Cr., Class I local supplier/ Class-II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

iii. False declarations will be in breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the general Financial Rules along with such other actions as may be permissible under Law.

A supplier who has been debarred by any procuring entry for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed.

13. Product Scope: Class I local supplier/ Class- II local supplier shall offer only standard and catalogued product for Equipment / Spares Cards / assemblies. If the above offered Equipment / Cards / Assemblies are under development / to be developed the bid will not be considered.

14. As per Rule 144(xi) of General Financial Rules, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority (i.e., Department for Promotion of Industry and Internal Trade) in line with Order (Public Procurement No. 1, 2 and 3) dated 23/07/2020 and

24/07/2020 or any amendments thereon issued by the Public Procurement Division, Department of Expenditure, Ministry of Finance. Hence, Vendors or Agents of a Vendor (Indian or Others) from a country sharing border with India shall submit the copy of Valid Registration made with DPIIT along with the tender mandatorily, without which the offer will be treated as invalid

15. Model Certificate for Tenders

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered

16. The Tenderers should submit quotations through EGPS mode before due date and time of opening and complete in all respects with technical specifications, including pamphlets and catalogues

17. Proforma Invoice may also be given which should contain the following information:

- a) The FOB/FCA value, the C & F value for import by Sea freight / Air freight up to and for air parcel post up to Kushok Bakula Rimpochee Airport., Leh, Ladhak . should be separately indicated.
- b) Agency Commission: The amount of commission included in the price and payable to the Indian Agent of the Contractor shall be paid directly to the Indian Agent by the Purchaser in equivalent Indian Rupees on the basis of an Invoice from him applying T.T. buying rate of exchange ruling on the date of placement of the Purchase Order and which shall not be subject to any further exchange variations. This payment will be released to the Indian Agent immediately after Customs clearance of the goods in India.
- c) The Contractor shall invoice only for the net amount payable to him, after deducting the amount of Agency Commission included in the invoice which will be paid to the Indian Agent directly by the Purchaser. However, the Contractor's invoice should separately reflect the amount of commission payable to his Indian Agent.
- d) The earliest delivery period and country of origin of the Stores.
- e) Banker's name, address, telephone/fax Nos. & e-Mail ID of the Contractor. f) The approximate net and gross weight and dimensions of packages / cases.
- g) Recommended spares for satisfactory operation for a minimum period of Ten year.
- h) Details of any technical service, if required for erection, assembly, commissioning and demonstration

18. The FOB/FCA and C & F prices quoted should be inclusive of all taxes, levies, duties arising in the tenderer's country.

19. The offer should be valid for a minimum period of 210 days from the due date of opening of the

tender.

20. Samples, if called for, should be sent free of all charges

21. Offers made by Indian Agents on behalf of their Principals, should be supported by the proforma invoice of their Principals and Authorisation from Original Equipment Manufacturer (OEM) or principal .

22. The details of Import Licence will be furnished in the Purchase Order

23. The authority of person signing the tender, if called for, shall be produced.

24. Instructions / Operation Manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents / correspondence should be in English language only.

25. The Purchaser reserves the right to accept or reject the lowest or any offer in whole or part without assigning any reason

26. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser

27. a) Part shipment is not allowed unless specifically agreed to by us.

b) As far as possible stores should be despatched by Indian Flag Vessels / Air India through any Agency nominated by us.

28. Inspection / Test Certificate should be provided for the goods after testing it thoroughly at the Contractor's works. If any Inspection by Lloyds or any other testing agency is considered necessary, it shall be arranged by Contractors

29. Where erection or assembly or commissioning is a part of the Contract, it should be done immediately on notification. The Contractor shall be responsible for any loss/damage sustained due to delay in fulfilling this responsibility

30. For items having shelf life, those with maximum shelf life should be supplied if order is placed

31. DEFINITIONS:

(a) The term 'Purchaser' shall mean the President of India or his successors or assignees.

(b) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's Successors,

representatives, heirs, executors and administrators unless excluded by the Contract.

(c) The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the Tender or offer of the Contractor for supply of stores of plant, machinery or equipment of part thereof.

(d) The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order.

32. PRICES:

Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotations with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

33. TERMS OF PAYMENT:

.1 Being a Department of the Government of India, the normal terms of payment are by Sight Draft. However other terms of payment like advance payment against Bank Guarantee, establishment of Letter of Credit, stage wise progressive payment may be considered by the Purchaser on such terms and conditions as may be agreed upon.

.2 The Sight Draft / Letter of Credit will be operative on presentation of the under mentioned documents:

- a) Original Bill of Lading / Airway Bill
- b) Commercially certified invoices describing the stores delivered, quantity, unit rate and their total value, in triplicate. The invoice should indicate the discounts, if any, and Agency Commission separately.
- c) Packing List showing individual dimensions and weight of packages. d) Country of Origin Certificate in duplicate.
- e) Test Certificate.
- f) Declaration by the Seller that the contents in each case are not less than those entered in the invoices and the quality of the Stores are guaranteed as per the specifications asked for by the Purchaser.
- g) Warrantee and guarantee Certificate/s vide Clause 20 hereinbelow

34. IMPORTANT LICENCE:

Reference to Import License No. & date and Contract number & date shall be prominently indicated in all the documents vide para 3.2

35. DEMURRAGE:

Supplier shall bear demurrage charges, if any, incurred by the purchaser due to delayed presentation of shipping documents as prescribed in para 3.2 to the bankers within a reasonable time (say within 10-12 days) from the date of bill of lading for sea consignments and within 3-4 days from the date of Air

Way Bill for air consignments.

36. ADDRESS OF INDIAN AGENTS

37. GUARANTEED TIME DELIVERY:

The time for and the date of delivery stipulated in the Purchase Order shall be deemed to be the essence of the Contract. Delivery must be completed within the date specified therein.

38. INSPECTION AND ACCEPTANCE TEST:

1 The Purchaser's representatives shall also be entitled at all reasonable times during manufacture to inspect, examine and test on the Contractor's premises the material and workmanship of all stores to be supplied under this Contract and if part of the said stores is being manufactured on other premises, the Contractor shall obtain for the purchaser's representative permission to inspect, examine and test as if the equipment were being manufactured on the Contractor's premises. Such inspection, examination and testing shall not release the Contractor from the obligations under this Contract.

2 For tests on the premises of the Contractor or of any of his sub-Contractors, the Contractor shall provide free of cost assistance, labour, material, electricity, fuel and instruments as may be required or as may be reasonably needed by the purchaser's representative to carry out the tests efficiently.

3 When the stores have passed the specified test, the purchaser's representative shall furnish a certificate to the effect in writing to the Contractor. The Contractor shall provide copies of the test/s certificates to the purchaser as may be required.

39. MODE OF DESPATCH:

Generally, stores should be despatched through Indian Flagged Vessel / Air India or through any other Agency nominated by the purchaser. A copy of the invoice and packing list should invariably be kept inside each of the packages

40. PORT OF ENTRY: Delhi

41. CONSIGNEE:

Purchase & Stores Officer, Stores

42. SHIPPING MARKS.

The mark on the shipping documents such as invoice, bill of lading and on the packages should be as follow:

PURCHASE ORDER NO. . DATED
G O V E R N M E N T O F I N D I A

DEPARTMENT OF SPACE

..... (name of the Centre/Unit) Destination: &

Port of Entry:

43. INSURANCE OF THE STORES:

The necessity or otherwise of insurance will be as indicated in the Purchase Order.

44. CONTRACTOR'S DEFAULT LIABILITY:

1 The purchaser may upon written notice of default to the Contractor terminate the Contract in whole or in part in circumstances detailed hereunder:

- a) If in the judgement of the Purchaser the Contractor fails to make delivery of Stores within the time specified in the Contract/agreement or within the period for which extension has been granted by the Purchaser to the Contractor.
- b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this Contract.

45. In the event the Purchaser terminates the Contract in whole or in part as provided in Clause 14 the Purchaser reserves the right to Purchase, upon such terms and in such a manner as he may deem appropriate, stores similar to that terminated and the Contractor shall be liable to the Purchaser for any additional costs for such similar stores and/or for liquidated damages for delay as defined in Clause 19 until such reasonable time as may be required for the final supply of stores.

.1) If this Contract is terminated as provided in Clause 14 the Purchaser in addition to any other rights provided in this Article, may require the Contractor to transfer title and deliver to the Purchaser under any of the following clauses in the manner and as directed by the Purchaser:

- a) Any completed stores.
- b) Such partially completed stores, drawing, information and Contract rights (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of the Contract as terminated. The Purchaser shall pay to the Contractor the Contract price for completed stores delivered to and accepted, by the purchaser and for manufacturing material delivered and accepted.

.2) In the event the Purchaser does not terminate the Contract as provided in Clause 14, the Contractor shall continue the performance of the Contract in which case he shall be liable to the purchaser for liquidated damages for delay as set out in Clause 19 until the stores are accepted.

46. REPLACEMENT:

If the stores or any portion thereof is damaged or lost during transit, the Purchaser shall give notice to the Contractor setting forth particulars of such stores damaged or lost during transit. The replacement of such stores shall be effected by the Contractor within a reasonable time to avoid unnecessary delay in the intended usage of the Stores. In case the purchaser agrees, the price

towards replacement items shall be paid by the purchaser on the basis of original price quoted in the tender or as reasonably worked out from the tender.

47. REJECTION :

In the event that any of the stores supplied by the Contractor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser. If the Contractor fails to do so, the purchaser may at his option either

- a) replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or
- b) terminate the Contract for default as provided under clause 14 above, or
- c) acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchaser's rights under clause 19.

48. EXTENSION OF TIME:

If the completion of supply of stores is delayed due to reason of force majeure such as acts of god, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, etc., the Contractor shall give notice within 15 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the Contract.

49. DELAY IN COMPLETION / LIQUIDATED DAMAGES:

If the Contractor fails to deliver the stores within the time specified in the Contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages a sum of one-half of one percent (0.5 percent) of the Contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10 percent) of the Contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.

50. Model Certificates for Tenders for Work involving possibility of sub-contacting

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contracting from such countries I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contract form such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

C. Bid Templates

C.1 Technical Bid - Optical Telescope under NETRA

1. TELESCOPE:

NETRA: Optical Telescope Facility (Dome +Telescope + Telescope mount + Camera + Weather Station+ Associated Software's etc...and required related accessories) and complete with required accessories as per enclosed RFP

Item specifications for TELESCOPE

SI No	Specification	Value	Compliance	Offered Specification	Remark
-------	---------------	-------	------------	-----------------------	--------

1	1. Introduction	<p>NEtwork for space object TRacking and Analysis (NETRA) is the first ISRO project with the primary objective as Space Situational Awareness (SSA). The prime goal of the project is to establish a network of observational facilities and a control centre, to identify, track and catalogue space objects that threaten the safety of Indian space assets. The control centre will process the tracking information from the observational network and provide accurate & timely proximity alerts to mission operations centre. For this purpose, ISRO invites proposals for the supply, installation and commissioning of Optical Telescope System with all the necessary mechanical, electrical, electronic and software systems for the above-mentioned applications. The location for establishing the optical telescope facility is identified as Hanle, Ladakh in INDIA. It is intended that a one-meter optical telescope with a high-resolution CCD camera should provide capability of detecting space objects of size 30 cm and above in Geo-Synchronous Orbit (GSO). ISRO invites proposals from reputed vendors who have requisite</p>	Yes / No / Explain		
---	-----------------	--	--------------------	--	--

		<p>experience in this field to design, manufacture, install and commissioning of Telescope with clear aperture of 1m and above as an end-to-end system , in Hanle, Ladakh. The total system will be known as Netra Telescope.</p>			
--	--	---	--	--	--

2	2. Scope	<p>The Vendor should quote for one number, end to end photometry system as per the technical specification given in section-3, comprising the optical telescope, tracking mount, CCD Camera, Dome, Weather station and all related hardware and software. This document provides the detailed specifications of the proposed photometry system. While some of the specifications like telescope aperture, accuracy, range are major specifications (mentioned as major are not variable), the other parameters like size, f/#, etc., define one possible configuration of the system which shall be tailored to meet the overall system requirements (mentioned as typical in the specification table). The primary function of the facility is satellite photometry. Telescope system for this purpose will be established at the location mentioned below: Location: Hanle, Ladakh, INDIA (a site with green protocol) The telescope facility is to be designed such that it can be used for easy scan of space objects of size 30 cm and above. The vendor should have sufficient experience to carry out installation and commissioning of equipments of similar photometry telescope system.</p>	Yes / No / Explain		
---	----------	---	--------------------	--	--

Vendor should enclose technical details of end-to-end optical telescope installations and deliveries carried out to support their qualification. The vendor is expected to carry out complete installation and commissioning of the telescope at the identified site. Therefore, vendor should identify all the hardware essential for satisfactory operation of the telescope in the offer. The necessary civil construction shall be carried out by ISRO as per the requirements indicated by vendor pertaining to foundation and dimensions. For this purpose, the preliminary details required for civil works need to be provided in the offer. The steel support structure for dome along with the Dome shall be the responsibility of the vendor. The facilities are proposed to be remotely operated from BENGALURU, INDIA. For this purpose, the necessary communication link shall be established by ISRO. However, the vendor shall provide necessary details of communication requirements, bandwidth required for operation. The software shall have provision for complete remote operation of telescope without manual intervention.

The necessary hardware and software interface shall be incorporated in the system configuration. For uninterrupted operation of telescope, the necessary requirements shall be defined as well as the power requirements (primarily solar power at the site) including UPS and power back up time. The uninterrupted power supply/ generator shall be provided by ISRO based on the inputs provided. The necessary software interface shall be provided for switching off the system in case of prolonged power failure. The Electronic system shall be protected by suitable interlock mechanism for overload and safety. Similarly, the optics, CCD camera shall have necessary protection features to protect from direct sunlight. The vendor should provide details of pricing for each subsystem and identify optional items clearly which may be chosen to enhance the system capability. List of spares and accessories required for an uninterrupted operation of the facility, post warranty period, should be separately identified in the commercial price breakup. Vendor should ensure trouble-free operation of the

		system adequately covering the delivery of spares for a period of 10 years.			
3	Location details	Hanle is a village in the district Leh , which is the capital town of union territory of Ladakh in India. Hanle is at an altitude of 4500 meters	Yes / No / Explain		
4	Connectivity by Road	LEH is connected via National Highway 1 to Srinagar (434 km) in the south west and to Manali in the south via the LEH-Manali highway (473 km). These roads are open only from June to October	Yes / No / Explain		
5	Connectivity by Air	Leh's Leh Kushok Rimpochee Airport has flights to Delhi on daily basis operated by Air India and twice weekly services to Jammu and weekly flight to Srinagar.	Yes / No / Explain		
6	Climate Data	Refer the climate Data in enclosed RFP	Yes / No / Explain		
7	3. Technical Specifications 3.1. Telescope	The specifications of the telescope system are as given below. The main requirements of the telescope are the size and the optical quality within the field of view. The focal plane should be the dual Nasmyth type. The entire system should be modular in nature. The vendor is expected to design and configure the telescope parameters so as to make use of the CCD camera to its full potential.	Yes / No / Explain		

8	1 Optical configuration	Ritchey-Chretien/ dual Nasmyth two mirror telescope (spectral band 0.4- 0.9 micron) with field corrector optics	Yes / No / Explain		
9	2 Telescope mirrors	Primary mirror (PM) clear aperture of 1- meter diameter *(Major) Secondary mirror of suitable diameter. Manual and remote focusing provision for secondary mirror mounted on Hexapod Range \pm 20 mm (typical along optical axis) Accuracy \pm 5 micron. Tip/Tilt: \pm 1 degree with coarse & fine adjustment Remarks: The Aspect ratio of PM shall be 1:8 (Typical) The primary mirror shall be mounted on the passive whiffletree type mount *Physical diameter of the primary mirror may be frozen by the vendor	Yes / No / Explain		
10	3 Mirror material	Primary Mirror : SCHOTT Zerodur (Major) Secondary & Other Mirrors :Fused Silica (Major)	Yes / No / Explain		
11	4 Telescope System F #	F/9.0 Remarks:Typical	Yes / No / Explain		
12	5 Plate scale	22.0 arc sec/mm Remarks:Calculated for the typical values	Yes / No / Explain		
13	6 Receiver Type	Focal plane CCD camera (Major)	Yes / No / Explain		
14	7 Field-of-view	Optimized for circular Field of view \pm 0.3Degree or better without vignetting. Remarks:Designed for the Typical value	Yes / No / Explain		

15	8 Optical Quality	RMS-WFE < 50 nm (with a goal towards 40 nm) in mounted condition (Major) (for the required EFL & FOV). Remarks: Note 1	Yes / No / Explain		
16	9 Optical Path length Stability	15nm RMS over 0.01 arc sec field of view. Remarks:By simulation using Finite-Element analysis	Yes / No / Explain		
17	10 Optical efficiency	> 70% (weighted avg.) over 0.4 to 0.9 microns Remarks:Excluding detector	Yes / No / Explain		
18	11 Spectral range	0.4 to 0.9 micron (Major)	Yes / No / Explain		
19	12 Thermal stability	Telescope structure shall be suitably designed to ensure optical performance over temperature variation of -25° C to 30°C Remarks:By analysis	Yes / No / Explain		
20	13 Sunlight avoidance	by telescope control software Remarks:Note 2	Yes / No / Explain		
21	14 Protection	Automatic protective cover for rain, dust, wind with remote operation capability Remarks:Shall include manual command provision	Yes / No / Explain		
22	15 Optical coating	Protective Aluminum coating Conforming to MIL-M-13508 C Remarks:With minimum reflectance of 85%	Yes / No / Explain		
23	16 Alignment reference	Suitable provisions to un-mount and re-mount mirror after coating with minimum realignment Remarks:Note 3	Yes / No / Explain		
24	17 Calibration	Internal alignment reference for focusing/ calibration	Yes / No / Explain		

25	18 Mechanical finish	Parts blackened to avoid stray light Remarks:Reflectance to be kept less than 0.1	Yes / No / Explain		
26	19 Storage condition	Designed and constructed to withstand hazards associated with the site, storage and transit Remarks:Note 4	Yes / No / Explain		
27	20 Range of operating conditions	Design shall take care of the range of operating conditions specified for the selected site. Remarks:Note 4	Yes / No / Explain		
28	21 Stray Light control	Suitable baffle design to be done to control stray light coming to the telescope	Yes / No / Explain		
29	22 Wide angle telescope mounting provision	The telescope mount should have mechanical interface to mount a wide angle telescope of about 50 kg weight as a piggy back to the main telescope along with the provision for balancing weight Remarks:This is for future augmentation of the facility for using in LEO debris tracking	Yes / No / Explain		

30	Notes	<p>1. RMS Wave front Error over the full aperture should be less than 50nm measured at 632nm.</p> <p>2. Remotely actuated mirror cover. Sun sensor if required, should be provided to protect the detector.</p> <p>3. For handling the primary mirror, necessary fixtures/gadgets are to be provided and suitable provision in the mirror mount to be made. Also suitable alignment references to be provided on the rear surface of the mirrors.</p> <p>4. Environmental factors before installation (storage) and after installation (normal closed condition) are to be considered. For the selected site at Hanle, Ladakh, the typical external environmental conditions are mentioned here under:</p> <p>a. Temperature range - 25DegC to 30DegC</p> <p>b. Wind up to 200kmph (worst-case)</p> <p>c. Humidity 10 to 95 %</p> <p>d. Additional hazards like Heavy rain, thunderstorm, lightning and dust storm, hazard by small animals, insects, etc.</p>	Yes / No / Explain		
31	3.2. Tracking mount	as per table below	Yes / No / Explain		
32	1. Mount Type	<p>Alt.-Az. (Major) (Altitude axis 5 meters above ground to limit the impact of 'ground seeing')</p> <p>Remarks: Any other requirements for civil construction to be specified</p>	Yes / No / Explain		

33	2. Mount Structure material	Galvanized steel (Major)	Yes / No / Explain		
34	3. Telescope Drives	On-axis direct drives with high accuracy encoders and servo controllers (Major)	Yes / No / Explain		
35	4. Absolute Pointing accuracy (Computer directed)	3 arc sec. rms absolute (over all sky) (Major)	Yes / No / Explain		
36	5. Differential pointing accuracy	<0.2 arc sec. rms relative (over 10 arc min.) (Major)	Yes / No / Explain		
37	6. Slew rate	Azimuth 5deg/sec, Elevation 5deg/sec (Major)	Yes / No / Explain		
38	7. Acceleration and deceleration	2 deg / Sq. sec	Yes / No / Explain		
39	8. Blind spot for tracking	less than 0.5 deg around zenith at sidereal or GEO track rates	Yes / No / Explain		
40	9. Tracking accuracy with or without auto guider at sidereal or GEO tracking rates	< 0.3 arc sec. rms over 10 sec. < 1.0 arc sec. rms over 10 min.	Yes / No / Explain		
41	10. Encoder resolution	0.002 arc seconds (Major)	Yes / No / Explain		
42	11. Elevation range	0deg to 90deg	Yes / No / Explain		
43	12. Azimuth range	± 200deg Remarks: Cable wraps to be used for elevation motor connections	Yes / No / Explain		
44	13. Min tracking rate	Sidereal rate (Major)	Yes / No / Explain		
45	14. Max tracking rate	3 deg/sec in both axes (Major)	Yes / No / Explain		
46	15. Tracking Jitter	0.02 arc sec for 10 to 85deg elevation (Major)	Yes / No / Explain		
47	16. Mount axes alignment accuracy	a). Orthogonality between axes 5 arc sec. (Major) b) Displacement between axes at the point of crossing 0.1mm (Major)	Yes / No / Explain		
48	17. Protection	Suitable limit switches - Soft & Hard switches & also emergency stop provision	Yes / No / Explain		

49	18. Telescope control	Local and remote with API and batch mode commanding S/W with provision of manual override	Yes / No / Explain		
50	19. Leveling	Errors and drifts shall be calibrated and compensated by pointing model calibration	Yes / No / Explain		
51	20. Bearing	High precision, life-time auto lubrication of bearing with proper sealing should be provided (Major) Remarks:In compliance with environmental conditions in the proposed site of installation	Yes / No / Explain		
52	21. Nasmyth port	The telescope mount elevation motor should have a hallow path with at least 150mm diameter.	Yes / No / Explain		
53	3.3. CCD Camera	As per Table below	Yes / No / Explain		
54	1 Detectors	ANDOR(iKon-XL231) CCD camera of 4K x 4K pixels Back illuminated CCD chip (Grade-1) to be used, with 15 micron pixels; imaging area of 61.4 x 61.4 Sq.mm peak Quantum Efficiency of 95% Remarks:Major Note 5	Yes / No / Explain		
55	2 Detection Threshold	19th to 21st Magnitude Remarks:Major	Yes / No / Explain		
56	3 Full well capacity	3,50,000 e-	Yes / No / Explain		
57	4 Exposure	0.04-3600 sec Remarks:Typical range	Yes / No / Explain		
58	5 A/D gain	1.5 e- unbinned	Yes / No / Explain		
59	6 Binning	1x1, 2x2, 4x4 Remarks:ROI (region of interest)	Yes / No / Explain		
60	7 Dark current	<1 e-/pixel/sec at -60degC Remarks:Major	Yes / No / Explain		

61	8 Tracking capability	Output compatible for track mount for tracking the target Remarks:Note 6	Yes / No / Explain		
62	9 Atmospheric compensation	Tip-Tilt and refocus (initial) for camera mounting platform	Yes / No / Explain		
63	10 Detector Cooling	TE, Air cooled.	Yes / No / Explain		
64	11 Filter wheel	Provisions for various spectral filter, neutral density filter in a filter wheel for day/night observations	Yes / No / Explain		
65	12 Autofocus	S/W Provision based on star observations	Yes / No / Explain		
66	13 Calibration	Star observation correction	Yes / No / Explain		
67	Notes:	5. The CCD camera should be capable of observing the stars with the given magnitude. Higher resolution and Sensitivity is preferable. 6. It should be possible to track the observed target in auto track mode within the capability of the tracking mount. Provision for programmed tracking also to be incorporated.	Yes / No / Explain		

2. TELESCOPE:

Dome support room structure with accessories (Optional for vendor, However, placing the order for this item is at the discretion of LEOS/ISRO)

3. TELESCOPE:

Installation, testing and commissioning as per detailed RFP enclosed

Item specifications for TELESCOPE

SI No	Specification	Value	Compliance	Offered Specification	Remark
-------	---------------	-------	------------	-----------------------	--------

1	3.4. Dome	The vendor shall supply the dome along with the telescope system to ensure compatibility of tracking and thermal environment. The dome movements should be minimum noise, appropriately insulated to facilitate thermal control, and minimum vibration to avoid interference with telescope operation.	Yes / No / Explain		
2	1 Dome (Enclosure) Type	Thermally insulated with sliding slit window. Material: Galvanized steel/Fibre reinforced polymer with heritage of using in harsh environments (Major).	Yes / No / Explain		
3	2 Dome support Base	Galvanized Steel Structure (Vendor Design).(Major) Remarks:Note 7	Yes / No / Explain		
4	3 Dome diameter	6 m (Typical)	Yes / No / Explain		
5	4 Operational wind speed	0 – 120 kmph 50kmph(full performance except jitter)	Yes / No / Explain		
6	5 Survival wind speed	200kmph (no damage)	Yes / No / Explain		
7	6 Operational temperature range	-25degC to 30degC (external environment)	Yes / No / Explain		
8	7 Micro Seismic activity	0.2 µG/Hz in (2-100Hz) full performance Remarks:Zone-4	Yes / No / Explain		
9	8 Survival Seismic activity	MR = 7.75 at 100 km / peak acceleration 0.24g (no damage) Remarks:Zone-4	Yes / No / Explain		
10	9 Vibration	No impact on telescope performance	Yes / No / Explain		
11	10 Dome footing	To provide minimal mechanical coupling between the dome and telescope pedestal Remarks:Note 8	Yes / No / Explain		

12	11 Remote and automated control	For dome opening/closing, rotation and fast shutter closing during emergency.	Yes / No / Explain		
13	12 Rotation rate	Commensurate with the tracking speed of the tracking mount and telescope operation for satellite operations with integrated control of dome and telescope.	Yes / No / Explain		
14	13 Manual operation	Provision for manual operation of dome under power failure, rain, etc.	Yes / No / Explain		
15	14 Safety	Input data from the weather stations to be used to operate the dome safely.	Yes / No / Explain		
16	15 Dome support room structure made of Galvanized steel	As per the typical dimensions as shown in Annexure-I to suit the proposed dome. Should meet all the environmental conditions specified for the dome (Sl. Nos.4, 5 and 6) detailed design to be provided along with quote. Remarks:Optional Separate price bid to be provided	Yes / No / Explain		
17	Notes 7 and 8	7. The steel support structure and the Dome shall be the responsibility of the vendor 8. The Civil and basic structure of the building shall be responsibility of ISRO	Yes / No / Explain		
18	3.5. Time and Frequency Standard	as per below table	Yes / No / Explain		
19	1 Time reference	GPS /Navic	Yes / No / Explain		
20	2 Synchronisation	GPS /Navic	Yes / No / Explain		
21	3 Epoch accuracy	100 nsec	Yes / No / Explain		

22	3.6. Weather Station	Telescope/dome control software shall have the weather sensor information as a feedback for safe operations.	Yes / No / Explain		
23	1 Wind Monitor 1.1 Speed range	0-200 km /hour	Yes / No / Explain		
24	1.2 accuracy	1 kmph	Yes / No / Explain		
25	1.3 Wind direction	0-360 deg	Yes / No / Explain		
26	1.4 accuracy	± 5deg	Yes / No / Explain		
27	2 Pressure Monitor 2.1 Pressure range	550-1100 mbar	Yes / No / Explain		
28	2.2 accuracy	0.1 mbar	Yes / No / Explain		
29	2.3 stability	<0.1 mbar /year	Yes / No / Explain		
30	3 Temperature Monitor 3.1 Range	- 50 to + 70 deg C	Yes / No / Explain		
31	3.2 accuracy	< 0.5 deg C	Yes / No / Explain		
32	3.3 Stability	0.1 deg C /year	Yes / No / Explain		
33	4 Relative Humidity Monitor 4.1 Range	0 to 100%	Yes / No / Explain		
34	4.2 accuracy	± 2%	Yes / No / Explain		
35	4.3 stability	<1% per year	Yes / No / Explain		
36	5 Visibility Sensor 5.1 Visibility range	10 m to 50 km	Yes / No / Explain		
37	5.2 Cloud sensor	All sky Visible camera	Yes / No / Explain		
38	5.3 Precipitation sensor	To measure the presence of fog, rain	Yes / No / Explain		
39	6. Lightning sensor	Far distance Near distance	Yes / No / Explain		

40	3.7. Operating System with Software Requirements	<p>Vendor is free to suggest the overall data flow & processing scheme, operating system and hardware. The hardware should be the latest available in the market.</p> <p>Adequate documentation to support any future changes shall be provided for the same. Vendor shall provide list of all the software and hardware deliverables, functional details, mode of operation, operating system and other details which are necessary. Necessary software modules required for the above should be part of the system, with remote configurable and operable capability, wherever possible. These requirements are only functional requirements and vendor should provide details of the accuracies, speed, update rate, storage wherever applicable. GUI interface as well as batch mode execution with user friendly, menu driven software is desired. The vendor may include some specific output samples in the proposal and provide a list of software packages included in the offer along with their functionality. Software upgrades and maintenance support shall be provided, wherever applicable. The lists of typical required software are given below:</p>	Yes / No / Explain		
----	--	---	--------------------	--	--

41	1 Telescope pointing based upon look angles	--	Yes / No / Explain		
42	2 Telescope tracking	--	Yes / No / Explain		
43	3 CCD camera target tracking	--	Yes / No / Explain		
44	4 Photometric measurement from CCD observation	--	Yes / No / Explain		
45	5 Atmospheric correction for measurements in pointing	--	Yes / No / Explain		
46	6 Alerts for emergency, auto shut down, error messages	--	Yes / No / Explain		
47	7 Auto search in a predefined grid pattern	--	Yes / No / Explain		
48	8 Tracking the target based upon programmed inputs	--	Yes / No / Explain		
49	9 Safety shutdown in case of power failure	--	Yes / No / Explain		
50	10 Fully automatic remote operation with manual override capability	--	Yes / No / Explain		
51	11 Dome operation motorized as well as manual	--	Yes / No / Explain		
52	12 Atmospheric correction for range	--	Yes / No / Explain		
53	13 Calibration of telescope for photometry, pointing, visual magnitude and object size	--	Yes / No / Explain		
54	14 Software safety interlocks for mechanical systems, environment monitoring systems and other sub-systems which might cause damage to the system.	--	Yes / No / Explain		
55	15 Time referencing of measurement	--	Yes / No / Explain		
56	16 Environmental monitoring and reporting	--	Yes / No / Explain		

57	17 Operations scheduling	--	Yes / No / Explain		
58	18 Data archival, back up (with 10 TB storage capability or more)	--	Yes / No / Explain		
59	19 Self-diagnostics and remote diagnostics	--	Yes / No / Explain		
60	20 Thermal compensation for focusing	--	Yes / No / Explain		
61	21 Compensation for leveling and alignment	--	Yes / No / Explain		
62	SL. No. 3.7.1	The vendor should make provision for tapping of data at significant processing steps in the overall data flow & processing scheme of the system. The provision for data tapping should be remotely configurable with storage at the facility during the measurement. Data transfer provision from local storage (at the facility) to remote location should be made available.	Yes / No / Explain		
63	SL. No. 3.7.2	All software modules for operation, data transfer, configuration, control and monitoring should be provided preferably with command interface and GUI, through local and remote connections in real-time/offline conditions.	Yes / No / Explain		
64	SL. No. 3.7.3	All CCD frames are to be stored in FITS format & WCS coordinate system, including the metadata, in the local storage with capability to retain the information for 1 year.	Yes / No / Explain		

65	SL. No. 3.7.4	The vendor shall also provide separate quote for image-processing software to process the image output from the camera, extract the azimuth/elevation or right ascension/declination of the objects captured in the image after astrometry correction and provides the information along with time in CCSDS-TDM data file format.	Yes / No / Explain		
66	SL. No. 3.7.5	The output of the system is required as CCSDS-TDM data file, including all the necessary auxiliary information for processing the CCSDS-TDM data file.	Yes / No / Explain		
67	3.8. Interface Requirements	Suitable interface shall be provided between the facility and remote control centre as given below:	Yes / No / Explain		
68	3.8.1 TCP/IP protocol to be used between equipment and remote control system	--	Yes / No / Explain		
69	3.8.2 Interface protocol is for communication purpose (monitoring and control and Data Transfer)	--	Yes / No / Explain		
70	3.8.3 Multiple access for control and data transfer	--	Yes / No / Explain		
71	3.9 Electrical Support System and Operating Environment	--	Yes / No / Explain		

72	3.9.1 The telescope and other equipments with its accessories shall operate with single phase 230 VAC (tolerance: $\pm 6\%$) or Three-phase 415 VAC (tolerance: $\pm 10\%$) power supply at a frequency of 50 Hz (tolerance: $\pm 6\text{Hz}$).	--	Yes / No / Explain		
73	3.9.2 The vendor should provide the complete power supply control system from the specified customer's normal supply system, if required.	--	Yes / No / Explain		
74	3.9.3 The power distribution bus should have all the necessary hardware such as fuses, relays and circuit breakers to safeguard the various subsystems	--	Yes / No / Explain		
75	and the equipment as a whole against power fluctuations, power hazard, overload and such situations that may arise during the use of equipment as per applicable standards and norms.	--	Yes / No / Explain		
76	3.9.4 The equipment shall have provision of uninterrupted power supply using batteries for essential parts like program, memory, etc.	--	Yes / No / Explain		
77	In case of power failure, the observations shall not be disturbed and on resumption of power work shall continue from the point of stoppage on a SOS basis.	--	Yes / No / Explain		

78	3.9.5 Air conditioning shall be provided for thermal control of the telescope and mount, etc. as per the requirements provided by the vendor.	--	Yes / No / Explain		
79	3.9.6 Additional infrastructure facilities required to be specified which can be realized during site preparation.	--	Yes / No / Explain		

4. TELESCOPE:

Essential spares

required for minimum of 10 years trouble free longtime operation as per detailed RFP enclosed

Item specifications for TELESCOPE

SI No	Specification	Value	Compliance	Offered Specification	Remark
-------	---------------	-------	------------	-----------------------	--------

1	4. Detailed Design Review (DDR)	<p>The vendor should provide a detailed Detailed Design Review (DDR) report which should comprise of Optical, Electro-optical, Opto-mechanical, tracking mount design and overall end-to-end system specification compliance along with FE analysis of the entire mechanical system, to meet the specified system performance. The system should be designed to survive the environment condition that persists throughout the year in Hanle, the installation location. The DDR shall be conducted after placement of order wherein the final configuration of the proposed system, testing and acceptance, installation and commissioning plan shall be provided including requirements of civil works for installation. The design will be reviewed by the committee of experts from the field constituted by ISRO and vendor should accommodate necessary changes if any suggested by the committee. On completion of the DDR, no change in the final approved plan/procedure will be entertained. However, under exceptional circumstances, some minor changes may be permitted with the approval of competent authority from ISRO.</p>	Yes / No / Explain		
---	---------------------------------	--	--------------------	--	--

2	5. Pre-Shipment Acceptance Tests	<p>The vendor shall outline a test acceptance, installation and commissioning plan as part of the proposal in response to RFP. The details shall be provided at the time of detailed design review of the facility and shall be mutually discussed and agreed. The test plan shall provide the details of testing prior to shipment. 5.1 It is required that the individual telescope components shall be independently tested and performance established prior to telescope system integration 5.2 The overall telescope performance in the mounted condition shall be tested in the finalized configuration (along with the tracking mount including camera and the necessary software) and the system performance to be demonstrated prior to shipment. 5.3 The test procedure protocols with test parameters and their acceptable limits shall be defined by the vendor which should be reflected in the DDR. 5.4 Since the pre-shipment acceptance tests are planned at the vendors/ sub-contractors premises, it is the responsibility of the vendor to make the necessary arrangements for participation of ISRO personnel at vendor's premises. 5.5 Equipment shall</p>	Yes / No / Explain		
---	----------------------------------	---	--------------------	--	--

		be shipped only after receipt of acceptance certificate from ISRO personnel. However, ISRO has at its discretion to waive off the requirements of participation based on test reports provided by the vendor.			
3	6. Installation, Commissioning and Site Acceptance Test	--	Yes / No / Explain		
4	The installation, commissioning and site acceptance tests shall be elaborately planned and presented by the vendor during DDR.	--	Yes / No / Explain		
5	6.1 For installation and commissioning of the system all the necessary test equipment/gadgets for the same shall be brought by vendor to the identified site.	--	Yes / No / Explain		
6	6.2 It is the vendor's responsibility to inspect and access appropriately, the civil work done by ISRO at the installation mark as per the projected requirements.	--	Yes / No / Explain		
7	6.3 It is also the responsibility of the vendor to raise the support structure of the dome at the installation site. It is fully the responsibility of the vendor to transport all the subsystems and assemblies without any damage.	--	Yes / No / Explain		

8	The post installation on-site tests shall include:	6.4 Mount mobility tests and telescope mobility tests in its installed mount. 6.5 Optical performance test integrated with CCD camera in the telescope mount. 6.6 Magnitude test based upon star observation. 6.7 Remote operability tests. 6.8 Detection of unknown object and registration. 6.9 Survey mode of operation. On successful completion of the site acceptance tests, competent ISRO personnel shall certify the final acceptance of the system.	Yes / No / Explain		
9	7. Support infrastructure and Essential Spares	The vendor shall provide a dedicated package of infrastructure along with the equipment.	Yes / No / Explain		
10	7.1 The system should be capable of continuous operation for a minimum period of two days.	--	Yes / No / Explain		
11	7.2 The system should be designed for a minimum operational life of 10 years and vendor shall identify the parts, which require replacement during this period by providing a maintenance chart.	--	Yes / No / Explain		
12	7.3 Standard tools, tool holders and fixtures that form part of the telescope system, the control system and other related systems.	--	Yes / No / Explain		
13	7.4 Fixture for removal and assembly of mirrors for coating shall be provided.	--	Yes / No / Explain		

14	7.5 All essential spares for the system shall be listed out give individual cost break up to ensure smooth functioning of the telescope (trouble-free operation) for a period of 10 years including 3 years of warranty period.	--	Yes / No / Explain		
15	7.6 Vendor shall exclusively list out spares, tools and fixtures, which will be provided along with the system.	--	Yes / No / Explain		
16	7.7 Requirements of civil, electrical etc. that is to be carried out by ISRO shall be specified within 4 months of acceptance of firm order so that these activities can be completed well in advance.	--	Yes / No / Explain		
17	8. Quality Standards	International standards shall be followed while selecting materials, components and equipment used in realizing the system. The manufacturer shall mention the standards followed (eg. MIL std., Industry std.,).	Yes / No / Explain		
18	8.1. All materials used in the realization of the system shall be provided with Certificate of Compliance (CoC).	--	Yes / No / Explain		
19	8.2. The test certificates issued for components, subsystems and the overall system shall have traceable standards.	--	Yes / No / Explain		
20	9. Major Milestones	9.1 Detailed design review	Yes / No / Explain		

21	9.1.1 The timeframe for submission of the DDR is 4 Months from the date of receiving the P.O.	--	Yes / No / Explain		
22	9.1.2 DDR review at Bengaluru within 5 Months from the date of receiving the P.O.	--	Yes / No / Explain		
23	9.1.3 Design correction / review recommendation implementation in the DDR review report and provision of vendor inputs for infrastructure realization should be within 6 Months from the date of receiving the P.O.	--	Yes / No / Explain		
24	9.2 Sub System Readiness	--	Yes / No / Explain		
25	9.2.1 Optical element readiness:	9.2.1.1 Readiness of Primary mirror, Secondary mirror and other Optical elements within 16 Months from the date of release of the P.O. 9.2.1.2 Presentation of certificate of compliance of optical elements before assembly within 17.5 Months from the date of release of the P.O.	Yes / No / Explain		
26	9.2.2 Assembly of Telescope subsystem: Within 1 month after the clearance of optical elements (18.5 months from the date of release of the P.O)	--	Yes / No / Explain		
27	9.2.3 Telescope System Level specification check in factory. Within 1 month after the assembly of telescope subsystem (19.5 months from the date of release of the P.O)	--	Yes / No / Explain		

28	9.2.4 Telescope Track Mount Major Sub Assemblies:	9.2.4.1 Bearings, Motor, and Encoder - Readiness and certification within 12months after the release of P.O. 9.2.4.2 Mechanical Elements – readiness and certification Within 17 months after the release of P.O. 9.2.4.3 Track Mount Assembly and performance check and certification within 19 months after the release of P.O.	Yes / No / Explain		
29	9.3 Telescope integration to Track mount: The telescope system integration to Track mount and system level performance check and certification should be within 20 months after the release of P.O.	--	Yes / No / Explain		
30	9.4 CCD camera: Readiness and certification should be within 18 months after the release of P.O.	--	Yes / No / Explain		
31	9.5 Integration of CCD camera: Integration of CCD camera to the telescope system and system level performance check and certification should be within 21months after the release of P.O.	--	Yes / No / Explain		
32	9.6 Packing, forwarding and delivery of Telescope assembly along with Track mount should be within 24 months after the release of P.O.	--	Yes / No / Explain		

33	9.7 Dome Assembly:	9.7.1 Readiness, factory acceptances test and certification should be within 15 months after the release of P.O. 9.7.2 Packing, forwarding and delivery of Dome assembly along with Track mount should be within 16 months after the release of P.O. 9.7.3 Installation and certification of Dome assembly at site should be within 18 months after the release of P.O.	Yes / No / Explain		
34	9.8 Software readiness: Should be made ready in parallel with the Hardware and the same should be demonstrated along with the sub system level performance checks and certifications.	--	Yes / No / Explain		
35	9.9 Final installation, performance demonstration, training and Commissioning of the facility should be completed within 28 months after the release of P.O.	--	Yes / No / Explain		
36	9.10 Schedule in brief. Major Events	Completion period from the date of P.O.	Yes / No / Explain		
37	Detailed design review (DDR)	5 Months	Yes / No / Explain		
38	Final DDR report	6 Months	Yes / No / Explain		
39	Telescope Systems readiness	19.5 Months	Yes / No / Explain		
40	Telescope assembly with Mount And performance check at factory	20 Months	Yes / No / Explain		
41	CCD camera	18 Months	Yes / No / Explain		

42	Delivery of Telescope assembly	24 Months	Yes / No / Explain		
43	Delivery of Dome assembly	18 Months	Yes / No / Explain		
44	Final Installation and Performance demonstration	28 months	Yes / No / Explain		
45	Note:	<p>Certification of each item will be done by the review committee formed by ISRO with experts from the field. The vendor should provide all the relevant test results, measurements, and test sequences/procedure followed in detail prior to certification and send to the committee to study, at least 10 days before the certification meeting. Deviations if any during the execution of the project has to be brought to the notice of ISRO and vendor shall seek the approval of ISRO before proceeding with further activities.</p>	Yes / No / Explain		
46	10. Training	<p>Two engineers and one technician identified by ISRO each from Optics, Mechanical and Electrical disciplines will have to be involved right from the stage of installation and should be trained in every aspect of operation and maintenance of the system. All required training manuals to be provided during training.</p>	Yes / No / Explain		
47	11. Warranty	--	Yes / No / Explain		

48	11.1. The vendor shall provide standard comprehensive warranty of the system for a period of 3 years from the date of installation and acceptance of the system.	--	Yes / No / Explain		
49	11.3. Vendor shall also firmly state the Annual Maintenance and Services (AMS) required for the installed system for a period of 3 years upon expiry of standard comprehensive warranty of 3 years and should quote for the same.	--	Yes / No / Explain		
50	11.4. The vendor is required to exclusively provide information on the nature of maintenance and service to be performed periodically for smooth operation of the system during warranty and AMS.	--	Yes / No / Explain		
51	11.5. The vendor shall also propose indigenous service provider if available for maintenance related activities.	--	Yes / No / Explain		
52	11.6. The vendor shall provide the details of spares required for the smooth running of the facility and ensure the availability of spares for a minimum period of 10 years.	--	Yes / No / Explain		
53	12. Documentation	--	Yes / No / Explain		
54	12.1. All manuals related to installation, operation and maintenance of the facility including all the major systems	--	Yes / No / Explain		

55	12.2. Electronic versions of documentation shall be provided.	--	Yes / No / Explain		
56	12.3. Process and quality control documents	--	Yes / No / Explain		
57	12.4. Test and Evaluation documents related to the components, subsystems and the overall assembly	--	Yes / No / Explain		
58	12.5. List of materials that have been used to realize the telescope system	--	Yes / No / Explain		
59	12.6. List of subsystems	--	Yes / No / Explain		
60	12.7. Procurement details for items not manufactured by the prime supplier	--	Yes / No / Explain		
61	12.8. Process/Operation flow chart indicating process monitoring stages of the system	--	Yes / No / Explain		
62	12.9. Handling/operational details of the system	--	Yes / No / Explain		
63	12.10. Maintenance	--	Yes / No / Explain		
64	12.11. Procedure for removal / recoating/ re-fixing of mirrors etc.	--	Yes / No / Explain		
65	12.12. Access to source code shall be provided for the telescope control software to facilitate maintenance and trouble shooting.	--	Yes / No / Explain		
66	12.13. Vendor shall provide the documentation regarding the software features and operating manuals.	--	Yes / No / Explain		

67	12.14. The engineering documentation shall include built mechanical layouts and mechanical drawings/interfaces, and complete identification of all replaceable components or units, built drawings of all electronics, wire		-		
68	and timing diagrams as appropriate of all electrical and electronic interfaces. It shall also include results of modeling or simulations used in verifying the design.	--	Yes / No / Explain		
69	13. Monitoring and Coordination	Vendor shall submit a monthly progress report of the progress of activities to ISRO to inform of the status of major works and delays, if any. Technical problems shall be brought to notice of ISRO for necessary approval. Any change in agreed upon plan shall be with the consent of ISRO. Vendor shall identify a single focal point each for coordination of technical and commercial activities on email basis. Likewise, ISRO shall identify a single focal point for all technical reporting and one for commercial reporting purposes.	Yes / No / Explain		
70	14. Vendor Heritage	--	Yes / No / Explain		

71	14.1 Prospective vendor should have previous experience of supply, installation and commissioning of similar photometry system for debris tracking in other locations as an end to end system.	--	Yes / No / Explain		
72	14.2 Documentary evidence of supply, installation and successful functioning of similar photometry system for debris tracking mentioned in this RFP in other locations should be produced along with the quotation.	--	Yes / No / Explain		
73	14.3 Since the proposed facility is to be commissioned on a turnkey basis within a stipulated time frame, the vendor who does not possess the heritage shall not be considered for the proposal.	--	Yes / No / Explain		

74	<p>15. Quotation format Vendor is required to prepare the quotation in two parts namely, Technical Quotation and the Commercial (Price) Quotation in two separate parts.</p>	<p>Technical Bid: The Technical offer shall contain the Technical Specifications, Compliance/Non-compliance, Justifications for Compliance/Non-compliance against the technical requirements, Technical Data sheets and any other technical information related to the offer made by the vendor. Vendor is required to prepare and provide the 'Technical Compliance Matrix' against each tender specification supported by technical data sheets and justifications with comments/remarks. A masked price bid of the technical offer shall be provided to decide and finalize the list of mandatory and optional deliverables along with the required spare and accessories. All the technical related documents shall be uploaded in the ISRO- EGPS (E-Governing Portal System) technical bid. The party shall mandatorily provide the compliance in EGPS also. Revealing of price details along with technical offer will lead to rejection of the offer. Price Bid (EGPS): The cost of the individual items shall be quoted in the price bid of EGPS. The Commercial (price) quotation shall provide break-up of price for all the</p>	Yes / No / Explain		
----	--	--	--------------------	--	--

		<p>individual major items like Dome assembly , Telescope Systems with mount , Telescope control software , weather station sensors , camera including spares, accessories and optional items commensurate with the RFP specifications as per EGPS price bid. Bunching of major or other deliverables shall be strictly avoided in order to have transparency and a fair evaluation of the bids. The cost break up of offer, if required, can be detailed in 'bill of materials' enclosed in commercial bid (EGPS-price bid) only.</p>			
--	--	---	--	--	--

75	16. Mandatory Instructions, Terms and Conditions	<p>16.1 A potential vendor shall quote for complete optical system package including the telescope, telescope drive, dome, telescope mount, telescope control software, sensors etc. and the enclosure including installation and commissioning. Partial quote for some sub-systems are not acceptable and shall not be entertained. 16.2 The vendor can outsource part requirement for some technical items such as mount , camera , dome etc . The manufacturer's name and make of the product along with the specifications shall be provided as part of the offer. However the vendor should possess end to end knowledge of the installation, commissioning and shall have capability of carrying out performance demonstration at site. The heritage of all the systems shall be provided by the vendor. 16.3 The vendor is solely responsible for end to end realization of this turn key project with a firm commitment. 16.4 The heritage of the system shall be provided by the vendor. 16.5 Technical compliance chart of specifications with respect to RFP to be provided as shown in a sample format. 16.6 Background</p>	Yes / No / Explain		
----	--	---	--------------------	--	--

		and experience of the company for carrying out installations of similar nature should be provided. 16.7 In the compliance matrix all the points mentioned in the RFP to be covered. Annexure-II provides the list of deliverables, additional information and AMSC.			
--	--	---	--	--	--

76	Terms and Conditions	<p>16.8 Bidder, while submitting price bid, shall consider all domestic taxes & duties applicable, other costs, if any, to arrive at total landed cost. Hence, the bid shall be evaluated on total landed cost. While working out taxes & duties bidder also shall consider following exemption: 16.9 LEOS is eligible for availing Concessional GST in terms of Government of India (GOI), Ministry of Finance, Department of Revenue Notification No:45/2017-Central Tax [rate] dated 14.11.2017 and Notification No:47/2017-Central tax[Rate] dated 14.11.2017 and as per the same applicable percentage of GST is 5% under the scope of this tender. RFP Information Proprietary to LEOS/ISRO 16.10 LEOS shall provide Custom Duty Exemption Certification (CDEC) under Notification No. 50/2017 dated 30/06/2017 amended vide Notification No:5/2018 dated 25/01/2018 for SI No: 539A, Customs duty charges 5% of total order value. 16.11 Quote on High Sea Sales (HSS) basis shall not be accepted, since installation is involved. 16.12 "In case of overseas bidder, they may consider sourcing local content/services</p>	Yes / No / Explain		
----	----------------------	---	--------------------	--	--

through domestic agency (India) and indicate release of separate order on such named entity. Quote for such sourcing/ services shall be in INR (Indian currency) considering all domestic taxes & duties. In such cases over all responsibilities lies with prime bidder (OEM/SI)." 16.13 The bidder shall provide breakup cost of all deliverables in the price bid making use of narration column of "other costs" field and values of the same should not be reflected in the "value" column. Other costs, if any, should only be mentioned in the value and corresponding narration shall be distinctly mentioned in the narration column of "other costs". 16.14 The bidder shall provide breakup of foreign currency portion & Indian Rupees portion of the total cost, if required on request of Purchaser.

77	Transportation/Logistics	<p>16.15 Successful bidder shall be responsible for the safe transportation/delivery of total system to actual sites at Hanley (Site identified by LEOS) and shall include clearance of imported equipment from the customs. The items belong to LEOS shall be directly delivered to Hanley and items belongs to LEOS, Bengaluru. 16.16 Successful Bidder shall also be responsible for all logistic arrangements like Custom clearance, boarding/lodging for the installation-team of the bidder, etc. No cost shall be borne by the Purchaser till final acceptance of the system except the Purchaser furnished items. The RFP for Netra Telescope Systems is an Information Proprietary to LEOS/ISRO.</p>	Yes / No / Explain		
----	--------------------------	---	--------------------	--	--

78	Delivery/ Payment Terms:	<p>16.17 Delivery Terms: The Price shall be on FOR DESTINATION (Hanley, India). In case of imports appropriate INCOTERM shall be used. 16.18 Taxes and Duties applicable and payable shall be indicated separately 16.19 Security Deposit: 10% of the total order value to be deposited as security deposit within 15 days of signing of contract/PO date to ensure faithful execution of work in time. If successful bidder fails to execute the order, this amount will be forfeited for non-adherence to contractual terms. This shall be valid till the date of acceptance with a claim period of two months. 16.20 Performance Guarantee: The successful bidder shall guarantee satisfactory performance/ operation of the commissioned system under the conditions and for the services specified during warranty period. As a performance security, the successful bidder shall furnish Performance Bank Guarantee (PBG) for an amount of Ten percent (10%) of the total order/contract value from a Scheduled Bank, valid till the end of warranty period with a claim period of two</p>	Yes / No / Explain		
----	--------------------------	--	--------------------	--	--

		months on acceptance of full			
79	Annexure - I	--	Yes / No / Explain		
80	Typical Dome support room structure photo	(refer enclosed document)	Yes / No / Explain		
81	Typical Dome support room structure typical dimensions	(refer enclosed document)	Yes / No / Explain		
82	Annexure –II	--	Yes / No / Explain		
83	1. Bill of Materials	1.1. Optical Telescope with accessories-1 Set. 1.2. Telescope mount with accessories -1 Set. 1.3. Camera with accessories – 1 Set. 1.4. Dome with accessories -1 Set. 1.5. Weather Station Equipment with accessories -1 Set. 1.6. Dome support room structure with accessories - 01 Set. 1.7. Any other items required to complete the Scope of work-As required. 1.8. Special tools and instruments required for the operation. 1.9. Spares -as required.	Yes / No / Explain		

84	Note: ,	<p>1. The offer for complete scope is only considered and partial and incomplete offers will be rejected. 2. The technical bid should not contain any price (details) of the offered product(s). If do so, the offer will be rejected without any communication. The party shall provide the cost break up of all above items in the enclosed 'bill of materials in commercial bid' (price bid) only. 3. The party shall optionally submit offer for Sl. No: 1.6 Dome support room structure with accessories. However, LEOS-ISRO is at discretion may or may not place order. 4. The offer for spares required for minimum of 10 years trouble free longtime operation of the system to be provided separately. The list of spares offered by the party shall be provided in the technical bid. The cost breakup of the spares shall be provided in the 'enclosed bill of materials' in the price bid and the total cost of the spares shall be provided in the main price bid. Offers without essential spares will not be considered. However, LEOS solely at its discretion may order complete spares or part thereof or nil depending upon the requirement. 5. The party can submit the</p>	Yes / No / Explain		
----	---------	--	--------------------	--	--

		<p>offer for any other the items that are required to complete the scope of work with justification. However, LEOS-ISRO, at discretion may or may not consider the offer depending the upon the requirement.</p>			
--	--	--	--	--	--

85	2. AMSC (Annual Maintenance Service Contract)- Comprehensive including Calibration	<p>2.1. Scope: The scope of AMSC is complete comprehensive and any materials/products/software required to keep the system operational and healthy as per specification is complete scope of the vendor. The scope also includes up-gradation/modification of software/system, if required with consent of LEOS-ISRO. 2.2. The Comprehensive AMSC will start after expiry of warranty period 2.3. The period of comprehensive AMSC is for three years. 2.4. The Annual Maintenance Service contract shall cover one calibration and one preventive maintenance per year and unlimited number of breakdown visits during the AMSC period. During preventive maintenance visit, the party shall check system performance, functional parameters and provide the report. During calibration, the vendor shall make the system confirm to the specification, conduct calibration and issue certificate. 2.5. In case of any issues/breakdown/service, the party shall attend to them within seven working days after intimation. 2.6. The party shall submit offer for</p>	Yes / No / Explain		
----	--	--	--------------------	--	--

		comprehensive AMSC for three years. Yearly payment will be made on successful completion of scheduled services.			
--	--	---	--	--	--

5. AMSC:

Comprehensive Annual Maintenance Service Contract (AMSC)- First year after expiry of warranty period as per detailed specifications in enclosed RFP

6. AMSC:

Comprehensive Annual Maintenance Service Contract (AMSC)- second year after expiry of warranty period as per detailed specifications in enclosed RFP

7. AMSC:

Comprehensive Annual Maintenance Service Contract (AMSC)- Third year after expiry of warranty period as per detailed specifications in enclosed RFP

8. TELESCOPE:

Any other items required to complete the Scope of work- As required

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
-------	---------------	-------	------------	-----------------------	--------

1	RFP	The Total RFP is split and specified under items. The party shall provide the compliance statement with offered specifications.	Yes / No / Explain		
2	Technical Bid	The Technical offer shall contain the Technical Specifications, Compliance/Non-compliance, Justifications for Compliance/Non-compliance against the technical requirements, Technical Data sheets and any other technical information related to the offer made by the vendor. Vendor is required to prepare and provide the 'Technical Compliance Matrix' against each tender specification supported by technical data sheets and justifications with comments/remarks. A masked price bid of the technical offer shall be provided to decide and finalize the list of mandatory and optional deliverables along with the required spare and accessories. All the technical related documents shall be uploaded in the ISRO-EGPS (E- Governing Portal System) technical bid. The party shall mandatorily provide the compliance in EGPS also. Revealing of price details along with technical offer will lead to rejection of the offer	Yes / No / Explain		

3	Price Bid (EGPS)	<p>The cost of the individual items shall be quoted in the price bid of EGPS. The Commercial (price) quotation shall provide break-up of price for all the individual major items like Dome assembly , Telescope Systems with mount , Telescope control software , weather station sensors , camera including spares, accessories and optional items commensurate with the RFP specifications as per EGPS price bid. Bunching of major or other deliverables shall be strictly avoided in order to have transparency and a fair evaluation of the bids. The cost break up of offer, if required, can be detailed in 'bill of materials' enclosed in commercial bid (EGPS-price bid) only</p>	Yes / No / Explain		
---	------------------	--	--------------------	--	--

Supporting Documents required from Vendor

1. Technical Compliance Statement

2. Technical Documents 2 As indicated and specified in the RFP in Technical Bid

3. Technical Documents 1 As indicated and specified in the RFP in Technical Bid

4. Bill of materials for cost break up in Commercial bid

5. if any other doc

6. if any other doc 2

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Performance will be given to class-I Local supplier and in their absence, Class-II Local supplier will be considered.	Yes / No / Explain	
2	Bank Charges: Tenderer[s] are hereby requested to take note that All Bank Charges inside India shall be borne by the Purchaser. Similarly, All Bank Charges outside India shall be borne by Contractor.	Yes / No / Explain	
3	Security Deposit: The Contractor shall execute Security Deposit for 3% of the value of the Purchase Order to ensure Satisfactory Performance of the Contract as per our specimen. The Security Deposit shall be executed within 20 days after Receipt of Purchase Order or any extension thereof. The Security Deposit is to be furnished in the form of Account Payee Demand Draft or Fixed Deposit Receipt or Bank Guarantee from Nationalized Bank/Scheduled Bank/International reputed Bank approved by RBI. The Security Deposit shall be executed on a Non-Judicial Stamp Paper of Rs. 200/- value. In case the Contractor fails to furnish the Security Deposit within 20 days or any extension thereof the Purchase Order shall be Cancelled or Terminated and appropriate penal action shall be initiated. Any breach of the Terms and Conditions of the PO including Delivery Period, Security Deposit shall be forfeited and PO shall be terminated and cancelled at the Contractors risk, cost and liability. The Security Deposit will not carry any interest and shall be returned after completely executing the order.	Yes / No / Explain	
4	Factory Acceptance Testing [FAT] [if Required]: The successful Tenderer[s] has to arrange for the necessary FAT of the Stores at the Contractor Factory Premises to enable URSC Engineers to carry out FAT. The FAT is applicable wherever the RFP document/Scope of Work calls for such an FAT	Yes / No / Explain	
5	Training if any	Yes / No / Explain	

6	Tenderer[s] are requested to mention whether Installation, Testing, Commissioning, Demonstration, Acceptance and imparting Training is necessary for the Tendered Stores. Do not mention any price under this column in case of Two Part Tender.	Yes / No / Explain	
7	Taxes : Government of India has implemented Goods and Services Tax [GST] w.e.f 01.07.2017. The Tenderer[s] should mandatorily possess a valid GSTIN along with the GST Registration Certificate. Please send duly self attested certificate of GST Registration along with offer[s], in the absence of which	Yes / No / Explain	
8	Goods and Services Tax [GST]: LEOS HAVING CONCESSIONAL GST UNDER NOTIFICATION NO 47(IGST) & 45 (CGST) OF INTEGRATED TAX (RATE), NECESSARY EXEMPTION CERTIFICATE WILL BE PROVIDED. APPLICABLE TAXES ARE 5% (SGST 2.5 %, CGST 2.5%)	Yes / No / Explain	
9	Insurance Coverage if any	Yes / No / Explain	
10	Freight Charges if any	Yes / No / Explain	
11	Agency Commission if any: Tenderer[s] shall mention the percentage [%] of Agency Commission included in the quoted Price payable to the Indian Agent in equivalent Indian Rupees on the basis of TT buying rate of exchange prevailing on the date of placement of Purchase Order.	Yes / No / Explain	
12	Warranty/Guarantee: Tenderer[s] are requested to indicate the Applicable Standard Warranty/Guarantee Period. All the replacements during the Warranty period shall be carried out by the successful Tenderer[s] Free of all Cost including To and Fro Freight Charges	Yes / No / Explain	
13	Company postal address along with Email ID and PH No.	Yes / No / Explain	
14	Validity of Offer [210 Days].	Yes / No / Explain	
15	No. of Shipments.	Yes / No / Explain	

16	If an agent submit bid on behalf of the principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in this tender for the same item. If submitted, all offers will be liable for rejection	Yes / No / Explain	
17	AS PER GOVERNMENT OF INDIA, MINISTRY OF FINANCE ORDER (PUBLIC PROCUREMENT NO-1) DATED 23 JULY, 2020, ANY BIDDER FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA WILL BE ELIGIBLE TO BID IN ANY PROCUREMENT WEATHER OF GOODS, SERVICE (INCLUDING CONSULTANCE SERVICES AND NON-CONSULTANCY SERVICES) OR WORKS (INCLUDING TURNKEY PROJECTS) ONLY IF THE BIDDER IS REGISTERED WITH THE COMPETENT AUTHORITIES. DEPARTMENT OF INDUSTRY AND INTERNAL TRADE9DPIIT0 NEW DELHI	Yes / No / Explain	
18	Arbitration: b) For Overseas Supplier: In the event of any dispute or difference arising out of or in connection with this Purchase Order, such dispute or difference shall be settled amicably by mutual consultants or through the good offices of the respective parties. If such resolution is not possible, then the unresolved dispute or difference shall be referred to the Sole Arbitrator appointed in accordance with provisions of the ICADR Arbitration Rules, 1996 of the International Center for Alternative Dispute Resolution, New Delhi. The Arbitration shall be conducted in India in accordance with the Rules & Procedures of the Arbitration and Conciliation Act of 1996 or any re-enactment or modification thereof. The expenses for the Arbitration shall be paid as may be determined by the Arbitrator. The Seat for Arbitration shall be Bengaluru. The applicable language for Arbitration shall be English only. Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected.	Yes / No / Explain	
19	Delivery Date/Completion Date: Delivery is the essence of the Contract. Tenderer[s] are hereby requested to mention the Firm Delivery Date/Completion Date.	Yes / No / Explain	

20	Pre-Delivery Inspection [PDI] [if Required]: The successful Tenderer[s] has to arrange for the necessary PDI of the Stores at the Contractor Factory Premises to enable LEOS Engineers to carry out PDI. The PDI is applicable wherever the RFP document/Scope of Work calls for such an inspection..	Yes / No / Explain	
21	Delivery Terms: For Indigenous supply: FOR LEOS For Imports Supply : Use appropriate INCOTERM 2010	Yes / No / Explain	
22	Arbitration: c) For Public Sector Undertakings: In the event of any dispute or difference relating to the interpretation and application of the Contract, such dispute or difference shall be settled amicably by mutual consultations of the good Offices of the respective parties. If such a resolution is not possible, then the unresolved dispute or difference shall be referred to the Sole Arbitrator appointed in the Department of Public Enterprise under the Permanent Machinery for Arbitration. Non Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected.	Yes / No / Explain	

23	<p>General Terms & conditions for Bidders:</p> <p>For this procurement, bids from Class-I & class-II Local Suppliers are admissible. hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:</p> <p>a) Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).</p> <p>b) means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.</p> <p>c) Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order</p>	Yes / No / Explain	
----	--	--------------------	--

24	<p>d)Verification of local content: i.The Class I local supplie Class- II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for Class-I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made. ii.In case bid value is in excess of Rs. 10 Cr., ClassI local supplier Class-II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.</p>	Yes / No / Explain	
25	<p>ii.False declarations will be in breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the general Financial Rules along with such other actions as may be permissible under Law. A supplier who has been debarred by any procuring entry for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed.</p>	Yes / No / Explain	
26	<p>Product Scope shall offer only standard and catalogued product for Equipment / Spares Cards / assemblies. If the above offered Equipment / Cards / Assemblies are under development / to be developed the bid will not be considered.</p>	Yes / No / Explain	
27	<p>The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected</p>	Yes / No / Explain	
28	<p>Packing and Forwarding Charges if any</p>	Yes / No / Explain	

29	<p>Arbitration: a) For Indigenous: In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by Director, LEOS, Bengaluru in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 together with amendments thereto or any modification thereof. The expenses for the Arbitration shall be paid as may be determined by the Arbitrator. The Arbitration shall be conducted in Bengaluru. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The Seat for Arbitration shall be Bengaluru. The applicable language for Arbitration shall be English only. Work under the contract shall be continued by the Tenderer during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the Purchaser or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained. Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected.</p>	Yes / No / Explain	
30	<p>Delivery Terms [Indigenous Supply]: Tenderer[s] is requested to quote the Price[s] [Basic Price of item, Packing, Forwarding and Freight, Insurance and Handling Charges if any] up to LEOS, Bengaluru. For Imports Supply : Use appropriate INCOTERM 2010</p>	Yes / No / Explain	
31	Mode of Despatch (Air/Road)	Yes / No / Explain	

32	Whether Export Licence Required	Yes / No / Explain	
33	Payment Terms- For Indigenous: Our Standard Payment Terms is 100% payment within 30 days after Receipt and Acceptance of Stores at LEOS.	Yes / No / Explain	
34	Performance Bank Guarantee: The Contractor shall execute Performance Bank Guarantee for 3% value of the Purchase Order for fulfilment of Warranty obligations. The PBG shall be executed through Account Payee Demand Draft/ Fixed Deposit receipts or Bank Guarantee issued by a Nationalized Bank/Schedule Bank/International reputed Bank approved by RBI. The PBG shall be executed on a Non-Judicial Stamp Paper of Rs. 200/- value. The Performance Bank Guarantee shall be executed as per our specimen. The Performance Bank Guarantee shall be executed before claiming payment. The PBG will not carry any interest and shall be returned after completion of all the Contractual obligations of the Contract with a NO CLAIM CERTIFICATE issued by Contractor as per our Specimen enclosed. Adherence to this clause is compulsory or otherwise, the Tender will be rejected.	Yes / No / Explain	
35	Applicable Law and Jurisdiction: Contract shall be interpreted, construed and governed by the Laws of India and the Courts in Bengaluru City alone shall have exclusive jurisdiction in this regard, to the extent permissible under the Arbitration and Conciliation Act, 1996. Non acceptance to this Clause will amount to rejection of the Tender.	Yes / No / Explain	

36	<p>SECURITY: The technical information, drawings, specifications and other related documents, forming part of the CONTRACT, are the property of the Purchaser and shall not be used for any other purpose, except for execution of the CONTRACT. All rights, including rights in the event of grant of patent and registration of designs are reserved. The technical information, drawings, specifications, records and other documents shall not be copied, transcribed, traced or reproduced in any other form or otherwise in whole and/or duplicated, modified, divulged and/or disclosed to a third party nor misused in any other form whatsoever without Purchasers consent in writing except to the extent required for the execution of this CONTRACT. These technical informations, drawings, specifications and other related documents shall be returned to the Purchaser with approved copies and duplicates, if any, immediately after they have been used for the agreed purpose.</p>	Yes / No / Explain	
37	<p>PUBLICITY: No publicity of any kind whatsoever in case of PURCHASE ORDER shall be given by the Supplier without prior permission of the Purchaser. 2.Purchase Officer, LEOS, reserves the right to accept or reject any/or all the tenders in part or full without assigning any reasons thereof.</p>	Yes / No / Explain	
38	<p>In this tender either the Indian agent on behalf of the principal/OEM or the principal /OEM itself can bid, but both cannot bid simultaneously for the same item. Indian agents while quoting on behalf of their principals shall provide necessary latest authorisation letter obtained from their principals/manufacturers. 2.If an agent submit bid on behalf of the principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in this tender for the same item. If submitted, all offers will be liable for rejection.</p>	Yes / No / Explain	

39	In this tender either the Indian agent on behalf of the principal/OEM or the principal /OEM itself can bid, but both cannot bid simultaneously for the same item. Indian agents while quoting on behalf of their principals shall provide necessary latest authorisation letter obtained from their principals/manufacturers	Yes / No / Explain	
40	In case the bidders propose any other payment terms in deviation with the standard terms mentioned in the tender enquiry, it may be noted that applicable cash flow implications will be loaded on the prices quoted for commercial comparison of the offers. If advance payments are insisted by the bidders, interest at the rate of MCLR (Marginal Cost Linked Rate) as notified by State Bank of India from time to time shall be loaded on the prices for price comparison	Yes / No / Explain	

41	<p>Liquidated Damage: The time and date stipulated in the contract for completion of the work shall be deemed to be the essence of the contract. If the Contractor fails to deliver the Stores within the time specified in the Contract or any extension thereof or if the Contractor fails to maintain the required progress or comply with the relevant provisions of the general conditions of contract or special conditions of contract, if any and clear the site on or before the contract or extended date of completion, the Purchaser shall, without prejudice to any other right or remedy available under the law to Purchaser on account of such breach, recover from the Contractor as Liquidated Damages a sum one-half of one percent [0.5 percent] of the Contract price of the undelivered Stores for each calendar week of delay or part thereof. The total Liquidated Damages shall not exceed Ten percent [10 percent] of the Contract price of the unit or units so delayed. Adherence and acceptance to this Clause is Compulsory or otherwise the Tender will be rejected. In case of delay in delivery of the Stores beyond the delivery date stipulated in the Purchase Order/Contract or any extension thereof, such Stores shall be received without prejudice to the right of the Purchaser to claim Liquidated Damages and without prejudice to the terms and conditions of the Purchase Order/Contract.</p>	Yes / No / Explain	
----	---	--------------------	--

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	If any.	Remark
1	TELESCOPE	1.00 Lot		-			
2	TELESCOPE	1.00 Lot		-			
3	TELESCOPE	1.00 Lot		-			
4	TELESCOPE	1.00 Lot		-			
5	AMSC	1.00 Lot		-			

6	AMSC	1.00 Lot		-			
7	AMSC	1.00 Lot		-			
8	TELESCOP E	1.00 Lot		-			