

Responses to Pre-bid Queries (20/03/2020)

Bid for Supply, Installation/System Integration, Commissioning, Maintenance, Training and Operation of Continuously Operating Reference System Network. DGNS Rover, Controller and Surveying Accessories for updating and Maintenance of GIS based Maps on behalf of Settlement Commissioner and Director of Land Record, Revenue Department, Govt. of Gujarat, Gandhinagar. (Tender No. HWT210120608)

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 1 | SECTION I: Eligibility Criteria for the bidder: Page 4 of 72, Point 1 | The bidder should have minimum annual average turnover of Rs. 10 Crore in modern survey instrument and technology business for each of the last three financial years as on 31st March 2019. The copies of Audited Annual Accounts/ Balance Sheet along with Profit & Loss Account and CA Certified Statement for last three financial years as on 31st March 2019 shall be attached along with the bid. (Form no. E-1) | <p>The bidder should have minimum annual average turnover of Rs. 10 Crore in modern survey instrument and technology business for any of the last three financial years / period as on 31st December 2019. The copies of Audited Annual Accounts/Balance Sheet along with Profit & Loss Account and CA Certified Statement for last three financial years / period as on 31st March 2019 shall be attached along with the bid. (Form no. E-1)</p> <p>In addition to the above please note that we, AllTerra Solutions LLP. is a Startup Company recognised by "Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Govt. of India" vide Certificate Number: DIPP10979 dated 28.10.2017 and as per Govt. of India:</p> <p>"All Startups (whether MSE's or otherwise), falling within the definition as per Gazette notification no. GSR 34(E) dated 16 January 2019 or as amended time to time are exempted from meeting the qualification criteria in respect of prior experience, prior turnover subject to their meeting the quality and technical specifications. However, all other eligibility criteria shall be applicable." GFR2017 Rule 173 (i) also says as:</p> <p>The condition of prior turnover and prior experience may be relaxed for Startups (as defined by Department of Industrial Policy and Promotion) subject to meeting of quality & technical specifications and making suitable provisions in the bidding document. Kindly Amend suitably.</p> | See the Corrigendum. |
| 2 | SECTION I: Eligibility Criteria for the bidder: Page 4 of 72, Point 5 | Bidder must ensure that the warranty support & service should be available up to delivery locations to provide repairing cum replacement services of faulty equipment within 48 hrs. Bidder is required to provide the name, address & contact details of the authorized service center for providing warranty support & repairing cum replacement service up to delivery locations. (Form no. E-5) | 48 hrs. time is less. Please make it 96 hrs. Kindly Amend. | See the Corrigendum. |
| 3 | SECTION I Eligibility Criteria for the bidder: Page No 4 | 8.No consortium will be allowed. The bidder must meet all the eligibility criteria by self. | <p>The work involves technical knowhow related to Revenue, Resurvey activities for which CORS system has been proposed. Therefore to meet the tender specification, it is required that resources from domain expert companies in the similar field i.e. expert in DGPS Survey /mapping, resurvey as well as expert from manufacturer/ OEM of the CORS instrument pool their resources to find better solution for the current project.</p> <p>In view of above, we request department to allow consortium so that department can get technical solution in all respect.</p> <p>Further consortium is generally allowed in high value Govt. contracts. Hence we request GIL to allow consortium.</p> | No change. |
| 4 | SECTION I Eligibility Criteria for the bidder: Page No 4 | 1.The bidder should have minimum annual average turnover of Rs. 10 Crore in modern survey instrument and technology business for each of the last three financial years as on 31st March 2019 | <p>Turnover is generally asked to assess the financial capability of the bidder. Further there are other technical criteria & also there is separate Rs. 100 Crore turnover criteria for the OEM (Criteria. No:2).</p> <p>Hence we request GIL to consider minimum annual average turnover of Rs. 50 Crore in modern survey instrument OR technology based services.</p> <p>Kindly clarify.</p> | See the Corrigendum. |
| 5 | SECTION I Eligibility Criteria for the bidder: 4 of 72 - Sr. No. 1 | The bidder should have minimum annual average turnover of Rs. 10 Crore in modern survey instrument and technology business for each of the last three financial years as on 31st March 2019. | The bidder or Consorium Partner Should have minimum annual average turn over of Rs. 10 CR | See the Corrigendum. |
| 6 | Section 1, Eligibility Criteria Point 2, | OEM Copies of Audited Annual Accounts/Balance Sheet alongwith Profit and Loss Account and CA certified statement of last 3 financial years. | OEM Principal Financial Report | No change. |

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| 7 | Section 1, Eligibility Criteria | The bidder/OEM should have experience of supply /installations and maintenance of minimum 3 sites/CORS projects with at least 30 CORS Base Stations cumulatively in last 3 years as on bid submission. Date. (Form no. E-4) | We Request you to kindly amend as "The bidder/OEM should have experience of supply /installations of minimum 3 Sites/CORS projects with at least 30 CORS Base Stations". Kindly remove cumulatively in last 3 years. | See the Corrigendum. |
| 8 | Section 1, Eligibility Criteria | Warranty assured by bidders should be reflected on OEMs website/portal (please upload OEM undertaking letter) | We request you to kindly delete this clause as No OEM will upload the same on there website/Portal". We can Provide the Undertaking on OEM Letter Head. | See the Corrigendum. |
| 9 | 4/Section/Eligibility Criteria for the bidder/1 | The bidder should have minimum annual average turnover of Rs. 10 Crore in modern survey instrument and technology business for each of the last three financial years as on 31st March 2019. The copies of Audited Annual Accounts/Balance Sheet along with Profit & Loss Account and CA Certified Statement for last three financial years as on 31st March 2019 shall be attached along with the bid. (Form no. E-1) | The bidder should have minimum annual average turnover of Rs. 8 Crore in modern survey instrument and technology business for each of the last three financial years as on 31st March 2019. The copies of Audited Annual Accounts/Balance Sheet along with Profit & Loss Account and CA Certified Statement for last three financial years as on 31st March 2019 shall be attached along with the bid. (Form no. E-1) Remarks Hexagon Geosystems the OEM Subsidiary has an average turnover for last three years 8 Crore. Please amend the same. Please add OEM/OEM Subsidiary as bidder for CORS net projects since only OEM/OEM Subsidiary have that continuous support infrastructure. | See the Corrigendum. |
| 10 | 4 of 72 | Section 1, Eligibility Criteria Point 2, OEM Copies of Audited Annual Accounts/Balance Sheet alongwith Profit and Loss Account and CA certified statement of last 3 financial years. | We request you to kind exclude Profit and Loss Account and CA certified statement of last 3 financial years, as OEM will not be able to provided CA certificates, we can only provide Principal Financial Report/Statements. | No change. |
| 11 | 4 of 72 | Section 1, Eligibility Criteria, Point 6 Products launched before 5 years are not eligible. (Bidding product detail sheet; Form E-7) and signed by Authorized signatory for the item(s) to be offered in this bid. (Form no. E-6) | We request you to kindly amend it as "Products launched before 6 years. | See the Corrigendum. |
| 12 | 4 of 72 | Section 1, Eligibility Criteria The bidder/OEM should have experience of supply /installations and maintenance of minimum 3 sites/CORS projects with at least 30 CORS Base Stations cumulatively in last 3 years as on bid submission. Date. (Form no. E-4) | We Request you to kindly amend as "The bidder/OEM should have experience of supply /installations of minimum 3 Sites/CORS projects with at least 30 CORS Base Stations". Kindly remove cumulatively in last 3 years. | See the Corrigendum. |
| 13 | 4 of 72 | Section 1, Eligibility Criteria Warranty assured by bidders should be reflected on OEMs website/portal (please upload OEM undertaking letter) | We request you to kindly delete this clause as No OEM will upload the same on there website/Portal". We can Provide the Undertaking on OEM Letter Head. | See the Corrigendum. |
| 14 | SECTION II: General Terms & Conditions: Page 8 of 72, Technical Evaluation Criteria: | Controller Integrated Display with both hard and soft keyboard (Size) Average 4.5 inch to 5.5 inch | May please change it to: Controller Integrated Display with both hard and soft keyboard (Size) Average 4 inch to 5.5 inch. Kindly Change. | See the Corrigendum. |
| 15 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Reference Station , Number of Channels | 120-200 : 5 marks , 200-300 : 7.5 marks, 300 or Higher : 10 marks No. of Channels are not performance criteria of GNSS. This specs gives advantage to Trimble and JAVAD Company. | See the Corrigendum. |

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| 16 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Reference Station , Position update Rate | 1Hz to 5 Hz : 5 marks, Up to 10 Hz : 7.5 marks, Up to 20 Hz: 10 marks No GNSS Streams for requirement of this tender more than 1 Hz streams and 100 Hz is not necessarily using in computing engines for Network RTK | See the Corrigendum. |
| 17 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Reference Station , Ingress Protection (IP) | IP65: 5 marks, IP66: 7.5 marks, IP67: 10 marks IP67 and IP68 rating only difference is submersion depth in water that is 1 meter and 1.5 meter practically having IP67 is okay | See the Corrigendum. |
| 18 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Reference Station , NavIC (IRNSS) Constellation receiver and antenna | L band : 10 marks To make generalize specs & Fair competition No companines manufacture antennas with Sband reception. | See the Corrigendum. |
| 19 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Rover Receiver, Number of Channels | 120-200 : 5 marks , 200-300 : 7.5 marks, 300 or Higher : 10 marks No. of Channels are not performance criteria of GNSS. This specs gives advantage to Trimble and JAVAD. | See the Corrigendum. |
| 20 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Rover Receiver, Ingress Protection (IP) | IP65: 5 marks, IP66: 7.5 marks, IP67: 10 marks IP67 and IP68 rating only difference is submersion depth in water that is 1 meter and 1.5 meter practically having IP67 is okay | See the Corrigendum. |
| 21 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Rover Receiver, NavIC (IRNSS) Constellation receiver and antenna | L band : 10 marks To make generalize specs & Fair competition. No companines manufacture antennas with Sband reception! | See the Corrigendum. |
| 22 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Controller, Integrated Display with both hard and soft Keyboard (size) | Integrated Display with hard OR soft keyboard 4.5 inch to 5.5 inch : 5 marks, 5.6 inch to 6.5 inch: 7.5 marks, 6.6 inch to 8 inch : 10 marks Integrated Display with both hard OR soft Keyboard (size) | See the Corrigendum. |
| 23 | 8 of 72 Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Controller, Ingress Protection (IP) | IP65: 5 marks, IP66: 7.5 marks, IP67: 10 marks IP67 and IP68 rating only difference is submersion depth in water that is 1 meter and 1.5 meter practically having IP67 is okay | See the Corrigendum. |

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| 24 | Project Experience and Field Demonstration 8 of 72 - Sr. No. 1 Past Experiences and Technical Expertise- 50 Marks | The Bidder/OEM should have prior experience in supplying, installation and commissioning of CORS Network(RTK) system including Software, hardware with all accessories a) At least 3 CORS projects with minimum 30 reference stations cumulatively ; - 10 Marks b) At least 4 CORS projects with minimum 40 reference stations cumulatively; - 30 Marks c) More than 4 CORS projects with minimum 80 reference stations cumulatively; -50 Marks | In case of OEM Subsidiary bidding they can use experience of OEM | See the Corrigendum. |
| 25 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Reference Station , Number of Channels | 350-450 : 5 marks , 451-550 : 7.5 marks, 551 or Higher : 10 marks Channels are not performance criteria of GNSS but single ASIC with number of channels and tracked number of satellites is important, there are companies with more than 850 channels thus we should rationalize number of channels to have stable competition. | See the Corrigendum. |
| 26 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Reference Station , Power Consumption | <5.5 w : 5 marks, <4.5w : 7.5 marks, <3.5 W : 10 marks Power Consumption is a typical measure of quality of receivers as they also provide better power outage stability and thus should be part of QCBS | See the Corrigendum. |
| 27 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Reference Station , Front Panel Display | External: 7.5, Onboard: 10 Onboard display will help user for easy and fast setup, to check the information, to configure the receiver. It will save the cost of external display units and typically CORS receivers can be supported better by field staff by this panel and thus should be part of QCBS. | See the Corrigendum. |
| 28 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Reference Station , NavIC (IRNSS) Constellation receiver and antenna | L band : 7.5 marks L band & S band: 10 marks GNSS with channels for L and S Band is of no help since there is no Geodetic antenna to track S-Band thus any additional marks for QCBS should be for both receiver and offered antenna having L and S Band facility. | See the Corrigendum. |
| 29 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Rover Receiver, Number of Channels | 450-550 : 5 marks , 550-750 : 7.5 marks, 750 or Higher : 10 marks Channels are not performance criteria of GNSS but single ASIC with number of channels and tracked number of satellites is important, there are companies with more than 850 channels thus we should rationalize number of channels to have stable competition. | See the Corrigendum. |
| 30 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Rover Receiver, Position update Rate | 1Hz to 5 Hz : 5 marks, Up to 10 Hz : 7.5 marks, Up to 20 Hz: 10 marks | See the Corrigendum. |
| 31 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Rover Receiver, Ingress Protection (IP) | IP65: 5 marks, IP66: 7.5 marks, IP67: 10 marks IP ratings of 67 are practically sufficient for field equipment's since minor difference is depth and time of immersion which has fundamentally no implication on receiver performance thus three stage IP65, 66 and 67 should part of QCBS numbers. | See the Corrigendum. |
| 32 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Rover Receiver, NavIC (IRNSS) Constellation receiver and antenna | L band : 7.5 marks, L band & S band : 10 marks There are companies who write S-Band in one receiver and not in other receiver, but both have fundamentally the same board because they cannot integrate Auxiliary tracking in combined DGNSS Rovers and thus S-Band should be for both receiver and antenna. | See the Corrigendum. |

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| 33 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Controller, Integrated Display with both hard and soft Keyboard (size) | <5: 5 marks, 5-7.5 inch: 7.5 marks, 7.6 inch to 10 inch: 10 marks Display size should be rationalized in QCBS and minor 2.5-inch difference between 5-7 should be on same marking in QCBS and substantial sizes like 7.5 – 10 inch. | See the Corrigendum. |
| 34 | 8/SectionII/Evaluation of the Bids/Technical Evaluation Criteria | Controller, Ingress Protection (IP) | IP65: 5 marks, IP66: 7.5 marks, IP68: 10 marks | See the Corrigendum. |
| 35 | Previous Similar Project Experience supplying, installation and commissioning of CORS Network(RTK) system including Software, hardware with all accessories | | The OEM/OEM Subsidiary Bidder should have prior experience in supplying, installation and commissioning of CORS Network(RTK) system including Software, hardware with all accessories a) At least 3 CORS projects with minimum 30 reference stations cumulatively ; - 10 Marks b) b) At least 4 CORS projects with minimum 40 reference stations c) More than 4 CORS projects with minimum 80 reference stations cumulatively; -50 Marks Incase of OEM Subsidiary bidding they can use experience of OEM As per present tender any company which is not have good project experience can pick this project by aligning with a dealer who has more than 10 Crore turn over but with new criteria only respectable bidders with Project experience of CORS Net will participate and who have real capability to support CORS Net | See the Corrigendum. |
| 36 | Field demonstration of CORS, Rover, Controller, Relevant Software and Accuracy. | | The Bidder/OEM Should demonstrate Instrument Accuracy in Various Survey methods. (accuracy according to specified technical Specification) 30 marks a) Static Survey -5 Marks b) Fast Static Survey-5 Marks c) Real Time Kinematics-5 Marks d) Network RTK -15 Marks GPRS is communication mode and thus Network RTK is not equivalent to it, testing should be done for Network RTK | No change. |
| 37 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation: | Number of Channels: Average: 120-200 : Marks : 5 Moderate: 200-300 : Marks : 7.5 Advance: 300 or Higher : Marks: 10 | See the Corrigendum. |
| 38 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Position update Rate: Average: 1Hz to 20 Hz : Marks: 5 Moderate : Up to 50 Hz : Marks: 7.5 Advance: Up to 100 Hz : Marks: 10 We believe 50 Hz are more than sufficient however 100 Hz is best to avoid delay in transmission. | See the Corrigendum. |
| 39 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Ingress Protection (IP): Average : IP65 : Marks: 5 Moderate : IP66 : Marks: 7.5 Advance: IP67 : Marks: 10 IP67 and IP68 rating only difference is submersion depth in water that is 1 meter and 1.5 meter practically having IP67 is | See the Corrigendum. |
| 40 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) NavIC (IRNSS) Constellation receiver and antenna and L band Signals: | Average: 5 NavIC (IRNSS) L5: 7.5 NavIC (IRNSS) L5 and L band Signals: 10 To make generalize specs & Fair competition. No companines manufacture antennas with Sband reception! | See the Corrigendum. |

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| 41 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Number of Channels: Average: 100-150: Marks: 5 Moderate:150-200: Marks: 7.5 Advance: 200 or higher : 10 Topon has universal tracking technology so 200 channels are more than sufficient. | See the Corrigendum. |
| 42 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Ingress Protection (IP): Average: IP65 : Marks: 5 Moderate : IP66 : Marks: 7.5 Advance: IP67 : Marks: 10 IP67 and IP68 rating only difference is submersion depth in water that is 1 meter and 1.5 meter practically having IP67 is okay | See the Corrigendum. |
| 43 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) NavIC (IRNSS) Constellation receiver and antenna and L band Signals: | Average: 5 Moderate : NavIC (IRNSS) L5 : 7.5 Advance: NavIC (IRNSS) L5 and L band Signals: 10 To make generalize specifications & Fair competition No companies manufacture antennas with Sband reception. | See the Corrigendum. |
| 44 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Integrated Display with both hard and soft Keyboard (size): Average: 4.5 inch to 5.5 inch : Marks: 5 Moderate: 5.6 inch to 6.5 inch: Marks: 7.5 Advance: 6.6 inch to 8 inch : Marks: 10 | See the Corrigendum. |
| 45 | 8 of 72 | Technical Evaluation Criteria: Technical Specification evaluation criteria (100 Marks) | Ingress Protection (IP): Average: IP65 : Marks: 5 Moderate: IP66 : Marks: 7.5 Advance: IP67 : Marks: 10 | See the Corrigendum. |
| 46 | 9 of 72 | Project Experience and Field Demonstration (100 Marks): Field demonstration of CORS, Rover, Controller, Relevant Software and Accuracy. c) Real Time Kinematics | Kindly clarify what should be considered with "Real Time Kinematics". Is it with Radio Modem. | No change. |
| 47 | SECTION III: Minimum Technical Specification: Page 38 of 72 RECEIVER FEATURES | Minimum independent and concurrent data logging sessions 8 to 12 | It is a feature of Receiver. By mistake it may be put in Antenna Specifications. May please shift it to Receiver Specifications. Kindly Shift. | See the Corrigendum. |
| 48 | SECTION III: Minimum Technical Specification: Page 39 of 72 GNSS Tracking Signals | Receiver Tracking Signals (Hint: Select applicable Signals only) GPS - L1,GPS - L1 C/A,GPS - L2,GPS - L2C,GPS - L2 P, GPS - L5, GLONASS - L1, GLONASS - L2, C/A,GLONASS - L2P,GLONASS - L3, NAVIC (IRNSS) L5, Upgradable to IRNSS L5 and S band Galileo:- L5,Galileo - E1,Galileo - E5 a,Galileo E5 b,Galileo - E5 ab,Galileo- E6, BeiDou - B2,BeiDou - B3, *NavIC (IRNSS) Constellation preferable (L & S-Band) | Galileo – L5 may be a printing mistake. May please be deleted. Kindly Delete. | See the Corrigendum. |

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| 49 | SECTION III: Minimum Technical Specification: Page 39 of 72 POST PROCESSING SOFTWARE / ON-BOARD SOFTWARE FEATURES | Support the configurable input, output and logging of Met/Tilt measurements, Web Interface for full control, Configuration and access management of receiver. Support remote configuration, Data retrieval and firmware upgrading, Secure Access via HTTPS, support IP filtering. | It is suggested that the receiver should have front Panel display to allows the basic receiver configuration such as IP configuration, data logging, coordinates set-up etc. on site without the need of any other external powered device. Kindly Add. | No change. |
| 50 | SECTION III: Minimum Technical Specification: Page 39 of 72 Communications | Communication Ports: USB,RS 232,Bluetooth, Combined LEMO, Wi-Fi / WLAN,RJ45,Mini/Micro" C Type" USB. | C Type USB is not clear. May please be deleted. Kindly Delete. | Type C USB is available in current communication protocol like in Mobile, note books etc. However, the same is not mandatory as per tender specifications. |
| 51 | SECTION III: Minimum Technical Specification: Page 40 of 72 ENVIRONMENTAL PARAMETERS | Minimum Storage Temperature 65° C (149° F) | It may be a printing error. May please amend it to -40° C Kindly Amend. | See the Corrigendum. |
| 52 | SECTION III: Minimum Technical Specification: Page 40 of 72 ENVIRONMENTAL PARAMETERS | Non-condensing Humidity, Rh 95% | May please change it to: Humidity 100% Condensing. 100% Humidity means condensing point. Non-Condensing could be only below 100% i.e., 95%. Kindly Amend. | See the Corrigendum. |
| 53 | SECTION III: Minimum Technical Specification: Page 40 of 72 Accessories (OEM) | Antenna Mount Fix Base station installation with required Monumentation as on Field Tribrach with Optical Plummet and Adapter | Tribrach with Optical Plummet is not required for CORS Installation. May please be deleted. Kindly Delete. | See the Corrigendum. |
| 54 | SECTION III: Minimum Technical Specification: Page 40 of 72 Accessories (OEM) | Hardware Installation Outdoor/indoor wall mounted Enclosure with exhaust fan (to prevent over heating). | NEMA 4 Industry Grade Enclosure is proposed. There is lot of variants in these kinds of items. May please specify Kindly Specify. | Heavy duty robust enclosure has to be installed. |
| 55 | SECTION III: Minimum Technical Specification: Page 40 of 72 Accessories (OEM) | Length of suitable connecting Cable for Antenna (meters) inclusive in the scope of supply. 30 meter or higher (OEM Low loss cable without the need for an inline amplifier) | May please specify as suitable length (10 to 30 meter) OEM Low loss cable without the need for an inline amplifier as per the site requirements. Kindly Amend. | No change. |

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| 56 | SECTION III: Minimum Technical Specification: Page 40 of 72 Accessories (OEM) | Uninterrupted Power Source Inverter With minimum 24-Hour Backup | SOLAR Panel with Battery is recommended. Power Calculation sheet for 24 Hours backup at each CORS site may be provided. Kindly Change. | No change. |
| 57 | SECTION III: Minimum Technical Specification: Page 42 of 72 A.2 | Industrial Grade Modem/Router for Base Station Communication with Server (Qty: 50) | In order to support auto fail over and avoid peak hour congestion of any particular ISP, each CORS should be supported with Two SIMS. Kindly Add. | See the Corrigendum. |
| 58 | SECTION III: Minimum Technical Specification: Page 42 of 72 A.2 Industrial Grade Modem/Router for Base Station Communication with Server (Qty: 50) | Ethernet Ports 3 x LAN Gigabit Ethernet Ports 2 x WAN Gigabit PoE/PoE+ Ethernet Ports | Normally 2 LAN Ports are sufficient and makes the device economical. May please change. Kindly Change. | See the Corrigendum. |
| 59 | SECTION III: Minimum Technical Specification: Page 46 of 72 Environmental Parameters | Maximum Storage Temperature 80° C (176° F) | Maximum Storage Temperature 75° C is available. Since it will have no impact on performance of equipment, therefore may please amend. Kindly Amend. | See the Corrigendum. |
| 60 | SECTION III: Minimum Technical Specification: Page 46 of 72 Environmental Parameters | Non-Condensing Humidity, Rh 100% | May please change it to: Humidity 100% Condensing. 100% Humidity means condensing point. Non-Condensing could be only below 100% i.e., 95%. Kindly Amend. | See the Corrigendum. |
| 61 | SECTION III: Minimum Technical Specification: Page 46 of 72 OEM ACCESSORIES | Stop and Go Pole supplied - inclusive in the scope of supply Low weight Carbon pole: Length 2 Meter Quantity: 2 Nos. Per Rover Yes | Carbon pole is much stronger than Aluminium pole. Therefore, Quantity: 1 No. Per Rover is sufficient. Kindly Change. | See the Corrigendum. |
| 62 | SECTION III: Minimum Technical Specification: Page 46 of 72 OEM ACCESSORIES | Clamp for Controller supplied - inclusive in the scope of supply Yes Quantity: 2 Nos. Per Rover | Quantity: 1 No. Per Rover is sufficient. Kindly Change. | See the Corrigendum. |

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| 63 | SECTION III: Minimum Technical Specification: Page 47 of 72 WARRANTY / TRAINING | Warranty 6 Years | Same as Point 3 Above. Kindly Amend. | See the Corrigendum. |
| 64 | SECTION III: Minimum Technical Specification: Page 47 of 72 TEST REPORTS | Compliance to Dust test MILSTD-810 G Compliance to Water Intrusion test MILSTD-810 G | May please change it to IP67 Only. Kindly Amend. | See the Corrigendum. |
| 65 | SECTION III: Minimum Technical Specification: Page 47 of 72 A.4 | DGNSS Rover Controller (5" to 8" Display Controller with Battery, Charger and required cables) | May please change it as: DGNSS Rover Controller (4" to 8" Display Controller with Battery, Charger and required cables) Kindly Change. | See the Corrigendum. |
| 66 | SECTION III: Minimum Technical Specification: Page 48 of 72 INTEGRATED PERIPHERALS / CONNECTIVITY | Integrated Compass Yes | Integrated Compass may please be deleted. Kindly Delete. | Revised as: Integrated Compass (Optional) |
| 67 | SECTION III: Minimum Technical Specification: Page 48 of 72 RAM / STORAGE | Memory – RAM 8 GB Internal Storage Capacity 32 GB | May please change it to: Memory – RAM 256 MB Internal Storage Capacity 8 GB Kindly Change. | See the Corrigendum. |
| 68 | SECTION III: Minimum Technical Specification: Page 49 of 72 Display / Keypad | Display Resolution WXGA | May please change it to: Display Resolution VGA Kindly Change. | See the Corrigendum. |
| 69 | SECTION III: Minimum Technical Specification: Page 49 of 72 Display / Keypad | Display Size (in inch) 5.0 to 8.0 Inch or External Display * Integrated Display with both hard and soft Keyboard (size) *(a. 4.5 inch to 5.5 Inch, b. 5.6 inch to 6.5 Inch, c. 6.6 Inch to 8 Inch) | May please change it to: Display Size (in inch) 4.0 to 8.0 Inch or External Display * Integrated Display with both hard and soft Keyboard (size) *(a. 4 inch to 5.5 Inch, b. 5.6 inch to 6.5 Inch, c. 6.6 Inch to 8 Inch) Kindly Change. | See the Corrigendum. |
| 70 | SECTION III: Minimum Technical Specification: Page 49 of 72 Display / Keypad | Keyboard Full Alphanumeric hard keyboard or virtual keyboard is allowed but the digits should be large sized and should be visible in daylight | Department will get add on benefit with hard and soft keypad both. May please amend as: Full Alphanumeric hard keyboard and virtual keyboard, the digits should be large sized and should be visible in daylight. Kindly Amend. | See the Corrigendum. |

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| 71 | SECTION III: Minimum Technical Specification: Page 49 of 72 WARRANTY / TRAINING | Warranty 6 Years | Same as Point 3 Above. Kindly Amend. | See the Corrigendum. |
| 72 | SECTION III: Minimum Technical Specification: Page 50 of 72 TEST REPORTS | Availability of Test Reports from Central Govt. / NABL approved / ILAC accredited Lab to prove conformity to the specification Yes | No facility in India to certify these types of sensor. May please be deleted Kindly Delete. | See the Corrigendum. |
| 73 | SECTION III: Minimum Technical Specification: Page 50 of 72 CONTROLLER SOFTWARE AND FEATURES | Operating System Windows or Android Based (windows 8,8.1 or higher, Android9 Pie or Higher) | May please change it to: Windows or Android Based (windows 6.5, 8,8.1 or higher, Android9 Pie or Higher) Kindly Change. | Read as: Operating System Windows or Android Based (windows 8,8.1 or higher, Android9 Pie or Higher) Operating system of the controller must be compatible, upgradable version and update security patches as and when required. |
| 74 | SECTION III: Minimum Technical Specification: Page 50 of 72 INTEGRATED PERIPHERALS CONNECTIVITY | Connectivity USB, RS232, Ethernet, Wi-Fi, Bluetooth, GSM,GPRS,LTE, | Ethernet is not there. May please amend it as: USB, RS232, Wi-Fi, Bluetooth, GSM,GPRS,LTE, Kindly Amend. | See the Corrigendum. |
| 75 | | Number of channel | Number of channel : Number channel is not a parameter to GNSS performance. - Current Total no. of satellite channels available now are only about 300. Also in for seeable future of next 10 years no. of channels is going to be about 373. Also at a single time no. of satellite channels in view at one time any where in the world is less than 70. So maximum channels that are going to be used will be always less than 400. So there is no reason to evaluate for more than 400 channels available. Also unlike most other companies SOKKIA has a technology called universal Tracking Technology. Other GNSS device reserves one channel for each satellite and frequency. So these channels are not used when a particular satellite is not in the sky. SOKKIA allows all channels to be used for any satellite at any time and thus 226 channels of SOKKIA is equivalent to more than 1000 channels of other GNSS system. So criteria should be no. of satellites tracked at same time. | See the Corrigendum. |
| 76 | | Position update rate : up to 100 Hz | Position update rate : up to 100 Hz For manual survey position update rate of 1 Hz is more than sufficient, as any manual survey will take at least 10 to 15 seconds for measurement. 10 -20 Hertz frequency is useful for vehicular survey up to speed about100 KM . 100 Hz frequency is useful in high speed aerial survey and navigation. So for land survey higher frequency than 1 Hz is not required. Also for rover frequency asked is 10 -20 Hz. So having CORS station of 100 Hz serves no purpose. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|---|----------------------------------|--|--------------------------|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 77 | | Ingress Protection up to IP 68. | <p>IP 65 : Protection from water jet of 12.5 litre per minute for at least 3 minutes. Pressure 30 Kpa at 3 m distance.</p> <p>IP 66 : Protection form heavy water jet of 100 litres per minute for 3 minutes. Pressure 100 KPa at 3 meter distance.</p> <p>IP 67 : tested with 1 meter depth of water for 30 minutes.</p> <p>IP 68 : Tested for duration as per manufacturer at depth up to 3 m.</p> <p>As CORS station is fixed on building or dry land, IP 65 and IP 66 is good enough. Even in extreme case 1 meter of water depth – IP 67 is good enough. Higher standard equipment only cost more and have no tangible benefit.</p> | See the Corrigendum. |
| 78 | | NAVIC constellation L and S band | Although NAVIC has L & S band, S band is reserved for defense purpose only, S band frequency is encrypted and only when ISRO provides chip for it, it is activated. So even if CORS is having S band, it can not use NAVIC at any time. If you want it to be included it should read as S band NAVIC activated. | See the Corrigendum. |
| 79 | SECTION III - Page 39 of 72 Minimum Technical Specification | GNSS TRACKING SIGNALS | <p>Receiver Tracking Signals (Hint: Select applicable Signals only)</p> <p>GPS - L1,GPS - L1</p> <p>C/A,GPS - L2,GPS - L2C,GPS - L2 P, GPS - L5,</p> <p>GLONASS - L1, GLONASS - L2,C/A,GLONASS - L2P, NAVIC (IRNSS) L5, Galileo:- L5,Galileo - E1,Galileo, - E5 a,Galileo E5 b,Galileo - E5 ab, BeiDou - B2,BeiDou - B3, *NavIC (IRNSS) Constellation preferable L Band</p> <p>Number of Channels: 300 or higher</p> <p>Position Update Rate: 1Hz to 20 Hz</p> | See the Corrigendum. |
| 80 | A.2 Industrial Grade Modem/Router for Base Station Communication with Server Page No. 41 of 72 | Ethernet Ports | Proposed 2XLAN Ports as Only GNSS will be attached and we can attach one spare 1XWAN for internet connection | See the Corrigendum. |
| 81 | A.2 Industrial Grade Modem/Router for Base Station Communication with Server Page No. 41 of 72 | Layer 2 Features | Remove L2 and L3 Features and add Network Protocols for GNSS Network protocols TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet, SNMP | No change. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|---|----------------------------------|---|--------------------------|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 82 | A.2 Industrial Grade Modem/Router for Base Station Communication with Server Page No. 42 of 72 | Layer 3 Features | | No change. |
| 83 | A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) Page No. 44 of 72 | RECEIVER TRACKING CAPABILITIES | Base line processing Range (Static) : 200 km or higher Distance between 2 stations are not more then 60km Number of Channels: 336 or higher | See the Corrigendum. |
| 84 | A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) Page No. 44 of 72 | | | See the Corrigendum. |
| 85 | A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) Page No. 44 of 72 | GNSS TRACKING SIGNALS (RECEIVER) | NavIC (IRNSS) Tracking Signals: No Antenna element has S-Band upgrade it is practically replacing the entire GNSS board in combined antenna | See the Corrigendum. |
| 86 | A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) (Qty: 150) Page No. 47 of 72 | RAM / STORAGE | Memory RAM : 4 GB Internal Storage Capacity: Internal 16 GB | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|--|--|---|--|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 87 | Page 48 of 72 | DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) (Qty: 150) INTEGRATED PERIPHERALS/ CONNECTIVITY Integrated Compass : Yes Integrated Accelerometer : Yes | We request you to kindly amend this points as : Integrated Compass : Yes or No Integrated Accelerometer : Yes or No | Integrated Compass : Yes (Optional) Integrated Accelerometer : Yes (Optional) |
| 88 | A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) (Qty: 150) Page No. 48/49 of 72 | DISPLAY / KEYPAD | Display Size (in inch) : 5.0 to 8.0 Inch or External Display Keyboard: * Integrated Display with both hard OR soft Keyboard (size) (very next specification states full alphanumeric hard keyboard or virtual keyboard) *(a. 4.5 inch to 5.5 Inch, b. 5.6 inch to 6.5 Inch, c. 6.6 Inch to 8 Inch) | See the Corrigendum. |
| 89 | A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) (Qty: 150) Page No. 50 of 72 | INTEGRATED PERIPHERALS/ CONNECTIVITY | Connectivity : USB, Ethernet, Wi-Fi, Bluetooth, GSM,GPRS,LTE, | See the Corrigendum. |
| 90 | 38/Section III/Minimum Technical Specification/ DGNSS Receiver | Phase center Repeatability | Define the Phase center Repeatability accuracy as <1mm | See the Corrigendum. |
| 91 | 38/Section III/Minimum Technical Specification/ DGNSS Receiver | Supported positioning signal bands for the Antenna: L1,,L2,L5,G1,G2,G3,E1, E5ab,E6,B1,B2,B3 | Add: E5a, E5b signal also | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|--|--|--|--------------------------|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 92 | 39/Section III /Minimum Technical Specification/ DGNSS Receiver | Receiver Tracking Signals GPS - L1,GPS - L1 C/A,GPS - L2,GPS - L2C,GPS - L2 P, GPS - L5, GLONASS - L1, GLONASS - L2, C/A, GLONASS - L2P, GLONASS - L3, NAVIC (IRNSS): L5, Upgradable to IRNSS L5 and S band Galileo:- L5,Galileo - E1,Galileo- E5 a,Galileo E5 b,Galileo - E5 ab,Galileo- E6, BeiDou - B2,BeiDou - B3, *NavIC (IRNSS) Constellation preferable (L & S-Band) | Add BeiDou B1, and Remove NavIC: S-Band There is no antenna available to track the S-Band signal. | See the Corrigendum. |
| 93 | 39/Section III /Minimum Technical Specification/ DGNSS Receiver | Number of Channels:450 | Number of Channels:400+ 400 channels are enough to track the all constellation | See the Corrigendum. |
| 94 | 40/Section III /Minimum Technical Specification/ DGNSS Receiver | ACCESSORIES (OEM): Antenna Mount | Tribrach with Optical Plummet and Adapter are not required in CORS so kindly remove it. | See the Corrigendum. |
| 95 | 42/Section III /Minimum Technical Specification/ A.2 Industrial Grade Modem/Router for Base Station Communication with Server | Ethernet Ports: 3 x LAN Gigabit Ethernet Ports 2 x WAN Gigabit PoE/PoE+ Ethernet Ports | Ethernet Ports: 2x LAN Gigabit Ethernet Ports 1 x WAN Gigabit PoE/PoE+ Ethernet Ports "One LAN port is enough as on field it is required to GNSS only and one can be spare. WAN is required to provide internet transfer from IP to local access." | See the Corrigendum. |
| 96 | 42/Section III /Minimum Technical Specification/ A.2 Industrial Grade Modem/Router for Base Station Communication with Server | LTE Connectivity: Should have minimum dual 4G LTE interface | LTE Connectivity: Should have minimum dual 4G LTE SIM for mobile internet connectivity | See the Corrigendum. |
| 97 | 42-43/Section III /Minimum Technical Specification/ A.2 Industrial Grade Modem/Router for Base Station Communication with Server | LTE Bands Layer 2 Features Layer 3 Features | Defining of network protocols is important then bands Pleaee add Network Protocols for GNSS Network protocols TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet, SNMP Please remove the Layer2 feature and layer 3 feature | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 98 | 44/Section III /Minimum Technical Specification/ A.3 DGNS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | RECEIVER TRACKING CAPABILITIES Number of Channels: 450 | Number of Channels: 400+ 400 channels are enough to track the all constellation | See the Corrigendum. |
| 99 | 44/Section III /Minimum Technical Specification/ A.3 DGNS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | GNSS TRACKING SIGNALS (RECEIVER) NavIC (IRNSS) Tracking Signals: L5, Upgradable to IRNSS S band | NavIC (IRNSS) Tracking Signals: L5 No Antenna element has S-Band upgrade it is practically replacing the entire GNSS board in combined antenna and receiver and thus should be restricted to GPS L5 | See the Corrigendum. |
| 100 | 45/Section III /Minimum Technical Specification/ A.3 DGNS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | COMMUNICATIONS: Communication Ports: RS 232, Bluetooth, Combined LEMO, Wi-Fi / WLAN | Communication Ports: RS 232, Bluetooth/WiFi/WLAN, Combined LEMO WiFi in GNSS receiver will be used to open the web page for configuration purpose, In Leica same facility can be done using Bluetooth option so kindly make WiFi as optional feature. | COMMUNICATIONS: Communication Ports: RS 232, Combined LEMO, Bluetooth/ Wi-Fi / WLAN |
| 101 | 45/Section III /Minimum Technical Specification/ A.3 DGNS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | COMMUNICATIONS: Phone Modem Antenna: Internal Antenna or External Antenna | Phone Modem Antenna: Internal Antenna External phone modem is not suitable for Network RTK so kindly remove it. | No change. |
| 102 | 45/Section III /Minimum Technical Specification/ A.3 DGNS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | COMMUNICATIONS: Radio Modem Antenna: Internal Antenna or External Antenna | Radio Modem Antenna: Internal Antenna External radio modem is not suitable for Network RTK so kindly remove it. | No change. |
| 103 | 45/Section III /Minimum Technical Specification/ A.3 DGNS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | RAM / STORAGE Data Storage Medium: Internal Internal Storage Capacity: 6 GB External / Removable Storage Slot: Memory stick External / Removable Storage Card Capacity supplied with Receiver - inclusive in the scope of supply: 8 gigabyte or higher | Data Storage Medium: Internal or External Internal Storage Capacity: 6 GB or more External / Removable Storage Slot: SD/MicroSD/Memory stick External / Removable Storage Card Capacity supplied with Receiver- inclusive in the scope of supply: 8 gigabyte or higher Leica Sensor support internal removable memory rather than internal fix memory. | Read as: Data Storage Medium: Internal or External |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 104 | 46/Section III /Minimum Technical Specification/ A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | ENVIRONMENTAL PARAMETERS Non Condensing Humidity, Rh: 100% | Non Condensing Humidity, Rh: 95% 95% is good enough for Indian condition and it is matching with DGNSS base station specification | See the Corrigendum. |
| 105 | 47/Section III /Minimum Technical Specification/ A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) | OEM ACCESSORIES: Power Cable, Connectors and Cables for Connecting to Car Batteries - inclusive in the scope of supply: Yes | Please remove this point as this is required for long static observation. Power cables to connect with external car battery is required when DGNSS will be used in to log the data for long observation say more than 12 hours and this requires Tripod and other accessories which department is not purchasing so kindly remove the point. | See the Corrigendum. |
| 106 | 48/Section III /Minimum Technical Specification/ A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) | RAM / STORAGE Memory - RAM:8 GB Internal Storage Capacity: 32 GB | Memory - RAM:1 GB or better Internal Storage Capacity: 2 GB or better and support of SD card upto 32 GB Higher RAM and Storage is required for tablet and laptops to run Windows OS. | See the Corrigendum. |
| 107 | 48/Section III /Minimum Technical Specification/ A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) | DISPLAY / KEYPAD Type of Display: LCD Display Resolution: WXGA | Type of Display: LCD, TFT Display Resolution: WXGA, WVGA LCD and WXVGA is possible with tablet and laptop only. | See the Corrigendum. |
| 108 | 49/Section III /Minimum Technical Specification/ A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) | Non Condensing Humidity, Rh: 90 | Non Condensing Humidity, Rh: 95% It should be same as CORS and GNSS receiver. | See the Corrigendum. |
| 109 | 50/Section III /Minimum Technical Specification/ A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) | CONTROLLER SOFTWARE AND FEATURES Operating System: Windows or Android Based (windows 8,8.1 or higher, Android9 Pie or Higher) | Operating System: Windows or Android Based (windows 8,8.1 or higher, WinEC7 or higher, Android9 Pie or Higher) Kindly add WinEC7 SO also. | Please refer Query No: 73 |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 110 | 50/Section III /Minimum Technical Specification/ A.4 DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) | INTEGRATED PERIPHERALS/ CONNECTIVITY Connectivity: USB, RS232, Ethernet, Wi-Fi, Bluetooth, GSM,GPRS,LTE | Connectivity: USB, RS232, Ethernet, Wi-Fi, Bluetooth, GSM,GPRS,LTE Kindly remove the Ethernet port as this is available with tablet or computer only. | See the Corrigendum. |
| 111 | 51/Section III /Minimum Technical Specification/ A.5 GPRS RTK Dynamic Control Software with Server Operating System and Database (Multi Base Control | Real Time Correction Transmitted Dynamic Control App: Application Functions: I). The software should support the required numberof stations to cover the entire State of Gujarat. The system should be able to accommodate more number of receivers to add in the entire state of Gujarat without any additional software and hardware requirement in control centre. | Remove this point Dynamic Control APP is proprietary to Trimble and thus should be removed.' | Read as: Real Time Correction Transmitted Dynamic Control App (existing): Network RTK Software (Revised) |
| 112 | 51/Section III /Minimum Technical Specification/ A.5 GPRS RTK Dynamic Control Software with Server Operating System and Database (Multi Base Control | Real Time Correction Transmitted Dynamic Control App: Application Functions: II). The software should be capable of handling and configuring GNSS reference stations for GPS(Navstar), GLONASS GALILEO, BeiDou, NavIC etc. | Application Functions: II). The software should be capable of handling and configuring GNSS reference stations for GPS(Navstar), GLONASS GALILEO, BeiDou, QZSS, NavIC etc. Add QZSS which is part of tracking in CORS specifications | No change. |
| 113 | 51/Section III /Minimum Technical Specification/ A.5 GPRS RTK Dynamic Control Software with Server Operating System and Database (Multi Base Control | Real Time Correction Transmitted Dynamic Control App: Application Functions: V).The software should be able to retrieve the data stored on the GNSS reference station as well as log data onto a server from the incoming data stream. In the event of real time communication /real time data transfer failure, the software should be able to download the missing data automatically, once the communication is restored. | The software should keep retrying till the download is successful, please add this. | No change. |
| 114 | 53/Section III /Minimum Technical Specification/ A.5 GPRS RTK Dynamic Control Software with Server Operating System and Database (Multi Base Control and Transmitted Correction with URL | The GNSS Software must perform the minimum tasks as The GNSS software shall also provide automatic station quality control and network quality control | Troposphere corrections are not transmitted in Network corrections | Read as: Possibility to represent ionosphere and tropospheric residuals (Optional). The Analysis of errors computed in Differential Global Positioning System (DGPS) . |
| 115 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 12 of 72, Scope of work Point 1 | • Carry out feasibility study of the area before designing the network. The feasibility study should include the study of ionosphere, troposphere, terrain and the locations where DGNSS receivers can be installed and maintained for 6 years. | Same as point 3 above. Kindly Amend. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|---|--|---|--------------------------|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 116 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 13 of 72, Scope of work Point 5 | <ul style="list-style-type: none"> Supply of state of art software to run CORS stations with capabilities of subscription service for different options of services such as RTK, Post Processing (PP/Static Survey) and Post Processing Kinematics (PPK) etc. with add on application for all available services as well services to run on mobile devices (Android/ iPhone or iPad) as a services to customers with billing options. | <p>Services to run on mobile devices (Android/ iPhone or iPad) as a services to customers with billing options are not available as of now. May please delete. Kindly Delete.</p> | See the Corrigendum. |
| 117 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 16 of 72, System Configuration and Components Control Center Last Para | <p>The control Centre will be setup at Gujarat State Data Centre at Gandhinagar. It will already have IT infrastructure, uninterrupted power supply and AC supply facility. The bidders supply only software, OS, DB software, Load Balancing software and other required software for control center. The application should be able to host on x86 platform. The required computing power and storage will be provided in SDC by department. The supplied controller should also support Bhunaksha mobile application developed in android developed by NIC.</p> | <p>Please specify what kind of integration is required with existing Bhu Naksha Application? If Our application has to be hosted on existing IT Infrastructure, then detail of IT Infrastructure with SERVER, ROUTER details may please be provided. Or Can it be part of future development on additional price after understanding the full scope of work? Kindly Specify.</p> | See the Corrigendum. |
| 118 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 19 of 72, Hardware and Software Requirements b. DGNS Antenna Point 1 | <p>The antenna should use the latest DGNS technology available: 1. Chock Ring (With External radome) or Geodetic Class antenna with DM Element tracking the above-mentioned signals.</p> | <p>Geodetic Class antenna does not come with DM Element. Please amend as Geodetic Class Antenna. Kindly Amend.</p> | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 119 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 24 of 72, DGNSR Rover Hardware | The DGNSR rover should be able to get 2 cm to 5 cm of accuracy with the following hardware solutions. i. Multi frequency handheld portable DGNSR rover (Detail Specification Attached) ii. Existing DGNSR Receivers with the department of Land Records, Gujarat Handheld DGNSR Rover Specification • Should at least support GPS L1,L2,L5 and GLONASS L1, L2 in network RTK solution environment • Should have software functionality required for normal RTK operations like Stake out, Feature coding, Area subdivide and calculation, site calibration, active background maps, linked files, support for laser distance meter etc. • The handheld rover should be able to provide 25 cm of accuracy in network RTK without any external antenna to allow user to carry out survey activity with ease • A customized pole should be supplied in case of precise fast static measurement in field • The rover should have at least 5MP or higher inbuilt camera for documentation • Should have inbuilt slot for memory expansion (8GB or higher required) and inbuilt SIM card slot for network RTK corrections • Should have minimum of 1 GB or Higher RAM • Update rate 1Hz to 20 Hz | Kindly Amend as: DGNSR Rover & Controller Hardware The DGNSR rover should be able to get 2 cm to 5 cm of accuracy with the following hardware solutions. i. Multi frequency portable DGNSR rover (Detail Specification Attached) ii. Existing DGNSR Receivers with the department of Land Records, Gujarat DGNSR Rover Specification • Should at least support GPS L1,L2,L5 and GLONASS L1, L2 in network RTK solution environment • Should have software functionality required in Controller for normal RTK operations like Stake out, Feature coding, Area subdivide and calculation, site calibration, active background maps, linked files, support for laser distance meter etc. • The rover should be able to provide 25 cm of accuracy in network RTK without any external antenna to allow user to carry out survey activity with ease • A customized pole should be supplied in case of precise fast static measurement in field • The Controller should have at least 5MP or higher inbuilt camera for documentation • Controller should have inbuilt slot for memory expansion (8GB or higher required) and inbuilt SIM card slot for network RTK corrections • Controller should have minimum of 1 GB or Higher RAM • Rover Update rate 1Hz to 20 Hz Kindly Amend as requested. | See the Corrigendum. |
| 120 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 24 of 72, Additional Hardware Requirement. Para 1 | During the warranty period of 6 years | During the warranty period of 6 years. Kindly Amend. | See the Corrigendum. |
| 121 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 25 of 72, Maintenance Contract Point i. | The contract shall cover maintenance period of 6 years | Same as Point 3 above. Kindly Amend. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|---|---|---|--------------------------|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 122 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 25 of 72, On-site Installation Requirement Para 1 | Each CORS site and entire network should be high quality and at least lifetime of 15 years. The Agency shall design the entire network including each CORS site in such a way that critical volume of space around the antenna should remain undisturbed. Power and internet outages should be taken into consideration though they are infrequent and short lived. | Since Technological advancements are happening at a rapid pace and technologies are either getting obsolete or evolve to far technically superior. Therefore expecting 15 years to sustain is not practical in this ever- changing technology space. Please make it up to 10 years. Kindly Amend. | See the Corrigendum. |
| 123 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 28 of 72, Figure 3: A typical Installation Para 1 | The above figure shows a typical installation with antenna, Radome, solar panels, enclosure with batteries, antenna, router/modem, cables, charge controller, lightning arrester, electrical earthing and safety fencing. The Agency has to construct/install a world class monument that should last for at least 15 years. The solar panels should be installed at angle depending upon the geography of the region to get the maximum solar incidence. | Since Technological advancements are happening at a rapid pace and technologies are either getting obsolete or evolve to far technically superior. Therefore expecting 15 yearsto sustain is not practical in this ever- changing technology space. Please make it up to 10 years. Kindly Amend. | See the Corrigendum. |
| 124 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 30 of 72, Quality Control Requirement | To ensure the data quality the following verifications shall be made on a daily basis using TEQC to check the quality of the incoming 24hrs RINEX files decimated to 15 seconds epochs. The following statistics must be calculated and recorded MP1, MP2, o/slp, IODslp. The TECQ statistics shall be supplemented with those obtained by forming the ionosphere free linear combination of L1, L2 phases by the method of double differences. This is the method used to calculate daily site coordinates. The combination performance measured shall be used to recommend equipment upgrades for prospective or existing sites whose data underperform compared to its established peers. In addition these results shall be used to search for systematic errors in the network such as a tendency for a model of receiver or antenna to underperform when compared to its peers. | TEQC may please be changed with QA/QC Software. Kindly Change. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|--|--|---|---|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 125 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 30 of 72, Coordinate Determination for the Network | Coordinates of DGNSS CORS stations must be determined precisely using scientific software in geocentric ITRF reference frame and must be entered into the server software. This exercise has to be done periodically to detect the changes in the coordinates. | Does department want us to Process the Data in Bernese / GAMIT or Vendor Software such as TBC or RTX PP can be used? It will have significant impact on price. May please clarify. Kindly Clarify. | Read as: Coordinates of DGNSS CORS stations must be determined precisely using scientific software or proposed software from bidder in geocentric ITRF reference frame and must be entered into the server software. This exercise has to be done periodically to detect the changes in the coordinates. |
| 126 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 31 of 72, General Requirements | The Agency should establish the control centre as per internal standards with proper power connections, air conditioning, security system and appropriate hardware to support 100-150 CORS station along with at least 2000 users and 1000 concurrent users in field. | Do we require to do CIVIL, ELECTRICAL WORK and put AC/ Dehumidifier etc. or Department will take care of this? May please specify. Kindly Specify. | Department will take care of this. |
| 127 | SECTION II: General Terms & Conditions: Point 39. Hosting Application (State Data Center): Page 31 of 72 | The Software/Database will be hosted in State Data Center as per provisions provided by Department of Science & Technology. State Data Center will provide computing infrastructure on x86 platform. SDC will provide the entire required infrastructure such as servers, GSWAN (Gujarat State Wide Area Network) connectivity and internet connectivity etc. | Server specifications and number of Servers for running the entire application and hosting the system Web has not been provided. It will have significant price impact. May please provide. Kindly provide | See the Corrigendum. |
| 128 | SECTION II: General Terms & Conditions: Point 39. Hosting Application (State Data Center): Page 31 of 72 | The Agency has to develop the application/software compatible with x86 platform. However, the Agency is required to provide the software (server operating system and database software) for actual running the application on x86 platform with 6 years of AMC/ATS, provide the software/application and database support with 6 years of O&M period and also perform the software and other related installation / configuration at SDC. SDC will provide required SSL Security Certificate. The Application shall work on centralized architecture, in which application and database, both shall be hosted on central servers in State Data Centre (SDC). Selected Agency is required to propose the required IT hardware/server infrastructure (computer power, storage, minimum number of Cores, Memory etc.) or other hardwares, such case SDC/Department will purchase suggested hardware/server separately. | Same as Point 3 above. Kindly Amend. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 129 | SECTION II: General Terms & Conditions: Point 40. Training to all the system users: Page 32 of 72 Deliverables | Point 4. Delivery and installation of the latest technology remote operation room at Settlement Commissioner and Director of Land Records office, Sector-14, in Gandhinagar to run the network and monitoring the stations and the users with the capabilities of the troubleshooting. Data storage and servers adequate to run the number of stations proposed and the future expansion as well without any additional changes in the server software and hardware. The software to run these stations should have capability of subscription services for different options of services such as RTK, post processing with add-on applications for all available services as well services to run on mobile devices as a service to customers with billing options. The monitoring room should include the supplying and installation of latest technology 65" or above size LED displaying units. One LED should display the station location, analysis and other utilities to be used by the administrator. | Add-on applications for all available services as well services to run on mobile devices as a service to customers with billing options is not possible as on date. May please deleted. Kindly Delete. | See the Corrigendum. |
| 130 | SECTION II: General Terms & Conditions: Page 33 of 72 Point 42. Warranty/AMC (Comprehensive 6 years) Point 42.1 | Warranty: Comprehensive onsite warranty of 6 Years from the date of installation of procured equipments. | Same as Point 3 above. Kindly Amend. | See the Corrigendum. |
| 131 | SECTION II: General Terms & Conditions: Point 43. Manpower Requirements: Page 33 of 72, | The Selected Agency would be required to deploy one onsite Project Manager (1) to monitor and manage the successful operationalization of the hardware/software systems during entire project period of 6 years at the main office, Gandhinagar. The Project Manager given in the proposal will be treated as final or may be resource with better or higher qualifications and experience shall be provided. <ul style="list-style-type: none"> Resource deployed for the project should fluent in Gujarati/Hindi language By providing the suitable reasons, the Agency may seek the permission from department for replacing the resource deployed with the equivalent resource during the project period. The decision of department will be final and binding. Project Manager must be a full time employee of the Agency Sr. Expertise / Skill Minimum Qualifications If department required more resources then Agency has to deploy on the same rate quoted in financial bid. The calendar of Government of Gujarat will be applicable for administrative purposes. Note: Manpower Requirements would be changed in the future as per the requirements of the Project. | Since the complete system will be Automatic and no manual operations are involved it is not suggested to engage Manpower. Moreover, you have asked for service center in Gujarat as mandatory requirement, so you will have availability of service engineer all the time within state only. If at all your good self still desire to engage one, our submission here is that engage for one year only and then your good self will have clear idea to continue the manpower or discontinue. Accordingly, a separate column for offering Manpower annual cost may please be provided in the Financial Bid Format on Page 57 of 72. Kindly Amend. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| 132 | SECTION II: General Terms & Conditions: Page 36 of 72 | Warranty Period (6 Years) | Same as Point 3 above. Kindly Amend. | See the Corrigendum. |
| 133 | SECTION III: Minimum Technical Specification: Page 38 of 72 RECEIVER FEATURES | Antenna Type Choke Ring (with external radome)/ Geodetic Class Antenna with DM Element | Geodetic Class antenna does not come with DM Element. Please amend as Geodetic Class Antenna. Kindly Amend. | See the Corrigendum. |
| 134 | Page No. 12 – 33 Clause No 37 | Scope of work: | Ultimate use of supply of CORS instrument is updation and maintenance of the Resurvey Project /GIS maps. Therefore, we request department to consider scope of work related to Data processing obtained from CORS, updation and maintenance of resurvey data and submission to department as per the department requirement so that ultimate aim of the department is fulfilled. Hence we request department to enhance the scope of work appropriately | No change. |
| 135 | SECTION II: General Terms & Conditions: Point 37. Scope of work: Page 12 of 72, Background Para 2 | The RFP document also includes the maintenance and operation of Network for 6 (Six) years from the date of installation and commissioning. | Same as point 3 above. Kindly Amend. | See the Corrigendum. |
| 136 | Page 18 of 72 Point 4 | Hardware and Software Requirements. DGNS Receiver The offered receiver shall support RAIM (Receiver autonomous integrity monitoring) to detect and reject degraded signals to improve position quality. | Please remove as its proprietry | Read as: The offered receiver shall support RAIM (Receiver autonomous integrity monitoring) or Similar Technology to detect and reject degraded signals to improve position quality |
| 137 | Page 18 of 72 Point 18. | Internally logged data shall have a file size of less than 1MB (unzipped) for a 24 hour, 15 second file to maximize storage capacity. | Kindly amend the file size of less than 5MB for a 24 hours, 15 second file to maximize storage capacity. | See the Corrigendum. |
| 138 | Page 19 of 72 Point 37 | The receiver must support multiple Bluetooth connections. | We request you to kindly amend it to 1 Bluetooth or greater. We provide option of Bluetooth + Wifi to connect the receiver. | See the Corrigendum. |
| 139 | The software must allow to be used with cloud platform Page 20 of 72 | Client / Server Architecture | We request you to kindly delete this Technical Specification. Putting on cloud server means; the government data would be on 3rd party server and not on GIL which can be RISKY | See the Corrigendum. |
| 140 | Three access levels for Administrators, User and Guest: | Shall have 3 access levels consist of Administrators, User and Guest | We request you to kindly amend it as " Access levels for Administrators, User. Please delete Three Access Level | See the Corrigendum. |
| 141 | Page 20 of 72 | Control Centre Software: Three access levels for Administrators, User and Guest: | Access Level for Administrator and User only | See the Corrigendum. |
| 142 | Control Centre Software Page 22 of 72 | The DGNS software shall apply Ocean tide loading and earth tide loading | We request you to kindly delete this Technical Specification. For Meteorological purpose specialize software are used; so separate 3rd party software interaction is required. | See the Corrigendum. |
| 143 | Page 23 of 72 | Processing kernel should apply the zero difference based algorithms for the global real time adjustment of the network for better reliability and robustness. | We request you to kindly delete this point as this is a proprietary specification of a particular OEM. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| 144 | Page 23 of 72 | The software must use individual reference stations velocities in the network processing | We request you to kindly delete this Technical Specification.As the department has asked for PPP option in the software, so we can calculate the displacement of Receiver. | See the Corrigendum. |
| 145 | Page 23 of 72 | The software should also derive IPWV (Integrated Perceptible Water Vapour) in atmosphere in real time. | We request you to kindly delete this Technical Specification. This is related to Meterological Department; Required 3rd Party softwares. | See the Corrigendum. |
| 146 | Page 23 of 72 | Control Centre Software : The following network RTK standard method should be supported . Concept of VRS MAC FKP | Concept of VRS MAC and FKP are the Proprietary OEM. We request you to amend it as : Any of the following network RTK standard method should be supported: | See the Corrigendum. |
| 147 | Page 24 of 72 | DGNSS Rover Hardware: Should have software functionality required for normal RTK operations like Stake out, Feature coding, Area subdivide and calculation, site calibration, active background maps, linked files, support for laser distance meter etc. | External Laser distance meter | See the Corrigendum. |
| 148 | Page 24 of 72 | DGNSS Rover Hardware: The rover should have at least 5MP or higher inbuilt camera for documentation. | This is controller specifaicaton not rover hardware. Please remove or amend as rover controller hardware | See the Corrigendum. |
| 149 | Page 34 of 72 | Payment Terms: 10% payment of total project value divided equally each year in Warranty/AMC period of 6 years. | Please remove as PBG of 10 % of total value already mentioned. | See the Corrigendum. |
| 150 | Page 35 of 72 | Penalty clause Vs Implementation Phase. | Kindly review the point and clarify the same, it seem they are contradictory to each other. | See the Corrigendum. |
| 151 | Page 35 of 72 | Implementation Phase Training | Kindly review the Training clause. | See the Corrigendum. |
| 152 | 12/SectionII/Scope of Work | Designing the state of art network for Gujarat State. The design should include monumentation, power supply including AC, DC and optional Solar panels, Communication facility using broadband or GSM/GPRS service on dual SIM modem, router, Safety cabinet and security of the complete installation. The solution should have remote monitoring of hardware and it should be able to handle more than 100 to 150 CORS data and the application should be capable of handling at least 2000 users and 1000 concurrent users | Designing the state of art network for Gujarat State. The design should include monumentation, power supply including AC, DC and optional Solar panels, Communication facility using broadband or GSM/GPRS service on dual SIM modem, router, Safety cabinet and security of the complete installation. The solution should have remote monitoring of hardware and it should be able to handle more than 100 to 150 CORS data and the application should be capable of handling at least 2000 users/concurrent users Remarks There is no difference between the numer of user and concurrent user both should be 1000 | No change. |
| 153 | 19/Section II/System Configuration and Components/ Control Centre/ | The supplied controller should also support Bhunaksha mobile application developed in android developed by NIC | The supplied controller spftware must have support of WMS services to receive the data from Bhunaksha server or any other GIS server Remarks As per specification in RFP controller should run on Windows and Bhunaksha app is availble for Android only. The integration to BhuNaksha server can be done through WMS services | See the Corrigendum. |
| 154 | 19/Section II/Hardware and Software Requirements/ DGNSS Receiver/ point no 4 | The offered receiver shall support RAIM (Receiver autonomous integrity monitoring) to detect and reject degraded signals to improve position quality | The offered receiver shall support RAIM (Receiver autonomous integrity monitoring) to detect and reject degraded signals to improve position quality or Pulse Aperture Correlator or similar technology Remarks RAIM can be achieved in receivers in various implementation technologies thus rather than writing RAIM we proposed method to monitor position for reliability of fix better than 99.99%. | Please refer Query No: 136 |
| 155 | 19/Section II/Hardware and Software Requirements/ DGNSS Receiver/ point no 21 | Must contain embedded (non-removable) memory with 16GB or higher of logging space | Must contain embedded (non-removable)/ removeable memory with 16GB or higher of logging space Remarks Removable internal memories provide more flexibility to user since he can any remove device any time for downloading and transfer of data thus please include internal/removable memory. | See the Corrigendum. |
| 156 | 19/Section II/Hardware and Software Requirements/ DGNSS Receiver/ point no 24 | Internally logged data shall have a file size of less than 1MB (unzipped) for a 24 hour, 15 second file to maximize storage capacity | Internally logged data shall have a file size of less than 6MB (unzipped) for a 24 hour, 15 second file to maximize storage capacity Remarks The capacity of logging session depends on satellites tracked and sampling please simplify it. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|--|---|--|----------------------------|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 157 | 20/Section II/Hardware and Software Requirements/ DGNS Receiver/ point no 42 | The receiver shall support on-board worldwide real-time precise point positioning (PPP), via both Internet Protocol (IP) and L-Band satellite delivery. | Please delete this clause Remarks L-Band processing is not required for CORS based stations since they transmit raw observables to control center. | See the Corrigendum. |
| 158 | 20/Section II/Hardware and Software Requirements/ Control Centre Software | Three access levels for Administrators, User and Guest Shall have 3 access levels consist of Administrators, User and Guest | Kindly remove the Guest level access Remarks There is no difference between User and Guest so two access levels administrator can fulfill this function. | See the Corrigendum. |
| 159 | 20/Section II/Hardware and Software Requirements/ Control Centre Software | Three access levels for Administrators, User and Guest Admin must be able to start and stop the various operations, create and change configuration, set parameters and modes etc. | Kindly remove the point. Remarks Starting and stopping all function, create and change configuration is typically interfering with OS services and thus will jeopardize the security and must be removed | See the Corrigendum. |
| 160 | 21/Section II/Hardware and Software Requirements/ Control Centre Software | Communication between the server and the reference station receivers must have the flexibility to operate as: <input checked="" type="checkbox"/> Dial up modem | Kindly remove the Dial up modem from communication Remarks Dial up services are no longer applicable | See the Corrigendum. |
| 161 | 21/Section II/Hardware and Software Requirements/ Control Centre Software | The DGNS software shall provide access to the following communication channels o Internet, Intranet, LAN/WAN (TCP/IP) or with Mobile cellular GPRS or Wi-Fi using RTCM standard NTRIP 1.0 and NTRIP 2.0 | Kindly remove the NTRIP 2.0 Remarks nTrip 2.0 does not provide any additional advantage over version 1.0 for Network RTK and is not able in most of the rovers. | See the Corrigendum. |
| 162 | 22/Section II/Hardware and Software Requirements/ Control Centre Software | The DGNS software shall also provide automatic station quality control and network quality control Possibility to represent ionosphere and tropospheric residuals | Kindly remove the point. Remarks Tropospheric representations have no logic as there is no local Met data on CORS sites | Please refer Query no: 114 |
| 163 | 23/Section II/Hardware and Software Requirements/ Control Centre Software | Processing kernel should apply the zero difference based algorithms for the global real time adjustment of the network for better reliability and robustness | Kindly remove the point. Remarks Global real time adjustment in CORS Net is typically done manually for enhanced processing checks. | See the Corrigendum. |
| 164 | 23/Section II/Hardware and Software Requirements/ Control Centre Software | The software must use individual reference stations velocities in the network processing | Kindly remove the point. Remarks Individual CORS velocities can impact overall solution so should not be used and has been problematic in many CORS net implementations. | See the Corrigendum. |
| 165 | 23/Section II/Hardware and Software Requirements/ Control Centre Software | The software must be able to calculate the TEC(Total Electron Content) and Ionosphere Scintillation in real time o The software should also derive IPWV (Integrated Perceptible Water Vapour) in atmosphere in real time | Kindly remove the point. Remarks TEC and IPWV are not application to CORS net as they are not used in CORS Net corrections and thus must be removed. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
|---------|--|---|---|---|
| | Page No. / Section No. / Clause No. | Tender Description | | |
| 166 | 24/Section II/Hardware and Software Requirements/ d. Control Centre Software | Remaining residuals of Ionosphere and Tropospheric modelling | Kindly remove the point. Remarks Troposphere modelling is not part of correction and there is no local Met Stations collocated with CORS and thus must be removed | Read as: Remaining residuals of Ionosphere and Tropospheric modelling (Optional) |
| 167 | 24/Section II/Hardware and Software Requirements/ DGNSR Rover Hardware/ point no 1 | Multi frequency handheld portable DGNSR rover (Detail Specification Attached) | Multi frequency DGNSR rover (Detail Specification Attached) Remarks As per specification department has intension to buy pole solution so remove the handheld word. | See the Corrigendum. |
| 168 | 24/Section II/Hardware and Software Requirements/ DGNSR Rover Hardware/ point no 2 | Existing DGNSR Receivers with the department of Land Records, Gujarat Handheld DGNSR Rover Specification | Remarks Please provide the name and model of existing DGNSR, please clarify specification available under point no 2 are for new equipment or existing one. | Department has Trimble R6 (Model 2) and Leica GS1200 series GPS/GNSR Receivers. |
| 169 | 34/Section II/Project timeline (2 months) | The work schedule for the project is listed in Table below. The total project duration is 2 months | Please find attached a separate letter on suggested project time line. Remarks Sr. No Milestones Completion Timeline 1 Phase 1: Detailed feasibility study and designing T + 20 days 2 Phase 2: Control centre implementation T + 30 days 3 Phase 3: Construction of Monumentation T + 50 days 4 Phase 4: Supply all hardware/software, Installation, Testing, Analysis and running the system T + 90 days 5 Phase 5: System Training for System Administrator and Field Training T + 120 days 6 Warranty/AMC for 6 years. From the date of Completion of installation : 6 years | See the Corrigendum. |
| 170 | 35/Section II/Penalty Clause | 45.2. Operational / Warranty period Penalties a) During warranty period of 6 years, if the complaint is not resolved within 48 hrs, the penalty of Rs. 500 per day will be levied. However, if the complaint is not resolved within 7 days then from 8th day till 14th day, the penalty would be levied @ 150% and from 15th day onwards the penalty @ 200% of the above rates would be levied. The amount of penalty will be recovered from the Performance bank guarantee during warranty period | a) During warranty period of 6 years, if the complaint is not resolved within 4 working days, the penalty of Rs. 500 per day will be levied. However, if the complaint is not resolved within 7 days then from 8th day till 14th day, the penalty would be levied @ 150% and from 15th day onwards the penalty @ 200% of the above rates would be levied. The amount of penalty will be recovered from the Performance bank guarantee during warranty period Remarks Practically it is not possible to resolve the problem in 48 hours so kindly amend it 4 working days. | See the Corrigendum. |
| 171 | 36/Section II/Implementation Phase | Delay in any of the project milestones For each additional day after 17 days, liquidated damages of 1% will be levied as additional liquidated damages | For each additional day after 17 days, liquidated damages of 1% will be levied as additional liquidated damages upto 10% of total cost of project. Remarks | See the Corrigendum. |
| 172 | 18 of 72 | Point No.4 Hardware and Software Requirements: DGNSR Receiver The offered receiver shall support RAIM (Receiver autonomous integrity monitoring) to detect and reject degraded signals to improve position quality. | We request you to kindly delete the term RAIM, as this is a proprietary item. Kindly mention as Receiver to detect and reject degraded signals to improve position quality. | Please refer Query No: 136 |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 173 | 18 of 72 | Point No.18: Hardware and Software Requirements. DGNSS Receiver. The receiver front panel display must be capable of being turned off to preserve power. | We request you to kindly delete this point as the instruments will be established in fixed office location with desired display facilities(Computer) and in remote location CORS station, we needs to configure with all desired features and that is only possible with some external device (i.e Laptop or Desktop). Moreover the department has asked for some external devices to be connected with CORS Receivers, so we must use external devices for configuration. And also the department has asked for Control Station software which can monitor and remotely control the entire system. So we request you to kindly delete this option. | Read as: The receiver front panel display must be capable of being turned off to preserve power (Optional) |
| 174 | 18 of 72 | Point No.18: Internally logged data shall have a file size of less than 1MB (unzipped) for a 24 hour, 15 second file to maximize storage capacity. | We request you to Kindly amend the file size of less than 8MB(unzipped) for a 24 hours, 15 second file to maximize storage capacity. | See the Corrigendum. |
| 175 | 19 of 72 | The receiver must support multiple Bluetooth connections. | We request you to kindly amend it to 1 Bluetooth or greater. As the department has asked for various ports(RJ45,2 Serial ports,USB and external frequency input) availability in Receiver, we believe this is more than sufficient to connect any 3rd party device as desired , so kindly change it to 1 Bluetooth or greater. | See the Corrigendum. |
| 176 | 19 of 72 | DGNSS Antenna. Humidity up to 100% | We request you to kindly amend it to 95% or more. | See the Corrigendum. |
| 177 | 21 of 72 | Control Centre Software: Provisional external radio modem support in case of single base RTK. | Kindly let us know what frequency Band will be used for external Radio. And also let us know, if the department is having a valid license from WPC to operate with external Radio Modem. | No change. |
| 178 | 20 of 72 | Control Centre Software: Three access levels for Administrators, User and Guest: | We request you to kindly amend the same as: "Access levels for Administrators and User". Kindly delete Three Access Levels. | See the Corrigendum. |
| 179 | 23 of 72 | Control Centre Software : The following network RTK standard method should be supported . Concept of VRS MAC FKP | We request you to amend it as : Any of the following network RTK standard method should be supported: Concept of VRS MAC and FKP are the Proprietary Specification of other OEM. | See the Corrigendum. |
| 180 | 24 of 72 | DGNSS Rover Hardware: Should have software functionality required for normal RTK operations like Stake out, Feature coding, Area subdivide and calculation, site calibration, active background maps, linked files, support for laser distance meter etc. | We request you to kindly delete support for laser distance meter, as this require an addition external laser distance meter attachment, Or confirm if the department need addition laser Instrument to be supplied with CORS set. | See the Corrigendum. |
| 181 | 24 of 72 | DGNSS Rover Hardware: The rover should have at least 5MP or higher inbuilt camera for documentation. | We request you to kindly delete this point as Rover do not have camera facility Or this point should be mentioned in Controller Specification. | See the Corrigendum. |
| 182 | 34 of 72 | Payment Terms: 10% payment of total project value divided equally each year in Warranty/AMC period of 6 years. | We request you to kindly delete this payment terms as the department has asked to provide PBG of 10 % of total value. | No change. |
| 183 | 34 of 72 | The quantities may decrease up to 50% of the bid quantity or increase up to 30% of the bid quantity within the period of the bid validity. | We request you to kindly intimate us the Total Quantity for the current requirement, as we need to get the special price from Principal based on quantity. Generally it is $\pm 25\%$ change is allowed. | Clause Deleted |
| 184 | 35 of 72 | Penalty clause Vs Implementation Phase. | Kindly review the point and clarify the same, it seem they are contradictory to each other. | See the Corrigendum. |
| 185 | 35 of 72 | Implementation Phase Training | Kindly review the Training clause. | See the Corrigendum. |
| 186 | 45 of 72 | DGNSS Integrated Rover: Generic: Radio Power:1 Watt to 5 Watt Enable both function Receiving and Transmitting. | Kindly confirm the Frequency range for the Radio. As We can provide you with other options for Receiving and Transmitting Radio Signals. | See the Corrigendum. |
| 187 | 48 of 72 | DGNSS Rover Controller (5" to 8" Display Controller with Battery, charger and required cables) (Qty: 150) INTEGRATED PERIPHERALS/ CONNECTIVITY Integrated Compass: Yes Integrated Accelerometer : Yes | We request you to kindly amend this points as : Integrated Compass : Yes or No Integrated Accelerometer : Yes or No | Please refer Query no: 87 |
| 188 | 44 of 72 | A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) Number of Channels 450 or higher * (a.450 or higher, b. 550 or higher ,c. 650 or higher) | 100 or higher * (a.100 or higher, b. 150 or higher ,c. 200 or higher) | See the Corrigendum. |
| 189 | 44 of 72 | A.3 DGNSS Integrated Rover including 2 battery, charger and other OEM Accessories (Qty: 150) GNSS TRACKING SIGNALS (RECEIVER) NavIC (IRNSS) Tracking Signals L5, Upgradable to IRNSS S band | No Antenna element has S-Band upgrade it is practically replacing the entire GNSS board in combined antenna . | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 190 | 20 of 72 | The software must allow to be used with cloud platform Client / Server Architecture | We request you to kindly delete this Technical Specification. Putting on cloud server means; the government data would be on 3rd party server and not on GIL which can be RISKY | See the Corrigendum. |
| 191 | 20 of 72 | Three access levels for Administrators, User and Guest: Shall have 3 access levels consist of Administrators, User and Guest | We request you to kindly amend it as " Access levels for Administrators, User. Please delete Three Access Level | See the Corrigendum. |
| 192 | 22 of 72 | Control Centre Software The DGNS software shall apply Ocean tide loading and earth tide loading | We request you to kindly delete this Technical Specification. For Meteorological purpose specialize software are used; so separate 3rd party software interaction is required. | Clause Deleted |
| 193 | 23 of 72 | Processing kernel should apply the zero difference based algorithms for the global real time adjustment of the network for better reliability and robustness. | We request you to kindly delete this point as this is a proprietary specification of a particular OEM. | See the Corrigendum. |
| 194 | 23 of 72 | The software must use individual reference stations velocities in the network processing | We request you to kindly delete this Technical Specification. As the department has asked for PPP option in the software, so we can calculate the displacement of Receiver. | See the Corrigendum. |
| 195 | 23 of 72 | The software should also derive IPWV (Integrated Perceptible Water Vapour) in atmosphere in real time. | We request you to kindly delete this Technical Specification. This is related to Meteorological Department; Required 3rd Party softwares. | See the Corrigendum. |
| 196 | SECTION II: General Terms & Conditions: Page 5 of 72, Point 5 | If in any case the quoted Item is not available in the market, the bidder will have to supply Higher Version/replacement of that Item in the quoted cost in the same time duration with prior approval of Purchaser. No "End of Life / End of Support" product should be quoted to minimize such instances. (Make & Model quoted by the bidder should be available till the bid validity, duly supported for spares/OEM support for warranty period for 6 years). | Warranty of 6 years means that 1Year Warranty + 5 Years Comprehensive Annual Maintenance Contract (CAMC). The Additional 5 Years CAMC will have significant cost which you will be paying upfront along with the order whereas actual services you shall be using after expiry of 1 Year Warranty period and onwards. It is therefore requested to please change it to 1-year warranty + 5 years CAMC with separate price and add column in Financial format for bidding. Kindly Amend. | See the Corrigendum. |
| 197 | SECTION II: General Terms & Conditions: Page 7 of 72, Point 22 | Price shall be inclusive of all freight, forwarding, transit insurance, installation, warranty and maintenance charges period for 6 years. | Same as Point 3 above for Warranty and Maintenance Charges. Kindly Amend. | See the Corrigendum. |
| 198 | SECTION II: General Terms & Conditions: Page 10 of 72, Point 29 | As per the provision in Electronics & IT/ITeS Start-up Policy Resolution No. ITS/10/2015/5284/IT dated 6th June, 2016 issued by Department of Science & Technology OR As per Govt. of India Gazette notification no. GSR 34 (E) dated 16th January 2019 or as amended time to time; in e-Governance project undertaken by Government Departments or its Boards, Corporations or parastatal bodies getting grants from the Government, the chosen solution provider or system integrator will pass on job work or will outsource part of the work of a value ranging between 5% to 10% of the contract value to the eligible start-ups and to students of shortlisted Technical Colleges in Gujarat. In such arrangements, the responsibility of meeting SLAs (Service Level Agreements) will continue to belong to the solution provider or the system integrator. | We, AllTerra Solutions LLP. is a Startup Company recognised by "Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Govt. of India" vide Certificate Number: DIPP10979 dated 28.10.2017 and as per Govt. of India: "All Startups (whether MSE's or otherwise), falling within the definition as per Gazette notification no. GSR 34(E) dated 16 January 2019 or as amended time to time are exempted from meeting the qualification criteria in respect of prior experience, prior turnover subject to their meeting the quality and technical specifications. However, all other eligibility criteria shall be applicable." GFR2017 Rule 173 (i) also says as: The condition of prior turnover and prior experience may be relaxed for Startups (as defined by Department of Industrial Policy and Promotion) subject to meeting of quality & technical specifications and making suitable provisions in the bidding document. Kindly Add. | See the Corrigendum. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 199 | SECTION II: General Terms & Conditions: Page 10 of 72, Point 30 | The bidder will have to offer the inspection in the manner as decided by GIL before delivering to the respective site or at customer sites. The cost of the same has to be borne by the supplier. Any deviation found in the specification of the produced goods from the bid specification will lead to the cancellation of the order, forfeiture of EMD/PBG and prohibition in the participation in the future purchase of Government of Gujarat. GIL/GoG will not be responsible for any time delay which may arise due to any deviation from the bid technical specification found at the time of inspection and the bidder has to deliver and install the ordered goods within prescribed time limit. At the time of inspection, bidder is required to produce OEM's confirmation on OEM's letter head for back to back warranty support as per tender terms & conditions. | This condition is not specific in terms of location and methodology. Please specify else may please be deleted. Kindly Delete. | Read as: The bidder will have to offer the inspection at bidders warehouse in Ahmedabad/Gandhinagar before delivering to the respective site or at customer sites. The cost of the same has to be borne by the supplier. Any deviation found in the specification of the produced goods from the bid specification will lead to the cancellation of the order, forfeiture of EMD/PBG and prohibition in the participation in the future purchase of Government of Gujarat. GIL/GoG will not be responsible for any time delay which may arise due to any deviation from the bid technical specification found at the time of inspection and the bidder has to deliver and install the ordered goods within prescribed time limit. At the time of inspection, bidder is required to produce OEM's confirmation on OEM's letter head for back to back warranty support as per tender terms & conditions. |
| 200 | SECTION II: General Terms & Conditions: Page 10 of 72, Point 33 | In case of successful bidder is found in breach of any condition(s) of bid or supply order/work order, at any stage during the course of supply / installation or warranty period of 6 years, the legal action as per rules/laws, shall be initiated against the successful bidder and EMD/PBG shall be forfeited, besides debarring and blacklisting the bidder concerned for the time period as decided by Govt., for further dealings with GoG. | Same as Point 3 above. Kindly Amend. | See the Corrigendum. |
| 201 | SECTION II: General Terms & Conditions: Page 11 of 72, Point 34 | Bid validity will be of 180 days after the date of financial bid opening. A bid valid for shorter period shall be rejected as non-responsive. If required, GIL may extend the bid validity for further period from the date of expiry of bid validity in consultation with the successful bidder. | Bid validity 180 days from the date of financial bid opening may be a typical mistake as financial bid opening date will be announced after technical evaluation only. Please amend as Bid validity 180 days from due date. Kindly Amend. | Bid validity will be of 180 days after the date of technical bid opening. A bid valid for shorter period shall be rejected as non-responsive. If required, GIL may extend the bid validity for further period from the date of expiry of bid validity in consultation with the successful bidder. |
| 202 | SECTION II: General Terms & Conditions: Page 11 of 72, Point 36 | The successful Bidder will be required to co-ordinate with software vendor and/or do liasioning with other service provider to achieve the end-to-end connectivity. This also includes OS configuration with respect to LAN/WAN technologies implementation. | Please clarify what does it mean software vendor & other service providers? Kindly Clarify / Delete. | IT infrastructure will be provided by GoG. Therefore, while installing setup bidders need to coordinate with other concern suppliers of IT hardware/software. |

| Sr. No. | Tender Reference | | Query / Clarification / Suggestions from the Vendors | Responses to the Queries |
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| | Page No. / Section No. / Clause No. | Tender Description | | |
| 203 | SECTION IV: Financial Bid Format: Page 56 of 72 | (With 6 years onsite Warranty) | Same as Point 3 Above. Kindly Amend. | See the Corrigendum. |
| | Establishment of Continuously Operating Reference Stations (CORS), Supply, Installation and Commissioning CORS (DGNSS Base) with required components (With 6 years onsite Warranty) | | | |
| 204 | SECTION IV: Financial Bid Format: Page 56 of 72 | | Kindly Add separate price column for offering Warranty (CAMC) and Manpower prices Please. Kindly Add. | See the Corrigendum. |
| 205 | Page No. 3 Introduction | Last Date & Time for Submission of Bids electronically: 14.02.2020 till 1500 hours | We request GIL to extend the submission date by at least 10 days from the date of issue of clarifications. | Last Date of Bid Submission: April 03, 2020 up to 15:00 hrs |