

OFFICE OF THE DEFENCE ESTATES OFFICER,
MEERUT CIRCLE, MEERUT CANTT
MEERUT-250 001

TENDER NOTICE

The office of the Defence Estates Officer, (DEO) Meerut Circle, Meerut Cantt. invites sealed tenders for the procurement of 06 (Six) Nos of "Differential Global Positioning System"(DGPS), in two separate sealed covers duly superscribed as "Technical bid" and "Financial bid".

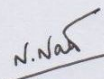
The tender document can be purchased from the office of the DEO Meerut Circle, Meerut Cantt., Meerut -250001 with a request letter, against payment of Rs. 5000/- (Non-refundable) by demand draft drawn on any Nationalised/Scheduled Bank, payable at Meerut, in favour of the Defence Estates Officer, Meerut Circle, Meerut Cantt. Meerut, on all working days (Monday to Friday) between 1000 hrs to 1700 hrs.

The tender documents can also be downloaded from <http://www.dgde.gov.in>, in which case, while submitting the tenders the fees of the tender document should be enclosed in the form of demand draft as per the particulars given above, without which the tender will be treated as invalid.

The terms/conditions and other details are available in the tender document.

Sale of tenders begin from	20.2.2014 from 1000 hrs
Last date of sale of Tenders	03.03.2014 upto 1700 hrs
Submission of Tenders	13.03.2014 upto 1400 hrs
Opening of Technical bids	13.03.2014 at 1600 hrs

No. 368/CO/ADM/DGPS
OFFICE OF THE DEFENCE ESTATE OFFICER
MEERUT CIRCLE, MEERUT CANTT.
MEERUT -250001
DATED 19.2.2014


Defence Estates officer
Meerut Circle
Meerut Cantt

**Tender Notice No. 368/CO/ADM/DGPS
OFFICE OF THE DEFENCE ESTATES OFFICER
MEERUT CIRCLE, MEERUT CANTT-250001**

**Tender Document for
PROCUREMENT OF SIX (06) NUMBERS DIFFERENTIAL GLOBAL
POSITIONING SYSTEM (DGPS)**

**DEFENCE ESTATES OFFICE
Meerut Circle, Meerut Cantt.-250001
Email:- deomeerut@dggest.org**

Time Schedule

Tender No.	No. 368/CO/ADM/DGPS
Sale of tenders	20.2.2014 from 10:00 hrs.
Last Date of Sale of Tenders	3.3.2014 upto 15:00 hrs.
Date of Pre-bid Conference	4.3.2014 upto 12:00 hrs.
Submission of tenders	13.3.2014 upto 14:00 hrs.
Date & time of opening of Technical Bids	13.03.2014 at 16:00 hrs.
Place of Opening of Bids	Defence Estates Office, Meerut Circle, Meerut Cantt
Address for Communication	Office of the Defence Estates Officer Meerut Circle Meerut Cantt. - 250001
	Tel : 0121-2652865 Fax: 0121-2667390

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IMPORTANT DETAILS

Sl. No.	Particulars	Details
1	Earnest Money Deposit (EMD)	Rs. 3,00,000/- (Rs. Three lakh) each, by Demand Draft/Fixed Deposit Receipt drawn on any Nationalised/Scheduled Bank, in favour of DEO Meerut Circle, Meerut Cantt.
2	Availability of the Tender document	Office of the Defence Estates Officer, Meerut Circle Meerut Cantt. – 250001 http://www.dgde.gov.in

**TENDER DOCUMENT FOR PROCUREMENT OF 06 NUMBERS DIFFERENTIAL
GLOBAL POSITIONING SYSTEM (DGPS)**

1. **INTRODUCTION:**

For and on behalf of the President of India, the Defence Estates Officer, Office of the Defence Estates Officer, Meerut Circle, Meerut Cantt – 250001. Telephone No. – 0121-2652865 Fax No. 0121-2667390, invites sealed tenders for procurement of 06 Nos. Differential Global Positioning System (DGPS). The offer should be made as per the specified tender Performa only, contained in the tender document and should be addressed to the office of the Defence Estates Officer, Meerut Circle, Meerut Cantt – 250001.

The offer/ bid(s) must be submitted in six separate sealed covers each for 'Technical' and 'Financial' Bids respectively duly superscribed as **"Technical Bid to supply of Six (06) Nos.DGPS"** or **"Financial Bid to supply of Six (06) Nos.DGPS"** as the case may be. Both the sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed as **"Tender for supply of Six (06) Nos. DGPS"**.

The Financial Bids of the short-listed technically qualified tenderer(s) only will be opened. The short-listing of the tenderer(s) will be carried out on the basis of the technical evaluation. The unopened/ un-short listed Financial Bids will be returned to the Tenderers.

Important Note: The bidder shall submit EMD deposits of Rs.3,00,000/- in favour of DEO Meerut.

2. **PARTICULARS OF THE TENDER:**

i)	Designation and address of the Officer to whom the tender is to be submitted.	:	The Defence Estates Officer, Meerut Circle, Meerut Cantt. Meerut - 250001
<i>The Tender Documents can be downloaded from www.dgde.gov.in</i>			
ii)	Last Date & time of Sale of the tender document	:	03.03.2014 upto 15:00hrs.
iii)	Last date & time of receiving the tenders	:	13.03.2012 upto 14:00 hrs.
iv)	Date & Time of Opening the Technical bids	:	13.03.2014 at 1600 hrs
v)	Date & Time of Opening the Financial Bids	:	To be intimated to the short-listed firms later on
v)	Detailed Specification of Stores:	:	Appendix-I

Sl. No.	Description	Quantity (Approx.)	Remarks
1.	Differential Global Positioning System with accessories.	Six Nos.	For detailed technical specifications, please see Appendix – 1

3. **GUIDELINES FOR PREPARATION & SUBMISSION OF TENDER**

- i) The tender (in English Language only) for the supply of Six Nos. DGPS(One Base and One Rover) be submitted along with detailed specifications. A technical leaflet /brochure/ literature is also required to be enclosed along with list of names of Offices/ Users to whom the same have been supplied in India.
- ii) The tenderer may please note that the tender once submitted will not be altered in any case and should not have any scope of ambiguity, cutting or overwriting. In case of overwriting / cutting if any, it must be authenticated with signature of the tenderer.
- iii) The tenderers of the following Groups may submit their offer as the case may be:-

GROUP 'A'

Items manufactured in India and offered by the Indian Manufacturer or their wholesale dealer/ distributor along with letter of authority from the Indian Manufacturer (for Terms & Conditions of supply).

GROUP 'B'

Items manufactured in a foreign country (showing country of origin) and offered by the Indian Agent with proper letter of authority from their foreign Principal.

Offer submitted by the Indian Agent for total landed cost on F.O.R. destination (up to consignee's site) basis payable in Indian Currency only:-

- (a) With Customs Duty (for terms and conditions please see Annexure 'B' (i) and 'B' (ii).

4. **TENDERING SYSTEM**

(i) The tenders/Bids are to be submitted in two Parts i.e. Part – 1 & Part II.

(ii) Part –I titled as TECHNICAL BID shall contain the complete technical qualifications and Commercial Bid package with terms and conditions of supply etc. (**except Price Schedule**).

(iii) The technical bid should contain an instrument comparison statement to be filled in by bidder **in APPENDIX-VI** in respect of each specification of the instrument . Also, the bidder is required to submit an undertaking in the format given in **APPENDIX -VII** to the effect that all the terms conditions of the tender document (incorporating guidelines, general conditions, all Annexures and Appendix) are acceptable to the bidder.

(iv) Part – II titled as FINANCIAL BID shall contain the Price Schedule duly filled in the prescribed Performa.

(v) The TECHNICAL BID and FINANCIAL BID shall be placed in separate sealed envelopes and will be superscribed as **TECHNICAL BID** and **FINANCIAL BID** as the case may be. These envelopes shall also indicate the Tender Notice No., Name and Address of the Bidder / Tenderer. Both these sealed Envelopes shall be kept in another sealed cover and shall be superscribed as "TENDER FOR PROCUREMENT OF 06 NOs DGPS". The outer cover shall indicate the TENDER NOTICE NO., last date & time of receiving the tenders, along with the address of purchaser i.e. **The Defence Estates Officer, Meerut Circle, Meerut Cantt-250001.**

5. **EVALUATION CRITERIA**

(i) Technical Evaluation Committee (TEC) shall evaluate the

bids based on the eligibility criteria & strict compliance to the information sought vide **APPENDICES I, II, VI & VII** and the **Guidelines** for submission of tender. TEC may, at its discretion, call for additional information/ clarification from the bidders. Such information has to be supplied within the time frame set out by TEC, otherwise DEO, Meerut shall make its own reasonable assumptions at the total risk & cost of the bidders & bid is liable to be rejected. Seeking clarification cannot be treated as acceptance of the bid. TEC shall seek any additional information in writing & which has to be supplied by the bidder in writing. For verification of information submitted by the bidders, the TEC may visit their offices at its own cost. The bidder shall provide all the necessary documents, samples & reference information as desired by the TEC. The bidders shall also assist TEC in getting relevant information from the bidders' references. After due evaluation of Technical bids, the TEC would submit its recommendation clearly bringing out the technically accepted bids.

(ii) The TEC may ask bidder to bring the offered system(s) for demonstration at Defence Estates Office (DEO) Meerut Cantt premises at the expense of the bidder. The observations at such demonstrations would be recorded and signed by the bidder/ his representatives and Defence Estates Office (DEO) Meerut Cantt officials for further technical evaluation.

(iii) L1 is the vendor quoting lowest rates of Gross Total Value (GTV) of bid.

6. **PERIOD OF VALIDITY OF RATES IN TENDER**

A confirmation letter specifying acceptance of period of validity of rates for 180 days should be submitted.

7. **PRE BID MEETING**

The DEO Meerut Cantt shall convene a pre-bid meeting on 04.03.2014 at 12:00 hrs. at the office of Defence Estates Officer, Meerut Circle, Meerut Cantt. -250001 to provide the clarifications sought by the prospective bidders. The queries can be sent to deomeerut@dggest.org . Amendments necessitated as a result of the pre bid meeting or otherwise shall be made available on www.dgde.gov.in. It shall be the responsibility of the bidders to fine tune their bids incorporating the amendments so communicated through the website. The Office of DEO, Meerut Cantt. shall not be responsible for any oversight or negligence on the part of the bidders on the amendments to the terms & conditions of the tender document & notified through the website.

8. **EARNEST MONEY**

Earnest Money of fixed amount Rs. 3,00,000/- (Rs. Three lakh only) in Indian currency in the shape of Bank Draft / Fixed Deposit Receipt of any Nationalised Bank /Bank Guarantee from any of the commercial banks in an acceptable form **valid for six months** made in favour of "The Defence Estates Officer, Meerut Circle, Meerut Cantt" should be submitted alongwith the TECHNICAL BIDS. Shortfall in amount of Earnest Money or tenders received without Earnest Money will result in rejection of the offer.

The earnest money of the unsuccessful bidders shall be returned within a period of **3 months** from the date of opening of Financial Bids.

9 **CRITERIA FOR AWARD**

The award of the contract to the successful bidder whose bid has been determined to be technically acceptable

and the lowest, provided further that the bidder is determined to be qualified to perform the contract satisfactorily.

10. **SECURITY DEPOSIT/PERFORMANCE GUARANTEE**

Successful tenderer will have to furnish Security Deposit within 07 working days @ 10% value of the order/contract in the shape of fixed Deposit receipt / Bank Draft / Bank Guarantee of any Commercial Bank as per **APPENDIX - V** in favour of " Defence Estates Officer, Meerut Circle, Meerut Cantt " valid for one year, from the date of letter of intent with a provision of its further extension / revalidation up to the period of one year from the date of completion of site acceptance test or up to the warranty (including extended warranty) period, whichever is later. An Agreement is also to be signed by the Indian Agent on behalf of foreign supplier at their cost on non-judicial stamp paper of Rs.100/- as per specimen at **APPENDIX - IV**.

Earnest Money shall be refunded to successful bidder on receipt of Deposit/Performance Guarantee.

Failure of the successful Bidder to comply with the requirement of Clause 10 shall constitute sufficient grounds for the annulment of the award of the Contract and forfeiture of the Bid Security, in which event the Purchaser shall be entitled to carry out procurement of good at the risk & cost of successful bidder from the firm of its own choice.

The Performance Security as deposited by the supplier shall be used by the purchaser as compensation for any loss or any dues recoverable from the supplier (including liquidated damages where applicable) resulting from the Supplier's failure to complete its obligations under the contract. The purchaser (Defence Estates Officer, Meerut Circle, Meerut Cantt) may

retain the whole or such part of it as it considers to be sufficient compensation for such loss. In such an event the balance amount (if any) shall be returned to the supplier.

11. **DELIVERY PERIOD**

The DGPS will be supplied / installed within 1 week from the date of firm supply order.

12. **OPENING OF TENDERS**

(i) The technical bid will be **opened on 13.03.2014 at 1600 hrs** in the office of the **Defence Estates Officer, Meerut Circle, Meerut Cantt -250001** .

(ii) The representatives of the tenderers / bidders may attend the opening of tenders along with letter of authority from the respective tenderer/bidder. **The date of opening of Financial Bid shall be intimated separately by Fax/Letter/e-mail (if any).**

13. **DEMONSTRATION OF INSTRUMENT**

Before the technical evaluation of the instrument, the tenderer will arrange for presentation at Meerut Cantt at their (tenderer's) own cost, either directly or through authorized Indian Agent/Dealer / Distributors as the case may be, to verify whether the Instrument meets the accuracy criteria as indicated in the technical specifications given in Appendix-I.

14. **INSPECTION**

Preliminary inspection of the equipment will be carried out by the supplier at the factory before dispatch. The **final joint inspection** will be carried out at Agra, Allahabad, , Bareilly,

Danapur, Jabalpur and Meerut after receipt of the consignment.

In case of defective supply due to manufacturing defects, the same has to be removed and / or replaced at the supplier's cost.

15. **WARRANTY**

The supplier will **replace** the defective material, free of cost, if noticed within the Warranty period of 24 months. The Warranty Certificate, as per specimen enclosed at **APPENDIX - III**, is also to be submitted duly signed along with the tender.

16. **GUARANTEE**

The instrument should have functional guarantee at least for 12 months from the date of completion of training to staff of Defence Estates Organization at Agra, Allahabad, Bareilly, Danapur, Jabalpur and Meerut.

17. **USER MANUAL**

User manual hard copy is to be provided.

18. **REPAIR & MAINTENANCE**

i) The tenderer should furnish the detailed information for repair and maintenance facilities as would be extended by them, in case of any necessity.

ii) The supplier should have service centre(s) (indicate all locations with address).

iii) In case of repair of malfunctioning within the warranty period, **the supplier should repair the instrument within a period of 7 days at supplier's cost.**

19. **DELIVERY & PENALTY**

The delivery of equipment is to be strictly adhered to in view of the strict time schedule for implementation of various Projects. Any unjustified and unacceptable delay in delivery beyond the delivery schedule as per Supply Order will render the vendor liable for liquidated damage at the rate of 0.2% (point two percent) of the purchase order value per day subject to a maximum of 15 days.

If the delivery, of whole or in part, is delayed beyond 15 days from last date of delivery as given in the purchase order, DEO Meerut Cantt will have option to cancel the purchase order to the extent of unfulfilled part of the purchase order. The DEO, Meerut Cantt will be free to procure the remaining items from alternate sources at the risk and cost of the defaulting vendor, by forfeiting the EMD/Security Deposit of the Vendor. In addition to late delivery penalties, DEO Meerut Cantt will impose a cancellation charge of 8.5% of the value of unsupplied items, which will be recovered from the pending bills or EMD/Security Deposit or by raising claims. The DEO , Meerut Cantt also reserves the right to cancel the supply order for unsupplied items at any stage without assigning any reason.

The DEO Meerut Cantt will impose penalty on total value of supply order if the delivery of more than 20% of the total value is delayed beyond the last date of delivery. If the delivery is delayed for the items(s) whose value is equal or less than 20% of the total order value, the penalty shall be applicable on the delayed equipment only.

20. **TRAINING**

The rates quoted should be inclusive of installation & training charges. The Training will have to be imparted to officers and

staff of Defence Estates Organization at **six** places at Agra, Allahabad, Bareilly, Danapur, Jabalpur and Meerut by the supplier free of cost for 5 days immediately after the receipt of consignment at these places.

Note:

- i) For general terms and conditions of supply, please see **APPENDIX – II.**
- ii) The tender document can be obtained from The DEO Office, at a cost of Rs. 5000/- or downloaded from website www.dgde.gov.in. In case the tender document is downloaded from website then the tenderer(s) downloading the tender document shall attach a separate Demand Draft of Rs.5000/- of any Commercial Bank in favour of the "Defence Estates Officer, Meerut Circle, Meerut Cantt" along with the Technical Bid towards the cost of tender document in addition to separate Demand Draft towards earnest money deposited, failing which the offer will be rejected.
- iii) Please note that late tenders / delayed tenders or postal delayed tenders will not be considered at all.
- iv) The inner and outer envelope of the tender should be addressed as below and **NOT** to any individual by name:-

TENDER FOR DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS).

(Last date & time of receiving the tender: 13.03.2014 upto 1400 hrs)

To

Defence Estates Officer, Meerut Circle, 29-J, Mall Road, Meerut Cantt., Meerut – 250001. (India)

- v) The Defence Estates Officer, Meerut Cantt reserves the right to reject/cancel all or any tender without assigning any reasons thereof.

ANNEXURE 'A' (i)

In-case of The offer from the Indian Manufacturer /or through their Authorised Dealer / Distributor.

<u>S.No.</u>	<u>Description of Item</u>	<u>Qty</u>	<u>Rate* (Rs.)</u>	<u>Cost (Rs.)</u>
(1)	(a) Main Instrument/Equipment (b) Standard Accessories (c) Optical Spare Parts (d) Mechanical Spare Parts (e) Total (a) to (d)			
(2)	Excise Duty (with percentage) on total (1) (e)			
(3)	R&D and Cess (with percentage) if any, on Total (1) (e)			
(4)	Total (1) to (3)			
(5)	VAT as applicable			
(6)	Packing & Forwarding charges			
(7)	Transit Insurance charges (up to the consignee's site till the date of installation / commissioning of Instrument /Equipment.			
(8)	Inland Transportation charges (on door delivery basis)			
(9)	Service / handling charges, if any (in case of authorized Dealers / distributors only)			
(10)	Total Cost (F.O.R. Destination basis)			
(11)	The rates quoted should be inclusive of installation and cabling charges. The training will have to be imparted to the staff of Defence Estates Organization at six selected locations by the supplier free of cost for 5 days at each designated location.			

Name and Signature of the
authorized representative of the
firm (with seal of the firm)

Date:

ANNEXURE A(ii)

The following clauses in the tender document may be clearly mentioned and confirmed by the bidder in the TECHNICAL BID:-

- a. The period of validity of offer be clearly specified.
- b. Free demonstration of instrument shall be given by the bidder to the Technical Evaluation Committee for their evaluation in the premises to be specified by the TEC.
- c. The Technical Committee shall visit the premises of office/firm of the bidder and such visit(s) shall be facilitated by the concerned bidder/firm for verification.
- d. The bidder shall confirm and furnish a warranty of 24 months in term of provision of clause 15 of the guidelines.
- e. The bidder shall furnish the acceptance of Guarantee period of 12 months in terms of clause 16 of the guidelines.
- f. The bidder shall furnish the details regarding facilities that are available with the firm to carry out the repair and maintenance work of the equipment proposed to be purchase and shall clearly indicate the details of the Service Engineers that have been employed by the firm and the details of the other technical personnel available in the firm for the said purpose.
- g. A confirmation to the effect that the firm agrees to provide the mandatory Training to the staff of Defence Estates Organisation at 6 locations i.e. Agra, Allahabad , Bareilly, Danapur, Jabalpur and Meerut for 5 days at each station.

Photo copies of the following documents are also required to be furnished along with the TECHNICAL BID:-

- i) Registration Certificate of the firm under Commercial & Establishment Act.
- ii) Registration Certificate if registered with DGS&D as an approved Govt. supplier, or registered as a Small Scale Unit with Small Scale Industries.
- iii) Latest Sales Tax Clearance Certificate/VAT Certificate.
- iv) In case of wholesale dealers/distributors / agents, Authority letter (in original) from their Principals / Manufacturers.
- v) One copy of Warranty certificate duly stamped and signed (specimen enclosed as **Appendix-III**).

ANNEXURE 'B' (i)

In case of offer from the Authorised Indian Agent of the Foreign manufacturer/ Supplier

1.	C.I.F. Value	In Indian Currency
a)	F.O.B. Cost of Main Instrument / Equipment with standard Accessories, optical spare parts, mechanical spare parts, packing/forwarding and transportation charges and optional accessories as per Proforma Invoice from Foreign manufacturer/ Supplier (to be mentioned separately for each item)	
b)	Approx. Insurance charges	
c)	Approx. Air Freight Charges C.I. F. value (Delhi Air Port) Total (1)	TOTAL LANDED COST
2.	(I) CUSTOMS DUTY I.T.C. code No.	[Note: Exemption, if any, to be claimed by the supplier against custom duty exemption certificate.]
(a)	Basic Customs duty (with %)	Rs
(b)	Educational Cess (With %)	Rs.
(c)	Any other Customs duty (to be specified)	Rs.
(d)	Clearing / Handling / Inland freight etc. up to the Consignee's warehouse will be paid by the supplier	Rs.
	Total (2)	Rs.
	Total (1) + (2)	Rs.
3.	Any other charges (to be specified)	Rs.
	Total landed cost	Rs.

Name and Signature of the
authorized representative of the
firm (with seal of the firm)

Date:

Contd...

NOTE:

1. Please also intimate:-

- i) Approx. Net weight of main Instrument (with standard Accessories etc.)
- ii) Approx. Gross weight of main Instrument (with standard Accessories etc.)

2. The rates quoted should be inclusive of installation and training charges supply of DGPS at the respective DEO offices at Agra, Allahabad , Bareilly, Danapur, Jabalpur and Meerut. The training will have to be imparted to Staff of DEO Organization at six locations(**Agra, Allahabad,Barielly, Danapur, Jabalpur and Meerut**) by the Supplier free of cost for 5 days in each station.

TERMS & CONDITIONS

1. **VALIDITY OF RATES IN INDIAN CURRENCY**

Please confirm that the rates taken into account for purpose of supplying the Instruments/Equipments in Indian Currency will remain valid for **six months from the date of opening the tender.**

2. **SECURITY DEPOSIT**

Successful tenderer will have to furnish Security Deposit @ 10% value of the order/contract in the shape of Fixed Deposit Receipt/Bank Draft/Bank Guarantee of any Nationalized Bank, as per Appendix-V in favour of "Defence Estates Officer, Meerut Circle, Meerut Cantt" valid for 12 months, from the date of letter of intent with a provision of its further extension/revalidation up to the period of one year from the date of completion of site acceptance test or up to the warranty (including extended warranty) period, whichever is later. An Agreement is also to be signed by the Indian Agent on behalf of foreign supplier at their cost on non-judicial Stamp Paper of Rs.100/- as per specimen at Appendix-IV.

3. **PAYMENT TO THE INDIAN AGENT**

(i) **For offer against payment in Indian Currency:**

100% payment will be made after the date of installation and commissioning/acceptance of the instrument and completion of training. Please confirm that our terms of payment are acceptable to you. In such case, no request for advance payment, payment against delivery or payment through Bank against dispatch documents will be considered.

In addition to the information called for in Annexure `B', the Indian Agents submitting their offer on behalf of their foreign principals are required to furnish the following information/documents along with the TECHNICAL BID:-

- (a) Authority letter from their Foreign Principals
- (b) Warranty Certificate from their Foreign Principals (Specimen should be enclosed).

- (c) Attested Xerox copy of the Agreement between the Foreign Manufacturer and the Indian Agent for sale of foreign goods in India.
- (d) Xerox copy of latest Income Tax Clearance Certificate
- (e) Xerox copy of latest Central Tax Clearance Certificate
- (f) Technical brochure / literature / catalogue of the Main Instrument / Equipment quoted for.

Performa Invoice from their Foreign Principals showing F.O.B. Cost / C.I.F. value of the instrument/equipment, in question, should be submitted along with the FINANCIAL BID.

While submitting the tender, General Terms & Conditions of supply given in APPENDIX-II may also please be seen and all relevant information be incorporated in the tender.

**SPECIFICATIONS FOR GNSS RECEIVER
SPECIFICATION FOR BASE**

CHARACTERSTICS	SPECIFICATION
Measurements Specification	
Satellite Tracking	Should be Capable of tracking GPS L1 C/A Code, L1/L2 Full cycle Carrier and Glonass L1 and L2 (optical).
No of Channel	72 channels with 4 SBAS WAAS / EGNOS capable
Measuring Modes	Static, Real-time Kinematic
Measurement Technology	High Precision multiple co-relator for GNSS Measurements for low noise, low multi-path error.
Accuracy	
Static	
Horizontal	±3 mm +0.1 ppm or better
Vertical	Should be twice the horizontal accuracy
Real Time Kinematic	
Horizontal	10 mm + 1 ppm or better
Vertical	20 mm + 1 ppm or better
Code Accuracy	
Horizontal	25 cm + 1ppm
GNSS Antenna	
	Multi frequency, High gain External antenna with Sub-mm phase center repeatability and 25 to 30 db antenna gain.
Controller Specification	
Operating System	Windows Mobile 6.0 Operating system or higher
Display Keyboard	Color, Daylight-readable touch screen with backlight illumination Full Alphanumeric hard QWERTY with color graphic display with Windows mobile platform.
Communion	Bluetooth, serial port, USB port, WiFi
General Specification	
No of Port	2nos RS 232 ports, 1 no for Power/Data and other port dedicated to data communication
Power Port	1 No power port with input voltage of 12V DC external power input with over-voltage /polarity protection
Power consumption	Power consumption for satellite receiver, external antenna including internal radio should be less than 6W in RTK mode.

Internal Batteries	The GNSS receiver and controller should be operable with internal batteries long enough to last at least 10 hours of field operation.
Weight	The Entire RTK rover including internal batteries, range pole controller and bracket should not weigh more than 4.5 Kg
Operating Temperature for all major RTK component	- 30°C to + 65°C
Storage Temperature for all major RTK component	-40°C to +75°C
Humidity	100% Condensing
Drops	Withstands pole drop onto concrete up to 1m.
Initialization Reliability	Better than 99.99%
Initialization Time	typically less than 10 seconds
Position Update Rate	10 Hz
RTK Data Formats for Transmission and reception	RTCM Versions 2.x, RTCM 3.x, CMR+ input/output
NMEA output	Support for NMEA output.
Memory	Memory of 1GB through compact flash card.
Antenna Cable	10 meter antenna cable should be provided for Base.
Chargers	Internal/External chargers to charge all the batteries at the same time should be provided.
External battery Cable	Suitable External Battery cable should be provided for Base station
Controller On Board Software	
Survey Style Configuration	The Software should allow configurable survey style for Static, PPK, RTK etc.
Multitasking	The software should be capable of multitasking so that multiple operations can be opened at a time e.g COGO, Stakeout, Point Manager etc.
Co-ordinate Systems Manager	Should have datum and projection support. Should support Grid coordinates.
Color Graphical Support	The Software should have color graphical support to visualize work while working.

Feature Coding	Should support Feature Coding with attributes for GIS data collection. Control Coding should be possible for automatic plot creation.
COGO	Should support COGO functionality. Should be able to Key in Lines, Sub-divide lines and creating parallel lines for staking out purpose.
Menu Driven	Should be User Friendly and Menu Driven for easy field operation.
Data Storage	Should be able to store GNSS data collected by the RTK system.
Transfer Data between Field and Office	Should be able to e-mail data collected in the field in case facility is available. Should be able import and export user configurable files for effective GIS support.
Stake Out	Should support Graphical stakeout, not only for points but for Lines and DTM as well. Should be able perform Real Time Quality Control for stake out positions.
Background Map	Should be able to accept background maps in CAD format.
Radio Modem	
<i>External Base Transmitter</i>	
Output Power	35 watt
Selectable Channel	Two selectable power output of 2 watt and 35 watt.

SPECIFICATION FOR ROVER

Integrated Bluetooth enabled DGPS Base receiver with Receiver, Antenna and radio receiver in single housing

CHARACTERSTICS	SPECIFICATION
Measurements Specification	
Satellite Tracking	Should be Capable of tracking GPS L1 C/A Code, L1/L2 Full cycle Carrier and GLONASS L1 and L2 (optional).
No of Channel	72 or higher channels WAAS / EGNOS capable
Measuring Modes	Static, Real-time Kinematic
Measurement Technology	High Precision GNSS Measurements for low noise, low multi-path error.

Accuracy	
Static	
Horizontal	3 mm +0.1 ppm
Vertical	Should be twice horizontal accuracy
Real Time Kinematic	
Horizontal	10 mm + 1 ppm
Vertical	20 mm + 1 ppm
Code Differential	25 cm + 1 ppm
GNSS Antenna	Multi frequency, High gain Integrated antenna with Sub-mm phase center repeatability.
Controller Specification	
Operating System	Windows Mobile 6.0 Operating system or higher
Display	Color, Daylight-readable touch screen with backlight illumination
Keyboard	Full Alphanumeric virtual keyboard with digits should be large sized and should be visible in daylight
Communion	Bluetooth, serial/ USB port, Wi-Fi
General Specification	
Bluetooth	Integrated Bluetooth to communicate between GNSS receiver and Controller
No of Port	2 nos RS232 ports, 1 no for Power/Data and other port dedicated to data communication (optional)
Power Port	1 No power port with input voltage of 12V DC external power input with over-voltage protection

Power consumption	Power consumption for satellite receiver and antenna including internal radio should be less than 3.5 W in RTK mode.
Internal Batteries	Both the GNSS receiver as well as controller should be operable with internal batteries long enough to last at least 12 hours of field operation. External Battery Cable (4m or more) or 12V car battery for charging all batteries to be provided.
Weight	The Entire RTK rover including internal batteries, range pole controller and bracket should not weigh more than 4 Kg
Operating Temperature for all major RTK component	-30°C to +65°C
Storage Temperature for all major RTK component	-40°C to +75°C
Humidity	100% Condensing
Drops	Withstands pole drop onto concrete or hard surface (2m minimum).
Initialization Reliability	Better than 99.99%
Initialization Time	typically less than 25 to 30 seconds
Position Update Rate	10 Hz or higher
RTK Data Formats for Transmission and reception	RTCM Versions 2.x, RTCM 3.x, CMR+ input/output
NMEA output	Support for NMEA output.
Memory	Internal memory of 256 MB or better Flash Memory – 1GB minimum SD Card – 4GB or better
Chargers	Suitable battery Charger should be supplied

Controller On-Board Software	
Survey Style Configuration	The Software should allow configurable survey style for Static, PPK and RTK mode
Multitasking	The software should be capable of multitasking so that multiple operations can be opened at a time e.g COGO, Stakeout, Point Manager etc.
Co-ordinate Systems Manager	Should have datum and projection support. Should support Grid coordinates.
Color Graphical Support	The Software should have color graphical support to visualize work while working.
Feature Coding	Should support Feature Coding with attributes for GIS data collection. Control Coding should be possible for automatic plot creation.
COGO	Should support COGO functionality. Should be able to Key in Lines, Sub-divide lines and creating parallel lines for staking out purpose.
Menu Driven	Should be User Friendly and Menu Driven for easy field operation.
Data Storage	Should be able to store GNSS data collected by the RTK system

Transfer Data between Field and Office	Should be able to e-mail data collected in the field, in case facility is available. Should be able import and export user configurable files for effective GIS support.
Stake Out	Should support Graphical stakeout, not only for points but for Lines and DTM as well. Should be able perform Real Time.
Background Map	Should be able to accept background maps.
Radio Modem (Rover)	
Integrated	Rover Radio modem should be integrated in the single housing
OFFICE POST PROCESSING SOFTWARE	
Operating System	Windows
Importing Raw Data	Should be able to import Raw data from the GPS/GLONASS receiver as well as RINEX data. Also should be able to import raw data as well as precise ephemeris data via internet IGS data from net
Baseline Processing	Should be capable of processing GPS L1 and L2 as well as GLONASS raw data.
Network Adjustment	Should be able to perform Network Adjustment using Least Square adjustment principle.
Export	Capable of Exporting the data in RINEX format as well in CAD format.
Reporting	Software should be capable of generating reports directly for the surveyed data
Feature Coding	Software should support feature coding.
COGO	Software should have COGO functionality
RTK Data	Should be able to handle RTK data.

GENERAL TERMS AND CONDITIONS OF SUPPLY

1. **QUALIFICATION & ELIGIBILITY CRITERIA**

- (i) The bidder shall be a manufacturer or agent/dealer/distributor of the manufacturer who has designed, manufactured, supplied, erected, commissioned equipment/instrument of similar type and capacity as given in **APPENDIX-I** of the tender document and which are in successful operation in Government (both Centre and State) and other scientific, autonomous bodies/ organizations for the last 07(seven) years on the date of bid opening. **(The manufacturing firm of DGPS must be in the business/Trade of manufacturing the required equipment for last Seven years & certificate to this effect from manufacturing firm to be enclosed.)**
- (ii) The bidder shall furnish details of supplies made in the last 05 (five) years to the Government (both Centre and State) and other scientific, autonomous bodies/ organizations in India along with the user's certificate regarding satisfactory functioning of the equipment /instrument.
- (iii) Bidders to indicate Name and Address of their Bankers; and Current ITCC and balance sheet in original or a Photostat copy thereof or three year turn over certificate attested by Chartered Accountant.

2. **COUNTRY OF ORIGIN**

- (i) All goods required to be supplied under the contract shall be accompanied with the Country of Origin Certificate clearly mentioning details of Country/Region/ Union in compliance of the Government Policy/Rules.
- (ii) For purpose of this Clause, "origin" means the place where the Goods are made, or produced, or from where the services are supplied. Goods are produced when through manufacturing, processing or substantial and major assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from the components.

- (iii) The origin of Goods and Services is distinct from the nationality of the Supplier.

3. **FORMAT AND SIGNING OF BID**

- (i) The bid shall be typed or written in English language only, in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the Contract. The letter of authorization shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.
- (ii) The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

4. **ADDITIONAL QUESTIONNAIRE FOR TENDER ENQUIRIES**

- (a) Please state that you have submitted your quotation in two parts as indicated below:-

Part-I Technical bid consisting of technical details, bringing out clearly in a separate sheet, deviations, if any, in specifications from those indicated in **APPENDIX-I** of the Tender Document.

Part-II Price bid showing item wise price in a separate sealed cover inside the main cover.

- (b) Please indicate complete break up of prices indicating clearly the net C.I.F. value, Customs Duty, Freight charges etc., in a separate sheet which should be signed by you.
- (c) Please confirm that you will forward in advance two copies of each of installation, operation and maintenance instructions and diagrams in English, in case contract is awarded and order placed with you.
- (d) Please indicate, in a separate sheet, duly signed by you, full information in respect of the output that you obtained from the machine you have

offered; and also that you guarantee for the performance of the machine under the normal conditions and also that you will demonstrate guaranteed output after installation of the machine.

- (e) Please attach lists duly signed by you, for such spare parts and tools as are absolutely essential for proper maintenance and operation of machine for a period of ten years (in the case of Electronic and Optical Spare Parts) and 5 years (in the case of Electronic and Mechanical Spare Parts) giving full particulars of the spare parts and tools with the price of each spare part and tool separately.
- (f) Please confirm that you have adequate servicing and spare parts facilities in India in respect of the equipment/instrument tendered for by you or that you will arrange to provide such facilities simultaneously with the supply of the equipment/instrument.
- (g) Please confirm that necessary maintenance of equipment/ instrument and spare parts will be made available for life of the machine on a continuous basis at a price not in excess of the net FOB/FAS price after allowing maximum discount and without taking into account any commission payable to the Indian Agents, if any, of the seller. If any such commission is payable, the same shall be indicated and it shall be payable only in Indian Currency.
- (h) Please confirm that if you go out of production of spare parts, then you will give adequate advance notice to the purchaser so that the latter may order his requirements of spares in one lot, if he so desires.
- (i) Please confirm that if you go out of production of spare parts, then you will make available blue prints, drawings of the spare parts and specifications of materials at no cost to the purchaser, if and when required, in connection with the equipment/instrument, to enable the purchaser to fabricate or procure spare parts from other sources.

5. **PACKING**

The main Equipment / Instrument, in question, is required to be securely packed as per B.I.S. (ISI) standard trade practices to avoid damages to the consignment in transit. The packing charges should be included in the break-up details of cost.

6. **INSURANCE**

The consignment is required to be dispatched to the consignee, duly insured for transit insurance for all risks from the consigner's Warehouse to the consignee's Warehouse upto Agra, Allahabad , Bareilly, , Danapur, Jabalpur and Meerut. The insurance charges should be included in the break up details of cost.

7. **TRANSPORTATION CHARGES**

The transportation charges should be pre-paid for delivery of consignment to the consignee on Door Delivery Basis and should be included in the break-up details of cost.

8. **PAYMENT**

(i) 100% payment will be made after acceptance of the main Equipment after joint inspection by supplier firm and representative of the Defence Estates Officer, Agra, Allahabad, Bareilly, Danapur, Jabalpur and Meerut. Meerut. The technical inspection as per specifications and ensuring that the equipments supplied are in functional /working condition and after completion of training at the above said locations. No request for advance payment, payment against delivery or payment through Bank against dispatched documents will be considered.

(ii) Payments will be processed on submission of pre-receipted bills in triplicate in the name of "Defence Estates Officer, Meerut Circle, Meerut Cantt". All payments will be made subject to deduction of TDS (Tax Deduction at Source) as per Income Tax Act 1961 and other taxes, if any, as per Government of India rules.

(iii) The payment will be made by the DEO Meerut only after completion of the said procedure (8(i)).

9. **ADDITIONAL QUESTIONNAIRE FOR IMPORTED STORES**

- i) Please indicate here the prices of the following:-
- a) F.O.B.
 - b) F.A.S. Port of shipment of your Principals/Manufactures
 - c) C.I.F. Value (Nearest Air Port)

- d) F.O.R. station of dispatch (also indicate the Station of dispatch)
 - e) F.O.R. DESTINATION (i.e. Consignee's site).
- ii) for F.O.R. quotations, please indicate here separately:-
- a) Net ex-Factory price
 - b) Net F.O.R./F.A.S. Quotations please indicate here separately:
 - (i) Net ex-Factory price
 - (ii) Net F.O.R./F.A.S. price exclusive of profit/ commission
- iii) Please furnish commission payable to you /Indian Agents /Associates in Rupees. Also attach a copy of the agreement with your Principals/Manufacturers regarding quantum of commissions payable.
- iv) Please indicate the following particulars:-
- (a) The precise relationship between the foreign Manufacturer/Principals and their Indian Agents/Associates.
 - (b) The mutual interest which the Manufacturer/Principals and the Indian Agents/Associates have in the business of each other.
 - (c) Any payment which the Agents/Associates receives in India or abroad from Manufacturers/Principals whether as a commission for the contract or as a general retainer fee.
 - (d) Indian Agent's Permanent Income Tax Account Number.
- v) Please furnish the following certificates on separate sheets, duly signed by you.
- (a) Certify that net prices are exclusive of commission, profit etc. to be paid to your principals / Manufacturers in foreign currency and indicate separately the amount of remuneration / commission / profit which Indian Agents Associates are entitled in terms of their Agreement with the Foreign Principals.

- (b) Produce your Principal's / Manufacturer's Performa invoice or certificate indicating remuneration / commission / discount etc. to be allowed in the particular transactions to their Indian Agents / Associates and the nature of the after-sales service to be rendered by Indian Agents / Associates.

10. **COMPLETENESS/CORRECTNESS OF THE STORES**

The contractor/supplier shall be responsible for the correct supply of the stores being ordered and shall replace the same free of cost if found not conforming to the required specifications or incomplete in any performance. The spares shall be guaranteed for interchangeability and performances. The changed parts if any will be guaranteed for correctness and interchangeability.

11. **DECREASE IN THE QUANTITY TO BE SUPPLIED**

Normally no item or quantity will be cancelled or reduced within the delivery period. But the Indenter/Purchaser reserves the right to cancel any item or reduce any quantity from the purchase order if the stores are not supplied within the original delivery period.

12. **FORCE MAJEURE**

"Force Majeure" means an event beyond the control of the Supplier and not involving the supplier's fault or negligence and not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

13. **TERMINATION FOR INSOLVENCY**

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, without compensation to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or effect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

14. **APPLICABLE LAW**

The Contract shall be interpreted in accordance with the laws of the Union of India.

15. **ARBITRATION**

All disputes or differences, including the claims for damages and compensation whatsoever, arising between the parties, out of or relating to the construction, meaning, operation or effect of this agreement or the breach thereof shall be settled amicably. However, if the parties are not able to resolve them amicably within a period of 15 (fifteen) days, the same shall be resolved by arbitration in accordance with the Arbitration and Conciliation Act, 1996. The dispute may be referred to arbitration by either party only after notice in writing to the other, clearly mentioning the nature of the dispute/differences. Such arbitration shall be conducted by a arbitral tribunal consisting of three arbitrators one arbitrator to be appointed by each party, and the third arbitrator to be nominated by Ministry of Law & Justice, Government of India. The Arbitration and Conciliation Act 1996 or any statutory modification thereof shall apply to the arbitration proceedings and the venue for the arbitration proceedings shall be Agra, Allahabad, Bareilly, Danapur, Jabalpur and Meerut shall have exclusive jurisdiction. All the arbitration proceedings shall be carried out in English language.

16. **PATENT RIGHTS**

3.1.The Supplier shall indemnify the Purchaser against all third party claims of infringement of patent, trademark, or industrial design right arising form use of the Goods or any part thereof.

WARRANTY CERTIFICATE

We warrant that everything to be supplied by us hereunder shall be brand new, free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade & quality and consistent with the established and generally accepted standards for material of the type ordered, shall be in full conformity with the specifications and shall operate properly. We shall be fully responsible for its efficient operation.

In case of any latent defect or inconsistency due to poor manufacturing/repair & overhaul of the equipment/instrument, or defective supply not conforming to the specifications if observed at the time of final inspection and thereafter within 24 months from the date of acceptance, we undertake the guarantee to repair/supply free of cost the defective items upto the final destination and the inland expenses borne by the indenter, will be at our cost.

The warranty shall survive inspection and payment for and acceptance of the goods but shall expire (except in respect of complaints of which the contractor has been notified prior to such date) Twenty Four months after their successful acceptance by the purchaser.

SEAL of manufacturer/supplier Enterprises

Date.....

Signature
Name & address of manufacturer/supplier

AGREEMENT

An agreement made this day of BETWEEN(hereinafter called the Supplier which expression shall include his legal representatives) of the one part and Defence Estates Officer, Meerut Circle, Meerut Cantt on behalf of The President of India (hereinafter called the purchaser) of the other part and WHEREBY the supplier agrees to supply to the purchaser the under mentioned articles at cost mentioned against them:-

Name of Articles	Rate	Total Cost
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And, on the terms and conditions hereinafter mentioned:-

- (a) That all stores shall be delivered at office of DEO, Agra, Allahabad, Bareilly , Danapur, Jabalpur and Meerut, by supplier
- (b) That all stores supplied shall be new and of good quality and in exact accordance with the specifications.
- (c) That the joint inspection of the stores shall be carried out at the place mentioned in para (a) above and that the stores rejected must be removed by the supplier within a week from the date of rejection. All stores not accepted shall lie at the risk of the supplier. If not removed within the period specified above the purchaser shall have the right to dispose of such stores as he thinks fit at the risk of the supplier and on his account or if he prefers to charge him rent for the space occupied by same.
- (d) That the time of delivery stated above shall be the essence of the contract and should the supplier fail to deliver the whole/any part of the stores within the period specified in clause (a) and as per the specifications the purchaser shall have the right to forfeit the deposit mentioned in clause (f) and to purchase the stores elsewhere which the supplier has failed to deliver as aforesaid at the expenses of the supplier and the supplier will be liable to pay such further sum as will be sufficient to meet the difference of cost between the rates tendered and those at which the purchases are actually made should they be higher. This is without prejudice to action being taken under clause (h) thereof.

- (e) That the purchaser shall have full power to reject the whole or any part of the stores which to the true intent and meaning is not in exact accordance with the approved sample and that his decision shall be final.
- (f) That the supplier **will furnish Security deposit @ 10%** of the value of the order/contract as security for compliance with the terms and condition of this contract (after adjusting initial earnest money).
- (g) That the supplier will be entirely responsible for the execution of this contract in all respect in accordance with the conditions of this contract and shall not assign or sub-let the same.
- (h) If the supplier becomes insolvent or he or his Agent offers any bribe in connection with the contract or the supplier fails to observe or perform any condition of this contract, then notwithstanding any previous waiver of such default or action being taken under any other clause hereof the purchaser may on behalf of the Board terminate the contract and forfeit the said deposit and recover from the supplier any loss suffered by the Board on account of the contract being terminated.
- (i) That the tender document (alongwith the annexures and appendices) published vide notice No. 368/CO/ADM/DGPS and offer/bid (s) submitted by the supplier shall form part and parcel of this agreement.

In Witness whereof the parties have hereunto set their hands the day and year first above written.

Signed by the said supplier

In the presence of:-

1st Witness

Address

2nd Witness

Address

Signed by the said purchaser for and on behalf of the
President of India

In the Presence of:-

1st Witness

Address

2nd Witness

Address

BANK GUARANTEE BOND

In consideration of the Defence Estates Officer, Meerut Circle, Meerut Cantt on behalf of The President of India (hereinafter called "the Purchaser") having agreed to exempt _____ (hereinafter called "the said supplier(s)" from the demand, under the terms and conditions of an Agreement dated _____ made between _____ and _____ for supply of DGPS equipment (hereinafter called "the said Agreement") of security deposit for the due fulfillment by the said supplier) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. _____ (Rupees _____ only), We, (indicate the name of the bank) _____ (hereinafter referred to as "the Bank") at the request of _____ supplier(s) do hereby undertake to pay to the Purchaser an amount not exceeding Rs. _____ against any loss or damage caused to or suffered or would be caused to or suffered by the Purchaser by reason of any breach by the said supplier) of any of the terms or conditions contained in the said Agreement.

2. We (indicate the name of the Bank) _____ do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Purchaser by reason of breach by the said supplier) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability, under this Guarantee shall be restricted to an amount not exceeding Rs. _____.

3. We undertake to pay to the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the supplier(s) in any suit or proceeding pending before any court or Tribunal relating thereto; our liability under this Guarantee being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We, (indicate the name of the Bank) _____ further, agree that the Guarantee herein contained shall remain in full force and effect during

the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the purchaser under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____ office/ Department / Ministry of (The Purchaser) certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor(s) and accordingly discharge this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the _____ we shall be discharged from all liability under this Guarantee thereafter.

5. We, (indicate the name of the Bank) _____ further agree with the purchaser that the Board shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said supplier(s) from time to time or to postpone for anytime or from time to time any of the powers exercisable by the purchaser against the said supplier) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said supplier or for any forbearance, act or commission on the part of the Purchaser or any indulgency by the purchaser to the said supplier(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This Guarantee will not be discharged due to the change in the constitution of the Bank of the Supplier(s).

7. We, (indicate the name of the Bank) _____ lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Purchaser in writing.

Dated the day of for (indicate the name of the Bank)

Authorized Signatory

**INSTRUMENT COMPARISON STATEMENT
(To be enclosed with Technical bid)**

This information to be filled in as per the following format by all the bidders for each specification of the equipment to be supplied by them and duly signed and to be submitted alongwith the technical bid:

Make of Equipment.....

Model of Equipment.....

Place/Origin of Manufacturing.....

DGPS TECHNICAL SPECIFICATIONS

Name of Equipment with tender Specifications		Compliance of parameter/ specification	Non-Compliance of parameter/ specification	Remarks for Sr.No. 4	Specify the page number
1.		2	3	4	5
SPECIFICATION OF BASE CHARACTERISTICS					
Measurements Specification	SPECIFICATION				
Satellite Tracking	Should be Capable of tracking capable of tracking GPS L1 C/A Code, L1/L2 Full cycle Carrier and GLONASS L1 and L2 (optical).				
No of Channel	72 channels with 4 SBAS WAAS / EGNOS capable				

Measuring Modes	Static, Real-time Kinematic				
Measurement Technology	High Precision multiple co-relator for GNSS Measurements for low noise, low multi-path error.				
Accuracy					
Static					
Horizontal	±3 mm +0.1 ppm or better				
Vertical	Should be twice the horizontal accuracy				
Real Time Kinematic					
Horizontal	10 mm + 1 ppm or better				
Vertical	20 mm + 1 ppm or better				
Code Accuracy					
Horizontal	25 cm + 1ppm				
GNSS Antenna	Multi frequency, High gain External antenna with Sub-mm phase center repeatability and 25 to 30 db antenna gain.				
Controller Specification					
Operating System	Windows Mobile 6.0 Operating system or higher				
Display	Color, Daylight-readable touch screen with backlight illumination				

Keyboard	Full Alphanumeric hard QWERTY with color graphic display with Windows mobile platform.				
Communion	Bluetooth, serial port, USB port, WiFi				
General Specification					
No of Port	2nos RS 232 ports, 1 no for Power/Data and other port dedicated to data communication				
Power Port	1 No power port with input voltage of 12V DC external power input with over-voltage /polarity protection				
Power consumption	Power consumption for satellite receiver, external antenna including internal radio should be less than 6W in RTK mode.				
Internal Batteries	The GNSS receiver and controller should be operable with internal batteries long enough to last at least 10 hours of field operation.				

Weight	The Entire RTK rover including internal batteries, range pole controller and bracket should not weigh more than 4.5 Kg				
Operating Temperature for all major RTK component	- 30°C to + 65°C				
Storage Temperature for all major RTK component	-40°C to +75°C				
Humidity	100% Condensing				
Drops	Withstands pole drop onto concrete up to 1m.				
Initialization Reliability	Better than 99.99%				
Initialization Time	typically less than 10 seconds				
Position Update Rate	10 Hz or higher				
RTK Data Formats for Transmission and reception	RTCM Versions 2.x, RTCM 3.x, CMR+ input/output				
NMEA output	Support for NMEA output.				
Memory	Memory of 1 GB through compact flash card.				
Antenna Cable	10 meter antenna cable should be provided for Base.				

Chargers	Internal/External chargers to charge all the batteries at the same time should be provided.				
External battery Cable	Suitable External Battery cable should be provided for Base station				
Controller On Board Software					
Survey Style Configuration	The Software should allow configurable survey style for Static, PPK, RTK etc.				
Multitasking	The software should be capable of multitasking so that multiple operations can be opened at a time e.g COGO, Stakeout, Point Manager etc.				
Co-ordinate Systems Manager	Should have datum and projection support. Should support Grid coordinates.				
Color Graphical Support	The Software should have color graphical support to visualize work while working.				

Feature Coding	Should support Feature Coding with attributes for GIS data collection. Control Coding should be possible for automatic plot creation.				
COGO	Should support COGO functionality. Should be able to Key in Lines, Subdivide lines and creating parallel lines for staking out purpose.				
Menu Driven	Should be User Friendly and Menu Driven for easy field operation.				
Data Storage	Should be able to store GNSS data collected by the RTK system.				
Transfer Data between Field and Office	Should be able to e-mail data collected in the field in case facility is available. Should be able import and export user configurable files for effective GIS support.				

Stake Out	Should support Graphical stakeout, not only for points but for Lines and DTM as well. Should be able perform Real Time Quality Control for stake out positions.				
Background Map	Should be able to accept background maps in CAD format.				
Radio Modem					
<i>External Base Transmitter</i>					
Output Power	35 watt				
Selectable Channel	Two selectable power output of 2 watt and 35 watt.				

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Measurements Specification					
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No of Channel	72 or higher channels WAAS / EGNOS capable				
Measuring Modes	Static, Real-time Kinematic				
Measurement Technology	High Precision GNSS Measurements for low noise, low multi-path error.				
Accuracy					
<i>Static</i>					

Horizontal	3 mm +0.1 ppm				
Vertical	Should be twice the horizontal accuracy				
Real Time Kinematic					
Horizontal	10 mm + 1 ppm				
Vertical	20 mm + 1 ppm				
Code Differential	25 cm + 1 ppm				
GNSS Antenna	Multi frequency, High gain Integrated antenna with Sub-mm phase center repeatability.				
Controller Specification					
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Communion	Bluetooth, Serial port/ USB port, Wi-Fi				
General Specification					
Bluetooth		Integrated Bluetooth to communicate between GNSS receiver and Controller			

No of Port	2 nos RS232 ports, 1 no for Power/Data and other port dedicated to data communication (optional)				
Power Port	1 No power port with input voltage of 12V DC external power input with over-voltage protection				
Power consumption	Power consumption for satellite receiver and antenna including internal radio should be less than 3.5 W in RTK mode.				

Internal Batteries	Both the GNSS receiver as well as controller should be operable with internal batteries long enough to last at least 12 hours of field operation. External Battery Cable (4m or more) or 12V car battery for charging all batteries to be provided.				
Weight	The Entire RTK rover including internal batteries, range pole controller and bracket should not weigh more than 4 Kg				
Operating Temperature for all major RTK component	-30°C to +60°C				

Storage Temperature for all major RTK component	-40°C to +75°C				
Humidity	100% Condensing				
Drops	Withstands pole drop onto concrete or hard surface (2m minimum)				
Initialization Reliability	Better than 99.99%				
Initialization Time	typically less than 25 to 30 seconds				
Position Update Rate	10 Hz or higher				
RTK Data Formats for Transmission and reception	RTCM Versions 2.x, RTCM 3.x, CMR+ input/output				
NMEA output	Support for NMEA output.				

Memory	Internal memory of 256 MB or better Flash Memory – 1GB minimum SD Card – 4GB or better				
Chargers	Suitable battery Charger should be supplied				
Controller On-Board Software					
Survey Style Configuration	The Software should allow configurable survey style for Static, PPK and RTK mode				
Multitasking	The software should be capable of multitasking so that multiple operations can be opened at a time e.g COGO, Stakeout, Point Manager etc.				

Co-ordinate Systems Manager	Should have datum and projection support. Should support Grid coordinate s.				
Color Graphical Support	The Software should have color graphical support to visualize work while working.				
Feature Coding	Should support Feature Coding with attributes for GIS data collection. Control Coding should be possible for automatic plot creation.				

COGO	Should support COGO functionality. Should be able to Key in Lines, Subdivide lines and creating parallel lines for staking out purpose.				
Menu Driven Data Storage	Should be User Friendly and Menu Driven for easy field operation. Should be able to store GNSS data collected by the RTK				

Transfer Data between Field and Office	Should be able to e-mail data collected in the field, in case facility is available. Should be able import and export user configurable files for effective GIS support.				
Stake Out	Should support Graphical stakeout, not only for points but for Lines and DTM as well. Should be able perform Real Time				
Background Map	Should be able to accept background maps.				

Radio Modem (Rover)					
Integrated	Rover Radio modem should be integrated in the single housing				
OFFICE POST PROCESSING SOFTWARE					
Operating System	Windows				
Importing Raw Data	Should be able to import Raw data from the GPS/GLONASS receiver as well as RINEX data. Also should be able to import raw data as well as precise ephemeris data via internet IGS data from net				
Baseline Processing	Should be capable of processing GPS L1 and L2 as well as GLONASS raw data.				
Network Adjustment	Should be able to perform Network Adjustment using Least Square adjustment principle.				

Export	Capable of Exporting the data in RINEX format as well in CAD format.				
Reporting	Software should be capable of generating reports directly for the surveyed data				
Feature Coding	Software should support feature coding.				
COGO	Software should have COGO functionality				
RTK Data	Should be able to handle RTK data.				

The information given above is factual & based on product specification details as per the latest catalogues/ product data sheets and technical literature enclosed.

Signature of the bidder & seal

UNDERTAKING

(To be enclosed with Technical bid)

To:

(Defence Estates Officer, Agra, Allahabad, Bareilly, Danapur, Jabalpur & Meerut).

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Sir,

Having examined the terms and conditions, guidelines, annexure and appendices of the tender documents, the receipt of which is duly acknowledged, we, the undersigned, offer to supply and deliver Six Number DGPS (Mentioned Description of Goods and Services) in conformity with said bidding documents.

We, undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified.

If our bid is accepted, we will submit performance security in a sum of equivalent to 10% of the value of the order/contract for the due performance of the contract.

We agree to abide by the validity of rates of the offer for 180 days.

We accept all your terms and conditions as stipulated in the tender document (including Annexures and Appendices) without deviations.

Dated this..... Day of..... 2014.....

(Signature)

(In the capacity of)

Duly authorised to sign undertaking for and on behalf of

Signed

Seal / Stamp