

Tender Notice: JSAC/16/2013 Dated 09.04.2013

Jharkhand Space Applications Center, Department of Information Technology, Govt. of Jharkhand invites sealed Tender from manufacturer or their authorized dealer for this region to supply and installation of **Differential Global Positioning System (DGPS)** at Jharkhand Space Applications Center, Engineers Hostel -1 Dhurwa, Ranchi.

Tender Reference		
1.	Date of commencement of tender document	09/04/2013
2.	The last date of submission of bids	29/04/2013 up to 3.00 p.m at JSAC, Ranchi
3.	Date and Time of Opening of Technical Bid	30/04/2013 at 11.00 a.m
4.	Date and Time of Opening of Price Bid (Commercial Offer)	To be announced after opening of Technical bid.
5.	Place of opening tender offers	Jharkhand Space Applications Center, 2nd Floor, Engineers Hostel – 1 Dhurwa, Ranchi-834004

A. Conditions of Tenders for Technical Bid.

1. A complete set of Tender document to be downloaded from <http://jsac.jharkhand.gov.in> and the fee of Rs 5000/- should be enclosed in form of Demand Draft drawn in favour of **Director, Jharkhand Space Applications Center payable at Ranchi** with the bid document at the time of submission.
2. The Tender must be accompanied by a Earnest Money Deposit (EMD) of Rs. **50000/-** in the form of Bank Draft Valid for period of 3 months drawn from a scheduled bank in favor of **Director , Jharkhand Space Applications Center payable at Ranchi**. Tenders not accompanied by earnest Money or incomplete in any respect will be rejected outright.
3. Tender Specific Authorization from the Principal Company (OEM) in the name of the Director, Jharkhand Space Application Center is must for all participating vendors mentioning details like tender number, date and products for which the authorization is provided and the same should be enclosed in originals.
4. The tenderer should indicate specifically the **Make & Model** of the DGPS.
5. The Tenderers are required to furnish self attested photo copy of Valid VAT registration

certificate from the sales tax authority of the State of Jharkhand or any other State as applicable.

6. The Tenderers are required to furnish self attested photo copy of Service Tax Registration certificate.

7. The tenderers are required to furnish self attested photo copy of PAN card.

8. The rate quoted for the item must be inclusive of all applicable taxes and F.O.R.

9. Director JSAC reserves the right to accept or reject any tender offer without assigning any reason.

10. For item as given below tender should be submitted in two sealed envelopes separately written on it (i) Technical Bids (ii) Price Bid respectively and should be enclosed together in a common envelope, sealed and superscripted with the Tender Reference Number, Name of the Bidder.

Schedule of Payment

1. After satisfactory completion of the work Supply, installation and training the agency will have to submit the challan/bill in triplicate with copy of Supply Order to this office and payment will be made by Jharkhand Space Application Center after passing of bill from this end.

2. 100% payment will be made after successful supply, Installation and training.

The number of items to be procured:

1.	1 DGPS Set (1 Base + 1 Rover), GPS Field Software(2 Licenses (1 for Base and 1 for Rover)) and GNSS DATA PROCESSING AND POST PROCESSING DESKTOP SOFTWARE (1 License)	EMD-50000/-
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The detail specification of DGPS is given below:

SL. No	Specification	Quantity
1	DGPS specification(Base & Rover having same specification) <ul style="list-style-type: none">• Processor – TI OMAP 3503.• Memory – Minimum Internal memory of 256 MB RAM.• Display: Transfective LED –backlit LCD, size: 4.2" diagonal, resolution 480X 640, luminance 280 cd/sq.m• Display resolution of 480x640 pixels.• Should have integrated 5 mega pixel or better camera with autofocus.• Operating system should be Windows Mobile 6.5 or higher.• Rugged and water resistant design (IP 65 standard)• External memory card slot micro/mini SD.• USB connectivity for data transfer• Integrated Wi-Fi and Bluetooth connectivity (Optional)• Voice recorder• High sensitivity integrated GPS receiver with embedded antenna. Enabled with fast acquisition time and accuracy under dense foliage.	1 DGPS Set (1 Base + 1 Rover)

	<ul style="list-style-type: none"> • GPS accuracy (HRMS) After correction: 10CM post processing • Channels: 200 or more. • Dual frequency GNSS receiver and antenna with multipath rejection technology for better accuracy. • Capable to work under forest canopy. • Update Rate: 1 Hz • Optional NMEA support. • The GPS device should be capable of tracking SBAS satellite signals. • The instrument should be supplied with software capable of loading base maps (shape file) in background. • Supplied software should have the capability to navigate to the features by selecting the features on the background map. • Supplied software should have the ability to collect new features in the field with attribute information and also export the data to shape file. • Battery – Rechargeable Lithium Ion battery with minimum 8 hours usage time with GPS on. • Optional USB charging facility • Ruggedness specifications compliance with IP 4X or above (Optional) • 24x7 technical supports on phone across the state. • Operating temperature of -20 °C to +50 °C • Storage temperature of -30 °C to +70 °C <p>The instrument should be supplied with standard accessories not limited to rechargeable battery with charger, stylus for touch screen operation, software and driver CD</p>	
2.	<p>GPS Field Software.</p> <p>(a) Should run on Microsoft Windows Mobile Version 6.0 Software platform for Pocket PCs or later.</p> <p>(b) Should be capable of</p> <ol style="list-style-type: none"> 1. Collecting data for a GIS or spatial data base 2. Navigating in the field 3. Should be able to collect GPS data. 4. Data captured should be post process able <p>(c) Should be able to create data dictionary with features and attributes.</p> <p>(d) Should have real time map display capability.</p> <p>(e) Should have support for in-field mission planning with Planning, sky plot and DOP graph, making it easy to find best time to collect quality data.</p> <p>(f) Should have the capability to take a raster or a vector image like bmp, JPEG, TIFF, Mr Sid, in the background for updation in the field.</p> <p>(g) Provide audio and visual warnings and alarms for loss of GPS position.</p> <p>(h) Data filtering and sorting</p> <p>(i) Should be able to read and write data to shape files.</p> <p>(j) Support for digitizing of points, lines or areas for simple feature capture when GPS is not available</p> <p>(k) Should have support for laser rangefinders</p> <p>(l) Should have password protection option</p> <p>(m) Should have provision to auto generate date and time attributes and auto increment data.</p> <p>(n) Should have the facility of taking offsets in the field manually.</p> <p>(o) Support point offsets including distance-bearing, bearing-</p>	2 Licenses (1 for Base and 1 for Rover)

	<p>bearing, triple bearing, distance-distance and triple distance offset types.</p> <p>(p) It should be possible to segment a line ie. record a continuous line with various segment with different attributes values.</p> <p>(q) It should also be possible to manually create features from map or by entering coordinates (Registration of points should be possible)</p> <p>(r) It should have the facility to send and receive e-mail attachments. It should be able to send & receive at least the following information via e-mail attachment, if required:</p> <ol style="list-style-type: none"> 1. Data Files 2. Data Dictionaries 3. Configuration Files 4. Complete projects. 	
3.	<p>GNSS DATA PROCESSING AND POST PROCESSING DESKTOP SOFTWARE SPECIFICATION</p> <p>Included software should be able to Post Process the GPS/GLONASS Data to improve the positional accuracy. In addition, it should be able to:</p> <ul style="list-style-type: none"> • Import background maps such as satellite imagery, remote sensing images, Aerial photographs, and vector maps. • Support GIS both export and import. • Support different datum transformations. • RINEX import and export facility. • Should have online help. • Should have the ability to create data dictionary with different point, line and area features with different attributes. • Should have the module to create/establish local co-ordinate system and export to the field device • Should be capable of transferring data to and from the field device. <p>Should be capable of downloading the base data from IGS base stations over the internet.</p>	1 License

B. Price Bid

Name of Work: *Tender Notice Inviting quotation for*

1. Supply and Installation of Differential Global Positioning System (DGPS)

Tender No. JSAC/16/2013

SL No.	Description of Item	Quantity	Combined Price is to be quoted	
			Rate	
			In figure	In Words
1.	1 DGPS Set (1 Base + 1 Rover)	01 Set		
2.	GPS Field Software(2 Licenses (1 for Base and 1 for Rover))	02 Licenses		
3.	GNSS DATA PROCESSING AND POST PROCESSING DESKTOP SOFTWARE (1 License)	01 License		

1. Rate should be inclusive of all applicable taxes, F.O.R and any other expense.
2. Price bid should be valid for 3 months.

Name and Signature of Authorized Person:

Name of Company.....

Address:

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Date:

All fields Mandatory

C. Technical Requirement Checklists

Sl. No	Items	Page No.	Remarks(*)
1.	Tender Document Fee		
2.	EMD		
3.	Tender Specific Authorization from the Principal Company (OEM).		
4.	Self attested valid VAT registration certificate.		
5.	Self attested valid Service Tax Registration certificate.		
6.	Self attested photo copy of PAN card.		
7.	Make & Model of the DGPS.		
8.	Technical Specification		
Sl. No.	Required Technical Specification	Write "Yes", if Technical Specification are same otherwise write specification	Remarks(*)
DGPS specification(Base & Rover having same specification)			
i	Processor – TI OMAP 3503.		
ii	Memory – Minimum Internal memory of 256 MB RAM.		
iii	Display: Transflective LED –backlit LCD, size: 4.2" diagonal, resolution 480X 640, luminance 280 cd/sq.m		
iv	Display resolution of 480x640 pixels.		
v	Should have integrated 5 mega pixel or better camera with autofocus.		
vi	Operating system should be Windows Mobile 6.5 or higher.		
vii	Rugged and water resistant design (IP 65 standard)		
viii	External memory card slot micro/mini SD		
ix	USB connectivity for data transfer		
x	Integrated Wi-Fi and Bluetooth connectivity (Optional)		
xi	Voice recorder		
xii	High sensitivity integrated GPS receiver with embedded antenna. Enabled with fast acquisition time and accuracy under dense foliage		
xiii	GPS accuracy (HRMS) After correction: 10CM post processing		
xiv	Channels: 200 or more.		
xv	Dual frequency GNSS receiver and antenna with multipath rejection technology for better accuracy.		

Sl. No.	Required Technical Specification	Write "Yes", if Technical Specification are same otherwise write specification	Remarks(*)
xvi	Capable to work under forest canopy.		
xvii	Update Rate: 1 Hz		
xviii	Optional NMEA support.		
xix	The GPS device should be capable of tracking SBAS satellite signals.		
xx	The instrument should be supplied with software capable of loading base maps (shape file) in background.		
xxi	Supplied software should have the capability to navigate to the features by selecting the features on the background map.		
xxii	Supplied software should have the ability to collect new features in the field with attribute information and also export the data to shape file.		
xxiii	Battery – Rechargeable Lithium Ion battery with minimum 8 hours usage time with GPS on.		
xxiv	Optional USB charging facility		
xxv	Ruggedness specifications compliance with IP 4X or above (Optional)		
xxvi	24x7 technical supports on phone across the state.		
xxvii	Operating temperature of -20 °C to +50 °C		
xxviii	Storage temperature of -30 °C to +70 °C		
Xxix	The instrument should be supplied with standard accessories not limited to rechargeable battery with charger, stylus for touch screen operation, software and driver CD		
GPS Field Software Specification			
i	Should run on Microsoft Windows Mobile Version 6.0 Software platform for Pocket PCs or later.		
ii	Should be capable of Collecting data for a GIS or spatial data base		
iii	Should be capable of Navigating in the field		
iv	Should be able to collect GPS data		
v	Data captured should be post process able		
vi	Should be able to create data dictionary with features and attributes		
vii	Should have real time map display capability.		
viii	Should have support for in-field mission planning with Planning, sky plot and DOP graph, making it easy to find best time to collect quality data.		

Sl. No.	Required Technical Specification	Write "Yes", if Technical Specification are same otherwise write specification	Remarks(*)
ix	Should have the capability to take a raster or a vector image like bmp, JPEG, TIFF, Mr Sid, in the background for updation in the field.		
x	Provide audio and visual warnings and alarms for loss of GPS position		
xi	Data filtering and sorting		
xii	Should be able to read and write data to shape files.		
xiii	Support for digitizing of points, lines or areas for simple feature capture when GPS is not available		
xiv	Should have support for laser rangefinders		
xv	Should have password protection option		
xvi	Should have provision to auto generate date and time attributes and auto increment data		
xvii	Should have the facility of taking offsets in the field manually.		
xviii	Support point offsets including distance-bearing, bearing-bearing, triple bearing, distance-distance and triple distance offset types.		
xix	It should be possible to segment a line i.e. Record a continuous line with various segment with different attributes values.		
xx	It should also be possible to manually create features from map or by entering coordinates (Registration of points should be possible)		
xxi	It should have the facility to send and receive e-mail attachments. It should be able to send & receive at least the following information via e-mail attachment, if required: <ol style="list-style-type: none"> 1. Data Files 2. Data Dictionaries 3. Configuration Files 4. Complete projects. 		
GNSS DATA PROCESSING AND POST PROCESSING DESKTOP SOFTWARE SPECIFICATION			
i	Software should be able to Post Process the GPS/GLONASS Data to improve the positional accuracy		
ii	Software should be able to Import background maps such as satellite imagery, remote sensing images, Aerial photographs, and vector maps.		
iii	Software should be able to Support GIS both export and import		

Sl. No.	Required Technical Specification	Write "Yes", if Technical Specification are same otherwise write specification	Remarks(*)
iv	Software should be able to Support different datum transformations		
v	RINEX import and export facility		
vi	Software Should have online help		
vii	Software Should have the ability to create data dictionary with different point, line and area features with different attributes		
viii	Software Should have the module to create/establish local co-ordinate system and export to the field device		
ix	Software Should be capable of transferring data to and from the field device		
x	Software Should be capable of downloading the base data from IGS base stations over the internet		

(*) for official use only

Signature