

Tender Notice: JSAC/Tender/05/2015 Dated 15.05.2015

Jharkhand Space Applications Center, Department of Information Technology, Govt. of Jharkhand invites online sealed Tender (Technical and Commercial) 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	15/05/2015
2.	The last date of submission of bids	05/06/2015 up to 3.00 p.m at JSAC, Ranchi
3.	Date and Time of Opening of Technical Bid	09/06/2015 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> or <https://www.jsac.procuretiger.com> and the fee of Rs 7500/- should be paid online.
2. Tenders are required to pay online corresponding EMD as per items mentioned in table below along with their offer. Unsuccessful Bidder's EMD will be discharged/ returned within 10 days after the finalization of tender
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.
4. The tenderer should indicate specifically the **Make & Model** of the DGPS
5. The Tenderers are required to furnish latest Valid VAT registration certificate from the sales tax authority of the State of Jharkhand or any other State as applicable.
6. The Tenderers should have Service Tax registration. The latest service tax return certificate valid as on date of tender should be submitted.
7. The tenderers are required to furnish PAN Number.

8. A self certificate by company to be submitted that company has not been blacklisted in any state of India.
9. The rate quoted for the item must be inclusive of all applicable taxes and F.O.R.
10. Director JSAC reserves the right to accept or reject any tender offer without assigning any reason.
11. The offers shall be in two separate parts containing Technical and Commercial Offers. The technical and financial documents should be uploaded in prescribed folders.
12. Technically qualified vendor has to demonstrate their equipment, if they failed, they will be disqualified.

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:

Sl.no	Items	EMD
1.	Differential Global Positioning System (DGPS) one Set (1 Base + 1 Rover)	Rs 1,00,000

1. Specification of DGPS

Technical Specifications for GNSS Dual Frequency Receiver		
1	Main	Identical Interchangeable Base and Rover complete system including accessories like Antenna receiver, controller and cables.
2	Receiver Characteristics (Base & Rover)	
2.1	Type	Combined antenna and receiver built into a single housing
2.11	Tracking	Dual frequency GNSS Geodatic System capable of tracking GPS and GLONASS Signals.
2.12		Should be capable of tracking GPS L1, L2 and GLONASS L1, L2
2.13	Channels	Should have minimum 120 channels
2.14	Measurements	GPS:L1 CA, L1/L2 P-Code, L2C GLONASS: L1/L2 CA, L1/L2 P- Code, SBAAS:WAAS, EGNOS, MSAS, IRNS
2.15	Modes	Static, Rapid Static, Kinematic, Real Time Kinematic.
2.16	Multipath	Inbuilt multipath Mitigation technique
2.17	Time for measurements	Time for first measurements less than 30 seconds.

2.18	Reliability	Battery than 99.9%
2.19	LEDs	Suitable LEDs for power, tracking and Bluetooth/RTK.
2.2	Ports	Should have one Bluetooth and one Serial port
2.21	External Power	Should be possible to connect external power supplies like car battery to power the receiver the same should be offered with the system.
2.22	Power consumption	Less than 4 W
2.23	RTK Rover Weight	Weight of complete all on pole RTK Rover in operational mode should be less than 3.5 kgs
2.24	Internal Memory/SD card/ Controller	2 GB or More
2.25	Position Update	10 Hz
2.26	Humidity	100%
2.27	Drop	With stands drop of 2 meter.
3		Antenna Characteristics(Base & Rover)
3.1	Type	Combined Antenna and Receiver.
3.11	Tracking	GPS and GLONASS L1 and L2 signals.
3.12	Battery Slot	There should be internal battery slot I antenna
3.13	Bluetooth	There should be a Bluetooth port in antenna and suitable port for connecting to controller over cable.
3.14	Operation	-30 C to + 65 C
3.15	Storage	-40 C to + 70 C
4		Controller Characteristics
4.1	Type	Colour touch screen controller with complete graphical display, identical controller should be offered, separate controller should be offered with base and rover.
4.11	Operating System	Should run on Win CE
4.12	Keyboard	6 Keys and 1 arrow key/Alphanumeric key
4.13	Memory	Should have internal or flash card memory of 1 GB
4.14	Operation	-20 C to +50 C
4.15	Storage	-20 C to +60 C
5		Control On Board Software
5.1	Survey Style Configuration	The Software should allow configurable survey style for RTK, PPK, Static / Fast Static, RTK & PPK etc.
5.2	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.
5.3	Co-ordinate Systems Manager	Should have datum and projection support. Should support Grid coordinates.
5.4	Color Graphical Support	The Software should have color graphical support to visualize

		work while working.
5.5	Feature Coding	Should support Feature Coding with attributes for GIS data collection. Control Coding should be possible for automatic plot creation.
5.6	COGO	Should support COGO functionality. Should be able to Key in Lines, Sub-divide lines and creating parallel lines for staking out purpose.
5.7	Menu Driven	Should be User Friendly and Menu Driven for easy field operation.
5.8	Data Storage	Should be able to store GNSS data collected by the RTK system Should be able to e-mail data collected in the field in case
5.9	Transfer Data between Field and Office	Facility is available. Should be able import and export user configurable files for effective GIS support.
5.10	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.
5.11	Background Map	Should be able to accept background maps in CAD format.
5.12	Keyboard	Touch screen keyboard/Hard Keyboard Controller should have inbuilt GPS, compass Controller should have inbuilt 5 MP camera Controller should have inbuilt SIM card facility for GPRS RTK
5.13	Display	Date, Time, Memory Status, Coordinates, Satellites view, Signal to noise ratio, DOP,HDOP, VDOP
5.14	Input	Field input of file name, antenna height and type, point ID, code , Layers and Notes.
6	<u>Post Processing Software</u>	
6.1	Operating System	Designed to run on Microsoft Windows XP, Vista and Window 7 operating system.
6.2	Base Line Processing	Should be capable of Baseline processing of GPS & GLONASS raw data for all Static, Fast Static, Kinematic Stop & Go, Kinematic Continuous measuring modes. Should able to handle RTK data as well.
6.3	Feature Coding	Should Support feature Coding
6.4	COGO	Should have COGO Functionality
6.5	Network Adjustment	Should be able to perform Network Adjustment using Least Square adjustment principle
6.6	Import Data	Should be able to import the RINEX data. Should also be able to import data & precise ephemeris data via internet (IGS data)
6.7	Datum Conversion	Facility to compute parameters for datum conversion

6.8	Export	Should be capable to export data in RINEX format, GIS as well as in CAD format.
6.9	Job/Field Planning	Must have full mission planning software to provide full information on, and plots of: Satellite visibility PDOP & GDOP Satellite azimuth & elevation.
7	Radio Characteristics	
7.1	Type	License free Radio for use in India
7.2	Range	3 Km or more
8	Accuracy Specification	
8.1	Static and rapid static Accuracy	
	Horizontal	3 mm + 0.5 ppm
	Vertical	5 mm + 0.5 ppm
8.2	Kinematic	
	Horizontal	10 mm + 1 ppm
	Vertical	15mm + 1 ppm
8.3	Real Time Kinematic (RTK)	
	Horizontal	10 MM + 1 PPM
	Vertical	15MM + 1 PPM

9 Criteria for License Free Radios:		
	Criteria for License Free Radios:	Under Exemption From Licensing Requirement as per Notification No. (R-11014/23/2004/LR dated New Delhi, the 11 March, 2005) of the Wireless Planning & Coordination Wing, Ministry of Communications & Information Technology, Department of Telecommunication.
9.1	Operating Frequency	865-867 MHz
9.2	Power / Watts	0.5W / 1W

B. Price Bid

Name of Work: *Tender Notice Inviting quotation for*

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

Tender No. JSAC/Tender/05/2015

Combined Price is to be quoted				
SL No.	Description of Item	Quantity	Rate	
			In figure	In Words
1.	Differential Global Positioning System (DGPS)	One Set		
Total				

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	Remarks(*)
1.	Tender Document Fee	
2.	EMD	
3.	Tender Specific Authorization from the Principal Company (OEM).	
4.	Latest VAT registration certificate.	
5.	Valid Service Tax Registration certificate.	
6.	PAN Number.	
7.	A self certificate by company to be submitted that company has not been blacklisted in any state of India.	
8.	Make & Model of Differential Global Positioning System (DGPS)	
9.	Technical Specification of Differential Global Positioning System (DGPS)[As per Above List]	