

## NOTICE OF CALL FOR BID

**NOTICE IS HEREBY GIVEN** by the Board of County Commissioners of Lincoln County, Washington that sealed bids will be received until 3:30 p.m., Friday, November 13, 2009 at one of the following locations:

Board of Lincoln County Commissioners  
P.O. Box 28  
Davenport, WA 99122-0028

Or

Office of the Board of County Commissioners  
Clerk of the Board's Desk  
450 Logan Street  
County Courthouse, Lower Level  
Davenport, WA

It shall be the bidder's responsibility to insure that their bid is delivered to the Board of County Commissioners prior to the deadline and received by the Clerk/Deputy Clerk of the Board.

The bids will be opened and publicly read aloud after 10:00 a.m., at the Commissioner's meeting scheduled on Monday, November 16, 2009, for the purchase of the following:

### One New Fully Integrated High-Performance Global Navigation Satellite System (GNSS)

Please identify bids on the outside of the envelope as:

**"GNSS, Lincoln County"**

Information and specifications may be viewed at the Clerk of the Board's Office, located on the lower level of the Lincoln County Courthouse, 450 Logan Street, Davenport. Additional information and bid packets may be obtained at the Lincoln County Department of Public Works Office, 27234 SR 25 N, Davenport, WA 99122.

The Board of Lincoln County Commissioners reserves the right to accept or reject any or all bids.

The County of Lincoln hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated for or against on the grounds of race, color, sex or national origin, in consideration for an award.

**Dated** at Davenport, Washington this 28<sup>th</sup> day of October 2009.



Rick Becker  
Public Works Director  
Lincoln County

**BID PROPOSAL  
LINCOLN COUNTY PUBLIC WORKS DEPARTMENT**

**ONE (1) NEW FULLY INTEGRATED HIGH-PERFORMANCE GNSS SYSTEM**

Sealed bids will be received by the Board of Lincoln County Commissioners for one (1) new Fully Integrated High-Performance Global Navigation Satellite System (GNSS) at the Lincoln County Clerk of the Board's Office, located on the lower level of the Lincoln County Courthouse, 450 Logan Street in Davenport, Washington, until 3:30 p.m. on Friday, November 13, 2009. The bids will then be opened and publicly read after 10:00 a.m. at the Commissioner's meeting on Monday, November 16, 2009.

Each bid shall be sealed in an envelope addressed to the:

Lincoln County Board of Commissioners  
Clerk of the Board  
450 Logan Street, PO Box 28  
Davenport, WA 99122

with the bidder's name, address and the wording, "**GNSS, Lincoln County**", plainly written on the outside of the envelope.

It shall be the bidder's responsibility to insure that their bid is delivered to the Board of County Commissioners prior to the deadline and receipted by the Lincoln County Clerk of the Board.

All bids must be submitted upon the attached Bidder's Proposal.

Deviations or alternatives from the provisions of these specifications will be considered, to permit manufacturers to follow their standard manufacturing processes. Such deviations or alternates will be approved; however, only in the sole discretion of the County and only if, in their opinion, they do not adversely affect the efficiency, effectiveness or life of the equipment. All proposed deviations or alternates, with full details, must be listed and attached to the proposal that is part of the bid, unless otherwise noted.

The Board of Lincoln County Commissioners reserves the right to accept or reject portions of bids, to waive informalities or irregularities in the bids or in the bidding, if the best interests of Lincoln County will be served, or to accept the bid, which in their opinion best serves the interest of Lincoln County.

Bidders are advised that Lincoln County, being a municipal corporation is exempt from Federal excise tax.

The price quoted shall include all transportation charges fully prepaid to the Lincoln County Public Works building located at Davenport.

The County of Lincoln hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated for or against on the grounds of race, color, sex or national origin, in consideration for an award.

It is intended that other municipalities and subdivisions of government may purchase from this bid if they have an Interlocal Agreement in force anytime during the purchasing period of this

contract.

Contingent upon the seller's review and approval at the time of a requested sale, Lincoln County and other political subdivisions of the State of Washington may purchase additional items at the bid price(s). Prices may increase, by a maximum of 10% or decrease on a pass through basis if mutually agreed upon. Seller's right to refuse to sell additional items at the time of request shall be absolute.

### **TERMS AND CONDITIONS**

1. Contract Period: This contract shall be for a period commencing on the date of order entry and terminating one year from date of order.
2. Order Date: The order date shall be the date upon which the Public Works Director or his designee signs the form ordering the equipment.
3. Interpretation: Should discrepancies or omissions be found in the specifications, or any doubt as to it's meaning, the bidder shall notify the Public Works Director in writing. The Public Works Director will send written instructions or addenda as required to all interested parties and they shall be incorporated into bid documents.

### **FAX BIDS WILL NOT BE ACCEPTED**

### **GENERAL SPECIFICATIONS**

The equipment furnished under these specifications shall be the latest improved model in current production to commercial trade, and shall be of quality workmanship and material. The bidder represents that all equipment offered under these specifications shall be new. **USED, SHOPWORN, DEMONSTRATOR, PROTOTYPE, OR DISCONTINUED MODELS ARE NOT ACCEPTABLE.**

Bidders are requested to submit with their bid the latest print literature and detailed specifications of the equipment offered.

All parts not specifically mentioned which are necessary for the unit to be complete and ready for operation or which are normally furnished as standard equipment, shall be furnished by the successful bidder. All parts shall conform in strength, quality, and workmanship to the accepted standard of the industry.

Any variation from these specifications must be included on the Bid Proposal or on a separate attachment to the Bid. This sheet shall be labeled as such.

Any units not conforming to bidders exact specifications will be rejected and it will be the responsibility of the manufacturer and/or bidder to conform to the requirements unless deviations have been specifically cited by the bidder and acceptance made on the basis of the exception.

**DELIVERY:** Unit shall be delivered complete with all accessories and components in full operating condition to the Lincoln County Public Works Department, 27234 SR 25 N, Davenport, WA 99122.

**TAXES:** All applicable taxes must be shown when called for in proposal. It shall be the dealer's responsibility to furnish Federal excise tax exemption certificate, when applicable.

**PAYMENT:** Payment will be made before January 21, 2010 after delivery and final acceptance by Lincoln County. All interest costs incurred to bidder must be computed in the original price bid, as no further compensation will be made.

**AWARD OF CONTRACT:** The right is reserved by the Lincoln County Board of Commissioners to reject any or all bids, to waive informal ties in the bidding, and to accept in whole or in part such bid or bids as may be deemed in the best interest of the County. The Board will not be bound necessarily by the low bid. No bidder may withdraw his bid after the hour set for the bid opening unless award is delayed for a period exceeding thirty (30) days.

## **FULLY INTEGRATED HIGH-PERFORMANCE GNSS SPECIFICATIONS**

### **General Description**

The high-precision GNSS measurement system must have the following items:

- Integrated GNSS receiver with tripod, tri-brach with optical plummet, tri-brach adapter, antenna, memory, batteries, data link, wireless communication mechanism.
- 72 parallel channel GNSS receiver with real-time kinematic positioning capability and on-the-fly (OTF) initialization, 2M Fixed Height Carbon Fiber GPS Rover rod, Bi-Pod thumb release rod.
- Handheld controller operating on the Windows CE operating system as a user-interface with functionality that includes RTK data collection, assigning feature codes, topographic mapping, set-out coordinates, lines and arcs and road design surveying. Also includes quick release bracket, quick release pole bracket, cradle assembly and docking station.
- Minimum of two rechargeable receiver batteries per receiver, 1 external AC adapter power supply per receiver.
- H.I. measuring tape.
- Operations manual, Quick Reference and setup guide.
- Receiver kit hard-sided case.

### **Integrated Receiver**

- GNSS receiver, antenna, memory, battery compartment, Bluetooth wireless technology and internal data link must be integrated into a single unit that can be mounted on top of a standard tripod, adjustable range pole or fixed height pole.
- GNSS receiver shall have 72 parallel channels for the GPS L1/L2/L5, GLONASS L1/L2, Omnistar, CDGPS and SBAS frequencies.
- The integrated receiver must include an integrated dual-frequency GNSS antenna and must have Pinwheel technology.
- The integrated antenna must have L1 and L2 phase centers located within 1 mm of the actual center and it must mitigate multi-path equivalent to a choke-ring antenna.
- GNSS receiver shall have a fuel-gauge-type display that indicates battery life, remaining memory, satellite usage, occupation timer, indications when data is being recorded and notification of COM port, Bluetooth link, and radio modem activity.
- The occupation timer must provide the user with an indication as to when enough data has been collected for a particular length of baseline.
- GNSS receiver must have a 32-bit microprocessor and support 10 Hz position updates.
- GNSS receiver must have delayed P-code correlation to mitigate the effects of anti-spoofing, and the ability to track C/A code (on L1), P-code (on L2) and the full carrier wavelengths on L1 and L2.
- GNSS receiver must have the ability to track and use DGPS corrections sources such as SBAS and CDGPS satellites in a position solution.
- GNSS receiver should automatically open a file and begin recording data after being powered on.

- GNSS receiver shall have 1 PPS timing signal output and marker signal input (e.g., for photogrammetry) as standard features.
- GNSS receiver must use a memory card in the form of an industrial grade Compact Flash memory card. The standard card provided is 64MB. Commercially available higher capacity memory cards can also be used up to 2GB.
- GNSS receiver shall be able to be used as an RTK base or a rover.
- GNSS receiver shall be capable of output of raw GNSS measurements for post-processing to the internal memory card or an external device such as a PC.
- GNSS receiver shall effectively track satellites at a 10-degree elevation mask.
- GNSS receiver shall have one (1) power input port, two (2) RS-232 serial data ports (max. 115.2K baud), (1) high speed USB port and one (1) antenna input port. The communication ports must be able to provide power to external devices such as a UHF radio.
- GNSS receiver shall be capable of providing power through its communication ports, sufficient to power an external device that can operate on 9VDC or less of power input
- GNSS receiver shall be capable of being operated from a PC using commercially available serial communication software.
- GNSS receiver shall incorporate Bluetooth technology for wireless communication with a data collector.
- GNSS receiver shall incorporate a 2nd integrated Bluetooth to host wireless connections to a peripheral device such as a cell phone for RTK corrections while maintaining wireless link to a data collector.
- GNSS receiver shall have the ability to turn off the internal Bluetooth devices if not in use.
- GNSS receiver shall have the ability to operate without the use of any cable(s) when operating in any application including static post-processing data collection, RTK base or RTK rover.
- GNSS receiver shall incorporate an internal UHF radio in the range of 380-470 MHz or an internal 850/1800 MHz or 900/1900 MHz GSM/GPRS cellular modem within its enclosure with the option of having no data link at all.
- GNSS receiver shall have the ability to turn off the internal data link if not in use.
- GNSS receiver shall have on-the-fly (OTF) initialization in real-time and for post-processing.
- GNSS receiver shall be capable of being powered from a 9V to 18V DC power source.
- GNSS receiver shall be capable of being set-up as a base unit and operate autonomously without the need for handheld controller, terminal or other external device in the field. The receiver must operate as a typical RTK base receiver just by pressing the power button.
- GNSS receiver shall accept multiple user-defined scheduled events to operate at specified times without requiring the user to manually power up the unit.
- GNSS receiver must be waterproof, fully sealed, submersible and meet RTCA/DO-16017 Sec. 10, Cat. R, and IPX-7 standards for waterproofing.
- GNSS receiver must be resistant to 100% condensing humidity.
- GNSS receiver must be completely protected against dust ingress.
- GNSS receiver must be RoHS compliant.
- GNSS receiver must operate in a temperature range of -20° to +55° C (-4° to +131° F) using internal batteries and in a range of -40° to +60° C (-40° to +140° F) using external batteries. The integrated GNSS receiver and antenna must be able to withstand a 2-meter pole drop.
- The internal batteries must provide power to the receiver during both RTK and post-processed operations. This includes powering the internal radio modem during RTK usage.

- The internal batteries must be able to power the integrated GNSS receiver for at least 10 hours of RTK rover operation and 16 hours post-processed operations.
- The GNSS receiver must not consume more than 5W including its internal radio to maximize battery life.

### **Controller**

- Controller must be Microsoft Windows®, CE based, have an Intel®, processor with 32-bit power and 400MHz clock speed, 128 MB SDRAM and 256MB storage memory.
- The display must be full color 320x240 pixels landscape trans-reflective LCD touch screen, with LED backlight and graphics accelerator for high performance operation.
- Controller must support multi-tasking and multi-processing functions.
- Controller shall allow the user to switch between GNSS, a total station, an electronic level and a laser range finder without exiting a program or changing software. All instruments must be supported through one RS232 port.
- It must also have internal power consisting of one rechargeable, NiMH camcorder-style battery and a battery status LED for indicating charging, usage and low battery.
- Controller must have the ability to continuously operate for at least 12 hours on internal power.
- Controller must have multi-function alphanumeric keys including direct action function keys and a large, independent, numeric keypad. Controller must also have keys functioning as application soft keys.
- Controller shall interface with GNSS receivers and Sokkia SET instruments in two-way communications mode. The controller shall also be usable in manual mode, i.e. with no electronic connection to a surveying instrument.
- Controller shall meet Military Standard 810(E) / IP67 for water and dust proofing and withstand a 2 meter drop. It shall have an operating temperature range of -30° to +50° C (-22° to +130° F).
- Controller shall contain built-in RPN-type calculator that includes trigonometric functions accessible through a single “hot-key”.
- Controller shall have two, accessible PCMCIA slots and two serial ports. It shall be capable of data output RS232C with selectable transmission rates up to 115.2K baud.
- Controller must include a speaker with customizable event sounds and adjustable volume.
- Controller must have integrated IrDA port and Bluetooth transceiver for communication with GNSS receiver and other devices including a PC.

### **GNSS FUNCTIONAL REQUIREMENTS**

- Controller shall support GNSS receiver, total station and laser range finder in a single software program. The user must only have to select a different instrument selection from within the same job. Each instrument type should use the same familiar functionality and work flow. The total station, GNSS RTK and laser range finder must reside in the same survey job and be calibrated to the same coordinate system.
- Controller shall perform GNSS surveys without connecting to the base receiver and without knowing the base station position. The data collector must not require a connection to the base receiver. The information about known coordinates, base antenna type and antenna height must be maintained entirely on the data collector.
- The controller must allow the user to enter the known coordinates and base antenna information whether it is attached to the GNSS rover receiver or disconnected completely.
- Controller shall calibrate (translate, rotate and scale) GNSS observations from the current coordinate system to match a known coordinate system. The data collector must accept known coordinate values via keyboard input, directly from a total station survey in

the same job (or control job) or loaded from a computer. The controller must allow the calibration to be performed multiple times, at any time before, during or after a survey and perform horizontal and vertical calibrations together or separately. The calibrations must affect the entire job regardless of when or how often the calibration was completed.

- Controller shall collect data in a single point and continuous method. The recording parameters for both recording methods must be stored independently. The data collector must support point data offsets. The continuous reading method must allow the user to collect a multitude of data points based on a time and distance interval to form a surface or linear feature.
- Controller shall control quality of readings by allowing the input of tolerances and end observation criteria. Automatically end an observation based on the quality of the solution, number of measurements, time or choose to manually end the observation. The data collector must provide warnings when the horizontal RMS, vertical RMS, total RMS and geometry values have been exceeded. It must also provide alarms based on the number of common satellites, loss of radio link or the lack of an RTK solution.
- Controller shall provide access to review status information with one keystroke when collecting data. Status screens must allow the user to monitor the quality of the GNSS data and to review current information about satellite positions, signal to noise value, common satellites, satellite geometry, satellite health, receiver location, radio message and the RTK solutions.
- Controller shall provide RTK observations compatible with the total station measurement records using the common SDR file format. It must allow the user to export directly to any software package that recognizes SDR files. The readings on the rover receiver must be stored in the job, as planar vectors comprised of an azimuth, vertical angle and a slope distance equivalent to a total station measurement. In a view or output mode, the data collector must be able display or output the GNSS vector pinned to its associated station's coordinate and reduced to find the coordinates for that point. It must have further reduction to a coordinate that applies a transformation based on the most recent calibration.
- Controller shall provide support for multiple user-defined feature libraries regardless of instrument type. The data collector must be capable of collecting or staking part of a feature using a total station, another part with a GNSS receiver then switch back to the total station.
- Controller must be able to stake points, lines, arcs and offsets to points, lines and arcs. It must also provide the stationing, offset and cut/fill relative to a pre-defined line. COGO functions must include Inverse, Area calculation, Intersection, Taping from baseline and Point projection.
- Controller data must be output in the industry-standard SDR format. It must be able to output to a printer connected directly to the data collector. A supplemental Windows®-based communication software must support conversions to formats that are compatible with popular CAD programs, including a standard user defined ASCII and DXF format.
- Data controller software must operate on the Windows CE operating system so that it can be used on various hardware platforms.
- Controller must display an interactive graphical plan view that allows the user to get information about the points and vectors. For setting out coordinates it must have a graphical, automatically scaling, bullseye and vertical cut/fill meter. For setting out lines and arcs it must have a graphical representation of the line or arc with the users relative position. The GNSS status functionality must include a graphical skyplot of the satellite locations.

### Electronic Total Station Functional Requirements

- Controller shall support a minimum of 15 different total stations from various manufacturers. The instrument selection must include Sokkia SET total stations, electronic levels and targetless laser range finders. Controller's total station survey programs must include: Topography, Set Collection for automating traverse data collection, Set review, Traverse adjustment, Building face survey, Collimation, Remote elevation and Set-out coordinates, lines and arcs.
- Controller's COGO programs Inverse, Area calculation, Intersections, Point projection and Taping from baseline must support total station and GNSS data.

### PC GNSS Post-Processing Software

- The GNSS software must be fully Windows XP compliant and run on a Pentium class IBM PC with 32 bit utilizing standard graphic drivers, 128 MB RAM and 64 MB of free space.
- The GNSS software must be able to process the following survey methods with the associated accuracy.

<u>Survey Mode</u>	<u>Horizontal</u>	<u>Vertical</u>
Static	5mm + 1ppm * D	10mm + 1ppm * D
Rapid-Static	5mm + 1ppm * D	10mm + 1ppm * D
Stop-and-Go	10mm + 1ppm * D <= 10 km	20mm + 1ppm * D
	10mm + 1ppm * D > 10 km	
Kinematic	10mm + 1ppm * D <= 10 km	20mm + 1ppm * D
	10mm + 1ppm * D > 10 km	

D = baseline length (distance)

- The GNSS software must have a full interactive graphical display so that users can view/edit data point and vector information in both processing and network adjustment modes.
- The GNSS software must compute a 3D least squares network adjustment and compute loop closures by allowing the user to graphically select the loops on the screen. The software must allow the user to constrain the reference points in the adjustment in one, two or three dimensions. The network adjustment must employ various weighting strategies including scalar and summation. The software must be capable of applying these strategies to the entire network or any subset.
- The GNSS software must import Stratus, Radian, Radian IS and other data formats without conversion: Sokkia (\*.gsr, \*.pdc), Ashtech (\*.ufo, e/b/s files), Precise ephemeris (\*.sp3), Trimble (\*.dat), RINEX (\*.yyo, \*.yyn, \*.yym). It must be able to process all data types simultaneously.
- The GNSS software must provide an editable/updateable table of useable antenna types with appropriate offset measurements.
- The GNSS software must provide the user with the capability of editing the station information (name, coordinates), height of instrument, feature codes, receiver and antenna height. The software must also allow the user to select only a portion of the data for processing.
- The GNSS software must be able to simultaneously process Static, Fast Static, Stop-and-Go, Kinematic and Continuous Kinematic data in a single processing session. It must allow an unlimited number of receivers, points and baselines in a single processing session and be capable of automatically repairing cycle slips.

- The GNSS software must provide a graphical analysis of the results and data including vector residual plots, trajectory residual plots and number of observed satellites that were recorded at each point.
- The GNSS software must operate based on a step-by-step project start-up that walks users through starting a project and importing data and allow the user to select the automatic processing and adjustment of the data without additional input or keystrokes.
- The GNSS software must support kinematic processing and on-the-fly (OTF) ambiguity resolution.
- The GNSS software must be capable of automatically selecting the optimum order of baseline processing, optimum processing method and offer to automatically select the reference point for both processing and adjustment.
- The GNSS software must include an advanced controls section that enables the user to perform the following functions:
  - Enable/disable specific satellites
  - Enable/disable GNSS observables
  - Change processing method (solution type) from auto (best solution) to L1 fixed, L1 float, L2 fixed, L3 fixed iono-free, L3 float iono-free, L4 fixed wide-lane, L5 fixed narrow-lane and pseudorange
  - Change the elevation mask
  - Utilize precise ephemeris/precise clock data
  - Application of tropospheric and ionospheric corrections
  - Baseline rejection parameters
- The GNSS software must include automated blunder detection for incorrect site names, antenna heights, site locations and more.
- The GNSS software must convert and display data in various datums and coordinates systems. The software must accept user defined projection parameters for several projections including: Universal Transverse Mercator, Transverse Mercator, State Plane, Oblique Mercator, Alaska Conformal, Azimuthal Equidistant, Equidistant Conic, Hotine Oblique Mercator, Lambert Azimuthal, Lambert Conformal Conic, Local Grid, Polyconic and Polar Stereographic, Stereographic.
- The GNSS software must provide reports containing quality estimates that include, among others: RMS values, baseline residuals, error ellipse values, relative precision, standard deviation, PPM, internal and external reliability, a posteriori variance factor for the entire project and a chi-square test on the a posteriori variance factor. The reports must also include scales factors and convergence angles for each point.
- The GNSS software must be able to export processed vector data to third-party network adjustment software, SDR observation format and various ASCII formats.
- The GNSS software must have the ability to select and use any of the predefined or user-entered geoid models, thus providing the ability to display ellipsoidal and/or orthometric heights.

## **PLANNING SOFTWARE**

- The PC software must contain multi-site GNSS mission planning with the ability to graphically specify obstructions in a polar or rectangular obstruction editor.
- Planning must compute optimal observation periods and incorporate multi-site satellite obstruction diagrams.
- Planning must provide a world map with hundreds of pre-defined cities that can be used to extract the approximate location of a desired station.
- Planning must display data based on Universal Time Coordinated (UTC), GNSS, and local time.
- Planning must support the use of Stratus, Radian-IS, Radian, GSR and YUMA almanacs.

- Planning must perform project planning where the following can be evaluated: satellite skyplots, visibility periods, availability, etc.

#### **DATA MANAGEMENT SOFTWARE**

- PC software shall be capable of setting up a prototype job that saves default configurations.
- PC software shall have user-definable ASCII file export using point number, northing, easting, elevation, site- ID, feature code, attribute, and RMS accuracy. It shall also have predefined exports for: Auto Cogo, Bench Mark, Bonadiman, C&G standard, C&G with no quotes, Cal trans Topo, Cal trans Linear, CGP survey, CGP xyz, Civil Comp, Civil Soft, CLM, Design Plus, DigiCad, Geotop, Lewis & Lewis, Mine Chemical, MTI, New Civil Soft, Pac Soft, RoadCalc, Stadia with 3 character Pt ID, Strada, and Wildsoft Software. PC software shall be capable of reducing GNSS derived North azimuth, vertical angle and slope distance to positions.
- PC software shall be capable of reducing GNSS data and total station data in the same job.
- PC software shall be capable of downloading data from both the controller and the GNSS receiver.
- PC software shall be Windows® compatible.
- PC software shall be capable of uploading SDR files for setout or control.
- PC software shall be capable of creating user-defined datums for uploading to the controller.
- PC Software shall have a user-definable scheduling mechanism to schedule multi-session jobs for the receiver.

#### **Warranty**

The GNSS system shall be warranted against defects in material and workmanship for a period of no less than twelve (12) months. Accessories and cables shall be warranted against defects in material and workmanship for a period no less than 90 days.

# BID PROPOSAL

Fully Integrated High Performance GNSS  
(Includes Base, Rover, Data Collector & Software, power dock, components, accessories, etc.)

2M Fixed Height Carbon Fiber GPS Rover Rod

Bi-Pod Thumb Release Rod

Quick Release Pole Clamp

Initial Training (16 hrs. minimum)

State Sales Tax @ \_\_\_\_\_ %

**TOTAL BID PRICE:**

Optional Flash Memory card:

64 MB

\_\_\_\_ MB

Extended Warranty

\_\_\_\_ Mo

Tech Support With Software Updates/Fixes

/YR

Receipt is hereby acknowledged of addendum(s) No.(s) \_\_\_\_\_

Delivery Date of GNSS System: \_\_\_\_\_

SIGNATURE(S) OF AUTHORIZED OFFICIAL(S)

\_\_\_\_\_

\_\_\_\_\_

Please print name & Title

FIRM NAME: \_\_\_\_\_

(ADDRESS) \_\_\_\_\_

TELEPHONE No. \_\_\_\_\_