



ASTI - FM 03-17  
 REV 0 / 02 April 2018

**PURCHASE ORDER**

<b>Supplier:</b> Geo-Surveys & Mapping, Inc.	<b>PO No.:</b> SAR-AIS-19-04-0006
<b>Address:</b> 3/F Topy's Place Commercial Building, Industria cor. Economia Streets, Bagumbayan, Quezon City	<b>PO Date:</b> April 04, 2019
<b>TIN:</b> 004-475-980-00	<b>Mode of Procurement:</b> Competitive Bidding: Goods and Services

Gentleman:

Please furnish this Office the following articles subject to the terms and conditions contained herein:

<b>Place of Delivery:</b> ASTI Bldg., C.P. Garcia Ave., U.P. Technology Park Complex, U.P. Campus, Diliman, Quezon City 1101	<b>Delivery Term:</b> Per end-user's schedule
<b>Date of Delivery:</b> _____	<b>Payment Term:</b> Government Terms
<b>Warranty Term:</b> _____	

Stock / Property No.	Unit	Description	Quantity	Unit Cost	Amount
1	lot	<b>SAR Processing Software</b>	1	₱10,450,000.00	₱10,450,000.00
		Charged to SAR with AIS project  - at least two (2) perpetual licenses, transferable to different machines as needed  I. Features Includes at least the following features: - Synthetic Aperture Radar (SAR) image processing: SLC coregistration, SLC equalization and calibration, Reflectivity Map calculation, extraction of pointwise targets. - SAR Interferometry (InSAR): orbital data processing, interferogram calculation, interferogram flattening, interferogram filtering, phase unwrapping. - Differential SAR Interferometry (DInSAR): DEM conversion and resampling, topographic phase removal, residual phase processing, motion estimation. - Stacking of Differential Interferograms (SDInSAR): processing of series of interferograms for atmospheric delay suppression and motion estimation. - Persistent Scatterers InSAR (PSI): full-processing chain for ground average deformation trend, ground elevation and atmospheric delay estimation. - Urban Advanced PSI: PS real targets identification and classification (roofs, poles, dihedrals, trihedrals, fences, floor gratings) - Temporary PSI: estimation of temporary targets (new constructions, demolitions, short-time structures) - Multiple scattering centers PSI: estimation of double or multiple scattering centers per resolution cell in urban sites. - Non-Linear PSI: estimation of non-linear trends (seasonal polynomial and non-parametric) in target displacement. - Quasi-PSI: estimation of ground average deformation and ground elevation in areas where no PS targets can be detected. - Unwrapped-PSI: time series analysis of unwrapped interferograms. - Multi-Sensor analysis: combination (coherent or un-coherent) of data acquired by different sensors, with different characteristics (frequency, polarization) under different geometries - DEM processing based on InSAR/Multi-Temporal InSAR results for DTM and/or DSM extraction - Change detection exploiting pairs of images. - Time Series Change detection exploiting image time			

Series.  
 - Image classification based on results of previous modules

II. Data Visualization Features  
 Includes at least the following features:  
 1. Histograms generation with any of the data/results for any selection of pixels.  
 2. Plots generation in 2D, 3D, with colors or densities with any of the data/results for any selection of pixels.  
 3. Images generation with any of the data/results processed.

III. Data Export Features  
 Support for at least the following features:  
 1. Geocoded raster images in different formats.  
 2. Geocoded point-information, in 2D or 3D, with detailed information for each point (for GIS or Google Earth).  
 3. Hierarchical kmz files for a very efficient visualization in Google Earth.

IV. Small Area Analysis  
 Support for at least the following features:  
 1. Support for test processing  
 2. Browsing of final results on georeferenced optical layers, with possibility of displaying in colors any processing results and selecting point targets for characteristics listing and time series plotting.

V. Supported Sensors  
 Includes at least the following:  
 - ERS-1 and ERS-2 (CEOS and Envisat format)  
 - Envisat (stripmap, scansar)  
 - Sentinel-1 stripmap and IW (TOPS)  
 - Cosmo SkyMed (1,2,3,4) (stripmap, spotlight)  
 - TerraSAR-X (stripmap, spotlight, scansar, staring spotlight)  
 - Tandem-X  
 - Tandem-X bistatic pairs  
 - RadarSAT 1 and 2  
 - ALOS (ERSDAC and JAXA formats)  
 - ALOS-2  
 - Kompsat-5  
 - Gaofen-3  
 - Other sensors may be accommodated upon request and upon provision of necessary data

VI. Training  
 - Includes at least 5 days training on software usage and applications development  
 - Training shall be conducted at DOST-ASTI for at least 10 pax, unless agreed upon otherwise  
 - Supplier shall shoulder all necessary costs related to the training, including, but not limited to, the following: training documentation, meals, etc.

VII. Compatibility  
 - Must be compatible with latest Windows and Linux operating systems

VIII. Payment  
 - 90% to be paid upon successful acceptance of software licenses  
 - 10% to be paid upon completion of training  
 - all payments are subject to the usual government fees, taxes, and duties

Notes:  
 - at least 1 year support for maintenance updates, troubleshooting, and bug fixes  
 - Supplier must present an equivalent authorized reseller/distributor certificate  
 - Lowest calculated bidder must provide a technical demo/presentation prior to awarding  
 - Delivery: Licenses must be delivered within 30 days upon receipt of NTP, training to be scheduled within 6 mos. of delivery of licenses

**TOTAL: ₱10,450,000.00**

<b>(Total Amount in Words)</b>	<b>Ten Million Four Hundred Fifty Thousand Pesos</b>
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The contract price is inclusive of taxes and other fees or charges. In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered item/s. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, DOST-ASTI may rescind or terminate the contract, without prejudice to other courses of action and remedies available under the circumstances and in accordance with the provisions of the latest implementing rules and regulations of RA 9184.

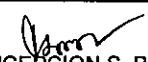
Conforme:

Very Truly Yours,

\_\_\_\_\_  
(Signature over Printed Name of Supplier)

  
/JOEL JOSEPH S. MARCIANO, JR., Ph.D.  
Acting Director

\_\_\_\_\_  
(Date)

<b>Fund Cluster:</b> <u>07</u>	<b>ORS / BURS No.:</b> <u>073086012019 - 04 - 000109</u>
<b>Funds Available:</b> <u>₱ 10,450,000.00</u>	<b>ORS / BURS Date:</b> <u>APRIL 5, 2019</u>
	<b>Amount:</b> <u>₱ 10,450,000.00</u>
 GAY CONCEPCION S. BUGAGAO Accountant III	



04 April 2019

**NOTICE TO PROCEED**  
**PUBLIC BIDDING**

**Ms. JOSEPHINE A. MINERVA**  
 President  
**Geo-Surveys & Mapping, Inc.**  
 3/F Topy's Place Commercial Building  
 Industria cor. Economia Streets  
 Bagumbayan, Quezon City

Dear Ms. Minerva,

Notice is hereby given to **Geo-Surveys & Mapping, Inc.** that work/delivery may proceed for the following procurement details:

	Contract Name	: <u>Supply and Delivery of SAR Processing Software</u>
	Purchase Request No.	: <u>GAA-19-01-7165</u>
	Purchase / Work Order No.	: <u>SAR-AIS-19-04-0006</u>
	Total Contract Price	: <u>Php 10,450,000.00</u>
(inclusive of taxes, import duties and all other charges or fees)	Total Contract Price in Words	: <u>Ten Million Four Hundred Fifty Thousand Pesos</u>

Upon signing receipt of this Notice, you are responsible for performing the services under the terms and conditions of the Agreement/Purchase Order/Work Order and in accordance with the schedule of requirements/delivery schedule.

You are also hereby required to file a Warranty Security for a minimum period of three (3) months, in the case of Expendable Supplies, or a minimum period of one (1) year, in the case of Non-Expendable Supplies, after acceptance by the Procuring Entity of the delivered supplies. It shall be either retention money in an amount equivalent to at least N/A percent (N/A%) of every progress payment, or a special bank guarantee equivalent to at least N/A percent (N/A%) of the total contract price. The said amounts shall only be released after the lapse of the warranty period or, in the case of Expendable Supplies, after consumption thereof: Provided, however, That the supplies delivered are free from patent and latent defects and all the conditions imposed under the contract have been fully met.

Note that failure to comply with the above requirements and failure to perform the services under the terms and conditions of the Agreement/Purchase Order/Work Order may constitute grounds for its forfeiture.

Please acknowledge receipt and acceptance of this Notice by signing in the space provided below. There are two (2) copies of this document; you may keep one copy and return the other to the Bids and Awards Committee (BAC) Secretariat of the Advanced Science and Technology Institute. Should you have any questions or clarifications, you may reach us at bac-sec@asti.dost.gov.ph.

Respectfully,

**JOEL JOSEPH S. MARCIANO, JR., Ph.D.**  
 Acting Director

**DATE OF ISSUANCE:**

**RECEIVED BY:**

**WARRANTY SECURITY**

\_\_\_\_\_  
 (Signature over Printed Name)  
 \_\_\_\_\_  
 Date and Time

Type of Warranty Security: N/A  
 Amount of Warranty Security: Php  
 O.R. No.: \_\_\_\_\_