



THE COMMONWEALTH OF THE BAHAMAS

**GEOMATICS CAPACITY ENHANCEMENT
FOR
DISASTER RISK MANAGEMENT PROJECT**

REQUEST FOR EXPRESSION OF INTEREST

**COMPONENT 2: INDEPENDENT CONSULTANCY SERVICES FOR QUALITY
ASSURANCE/QUALITY CONTROL REVIEW OF PROJECT COMPONENT 1
DELIVERABLES: HIGH RESOLUTION AERIAL PHOTOGRAPHY, ORTHO
IMAGERY RECTIFICATION, TOPOGRAPHIC MAPPING AND DIGITAL
TERRAIN MODEL**

SEPTEMBER 7th, 2018

THE BAHAMAS NATIONAL GIS CENTRE

GOVERNING LEGISLATION

The Bahamas Spatial Data Infrastructure (BSDI) Act No.9 of 2014

An act to establish The Bahamas National Geographic Information Systems (BNGIS) Centre as a department of Government within article 127(c) of the constitution; to define its special purposes and functions of the Department; to establish The Bahamas Spatial Data Infrastructure System & Program and the Geospatial Advisory Council; to define the functions and objectives of the Program and the Council and for connected matters.

VISION

To create a robust Spatial Data Infrastructure Program that delivers a national framework for systematic access, maintenance and exchange of accurate, reliable and consistent Geospatial data to enable analysis and understanding of our environment on demand.

MANDATE

To serve as the Governments technical focal point for Geographic Information Systems and central repository for the collection, analysis and management of geospatial data on The Bahamas; to provide GIS training and technical support. It is also the remit of the Centre, in collaboration with the Geospatial Advisory Council, to develop GIS policy standards and procedures.

MISSION STATEMENT

To Promote Educate, Coordinate and Advance the Practical and Efficient use of Geospatial Technologies in The Bahamas

MOTTO

Geospatial Technologies a window to our future connecting people in and around The Bahamas

Bahamas Spatial Data Infrastructure (BSDI) SYSTEM and PROGRAM Guiding Principles:

- Best available non-confidential spatial information: BSDI Library data is as complete and thorough as current resource assignments or source data custodians and information will allow;
- Accurate and reliable: BSDI Library data will have met standards for data creation;
- Cooperative: BSDI will facilitate the cooperation and interoperability of participating governmental agencies and other groups;
- Self-organizing: BSDI will enable levels of participating governmental agencies and other organizations to contribute geospatial information, metadata, services and applications without the requirement for centralized administration, access and warehousing. Governmental agencies and other organizations are responsible for their own content;
- Sustainable: The BSDI will ensure its long-term sustainability through its relevance to the needs of the participating governmental agencies and users;
- Timely: BSDI and the GAC will define and recommend technologies and services that will support real-time and/or timely response in support of distributed access to information and location-based services;
- Ownership and accountability: Creators/providers will facilitate clear understanding and use of geospatial data, provide metadata, inclusive of ownership and technical specifications. Data creators are accountable for the compliance to the specifications of data sets made available for consumption and use;
- Transparency: National geospatial information organizations are to be transparent about the references of sources and processes that are used to create and provide official geospatial data.
- Respect and confidentiality: Exhibit high levels of regard and consideration to stakeholders in the execution of daily operations. Particular care will be instituted to protect the confidentiality of geospatial information that may bring harm to an individual, community and/or nations.
- Standards of service: Employ geospatial information management best practices and solutions, in addition to excellence in the delivery of geospatial data and services.
- Adherence to the Rule of Law: Work within the confines of BSDI Legislation, national/international laws and conventions, and promote awareness of those laws (specifically BSDI Act 2014) as it relates to stakeholder operation

GOVERNMENT OF THE COMMONWEALTH OF THE BAHAMAS

GEOMATICS CAPACITY ENHANCEMENT FOR DISASTER RISK MANAGEMENT PROJECT
INDEPENDENT QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) REVIEW OF COMPONENT 1: HIGH RESOLUTION
AERIAL PHOTOGRAPHY, ORTHO IMAGERY RECTIFICATION, TOPOGRAPHIC MAPPING AND DIGITAL TERRAIN MODEL

REQUEST FOR EXPRESSIONS OF INTEREST (EOI)

The Government of the Commonwealth of The Bahamas (GOBH) is seeking to implement the GEOMATICS CAPACITY ENHANCEMENT FOR DISASTER RISK MANAGEMENT Project. Component 2 of the Project comprises services to review all deliverables of Project Component 1: High Resolution Aerial Photography, Ortho-Imagery Rectification, Topographic Mapping and Digital Terrain Model and other technical requirements stated in the scope of services.

The Project executing agency, The Bahamas National Geographic Information Systems (BNGIS) Centre, Ministry of The Environment and Housing, now wishes to procure consultancy services for Quality Assurance/Quality Control (QA/QC) on Component 1 deliverables and other products (See Annex 1, 2 and 3) for selected project Islands and surrounding Cays including New Providence, Eleuthera, Exuma, Long Island, Cat Island, and Bimini.

The objective of the QA/QC consultancy is to ensure accuracy of all products acquired by the Project Component 1 concerned with Aerial Photography, Ortho-Imagery Rectification, Topographic Mapping and Digital Terrain Models (DTMs) and other products (see Annex 1 & 2). In the conduct of this work, the consultant(s) shall cooperate fully with The Bahamas National Geographic Information Systems (BNGIS) Centre and key stakeholders including GOBH agencies involved in the implementation of the Project.

The services will include all activities necessary to accomplish the stated objective, including the following:

- a) Technical review and quality control testing of expected deliverables received from the Aerial Photography, Ortho Imagery rectification, Topographic Mapping, DTM including associated tabular data and metadata etc. for all project Islands and surrounding Cays (see Annex 1);
- b) Additional advice and recommendations to The Bahamas National Geographic Information Systems (BNGIS) Centre in relation to the products resulting from the Aerial Photography, Ortho-Imagery, Topographic Mapping and Digital Terrain Model etc.;
- c) Assistance in preparing correspondence and technical comments to the Aerial Photography, Ortho-Imagery, Topographic Mapping and DTM contractor as required in relation to the quality control of the contract, identifying and addressing anomalies/errors;
- d) Review and report on the Contractors work and all other deliverables (see Annex 2) including but not limited to Data Acquisition Plan for remaining Islands; GIS Road Centre line/street coverage with address range attributes for the Island of New Providence.

The Firm/individual specialist will include professional(s) with a Masters Degree with ten (10) years' experience in Photogrammetry, Survey and Mapping, GIS/Geomatics, Digital Mapping, Cartography, Geography or any related discipline relevant to the assignment. Or a Bachelor's Degree with at least

fifteen (15) years professional work experience in photogrammetry and digital mapping with specific experience in the quality control of aerial photography and digital vector map data for GIS. The consultant must have access to facilities and equipment to view photo prints and interrogate digital topographic map data and DTM in GIS format and Geodetic Networks.

The Consultancy is expected to be conducted over a period of approximately one year (12 months).

PROCUREMENT STRATEGY:

The procurement will have two stages. In **Stage One**, respondents will provide their responses to the EOI (This document) in accordance with the requirements stipulated in the EOI. An evaluation will be undertaken of the responses received and a short-list will be prepared of those Firms invited to proceed to the next Stage. In **Stage Two**, the short-listed Firms will receive the request for proposal (RFP) and be invited to provide proposals. The Firm that best meets the scope of work, schedule, cost and quality objectives will then be selected for contract negotiation.

Interested, eligible consulting firms are required to submit Expressions of Interest in the following submission format indicating technical competence, qualifications and experience required to provide these consultancy services. Additionally, in the assessment of submissions, local and regional experience on similar assignments, financial capability and existing commitments will be considered. All information must be submitted in English.

EOI SUBMISSION FORMAT:

- a. Expression of Interest Cover Letter;
- b. Table of Contents
 - c. General Company/Firm Information;
 - d. Description of Organization;
 - e. Relevant qualifications and Experience;
 - f. Examples of Contracts of Similar Nature and Complexity;
 - g. Current Contracts and Commitments;
 - h. List Key Personnel Assigned to the Project, Title, Role and Responsibility; and
 - i. Resume/CV for each Key Personnel Assigned To the Project and describing education, relevant professional development over the last 10 (ten) years, number of years of relevant experience field of competency, and a listing of relevant previous experience in the last 10 years, work experience in similar projects in The Bahamas, the Caribbean Region and any other locality.
 - j. Experience in The Bahamas, Caribbean Region, Globally; (Firms should include summary descriptions of assignments carried out in The Bahamas, Caribbean Region, Globally); and
 - k. Willingness to engage BNGIS Centre's technical staff in the QA/QC process for the purpose of building local capacity.

Firms may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications. For the purpose of establishing the short list, the nationality of a firm is that of the country in which it is legally incorporated or constituted and in the case of Joint Venture, the nationality of the firm appointed to represent it.

Any questions may be forwarded via email to Project Coordinator, BNGIS Centre email: projectcoord@bahamas.gov.bs by no later than [Friday 28th, September at 5.00pm. Subject Line must be

“EOI –The Geomatics Capacity Enhancement for Disaster Risk Management Project-QA/QC.” Responses to questions will be provided by Friday 5th, October.

Three hard copies of the Expressions of Interest must be received at the first address below no later than 3:00pm on Friday, 12th, October. Each submission must include a compact disc, flash drive or other media containing an electronic copy of the submission as a single PDF file and word format. The sealed envelope containing each submission should include the name and address of the applicant and shall be clearly marked “Expression of Interest – Consultancy Services – “EOI –The Geomatics Capacity Enhancement for Disaster Risk Management Project.”

PRICES SHOULD NOT BE SUBMITTED WITH THE EOI.

DISQUALIFICATION

An applicant may be disqualified on the following basis:

- Failure to provide information that is essential to evaluate the applicant’s Qualifications
- Submission of inaccurate and or misleading information
- Submission of incomplete information with respect to this Application Forms.

EVALUATION OF EXPRESSION OF INTEREST

An **Evaluation/Assessment Committee** composed of members of the Government of The Bahamas will assess the Expressions of Interest and determine a short-list of not less than three and not more than six Firms who will be provided with the full terms of reference for the Independent Quality Assurance / Quality Control (Qa/Qc) Review Of Component 1: High Resolution Aerial Photography, Ortho Imagery Rectification, Topographic Mapping And Digital Terrain Model and invited to submit technical and financial proposals for further evaluation.

GOBH reserves the right to accept or reject late applications or to cancel the present invitation partially or in its entirety. GOBH will not be bound to assign any reason for not engaging the services of any applicant and will not defray any costs incurred by any applicant in the preparation and submission of Expressions of Interest.

All Responses must be received no later than 3:00 pm on Friday 12th, October, 2018, and addressed to:

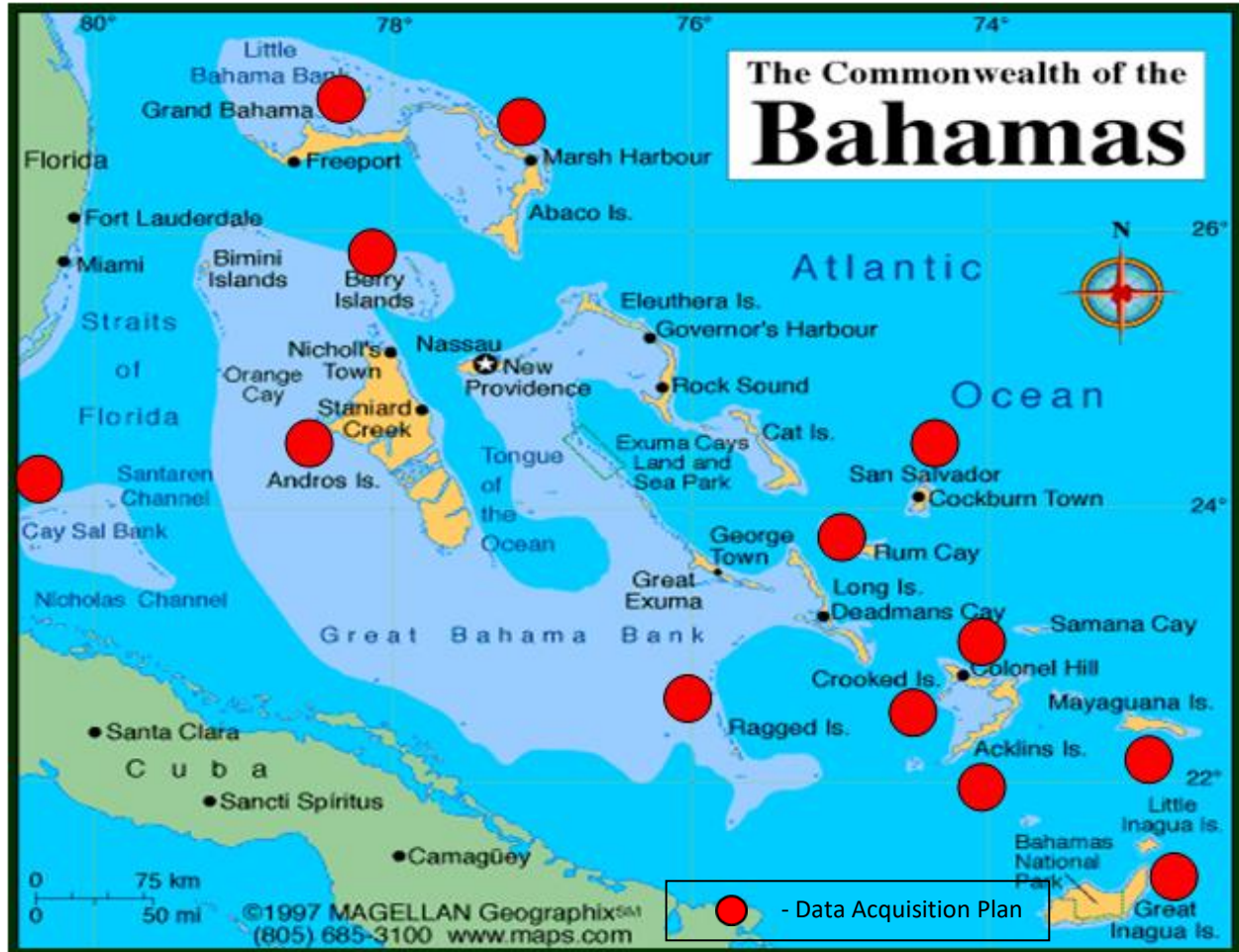
Chairman, The Tender Board
c/o Acting Financial Secretary
Ministry of Finance
Cecil Wallace Whitefield Centre
P. O. Box N-3107
Nassau, N.P., The Bahamas

ANNEX 1: PROJECT ISLANDS – AERIAL PHOTOGRAPHY ORTHO- IMAGERY RECTIFICATION, TOPOGRAPHIC MAPPING AND DIGITAL TERRAIN MODEL ETC.



Ref #	Island Name	Geographic Coordinate
1	Cat Island	2423N07530W
2	Eleuthera	2510N07614W
3	Long Island	2315N07504W
4	New Providence	2505N07733W
5	Bimini	2542N07915W
6	Exuma	2330N07545W

ANNEX 2: ANNEX: ISLANDS TO BE INCLUDED IN THE DATA ACQUISITION PLAN



Ref #	Island Name	Geographic Coordinate
1	Grand Bahama	2638N07825W
2	Abaco	2628N07705W
3	Conception Island	
4	Moorre's Island	2618N07733W
5	Berry Islands	2534N07745W
6	Andros	2426N07757W
7	Cay Sal	
8	Semana Cay	
9	San Salvador	2402N07430W
10	Rum Cay	2340N07453W
11	Mayaguana	2223N07257W
12	Crooked Island & Long Cay	2245N07413W
13	Acklins	2226N07400W
14	Ragged Island	2211N07543W
15	Little Inagua	
16	Great Inagua	2105N07318W
17	Cat Cay	

ANNEX 3: COMPONENT 1 SCOPE OF WORK TO BE QA/QC - AERIAL PHOTOGRAPHY, ORTHO-IMAGERY, RECTIFICATION, TOPOGRAPHIC MAPPING AND DIGITAL TERRAIN MODEL (Products to be QA/QC)

- a) Acquiring High Resolution Aerial Photography, Ortho-imagery Rectification, Topographic Mapping at 1: 1,200 and 1:5,000 scale and Digital Terrain Model extending seaward 3 nautical miles of the coast/seashore for the Islands of New Providence, Long Island, Cat Island, Eleuthera, Bimini and Exuma and their surrounding Cays;
- b) Producing Aerial Photography at a) 0.5cm resolution for the New Providence; and Aerial Photographs at 20cm resolution for all other Project Islands;
- c) Producing ortho-photography/aerial photography (imagery grid tiles in both 1000m x 1000m and 5000m x 5000m grid tiles) for project Islands and their surrounding cays;
- d) Producing Digital Terrain Model(DTM) with 1 ft, 2 ft and 10 ft contour intervals (to be finalised through consultation with GOBH stakeholders);
- e) Developing and documenting parameters to transform survey coordinates from North American Datum of 1927 (NAD27) to International Terrestrial Reference Framework (ITRF) and /or WGS84 for the project Islands and surrounding cays;
- (f) Reporting and providing all raw data collected in formats that can be used in common digital databases and/or Geographic Information Systems (GIS) with associated metadata;
- (h) Providing Data Acquisition Plan for the remaining Islands of The Commonwealth of The Bahamas including flight plans and projected cost estimates by island (based on same specifications indicated in this EOI ie. Aerial Photography, Ortho-Imagery rectification, Topographic Mapping and Digital Terrain Model Data Acquisition Plan); and
- (i) Creating GIS Road Centre line/street coverage with address range attributes for the Island of New Providence with standards and guidelines that may be replicated on other Islands;

The Consultancy will also include the production of a series of Project Reports including but not limited to Inception, monthly progress report and Final Report.