

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Réception des soumissions - TPSGC / Bid
Receiving - PWGSC
1550 Avenue d'Estimauville
1550 D'Estimauville Avenue
Québec
Québec
G1J 0C7

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Title - Sujet INERTIAL MEASUREMENT UNIT	
Solicitation No. - N° de l'invitation W7701-166100/A	Date 2015-10-13
Client Reference No. - N° de référence du client W7701-166100	
GETS Reference No. - N° de référence de SEAG PW-\$QCW-026-16569	
File No. - N° de dossier QCW-5-38140 (026)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-11-23	Time Zone Fuseau horaire Heure Normale du l'Est HNE
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Perron, Jonathan	Buyer Id - Id de l'acheteur qcw026
Telephone No. - N° de téléphone (418) 649-2838 ()	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: RDDC-R ET D DÉFENSE CANADA-VALCARTIER DRDC-DEFENCE R & D CANADA-VALCARTIE BATISSE 53 2459 ROUTE DE LA BRAVOURE QUEBEC Québec G3J1X5 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Delivery Required - Livraison exigée VOIR DOC	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Issuing Office - Bureau de distribution

TPSGC - PWGSC
601 - 1550 Avenue d'Estimauville
Québec
Québec
G1J 0C7

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QCW-5-38140

CCC No./N° CCC - FMS No/ N° VME

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TITLE: INERTIAL MEASUREMENT UNIT AND GPS RECEIVER

PART 1 - GENERAL INFORMATION

1.1 Requirement

Defence Research and Development Canada - Valcartier (DRDC) has a requirement for the supply and delivery of one (1) inertial measurement unit and one (1) GPS Receiver (Global Positioning System) including its components, commercially available, in accordance with the specifications on **Annex A – Requirement**.

1.2 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.3 Trade Agreements

The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), and the Agreement on Internal Trade (AIT).

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003 \(03-07-2015\)](#) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.1.1 SACC Manual Clauses

[Condition of Material - Bid \(2014-06-26\) B1000T](#)
[Electrical Equipment \(2006-06-16\) B1501C](#)

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

You can also submit your bid by facsimile at (1) 418-648-2209, by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority: jonathan.perron@tpsgc-pwgsc.gc.ca **no later than seven (7) calendar days** before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (2 hard copies)

Section II: Financial Bid (1 hard copy)

Section III: Certifications (1 hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, bidders must explain and demonstrate how they propose to meet the requirements detailed at **Annex A - Requirement**. Bidders should fill out the **Annex C - Table of mandatory technical evaluation criteria**.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment at **Annex B- Basis of Payment**. The total amount of Applicable Taxes must be shown separately.

3.1.1 Exchange Rate Fluctuation

[C3011T \(06-11-2013\)](#), Exchange Rate Fluctuation.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

Each bid will be reviewed to determine whether it meets the mandatory requirements of the bid solicitation. Any element of the bid solicitation identified with the words “must” or “mandatory” is a mandatory requirement. Bids that do not comply with each and every mandatory requirement will be declared non-responsive and be disqualified.

4.1.1.1 Mandatory Technical Criteria

- a) The bidder must include with its proposal the datasheets of the products offered.
- b) **Although the bidders must proposed products that meet all the specifications described in the Annex A**, at the closure date, bids will be evaluated on the following technical requirements at **Annex C - Table of mandatory technical evaluation criteria**.

IMPORTANT: The bidder should indicate, for each mandatory criteria, whether the proposed equipment complies or not by checking the relevant box. **The bidder must clearly demonstrate how the proposed equipment complies to each mandatory technical criteria. Simply stating that the criteria are met is not sufficient.** Where it is necessary to refer to other documentation that is included in the proposal, bidders should include the precise location of the reference material including the title of the document, and the page and paragraph numbers. It is the bidder's responsibility to provide enough details to permit a complete evaluation.

4.1.2 Financial Evaluation

SACC Manual Clause [A0222T \(26-06-2014\)](#), Evaluation of Price. The bidder must fill out and include with its proposal the **Annex B - Basis of Payment**.

4.2 Basis of Selection

A bid must comply with the requirements of the bid solicitation including the **Annex A - Requirement** and meet all mandatory technical evaluation criteria of the **Annex C** to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid, but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

5.1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions [2003](#). The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](#)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

6.1.1 There is no security requirement applicable to this Contract.

6.2 Requirement

The Contractor must provide the items detailed under the "Requirement" at **Annex "A"**.

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010A \(03-09-2015\)](#), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Period of the Contract

The period of the contract is the contract award date until the date of acceptance of deliverables by Canada.

6.4.2 Delivery Date and Location

All the deliverables must be received no later than **10 weeks after contract award**.

Delivery Location:

Defence Research and Development Canada – Valcartier research centre
Building 53
2459 de la Bravoure road
Quebec City, Quebec
G3J 1X5 Canada

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Jonathan Perron

Title: Supply Specialist

Public Works and Government Services Canada

Acquisitions Branch

Address: 1550, av d'Estimauville

Quebec, Quebec, G1J 0C7

Telephone: 418-649-2838

Facsimile: 418-648-2209

E-mail address: jonathan.perron@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform

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work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Technical Authority

The Technical Authority for the Contract is:

(Will be completed by Canada at the time of award)

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative

General enquiries:

Name: _____

Title: _____

Address: _____

Telephone: _____

Facsimile: _____

E-mail address: _____

Delivery follow-up:

Name: _____

Title: _____

Address: _____

Telephone: _____

Facsimile: _____

E-mail address: _____

6.6 Payment

6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price, as specified at **Annex B** for a cost of \$ _____ (*insert the amount at contract award*). FOB Destination, Customs duties are included and Applicable Taxes are extra.

6.6.2 Single Payment

SACC Manual clause [H1000C \(2008-05-12\)](#) Single Payment

6.7 Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

6.8 Certifications

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) 2010A (03-09-2015), General Conditions - Goods (Medium Complexity)
- (c) Annex A, Statement of Requirement;
- (d) Annex B, Basis of Payment
- (e) the Contractor's bid dated _____ (*insert date of bid*)

6.11 SACC Manual Clauses

Excess Goods (2006-06-16) B7500C

Insurance (2008-05-12) G1005C

ANNEX "A" – REQUIREMENT

1. TITLE: INERTIAL MEASUREMENT UNIT AND GPS RECEIVER

2. CONTEXT :

This statement is related to the work conducted to modernize and upgrade the Airborne Imaging Spectrometer AIRIS. This modernization of AIRIS is required to use this instrument in support of R & D programs for the development of new hyperspectral sensors as specified in project charter 03bb "Air integrated EO / IR sensing project charter".

The modernization of AIRIS require the repair of the control loop of the scanning telescope in AIRIS. The main hardware component of this control loop is an inertial measurement unit coupled to a GPS receiver which provides the control loop software with the position and orientation of the platform on which AIRIS is mounted.

3. ACRONYMS:

AIRIS	Airborne infrared imaging spectrometer
TA	Task Authorization
EO/IR	electro-optics and infrared
GPS	Global Positioning System
Hz	Hertz
IR	Infrared
MEMS	Micro-electromechanical system
R&D	Research and development
RF	radio-frequency

4. REQUIREMENTS AND DELIVERABLES:

4.1 Inertial Measurement Unit and GPS receiver

Quantity required: One (1) Inertial Measurement Unit and one (1) GPS Receiver

Note: The GPS receiver and the inertial measurement unit must be delivered **as two independant units** (i.e. not integrated in the same casing).

The Contractor must provide the items with the following specifications:

Description:	Specifications - Minimal mandatory technical requirements. The equipments must meet all the requirements and the technical specifications described below:
Inertial measurement unit	
Gyroscope technology in the inertial measurement unit	Fiber optic gyroscopes
Accelerometer technology in the inertial measurement unit	Micro-electromechanical systems (MEMS)
Measurement frequency of inertial measurement unit	200 Hz or higher
Accuracy of roll angle measurements in the inertial measurement unit	0.015 degrees or smaller
Accuracy of pitch angle measurements in the inertial measurement unit	0.015 degrees or smaller
Accuracy of heading measurements in the inertial measurement unit	0.035 degrees or smaller
GPS receiver	
Measurement frequency of GPS receiver	20 Hz or higher
Frequency of positions in GPS receiver	20 Hz or higher
Antenna connectors in GPS receiver	2

4.2 Accessories

The contractor must provide the following accessories for item 4.1:

Description	Quantité requise
GPS receiver antenna compatible with receiver	1
RF cable to connect antenna to GPS receiver. Length 5 meters.	1

5. DELIVERY DATE:

All the deliverables must be received no later than **10 weeks after contract award**.

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6. LANGUAGE OF WORK

English or French

7. DELIVERY ADDRESS

Defence Research and Development Canada – Valcartier research centre
Building 53
2459 de la Bravoure road
Quebec City, Quebec
G3J 1X5 Canada

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ANNEX "B" - BASIS OF PAYMENT

** For Evaluation*

Item	Description	Quantity	Unit Price (CAD)	Extended Price(CAD)
1	Must deliver one (1) Inertial Measurement Unit in accordance with the detailed technical specifications on point 4.1 at Annex A	1	\$	\$
2	Must deliver one (1) GPS Receiver in accordance with the detailed technical specifications on point 4.1 at Annex A	1	\$	\$
3	Must deliver a GPS receiver antenna compatible with receiver.	1	\$	\$
4	RF cable to connect antenna to GPS receiver. Length: 5 meters.	1	\$	\$
5	DDP (DRDC, Quebec), including all custom duties, handling and delivery.	1	\$	\$
*TOTAL(CAD) (excluding applicable taxes)				\$

ANNEX "C" - MANDATORY TECHNICAL REQUIREMENTS EVALUATION TABLE

The bidder must include with its proposal the datasheets of the products offered.

Although the bidders must proposed products that meet all the specifications described in the Annex A, at the closure date, bids will be evaluated on the following technical requirements at Annex C - Table of mandatory technical evaluation criteria.

IMPORTANT: The bidder should indicate, for each mandatory criteria, whether the proposed equipment complies or not by checking the relevant box. **The bidder must clearly demonstrate how the proposed equipment complies to each mandatory technical criteria. Simply stating that the criteria are met is not sufficient.** Where it is necessary to refer to other documentation that is included in the proposal, bidders should include the precise location of the reference material including the title of the document, and the page and paragraph numbers. It is the bidder's responsibility to provide enough details to permit a complete evaluation.

	Mandatory Technical Criteria The equipments <u>must</u> be "compliant" with all the technical specifications described below:	Compliant	Non-Compliant	Reference
CO1	Inertial measurements unit coupled to a GPS receiver			
CO2	Measurements frequency of IMU : 200 Hz or higher			
CO3	Accuracy of roll angle measurements of IMU: 0.015 degrees or smaller			
CO4	Accuracy of pitch angle measurements of IMU: 0.015 degrees or smaller			
CO5	Accuracy of heading angle measurements of IMU : 0.035 degrees or smaller			
CO6	Fiber optics gyroscope technology in IMU			
CO7	Measurements frequency of GPS receiver : 20 Hz or higher			
CO8	Position frequency of GPS receiver : 20 Hz or higher			
CO9	GPS receiver with dual antenna inputs			