



**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving Public Works and Government**  
**Services Canada/Réception des soumissions**  
**Travaux publics et Services gouvernementaux**  
**Canada**  
**1713 Bedford Row**  
**Halifax, N.S./Halifax, (N.É.)**  
**B3J 1T3**  
**Bid Fax: (902) 496-5016**

## 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**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Atlantic Region Acquisitions/Région de l'Atlantique  
Acquisitions  
1713 Bedford Row  
Halifax, N.S./Halifax, (N.É.)  
B3J 3C9  
Nova Scot

<b>Title - Sujet</b> Microwave Vector Network Analyzer	
<b>Solicitation No. - N° de l'invitation</b> W7707-165850/A	<b>Date</b> 2015-12-07
<b>Client Reference No. - N° de référence du client</b> W7707-165850	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$HAL-403-9696	
<b>File No. - N° de dossier</b> HAL-5-75196 (403)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2015-12-22</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Atlantic Standard Time AST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Brow, Theresa	<b>Buyer Id - Id de l'acheteur</b> hal403
<b>Telephone No. - N° de téléphone</b> (902) 496-5166 ( )	<b>FAX No. - N° de FAX</b> (902) 496-5016
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE DRDC PACIFIC DOCKYARD LAB BUILDING 199D DOCKYARD CFB ESQUIMALT 1546 ESQUIMALT ROAD VICTORIA BC V9A 7N2 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

There is no security requirement attached to this document.

### **1.2 Requirement**

**To provide one Handheld Microwave Vector Network Analyzer as detailed in Annex A attached.**

### **1.3 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.

## **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>) 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 (2015-09-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 3 of Section 01 Integrity Provisions - Bid of the Standard Instructions 2003 incorporated by reference above is deleted in its entirety and replaced with the following:

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.

### **2.2 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) 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.

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## 2.5 Applicable Laws

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

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 (one hard copies)

Section II: Certifications (one hard copies)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft 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>). 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 II: Financial Bid

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

#### Section II: Certifications

Bidders must submit the certifications required under Part 5.

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## **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 and Defence Research Establishment Atlantic will evaluate the bids.

### **4.2 Basis of Selection**

A bid must comply in accordance with the entire requirement of the bid solicitation to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional 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 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 will render the bid non-responsive or constitute a default under the Contract.

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **Declaration of Convicted Offences**

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed Declaration Form (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information 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 provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

### 5.2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

### 5.2.2 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](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

There is no security requirement applicable to this Contract.

### 6.2 Requirement

**To provide a Handheld Microwave Vector Network Analyzer as detailed in 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>) issued by Public Works and Government Services Canada.

#### 6.3.1 General Conditions

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

### 6.4 Term of Contract

#### 6.4.1 Delivery Date

All the deliverables must be received on or before March 31, 2016.

## **6.5 Authorities**

### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Theresa Brow, Supply Specialist  
Public Services and Procurement Canada  
Acquisitions Branch  
Nova Scotia Region  
1713 Bedford Row,  
Halifax, NS B3J 3C9

Telephone: (902) 496-5166  
Facsimile: (902) 496-5016  
E-mail address: Theresa.Brow@pwgsc-tpsgc.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 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:

Mr. Paul Saville,  
DS/Dockyard Laboratory Pacific  
Defence Research and Development Canada – Atlantic Research Centre  
Building 199D, Dockyard, CFB Esquimalt  
1546 Esquimalt Road, Victoria, BC

Telephone : (250) 363-2892  
Facsimile: (250) 363-2856  
E-mail address: Paul.Saville@drdc-rddc.gc.ca

The Technical Authority is the representative of the department or agency for whom the goods are being purchased under the Contract and is responsible for all matters concerning the technical content of the goods under the Contract. Technical matters may be discussed with the Authority, however the Technical 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**

Name:  
Title  
Address  
Phone:  
Fax:  
Email address

## **6.7 Payment**

### 6.7.1 Basis of Payment

The contractor will be paid in accordance with the prices as quoted.

### 6.8 Invoicing Instructions

1. 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.
2. Invoices must be distributed as follows:
  - a. One copy to be made out and forward to:  
Department of National Defence  
DREA, P O Box 1012,  
Dartmouth, NS B2Y 3Z7 Attn: C. Boyd
  - b. One copy must be forwarded to the Contracting Authority as indicated in Section 6.5.1

### 6.9. Certifications

#### Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation 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.

### 6.10 Applicable Laws

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

### 6.11. 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) the general conditions **2010A** ( 2015-09-03) General Conditions - Goods (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated \_\_\_\_\_

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## ANNEX "A"

### REQUIREMENT AND PRICING

#### MICROWAVE VECTOR NETWORK ANALYZER

- The Contractor must provide One (1) handheld microwave vector network analyzer that meets the following specifications:

Cost: \$ \_\_\_\_\_

Specifications	Value
Dynamic range	Greater than or equal to 85 decibels across frequency range
Frequency range	Minimum 1 GHz, Maximum 18 GHz
Frequency resolution	Less than or equal to 100 hertz
Frequency accuracy	Plus or minus 1.5 parts per million
IF bandwidth	User defined at pre-set values between 10 hertz and 100 kilohertz
Frequency sweep	Linear frequency sweep from user defined start and stop frequencies within the frequency range
Measured Scattering (S-) Parameters	S11, S21 and must be upgradable to full S-parameter set S11, S21, S12, S22
Data points	User defined number of measured data points between the frequency sweep limits as 101, 201, 401, 801, 1001, or 4001
Data Files	Save measured data in S2P S-parameter file format, log magnitude and phase. Save data files to internal VNA storage memory, and transfer to an external computer by a Universal serial bus (USB) data cable, and/or an external USB memory stick, and/or secure digital (SD) memory.
Traces	Active measurement data are temporarily stored and displayed in 4 traces.
Display graph types	Display measurement data on the VNA's screen in graphical formats such as Log magnitude, Phase, Smith Chart, Linear Polar, and Log polar.
Trace Math	Calculate and display the free space reflection loss from a microwave absorbing material relative to a metal plate using mathematical functions. Math functions for the addition, subtraction, multiplication and division of traces.
Calibration Methods	Open-Short-Load-Through, waveguide
System Impedance	Nominal 50 ohms
Test Ports	2
Test Port Connectors	Type N female
Time Domain	Ability to convert between frequency domain and time domain data. Ability to gate measurement data.
Power	Lithium ion battery, that is field replaceable, with a typical run time of three hours, and direct current power from a universal 110 Volt 60 hertz alternating current to direct current adapter.
Weight including the battery	Less than or equal to 4.5 kilograms.

Size dimensions	Maximum dimensions of 315 x 215 x 80 millimeters
Warranty	3 Years
Durability/Environment	Meets MIL-PRF-28800F Class 2
Display and operating language	English

### **Accessories**

2. The Contractor must provide the following accessories for requirement :

Description	Required quantity	Cost
Universal 110 Volt alternating current to direct current adapter for charging the battery and operation of the VNA	1	
Rugged phase stable cable, type N male to type N male, minimum length three feet, transmission frequency from direct current to 18 GHz	1	
VNA User Manual in English	1	
USB data cable if applicable for transferring data from the VNA to external computer	1	

### **3. Optional Accessories**

The Contractor may provide quotes for the following optional accessories for requirement which may be taken up at the discretion of the technical authority (TA) and funding permitting:

Description	Required quantity	Cost
Full S-parameter set (S11, S21, S12, S22)	1	
Automated calibration methods/equipment	1	
Replacement lithium ion battery	1	
Four in one Open, Short, Load, Through, Type N male calibration kit to 18 GHz	1	
Hard transit case for VNA	1	

### **DELIVERABLES**

Number	Description of the Deliverables	Quantity and Format	Cost each
1	Handheld Vector Network Analyzer	1	
2	Accessories for Handheld Vector Network Analyzer	1	

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## 7. DATE OF DELIVERY

**Deliverable 6.1:** On or before 2016-03-31.

**Deliverable 6.2:** On or before 2016-03-31.

## DELIVERY LOCATION

Defence Research and Development Canada – Atlantic Research Centre  
Dockyard Laboratory Pacific  
Building 199D, Dockyard, CFB Esquimalt  
1546 Esquimalt Road  
Victoria, British Columbia.  
V9A 7N2  
Canada