



**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

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

Issuing Office - Bureau de distribution  
TPSGC - PWGSC  
601 - 1550 Avenue d'Estimauville  
Québec  
Québec  
G1J 0C7

<b>Title - Sujet</b> Fiber spectrometers	
<b>Solicitation No. - N° de l'invitation</b> W7701-176223/A	<b>Date</b> 2016-07-08
<b>Client Reference No. - N° de référence du client</b> W7701-176223	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$QCW-029-16810	
<b>File No. - N° de dossier</b> QCW-6-39085 (029)	<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 2016-08-22</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Heure Avancée de l'Est HAE
<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> Laliberté Seyer, Arlow	<b>Buyer Id - Id de l'acheteur</b> qcw029
<b>Telephone No. - N° de téléphone</b> (418) 649-2824 ( )	<b>FAX No. - N° de FAX</b> (418) 648-2209
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> RDDC-R et D Défense Canada-Valcartier DRDC-Défence R&D Canada-Valcartier Bâtisse 53 2459, route de la Bravoure QUEBEC Québec G3J1X5 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b> Voir doc.	<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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## TABLE OF CONTENTS

<b>TABLE OF CONTENTS .....</b>	<b>1</b>
<b>PART 1 - GENERAL INFORMATION .....</b>	<b>2</b>
1.1 REQUIREMENT .....	2
1.2 DEBRIEFINGS .....	2
1.3 TRADE AGREEMENTS.....	2
<b>PART 2 - BIDDER INSTRUCTIONS .....</b>	<b>3</b>
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS.....	3
2.2 SUBMISSION OF BIDS .....	3
2.3 ENQUIRIES - BID SOLICITATION .....	3
2.4 APPLICABLE LAWS .....	3
<b>PART 3 - BID PREPARATION INSTRUCTIONS.....</b>	<b>4</b>
3.1 BID PREPARATION INSTRUCTIONS .....	4
<b>PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION.....</b>	<b>5</b>
4.1 EVALUATION PROCEDURES .....	5
4.2 BASIS OF SELECTION .....	5
<b>PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION.....</b>	<b>6</b>
5.1 CERTIFICATIONS REQUIRED WITH THE Bid .....	6
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION .....	6
<b>PART 6 - RESULTING CONTRACT CLAUSES .....</b>	<b>8</b>
6.1 SECURITY REQUIREMENTS .....	8
6.2 REQUIREMENT .....	8
6.3 STANDARD CLAUSES AND CONDITIONS .....	8
6.4 TERM OF CONTRACT.....	8
6.5 AUTHORITIES .....	8
6.6 PAYMENT .....	10
6.7 INVOICING INSTRUCTIONS .....	10
6.8 CERTIFICATIONS .....	10
6.9 APPLICABLE LAWS .....	10
6.10 PRIORITY OF DOCUMENTS .....	10
6.11 SHIPPING INSTRUCTIONS - DELIVERY AT DESTINATION .....	10
6.12 INSPECTION AND ACCEPTANCE.....	11
6.13 SACC MANUAL CLAUSES .....	11
<b>ANNEX A – REQUIREMENT.....</b>	<b>12</b>
1. TITLE .....	12
2. BACKGROUND .....	12
3. ACRONYMS.....	12
4. REQUIREMENTS.....	13
5. DELIVERABLES.....	14
6. DATE OF DELIVERY .....	14
7. LANGUAGE OF WORK .....	14
8. DELIVERY LOCATION .....	14
<b>ANNEX B – BASIS OF PAYMENT .....</b>	<b>15</b>
<b>ANNEX C - MANDATORY TECHNICAL REQUIREMENTS EVALUATION TABLE .....</b>	<b>16</b>

Solicitation No. - N° de l'invitation  
W7701-176223/A  
Client Ref. No. - N° de réf. du client  
W7701-176223

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCW-6-39085

Buyer ID - Id de l'acheteur  
QCW029  
CCC No./N° CCC - FMS No./N° VME

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Requirement**

The requirement is detailed under Article 6.2 of the resulting contract clauses.

### **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>) 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 (2016-04-04) 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

B1000T (2014-06-26) Condition of Material - Bid

### 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 [arlow.laliberteseyer@tpsgc-pwgsc.gc.ca](mailto:arlow.laliberteseyer@tpsgc-pwgsc.gc.ca) no later than 10 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 (1 hard copy)

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 (2013-11-06) 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

##### 4.1.1.1 Mandatory Technical Criteria

a) **The bidder must include with its proposal the datasheets of the products offered.** A “**Datasheet**” is defined as a document, for examples a brochure and/or technical literature and/or drawing and/or a test report. The document **shall** provide detailed information on each performance requirement and/or specification.

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 at annex C. 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.

**Any proposal that does not clearly demonstrate compliance with each of the technical requirements listed in the “Mandatory Technical Criteria” table (Annex C) will be considered non-responsive.**

#### 4.1.2 Financial Evaluation

SACC Manual Clause [A0220T](#) 2014-06-26, Evaluation of Price – Bid

Unless the bid solicitation specifically requires bids to be submitted in Canadian currency, bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.

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.

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## 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.

#### 5.1.1 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) (<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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" 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.

Solicitation No. - N° de l'invitation  
W7701-176223/A  
Client Ref. No. - N° de réf. du client  
W7701-176223

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCW-6-39085

Buyer ID - Id de l'acheteur  
QCW029  
CCC No./N° CCC - FMS No./N° VME

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### **5.2.3 Bidder Certifies that All Equipment is “Off-the-Shelf”**

Any equipment bid to meet this requirement must be “off-the-shelf” (unless otherwise stated in this bid solicitation), meaning that each item of equipment is commercially available and requires no further research or development and is part of an existing product line with a field-proven operational history (that is, it has not simply been tested in a laboratory or experimental environment). If any of the equipment bid is a fully compatible extension of a field-proven product line, it must have been publicly announced on or before the bid closing date. By submitting a bid, the Bidder is certifying that the entire equipment bid is off-the-shelf.



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## 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](#) (2016-04-04) General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

#### 6.3.2 General Conditions

[4001](#) (2015-04-01) Hardware Purchase, Lease and Maintenance, 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 ending date of the warranty, inclusively.

#### 6.4.2 Date of delivery

All the deliverables must be received no later than 12 weeks after contract award.

### 6.5 Authorities

#### 6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Arlow Laliberté Seyer  
Title: Procurement Officer  
Public Works and Government Services Canada  
Acquisitions Branch  
Address: 1550, Avenue d'Estimauville  
Québec, QC G1J 0C7

Telephone: 418-649-2824  
Facsimile: 418-648-2209  
E-mail address: arlow.laliberteseyer@tpsgc-pwgsc.gc.ca

Solicitation No. - N° de l'invitation  
W7701-176223/A  
Client Ref. No. - N° de réf. du client  
W7701-176223

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCW-6-39085

Buyer ID - Id de l'acheteur  
QCW029  
CCC No./N° CCC - FMS No./N° VME

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 Project Authority for the Contract is:

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

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Project 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 Contracting Authority (DRDC)

The Contracting Authority (DRDC) for the Contract is:

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

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

#### 6.5.4 Contractor's Representative

##### General enquiries:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

##### Delivery follow-up:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

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## 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 in in Annex B, for a cost of \$ \_\_\_\_\_ (insert the amount at contract award). Customs duties are included and Applicable Taxes are extra. Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### 6.6.2 Single Payment

[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 additional 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 additional 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 (04-04-2016), General Conditions - Goods (Medium Complexity)
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment
- (e) the Contractor's bid dated \_\_\_\_\_ (*insert date of bid*)

## 6.11 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered Delivered Duty Paid (DDP): DRDC-Defence R & D Canada-Valcartier, Bâtisse 53, 2459, route de la Bravoure, Québec, QC G3J 1X5, Canada, Incoterms 2000 for shipments from a commercial contractor.

Solicitation No. - N° de l'invitation  
W7701-176223/A  
Client Ref. No. - N° de réf. du client  
W7701-176223

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCW-6-39085

Buyer ID - Id de l'acheteur  
QCW029  
CCC No./N° CCC - FMS No./N° VME

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## **6.12 Inspection and Acceptance**

The Technical Authority is the Inspection Authority. All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

## **6.13 SACC Manual Clauses**

[Excess Goods \(2006-06-16\) B7500C](#)  
[Insurance \(2008-05-12\) G1005C](#)

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## ANNEX A – REQUIREMENT

### 1. TITLE

Fiber spectrometers for the analysis of optical emission signals

### 2. BACKGROUND

The interaction of laser radiation with solid materials can often produce secondary radiation (thermal, fluorescence) that can be analysed for identification or monitoring. Grating-based spectrometers are a good tool to perform an adequate analysis by providing useful information under the form of a spectrally resolved plot of the captured signals. Nowadays, commercially available compact fiber spectrometers using detector arrays provide adequate performance and are user-friendly. As such, DRDC is interested in acquiring a grating-based fiber spectrometer (or a system comprising more than one spectrometer) equipped with array of detectors for secondary signal analysis produced during laser-matter interactions.

### 3. ACRONYMS

DRDC	Defence Research and Development Canada
SOR	Statement of Requirement
TA	Technical Authority
UV	Ultraviolet
VIS	Visible
NIR	Near infrared
SMA	Sub miniature A
System	Spectrometer or a system comprising an assembly of spectrometers

## 4. REQUIREMENTS

### 4.1 Spectrometer or system

**Required quantity: 1**

The Contractor **must** provide the requirement with the following specifications:

Specifications	Value
Spectrometer or a system comprising an assembly of spectrometers	The spectrometer(s) must be using gratings to provide spectrally resolved signals. The spectrally resolved signals are collected with an array of detectors such that the full spectrum is acquired without spectral scanning (i.e. single shot data acquisition).
Spectral range	The system must at least cover the spectral band between 200 nm (nanometer) and 950 nm
Resolution	The system spectral resolution must be inferior or equal to 0.8 nm over the entire spectral range.
Spectrometer (or system) operation	The system is operated from a single software interface. Data from all the spectrometers from the system can be collected simultaneously.
Data acquisition	The system is able to record time series. (i.e. it is able to acquire and register the temporal evolution of the spectrum as a function of time). The minimum integration time for a single frame acquisition must be inferior or equal to 10 ms (millisecond) and the maximum integration time must be larger or equal to 5 seconds. The maximum data acquisition frequency must be 100 Hz or higher.
Data	Data can be exported in a data analysis software such as Matlab.
Detector	The number of pixels on the detectors of every spectrometer from the system must be at least 2048 (along the spectral axis) and have at least 64 pixels along the transverse axis (i.e. 2048 x 64). The detectors must be sensitive over the whole spectrum of its intended use.
Cooling	The detectors must be cooled by a thermo electric cooling system
Operation	The software must be able to operate on Windows 7 Enterprise. The system can be programmed/configured/operated from an external application (other than the original spectrometer software). This can be done, for example, via a USB cable.
Signal collection	The signal must be collected by a single optical fiber. If the system is comprised of more than one spectrometer, the optical fiber must be split to deliver the signal to the individual devices.
Optical fiber	The optical fiber must at least 2 meters long

#### **4.2 Accessories**

The Contractor must provide the following accessories for requirement 4.1:

Description	Required quantity
Collimating lens for UV/VIS/NIR, including SMA adapter. Used to focus light on the fiber tip.	1
System software for operation. The software must be compliant with the requirements listed above.	1
Optical fiber to deliver the signal to the spectrometer(s). The optical fiber must be compliant with the requirements listed above.	1
User guide	1

#### **5. DELIVERABLES**

The Contractor must provide a complete spectrometer system that is compliant with all the requirements listed above including the operation software, appropriate optical fiber cable, collimating lens and the user guide.

#### **6. DATE OF DELIVERY**

All deliverables must be received no later than 12 weeks after contract award.

#### **7. LANGUAGE OF WORK**

English or French.

#### **8. DELIVERY LOCATION**

Defence Research and Development Canada – Valcartier Research Centre  
Building 53  
2459, route de la Bravoure  
Québec (Québec)  
G3J 1X5 Canada

Solicitation No. - N° de l'invitation  
W7701-176223/A  
Client Ref. No. - N° de réf. du client  
W7701-176223

Amd. No. - N° de la modif.  
File No. - N° du dossier  
QCW-6-39085

Buyer ID - Id de l'acheteur  
QCW029  
CCC No./N° CCC - FMS No./N° VME

## ANNEX B – BASIS OF PAYMENT

Item	Quantity	Description	Unit price	Extended price
1	1	Fiber spectrometers for the analysis of optical emission signals <b>in accordance with the technical specifications detailed at section 4.1 of Annex A.</b> Must include all accessories detailed at section 4.2 <b>in accordance with the technical specifications detailed at section 4.2 of Annex A:</b> <ul style="list-style-type: none"> <li>– Collimating lens for UV/VIS/NIR, including SMA adapter</li> <li>– System software for operation</li> <li>– Optical fiber to deliver the signal to the spectrometer(s)</li> <li>– User guide</li> </ul>	_____ \$	_____ \$
2	1	Delivery: Delivered Duty Paid (DDP) DRDC-Defence R & D Canada-Valcartier, Bâtisse 53, 2459, route de la Bravoure, Québec, QC G3J 1X5, Canada, Incoterms 2000, including all custom duties, handling and transportation.	_____ \$	_____ \$
<b>*PROPOSAL EVALUATION COST – TOTAL (EXCLUDING APPLICABLE TAXES)</b>				_____ \$
<i>* Firm prices, all inclusive, DDP destination. Prices include Canadian customs duties and Applicable Taxes extra.</i>				



## ANNEX C - MANDATORY TECHNICAL REQUIREMENTS EVALUATION TABLE

**The bidder must include with its proposal the datasheets of the products offered.** A “Datasheet” is defined as an **unaltered** document, such as a brochure and/or technical literature and/or drawing and/or a test report. The document **shall** provide detailed information on each performance requirement and/or specification.

**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.

**Any proposal that does not clearly demonstrate compliance with each of the technical requirements listed in the “Mandatory Technical Criteria” table will be considered non-responsive.**

MANDATORY TECHNICAL REQUIREMENTS (MUST) The product must be compliant with the technical specifications described below	Compliant	Non-compliant	Reference (page number)
1. The spectrometers must be grating-based and capture the full signal with a detector array. (i.e. full spectrum captured with a single shot, no scanning devices)			
2. The system must be sensitive from 200 nm to 950 nm			
3. The light signal must captured by a single optical fiber			
4. The optical fiber must be at least 2 m long			
5. The system must be operated from a single software interface			
6. The software must be able to acquire and record time series (i.e. temporal evolution of the spectra)			

<b>MANDATORY TECHNICAL REQUIREMENTS (MUST)</b> The product must be compliant with the technical specifications described below	<b>Compliant</b>	<b>Non-compliant</b>	<b>Reference (page number)</b>
7. The detectors must be cooled with a thermo electric cooling system			
8. The system must operate on windows 7 Enterprise			
9. The number of pixels on the detectors of every spectrometer from the system must be at least 2048 (along the spectral axis) and have at least 64 pixels along the transverse axis (i.e. 2048 x 64). The detectors must be sensitive over the whole spectrum of its intended use			
10. The system must offer the possibility of being programmed/configured/operated from an external application (other than the original spectrometer software). This can be done, for example, via a USB cable			
11. The system's spectral resolution must be $\leq 0.8$ nm over the entire spectral range			
12. Data must be exported in a data analysis software such as matlab			
13. The minimum integration time must be $\leq 10$ ms (millisecond)			
14. The minimum integration time must $\geq 5$ s			
15. The detector maximal acquisition rate must $\geq 100$ Hz			