



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Travaux publics et Services gouvernementaux
Canada
Place Bonaventure, portail Sud-Est
800, rue de La Gauchetière Ouest
7 ième étage
Montréal
Québec
H5A 1L6
FAX pour soumissions: (514) 496-3822

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

Travaux publics et Services gouvernementaux Canada
Place Bonaventure, portail Sud-Est
800, rue de La Gauchetière Ouest
7 ième étage
Montréal
Québec
H5A 1L6

Title - Sujet Purchase of scintillometers	
Solicitation No. - N° de l'invitation K8D22-150018/B	Date 2015-10-27
Client Reference No. - N° de référence du client K8D22-15-0018	
GETS Reference No. - N° de référence de SEAG PW-\$MTA-309-13518	
File No. - N° de dossier MTA-5-38123 (309)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-12-07	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: Paradis, Mary	Buyer Id - Id de l'acheteur mta309
Telephone No. - N° de téléphone (514) 496-3874 ()	FAX No. - N° de FAX (514) 496-3822
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Environnement Canada Stella Melo 4905 DUFFERIN ST TORONTO Ontario M3H5T4 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée .	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



Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM Destination	Plant/Usine	Delivery Req. Livraison Req.	Del. Offered Liv. offerte
1	Purchase of scintillometers for research and meteorological observation purposes. • See details at Annexe A - Statement of requirements.	K8D22	K8D22	1	lot	\$	XXXXXXXXXXXX		

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Solicitation No. - N° de l'invitation
K8D22-15-0018/B
Client Ref. No. - N° de réf. du client
MTA-5-38123

Amd. No. - N° de la modif.
File No. - N° du dossier
K8D22-150018/A

Buyer ID - Id de l'acheteur
MTA309
CCC No./N° CCC - FMS No./N° VME

BASIS OF PAYMENT

ANNEX "C"19

MANDATORY TECHNICAL EVALUATION CRITERIA

REISSUE OF BID SOLICITATION

THIS BID SOLICITATION CANCELS AND SUPERSEDES PREVIOUS BID SOLICITATION NUMBER K8D22-15-0018/A DATED 29 SEPTEMBER 2015 WITH A CLOSING OF OCTOBER 15, 2015 AT 14H00. A DEBRIEFING OR FEEDBACK SESSION WILL BE PROVIDED UPON REQUEST TO BIDDERS/OFFERORS/SUPPLIERS WHO BID ON THE PREVIOUS SOLICITATION.

PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There are no security requirements for this procurement.

1.2 Statement of Requirement

The requirement is detailed under Annexe 'A' – Requirement

1.3 Set-aside for Comprehensive Land Claims Agreement(s) Beneficiaries

"This procurement is subject to the Nunavut Land Claims Agreement".

1.4 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.

1.5 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 (2015-07-03) 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:

3. List of Names

- a. Bidders who are incorporated or who are a sole proprietorship, including those bidding as a joint venture, have already provided a list of names of all individuals who are directors of the Bidder, or the name of the owner(s), at the time of submitting a proposal under the Request for Proposal (RFP).
- b. These Bidders must immediately inform Canada in writing of any changes affecting the list of directors during this procurement process.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 120 days

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.

2.2.1 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at **least 15 days** before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than **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 the **Province of 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.

2.5 Term of contract

Best Delivery Date - Bid

While delivery is requested by **December 31, 2015**, the best delivery that could be offered is

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)

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 I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

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

3.1.1 Exchange Rate Fluctuation

C3010T 2014 -11-27 Exchange Rate Fluctuation Risk Mitigation

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. Conformity to the mandatory technical criteria which are included in Annex 'C' – Mandatory technical criteria;
- b. Acceptance of terms and conditions as mentioned in the bid solicitation.

4.1.1.2 Point Rated Technical Criteria

The supplier must obtain the required minimum of **15 points** overall of the points for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of **80 points.**"

4.1.2 Financial Evaluation

4.1.2.1 Mandatory financial criteria

- a. Compliance with the methods for setting the proposed prices;
- b. Firm prices must be provided for all items listed on Annex 'B' – Basis of payment.

SACC Manual Clause A0222T (2014-06-26), Evaluation of Price - Canadian / Foreign Bidders

4.1.3 Price Evaluation

The prices at Annex 'B' – Basis of payment will be evaluated as follows:

Firm unit price x quantity of each item (items 1 to 6) = Total price of each item

Total firm price of all items 1+2+3+4+5+6 = The total price of the contract (All applicable taxes are extra)

4.2 Basis of Selection

Basis of Selection - Minimum Point Rating

1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation; and
 - b. meet all mandatory technical evaluation criteria; and
 - c. obtain a minimum of **15 points** overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of **80 points**.
2. Bids not meeting (a) or (b) or (c) will be declared non-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.

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) 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.

5.2.3 SACC Manual clause A3015T 2014-06-26 Certifications - Bid

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 are no security requirements for this contract .

6.2 Statement of 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 (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 **December 31, 2015** , if at all possible.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: MARY PARADIS
Title: CONTRACTING OFFICER
Public Works and Government Services Canada
Acquisitions Branch
Directorate: QUEBEC REGION
Address: 800 rue de la Gauchetière, Ouest
7th Floor, Place Bonaventure
Montreal, Qc

Telephone: (514) 496-3874
Facsimile: (514) 496-3822
E-mail address: mary.paradis@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 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.

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File No. - N° du dossier
K8D22-150018/A

Buyer ID - Id de l'acheteur
MTA309
CCC No./N° CCC - FMS No./N° VME

6.5.2. Project Authority

The Project Authority for the Contract is: *(To be disclosed at the time of contract award)*

Name: _____
Title : _____
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 Contractor's Representative

Name: _____
Title: _____
Organization: _____
Address: _____
Telephone: _____
Facsimile: _____
E-mail address: _____

6.5.4 Contact at customer department:

For all information related to invoicing and/or payments you may communicate with:
(To be completed at the award phase of the contract)

Customer Department:: _____
Name: _____
Telephone number: _____
Facsimile number: _____

6.6 Payment

6.6.1 Basis of Payment – Firm unit prices

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm unit price, as specified in Annex B – Basis of payment for a cost of \$ _____ *(The amount will be inserted at contract award)*. Customs duties are _____ *(Insert the words "included", "excluded" OR "subject to exemption")* 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 Limitation of Price

SACC Manual clause C6000C 2011-05-16, Limitation of Price

6.6.3 SACC Manual clause H1000C 2008-05-12, Single payment

6.6.4 SACC Manual clause

C2000C 2007-11-30, Taxes - Foreign-based Contractor

C2605C 2008-05-12, Canadian Customs Duties and Sales Tax –Foreign-based Contractor

6.7 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. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

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 _____. (*To be completed. The name of the province or territory as specified by the Bidder in its bid, if applicable.*)

6.10 Priority of Documents

If there is a discrepancy between the wordings 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) Goods (medium complexity);
(c) Annex A, Statement of Requirement;
(d) Annex B, Basis of payment ;
(e) Annex C, Mandatory technical evaluation criteria;
(f) the Contractor's bid dated _____ , as clarified on _____ " **or** ", as amended on _____ .

6.11 SACC Manual Clauses

B7500C 2006-06-16 Excess Goods
G1005C 2008-05-12 Insurance

6.12 Transportation costs

The contractor must ship the goods prepaid via _____ (insert the method of transportation) including all delivery charges to **(Environment Canada , 4905 Dufferin Street, Toronto, Ontario)**. Prepaid transportation costs must be shown as a separate item on the invoice, supported by a certified copy of the prepaid transportation bill of lading.

6.13 Shipping Instructions

Shipping Instructions – Delivery at destination

Goods must be consigned to the destination specified in the Contract and delivered:

Delivered Duty Paid (DDP), (**Environment Canada, 4905 Dufferin Street, Toronto, Ontario**) Incoterms 2000 for shipments from a commercial contractor.

ANNEX "A"

STATEMENT OF REQUIREMENT

1.0 Introduction

Environment Canada (EC) is interested in acquiring two scintillometer systems for research and meteorological observation purposes.

The prime purpose is to study atmospheric turbulence, heat flux, and crosswind in order to monitor meteorological conditions near the Iqaluit airport (65° N). These instruments will complement a research network of meteorological instruments at Iqaluit in order to improve weather forecasting and conduct satellite validation. The instruments may also be used for physical field studies of high impact weather in both warm season and cold season environments, as well as to investigate the synergy with Doppler LIDAR and radar measurements at Iqaluit, and to develop scintillometer applications in Arctic regions.

2.0 Technical Specifications

2.1 Overall Performance Requirements

The scintillometers must be required to operate autonomously (no operator required) and from a remote location. They must operate continuously in extreme weather conditions (Canada's high Arctic) year-round for extended periods of time.

The scintillometers must measure all parameters and include data quality parameters. This must include structure parameter of refractive index fluctuations, structure parameter of temperature fluctuations, crosswind, intensity (including mean, standard deviation, minimum, maximum), etc.

3.0 Mandatory Technical Specifications

Deliverable: each (two total) complete scintillometer system must meet each of the specifications outlined in the following sections:

3.1 General Specifications

The two scintillometer systems must have necessary mounts so they can be made securable to prevent damage and loss.

3.2 System Performance Must Include:

Item	Description
1	Must have a path length > 2 km
2	Must have power requirements between 12 to 24 VDC and an AC power supply option
3	Must have an operating temperature from -35°C to +30 °C

4	Must be a dual-disk design (two transmitting disks) allowing for corrections for absorption fluctuations.
5	Must allow for mounting to a tripod
6	Must be capable of operating in humidity ranges from 10% to 100%

3.3 Detailed Scintillometer System Requirements – Transmitter Must Include:

Item	Description
1	The transmitter laser must have an output power > 10 W peak to allow operations during high aerosol events.
2	Must have transmitter divergence between 15° and 17°
3	Must have a power consumption \leq 120 W
4	Must be eye-safe (class 1M or equivalent laser product).

3.4 Detailed Scintillometer System Requirements – Receiver Must Include:

Item	Description
1	Must have a field of view < 10 mrad

3.5 Detailed Scintillometer System Requirements – Scintillometer Signal Processing Unit Must Include:

Item	Description
1	Must have a mode capable of integration time < 10 min (measurement produced every < 10 minutes)
2	Must have > 4 GB storage capacity
3	Fully automated and remote controlled: must have the capacity to view the status of the instrument, start/stop the transmitter, automate measurements, and perform basic system maintenance (check disk usage, download data, delete and edit files) both remotely (instrument must have an Ethernet port) and locally.
4	Must be compatible with Windows 7 (or newer) or Linux.

3.6 Detailed Scintillometer System Requirements – Scintillometer Products Must Include:

Item	Description
1	Must provide structure parameter of refractive index and temperature fluctuations, crosswind and intensity (mean/standard deviation/min/max), and scintillation index and correlation coefficient of intensity and raw intensity data.
2	Must provide quality control software with documentation describing the algorithm and operation manual.
3	Must provide data processing algorithm, information on data format as well as the necessary software to read output data.
4	Must measure pressure, temperature, humidity, heat fluxes (extended measurements of wind, pressure, temperature and humidity) , and wind incorporated into the standard data stream.

4.0 Point-rated technical criteria on the Scintillometer Features

The Contractor shall provide the following features:

ITEM	SPECIFICATIONS	POINTS	MAXIMUM POINTS
1	Shall have extended weather proofing to protect the system against rain and snow.		10
2	Shall have a heating system to prevent frost on the optics		20
3	Shall have a system to prevent snow accumulation on the optics.	< 2 mm/hour = 5Points 2-5 mm/hour = 10 points 5mm/hour = 15 points	15
4	Shall have extended weatherproofing to protect the system at temperatures below -35°C	-40 to -35°C = 10 points -45 to -40° C= 15 points <-45°C = 20 points	20
5	Shall have Path length greater than 2 km	2- 5 km = 10 points >5 km = 15 points	15
		TOTAL POINTS	80

5.0 Other Terms and Conditions

5.1 Output File Format

While not a mandatory requirement, it is preferred that the final output file format is compliant with the World Meteorological Organization (WMO) data file format standards (if any). Otherwise, ASCII, and NetCDF file formats are preferred where applicable.

5.2 Transportability/Housing

EC is planning to permanently locate the scintillometers in Iqaluit, NU. The scintillometers will be required to operate without an operator for extended periods of time in extreme weather conditions.

The scintillometers must be delivered complete with two power supplies and tripod stands, weatherproof housing, and transportation case(s).

It is expected that the setup and installation could be accomplished within a few hours.

5.3 Documentation

AT THE TIME OF DELIVERY:

The contractor must provide at the time of delivery, in English, user manuals/guides relating to the instrument's installation, calibration and alignment, operation, troubleshooting, and data processing.

AT THE REQUEST OF ENVIRONMENT CANADA, AFTER CONTRACT AWARD:

The Contractor shall provide when required, in English, all necessary circuit diagrams, details of calibration checks and acceptable limits. The user software must document the underlying algorithms used in signal, data and product processing. The output data formats must be documented for decoding for external processing. Maintenance procedures must be documented.

5.4 Delivery Against the Contract

All deliverables must be in accordance with best commercial standards. The Contractor must deliver the product in satisfaction of the contract requirements to:

Environment Canada
Atmospheric Science and Technology Directorate
Cloud Physics and Severe Weather Research Section,
4905 Dufferin Street
Toronto, Ontario Canada
M3H 5T4
Attn: Zen Mariani

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MTA-5-38123

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File No. - N° du dossier
K8D22-150018/A

Buyer ID - Id de l'acheteur
MTA309
CCC No./N° CCC - FMS No./N° VME

ANNEX "B"

BASIS OF PAYMENT

ITEM NO.	QUANTITY	DESCRIPTION	* FIRM PRICE	TOTAL
1	2	Scintillometer systems (As detailed at Annex 'A' – Statement of requirements)	\$ _____/each	\$ _____
2	2	Power supplies	\$ _____/each	\$ _____
3	2	Tripod stands	\$ _____/each	\$ _____
4	2	Weather proof housing	\$ _____/each	\$ _____
5	2	Transportation cases	\$ _____/each	\$ _____
6	1	Transport charges (FOB Destination)	\$ _____/lot	\$ _____
			GRAND TOTAL: (for items 1 to 6)	\$ _____

* ALL APPLICABLE TAXES ARE EXTRA

ANNEX "C"

MANDATORY TECHNICAL EVALUATION CRITERIA

The information that figures in this table must be duly completed and submitted **at the closing date and hour of the solicitation**.

All the criteria identified below are MANDATORY. They contain mandatory and point-rated technical evaluation criteria. Each criteria must be met and documented in order to demonstrate the degree to which it is met.

Failure to meet all of the mandatory technical criteria listed at Point 1 below will render your proposal non responsive. No further consideration will be given to your Proposal.

Please indicate the documents and the page number(s) of your proposal where the following criteria Can be found:

1. Mandatory technical Specifications

1.1 System Performance Must Include:

Specifications		
Item	Description	Identify where the supporting documentation is located in the bid package (give page number(s))
1	Must have a path length > 2 km	
2	Must have power requirements between 12 to 24 VDC and an AC power supply option	
3	Must have an operating temperature from - 35°C to +30 °C	
4	Must be a dual-disk design (two transmitting disks) allowing for corrections for absorption fluctuations.	
5	Must allow for mounting to a tripod	
6	Must be capable of operating in humidity ranges from 10% to 100%	

1.2 Detailed Scintillometer System Requirements – Transmitter Must Include:

Specifications		
Item	Description	Identify where the supporting documentation is located in the bid package (give page number(s))

1	The transmitter laser must have an output power > 10 W peak to allow operations during high aerosol events.	
2	Must have transmitter divergence between 15° and 17°	
3	Must have a power consumption ≤ 120 W	
4	Must be eye-safe (class 1M or equivalent laser product).	

1.3 Detailed Scintillometer System Requirements – Receiver Must Include:

Specifications		
Item	Description	Identify where the supporting documentation is located in the bid package (give page number(s))
1	Must have a field of view < 10 mrad	

1.4 Detailed Scintillometer System Requirements – Scintillometer Signal Processing Unit Must Include:

Specifications		
Item	Description	Identify where the supporting documentation is located in the bid package (give page number(s))
1	Must have a mode capable of integration time < 10 min (measurement produced every < 10 minutes)	
2	Must have > 4 GB storage capacity	
3	Fully automated and remote controlled: must have the capacity to view the status of the instrument, start/stop the transmitter, automate measurements, and perform basic system maintenance (check disk usage, download data, delete and edit files) both remotely (instrument must have an Ethernet port) and locally.	
4	Must be compatible with Windows 7 (or newer) or Linux.	

1.5 Detailed Scintillometer System Requirements – Scintillometer Products Must Include:

Specifications		
Item	Description	Identify where the supporting documentation is located in the bid package (give page number(s))

1	Must provide structure parameter of refractive index and temperature fluctuations, crosswind and intensity (mean/standard deviation/min/max), and scintillation index and correlation coefficient of intensity and raw intensity data.	
2	Must provide quality control software with documentation describing the algorithm and operation manual.	
3	Must provide data processing algorithm, information on data format as well as the necessary software to read output data.	
4	Must measure pressure, temperature, humidity, heat fluxes (extended measurements of wind, pressure, temperature and humidity), and wind incorporated into the standard data stream.	

Only responsive bids that obtain the required minimum of **15 points** overall for the point rated technical evaluation criteria which are subject to point rating(The rating is performed on a scale of **80 points**)will be accepted and will be evaluated more in depth and in accordance with the financial evaluation criteria listed at Annex B – Basis of payment .

Note: The maximum score cannot be exceeded, even if the bidder provides more information than requested.

2.0 Point Rated Technical Criteria on the Scintillometer Features

ITEM	SPECIFICATIONS	POINTS	MAXIMUM POINTS	MINIMUM POINTS OBTAINED (To be completed by the client)	IDENTIFY WHERE THE SUPPORTING DOCUMENTATION IS LOCATED IN THE BID PACKAGE (give page number(s)) (To be completed by the contractor)
1	Shall have extended weather proofing to protect the system against rain and snow.		10		

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2	Shall have a heating system to prevent frost on the optics		20		
3	Shall have a system to prevent snow accumulation on the optics.	< 2 mm/hour = 5 points 2-5 mm/hour = 10 points 5mm/hour = 15 points	15		
4	Shall have extended weatherproofing to protect the system at temperatures below -35°C	-40 to -35°C = 10 points -45 to -40° C= 15 points <-45°C = 20 points	20		
5	Shall have Path length greater than 2 km	2- 5 km = 10 points >5 km = 15 points	15		
		TOTAL POINTS	80		