

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Bid Receiving  
PWGSC  
33 City Centre Drive  
Suite 480C  
Mississauga  
Ontario  
L5B 2N5  
Bid Fax: (905) 615-2095

## SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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

Issuing Office - Bureau de distribution  
Public Works and Government Services Canada  
Ontario Region  
33 City Centre Drive  
Suite 480  
Mississauga  
Ontario  
L5B 2N5

<b>Title - Sujet</b> Scanning Dopplar Lidar	
<b>Solicitation No. - N° de l'invitation</b> KM175-141105/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> KM175-141105	<b>Date</b> 2015-04-21
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$TOR-031-6814	
<b>File No. - N° de dossier</b> TOR-4-37161 (031)	<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 2015-04-30</b>	<b>Time Zone</b> Fuseau horaire Eastern Daylight Saving Time EDT
<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> Schmidt, Jeff	<b>Buyer Id - Id de l'acheteur</b> tor031
<b>Telephone No. - N° de téléphone</b> (905) 615-2058 ( )	<b>FAX No. - N° de FAX</b> (905) 615-2060
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<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>

Solicitation No. - N° de l'invitation

KM175-141105/A

Amd. No. - N° de la modif.

002

Buyer ID - Id de l'acheteur

tor031

Client Ref. No. - N° de réf. du client

KM175-141105

File No. - N° du dossier

TOR-4-37161

CCC No./N° CCC - FMS No/ N° VME

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**AMENDMENT 001 IS BEING ISSUED TO RESPOND TO BIDDER QUESTIONS AND MAKE CHANGES TO THE SOLICITATION.**

**Q1:** Annex C, Insurance Requirements identifies that the Contractor must obtain Aviation Liability Insurance. When deployed at the Toronto Pearson International Airport and/or at any other airports, will the Lidar unit be involved in aircraft decision making process as it relates to aircraft operations and safety? Can you please clarify the exact reason for Aviation Liability Insurance and for how long after the initial purchase the Bidder is expected to carry over this type of insurance? Also can you justify the need for Automobile Liability Insurance?

**R1:** Aviation Liability Insurance has been removed as Bidders are not required to enter onto airport property. Automobile Insurance is required for the delivery, acceptance testing and training aspects of the resulting contract.

**Q2:** At Annex A, Requirement, Item 1.2.5.3, "Wind Velocity Accuracy must be equal to less than 0.5m/s." Could you please clarify if 'Wind Velocity' refers to radial wind velocity. Do you consider here 10 minutes averaged data or typically 1 second measurements? According to ISO 5725, Accuracy refers to a reference value, could you please indicate what reference instrument is to be considered and measurement protocol?

**R2:** Wind Velocity does refer to radial velocity and to the quantization of the radial velocity.

**Q3:** At Annex A, Requirement, Item 1.2.6.5, Data outputs; Could you specify the definition of 'backscatter intensity?' Do you refer to Signal to Noise ratio along the line of sight or atmospheric relative backscatter profile?

**R3:** It refers to return power and Signal to Noise Ratio (SNR) is acceptable.

**Q4:** At Annex A, Requirement, Item 1.2.6.7, 'Software must include software and license for off-line user processing.' Could you please clarify what you mean by "off-line"?

**R4:** Off-line means non-realtime or post-processing. That is the user can view or review old data and not just data being collected in real-time.

**Q5:** At Annex D, Evaluation, Item 2.1.2 of the Point Rated Technical Criteria, it appears the scoring is inverted. There are fewer points offered for higher levels of accuracy. It seems the criteria should be 10 points for 0.02° and 1 point for 0.10° (which is five times less accurate). Please confirm.

**R5:** Annex D, Evaluation, Item 2.1.2 has been adjusted to show the proper point distribution below.

**Q6:** At Annex D, Evaluation, Item 2.3.4, Output. 'The LIDAR should record time series (I, Q) data.' To our understanding, the purpose of (I, Q) sampling is to be able to retrieve radial wind velocity amplitude and sign. An alternative method is to apply a frequency offset for zero wind speed. In that case a single photodetector and detection channel is sufficient to retrieve radial wind speed amplitude and sign. Can you please clarify the purpose of this requirement?

**R6:** Any data prior to averaging or whatever technique is used to compute power or radial velocity values is acceptable.

**Q7:** In Annex A, Requirement, Item 1.2.2.3, notes that dimensions including enclosure must be less than 2.0 m x 3.0 m x 4.0 m or smaller. If the LIDAR will be not in a closed environment this variation should not be a limiting factor. Therefore, will Environment Canada accept dimensions of 2.2 m x 3.0 m x 4.0 m?

**R7:** Due to the nature of the requirement, Environment Canada will accept this change and will adjust the specification in Annex A, Requirement and Annex D, Evaluation.

**Q8:** In Annex A, Requirement, Section 3.1, Additional Requirements, 'The SDL must have CSA (Canadian Standards Associations) certification at time of delivery.' CSA is the only Nationally Recognized Testing Lab (NRTL) that can apply a CSA certification mark, but other NRTLs test to the same standards and apply appropriate certification marks. Please confirm that testing at any NRTL to the CSA standards resulting in an appropriate mark (such as cETL from Intertek) would be accepted as meeting the requirements.

**R8:** Testing at any NRTL for CSA Standards is acceptable.

**Changes to the solicitation:**

**At Annex A, Requirement, Section 2.0, Mandatory Technical Specifications**

**Delete:**

1.2.2.3	Dimensions including enclosure	Must be less than 2.0 m x 3.0 m x 4.0 m or smaller
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**Insert:**

1.2.2.3	Dimensions including enclosure	Must be less than 2.5 metres x 3.50 metres x 4.5 metres or smaller
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**At Annex D, Evaluation, Section 1.2.2 HARDWARE**

**Delete:**

1.2.2.3	Dimensions including enclosure	Must be less than 2.0 metres x 3.0 metres x 4.0 metres or smaller	PAGE(S) AND/OR SECTION NUMBER: _____
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**Insert:**

1.2.2.3	Dimensions including enclosure	Must be less than 2.5 metres x 3.5 metres x 4.5 metres or smaller	PAGE(S) AND/OR SECTION NUMBER: _____
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**At Annex D, Evaluation, 2.0 Point Rated Technical Criteria**

**Delete:**

2.1.2	Pointing accuracy	Pointing accuracy should be better than 0.1°	0.02° = 1 point 0.03° = 2 points 0.04° = 3 points 0.05° = 4 points 0.06° = 5 points 0.07° = 7 points 0.08° = 8 points 0.09° = 9 points 0.10° = 10 points  Maximum of 10 points	PAGE(S) AND/OR SECTION NUMBER: _____
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**Insert:**

2.1.2	Pointing accuracy	Pointing accuracy should be better than 0.1°	0.10° = 2 points 0.09° = 3 points 0.08° = 4 points 0.07° = 5 points 0.06° = 6 points	PAGE(S) AND/OR
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			0.05° = 7 points 0.04° = 8 points 0.03° = 9 points 0.02° = 10 point  Maximum of 10 points	SECTION NUMBER: <hr/>
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**At Annex C, Article 2, Aviation Liability Insurance**

Delete in its entirety.