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

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

Title - Sujet
Purchase of scintillometers

Solicitation No. - N° de l'invitation	Amendment No. - N° modif.
K8D22-150018/B	001
Client Reference No. - N° de référence du client	**Date**
K8D22-15-0018	2015-12-03

GETS Reference No. - N° de référence de SEAG
PW-$MTA-309-13518

File No. - N° de dossier	CCC No./N° CCC - FMS No./N° VME
MTA-5-38123 (309)	

Solicitation Closes - L'invitation prend fin
at - à 02:00 PM
on - le 2015-12-14

Time Zone
Fuseau horaire
Heure Normale du l'Est HNE

F.O.B. - F.A.B.
Plant-Usine: ☐ **Destination:** ☑ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à:	Buyer Id - Id de l'acheteur
Paradis, Mary	mta309
Telephone No. - N° de téléphone	**FAX No. - N° de FAX**
(514) 496-3874 ( )	(514) 496-3822

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
Environment Canada
Stella Melo
4905 Dufferin Street
Toronto
M3H 5T4
Canada

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

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**

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

THE FOLLOWING QUESTIONS WERE POSED BY SUPPLIERS DURING THIS POSTING AND WE ARE PROVIDING THE ANSWERS IN THE FORM OF AN AMENDMENT.

Question no. 1

At Annexe A – Statement of requirements, Section 2.1- Overall performance requirements

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

While reviewing these requirements it occurs to me that Environment Canada in fact needs to purchase a system(s) comprising of two scintillometers: an optical instrument called **LAS** (Large Aperture Scintillometer) combined with a microwave instrument, called a **MWSC** scintillometer. Only a combined **LAS** and **MWSC** system can provide your clients with the type of complete quality atmospheric parameters they are looking for.

The required temperature fluctuations and cross wind detection can be provided by the LAS instrument alone.

However, LAS instrument can measure only one part of the total heat flux: the sensible heat flux.

The other main part – the latent heat flux – can only be provided by combining a LAS with a MWSC. Can you please confirm the exact requirements of your clients?

Answer no. 1

The sensible heat flux is a required data product incorporated into the standard data stream. If additional components (sensors or other hardware) aside from the large aperture scintillometer are required in order to measure the sensible heat flux, these components should be included as part of the extended scintillometer system. The entire system (scintillometer and extensions) should be priced as a single unit.

Question no. 2

At Annexe 'A' – Statement of requirement, at Section 3.3 , items 1 and 4 AND again under Annexe 'C' – Mandatory technical evaluation criteria , Section 1.2, items 1 and 4, the wording mentions a laser. However, Scintec's product, which seems to fit the description very precisely, does not use a laser. Instead it's an optical scintillometer that uses LEDs at the requested output power.

Scintec does manufacture laser scintillometers, but they are used for much shorter path lengths and thus are not appropriate for this tender. Could you please clarify this point for me?

Answer no. 2

The use of LEDs is acceptable. The device does not have to use a laser.

Question no. 3

We believe we can meet all the requirement of your tender, not by providing a standard scintillometer, but a solution based on a long-baseline optical anemometer (LOA) technology.

The LOA can also measure wake vortices – something other sensors likely have not attempted. We have multiple field trials that prove how well the LOA does in this area. Since Environment Canada's (EC) requirement is for airport use, this could be a bonus feature, whether EC explores it now or at a later date.

- EC asks for a path length over 2 km; our system has been tested at over 10 km.
- While we do not have dual transmitter 'disks' as EC asks for, we have dual receivers which accomplish the very same things.
- The specification item in Section 3.2 (at Annex A – Statement of requirement) that is needlessly restrictive is Item no. 4 (we have a dual receiver – not dual transmitter; provides the same features EC wants PLUS we can report path-averaged crosswinds too).
- The specification items in Section 3.3 (at Annex A – Statement of requirement) that are needlessly restrictive are Item 1 and 2 (these specification are based on one particular technology; ours is different but again, as long as the sensor can provide the data and performance EC wants, we do not see why EC needs to specify arbitrary/limiting specifications).
- The specification item in Section 3.4 (at Annex A – Statement of requirement) that is needlessly restrictive is Item 1 (as per our previous comment).
- Sections 3.5 (at Annexe A – Statement of requirement) Item 2 and Section 3.6 (at Annexe A – Statement of requirement) Items 2-4 imply that a weather station (for humidity, wind, temperature, pressure, etc) and controller with a minimum 4GB of storage space are needed. We could add a basic modular automated weather observation system (MAWOS) and a PC.

Given the above, we would like to know if EC is willing to consider our LOA in spite of the technology variations (as long as it gives them the date and reliability EC desires).

Answer no. 3

Two transmitting or receiving disks is acceptable. The LOA technology is acceptable. It must be demonstrated that its transmitter output power is high enough to allow for operation in high aerosol environments at the required range. It must be demonstrated that the transmitter beam divergence and receiver field of view meet the stated requirements to ensure the path of air sampled is not divergent. Addition of a basic modular automated weather observation system is acceptable as long as its data streams are fully integrated.

DELETE:

SOLICITATION CLOSES:

AT: 14h00

ON: 2015-12-07

INSERT:

SOLICITATION CLOSES:

AT: 14h00

ON: **2015-12-14**

- All other terms and conditions remain the same.