

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

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 Scanner Doppler Lidar	
Solicitation No. - N° de l'invitation K8D22-160161/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client K8D22-16-0161	Date 2015-10-09
GETS Reference No. - N° de référence de SEAG PW-\$MTA-550-13446	
File No. - N° de dossier MTA-5-38073 (550)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-10-27	Time Zone Fuseau horaire Heure Avancée de l'Est HAE
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: Guernon (mta550), Émile	Buyer Id - Id de l'acheteur mta550
Telephone No. - N° de téléphone (514) 496-3585 ()	FAX No. - N° de FAX (514) 496-3822
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

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

THIS REQUEST FOR PROPOSAL IS HEREBY AMENDED AS FOLLOWS:

A)

This modification is being raised to published all questions received from the bidders up to date and answers from Environment Canada.

AND

B)

DELETE:

Annex «C» Mandatory Technical Evaluation Criteria

INSERT:

New: Annex «C» Mandatory Technical Evaluation Criteria

****Refer to attached documents****

You are requested to submit a copy of this modification to your proposal.

All other terms and conditions remain unchanged.

Response to RFP Questions

Q1) Item 1.1.3: Could you please detail what is expected behind capability? Do the LiDARs need to provide with de-polarized backscatter profiles at the time of delivery or will the capability be exercised and requested optionally in the future. Do we need to quote the Lidars including this feature or add it as an optional item?

A1) De-polarization capability: The LiDARs must have a de-polarization measurement mode that can be switched on/off at the time of delivery. Software to plot de-polarized backscatter profiles does not have to be included; only the ability to switch the instrument into a mode that executes and records measurements with this functionality. Quote the Lidars including this feature.

Q2) Item 1.2.2.1: It is indicated that the Doppler Lidars will be deployed at different locations including Iqaluit. Climatology at Iqaluit indicates repeated temperatures below -35 deg C. In case the Lidar does not withstand such minimum temperature, is there any environmental protection planned to protect the Lidar?

A2) Minimum temperature: There is no environmental protection planned to protect the LiDAR at temperatures below -25 deg C. At temperatures below -25 deg C, the Lidar is not expected to be operational and can be switched off. The Lidar should not be damaged if temperatures drop below -25 deg C, however, and the Lidar should be able to resume operations once temperatures go above -25 deg C.

Q3) Item 1.2.2.2: Do these dimensions correspond to the maximum space available to receive the Lidar at its deployment site? If possible could you indicate the maximum dimensions and release the size constraint or specify it as not mandatory requirements?

A3) Deployment: These measurements correspond to the maximum size of the LiDAR itself, not its shipping crate or other items. These dimensions do not include mounting legs and other accessories; only the primary Lidar housing.

Q4) Item 1.2.2.4: Power consumption is often significantly depending on outside temperature and should be considered or temperature range should be specified. Does this specified maximum power consumption correspond to the available power at the targeted deployment sites? Could you release the power consumption requirement or specify it as not mandatory requirement?

A4) Power: Requirements are for temperatures of 15deg C +/- 2 deg C. Maximum power consumption can be relaxed to 275 W; this corresponds to the maximum available power supply.

Q5) Item 1.2.5.1: You specify minimum data digitizing acquisition range up to 10km. Would it also be possible to indicate expected “maximum operational range” as defined in ISO/DIS 28902-2 at a specified given location (Iqaluit eg.)?

A5) Data acquisition: The range of the data acquisition must be at least 10 km (i.e., data acquisition from the Lidar up to at least 10 km away along its line of sight). The maximum range of the data acquisition system is 30 km.

Appendix C:

Mandatory Technical Evaluation Criteria

1. Mandatory Requirements

At bid closing time, the Bidder must:

- Comply with the following Mandatory Requirements; and
- Provide the documentation which may include but is not limited to discussion points, equipment specifications, charts and diagrams to support compliance.

Proposals will be evaluated first on the basis of the mandatory requirements. Failure on the part of the bidder to meet one (1) or more of the mandatory requirements will result in the proposal being deemed non-compliant and ineligible for further consideration or evaluation.

The bidder should indicate the page number and section for each criterion in their proposal.

1.1 Mandatory General Requirements

ITEM #	MANDATORY MINIMUM REQUIREMENT	IDENTIFY WHERE THE SUPPORTING DOCUMENTATION IS LOCATED IN THE PACKAGE (PAGE(S) NUMBERS)
1.1.1	Operational Maturity The proposed system design must have successfully been deployed in the field for at least two years, from the time of bid closing. A list of previous customers (with addresses and phone number), together with proof of purchase of the system, or a similar version can be used to validate this requirement.	PAGE(S) AND/OR SECTION NUMBER: _____
1.1.2	Must be a pulsed Doppler LiDAR system.	PAGE(S) AND/OR SECTION NUMBER _____
1.1.3	Must have de-polarisation capability.	PAGE(S) AND/OR SECTION NUMBER: _____

1.2 Mandatory Technical Specifications

ITEM #	ITEM	MANDATORY MINIMUM REQUIREMENT	IDENTIFY WHERE THE SUPPORTING DOCUMENTATION IS LOCATED IN THE PACKAGE (PAGE(S) NUMBERS)
1.2.1 GENERAL			
1.2.1.1	System Operations	Once in operation, the system must be able to operate without operator intervention for an extended period of time (weeks). Operator must be able to start, stop LiDAR, configure scanning, display system and hardware parameters and data collection remotely (via internet connection) and locally.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.1.2	System Maintenance	Operator must be able to perform basic system maintenance (check disk usage, download data, delete and edit files) either remotely or locally.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.1.3	Display Functionality	Operator must be able to view basic products (time range) at the LiDAR site and remotely.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.1.4	Operating System	The Lidar system must be compatible with Windows 7 (or newer) or Linux.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.2 HARDWARE			
1.2.2.1	Environment	The SDL hardware must be: i) Weather proofed (system design must be such that electronics and sensors will be protected in precipitation, including freezing rain and strong wind conditions); ii) Temperature stabilized; iii) Include a minimum -25°C to maximum 40°C enclosure or better; iv) Humidity minimum 10% to maximum 100% or better.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.2.2	Deployment	Must be less than 1.0 m x 0.7 m x 0.5 m with minimum or no assembly required for field deployment (e.g., no internal alignment, optical adjustments, or electronic assembly required).	PAGE(S) AND/OR SECTION NUMBER: _____

1.2.2.3	Cooling	Must include an active cooling unit.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.2.4	Power requirements	Must be 110-240VAC 50-60Hz (with DC converter supplied if required) drawing less than 275W.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.2.5	UPS	Must have a Universal Power Supply (UPS) to condition the input power and be sufficient to shut the system down.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.2.6	Internet Connection	Must provide at least one Ethernet / LAN port. connection	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.3 TRANSMITTER			
1.2.3.1	Eye safety	Must be eye safe. Class 1M (IEC/EN 60825-1 compliant)	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.3.2	Laser wavelength	Must be between 1.4 to 2.2 μm (maximum)	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.3.3	Laser pulse energy	Must be equal to or greater than 2 μJ (micro joule).	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.4 SCANNER OPERATION			
1.2.4.1	Scanner Operation	Must have an azimuth range of 0 to 360 degrees, must have an elevation range of 0° to 180°, and pointing accuracy must be 0.1°.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.4.2	Scanning modes	Must have the following scan modes: <ol style="list-style-type: none"> 1. Stare (or line of sight, constant in azimuth and elevation); 2. Plan Position Indicator (PPI, constant in elevation, scanning in azimuth); 3. Wind Profiling (scan in a sequence of fixed azimuths and elevations; typically but not limited to east-west, north-south and vertical beams); 4. Range Height Indicator (constant azimuth and scanning in elevation). 	PAGE(S) AND/OR SECTION NUMBER: _____

1.2.5 PERFORMANCE			
1.2.5.1	Data Acquisition Range	Range of the data acquisition must be a minimum of 10 km line of sight.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.5.2	Radial wind velocity range	The system must allow for the detection of wind speeds of a minimum of 15 m/s.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.5.3	Wind velocity accuracy	The system must allow for the detection of wind velocity with an accuracy equal to less than 0.5 m/s.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.6 LIDAR CONTROL / CONFIGURATION /PRODUCTS			
1.2.6.1	Software	Must include software and license for off-line user processing.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.6.2	Data Storage	Must be able to store 5 days of LiDAR data and products on continuous operation mode.	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.6.3	Output	<p>The LiDAR data file output must include the following:</p> <ol style="list-style-type: none"> 1. Scanner identification 2. Data acquisition time; 3. Beam position (azimuth and elevation); 4. Range resolution information 5. Data moments: <ol style="list-style-type: none"> a) Backscatter Intensity; b) Radial wind speed. 	PAGE(S) AND/OR SECTION NUMBER: _____
1.2.6.4	LiDAR Control	<p>Graphical interface for LiDAR control must include :</p> <ol style="list-style-type: none"> 1. Instrument scan control; 2. Scan configuration; 3. Data acquisition settings (range resolution, maximum range, number of samples, etc); 4. Display of diagnostics and alerts. 	PAGE(S) AND/OR SECTION NUMBER: _____