



**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

**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**

TPSGC/PWGSC

601-1550, Avenue d'Estimauville

Québec

Québec

G1J 0C7

<b>Title - Sujet</b> Steering Gimbal Platform	
<b>Solicitation No. - N° de l'invitation</b> W7701-196989/A	<b>Amendment No. - N° modif.</b> 001
<b>Client Reference No. - N° de référence du client</b> W7701-196989	<b>Date</b> 2019-11-12
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$QCL-052-17782	
<b>File No. - N° de dossier</b> QCL-8-41169 (052)	<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 2019-11-21</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Heure Normale du l'Est HNE
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Proulx, Jean-R.	<b>Buyer Id - Id de l'acheteur</b> qcl052
<b>Telephone No. - N° de téléphone</b> (418) 649-2774 ( )	<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>	

**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>

N° de l'invitation - Solicitation No.

W7701-196989/A

N° de la modif - Amd. No.

001

Id de l'acheteur - Buyer ID

QCL052

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

W7701-196989

File No. - N° du dossier

QCL-8-41169

N° CCC / CCC No./ N° VME - FMS

### Enquiries - Bid Solicitation - Clause # 2.3

To ensure consistency and quality of information provided to bidders, significant enquiries received and the replies to such enquiries will be provided simultaneously to bidders to which the bid solicitation has been sent, without revealing the sources of the enquiries.

Here are questions which we have received until now:

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**Question 1 :** I see that a maximum speed and torque are called out. However, in order to accurately model the motor temperature rise, we need to understand the move profile and duty cycle. If an RMS acceleration is provided, that would give us what we need, too. Can you provide any additional information on the motion profile and or RMS acceleration?

**Answer 1 :** Since this steering platform will be used in various evaluation projects, it is not possible to define precisely the move profiles. However, it won't be used in heavy industrial applications (high loads continuously move over long operation periods every day). Some typical applications would be :

- a. One large displacement (i.e. 40 degrees) at high slew rate followed by one slow tracking (<5 degrees/second) for 30 seconds.
- b. One sweeping at 10 degrees/second over 90 degrees range for 60 seconds.
- c. Simulation of strong vibrations (at a quarter of the maximum specified platform acceleration) over 2 to 4 degrees range during less than 30 seconds.

The same test (i.e. test a.) could be repeated for one hour with 1 to 2 minutes pauses between repetitions. An example of a more extended test would be:

- a. Continuous moving the aiming point along a pre-defined pattern (i.e. an oval of 90 degrees in azimuth and 15 degrees in elevation) at slow speed (<10 degrees/second) for 20 minutes.

The total operation time (active move) during a day is expected to be less than 4 hours.

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Question 2 : Can we exceed the 800mm height limit? If so, by how much?

**Answer 2 :** The increase of the platform size could complicate its integration in our test assembly. However, specifically for the overall height criteria, the specification we could be extended by a few centimetres without significant impact. So, the maximum height could be increased up to 82 centimetres.

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Question 3 : We need to locate the elevation axis counterweights somewhere. Either on the outside of the elevation axes (making the overall assembly wider) or inbetween the elevation axes. This sketch shows where we might be able to mount the counterweights inbetween the elevation axes. Would that be acceptable? How much of that space underneath the units can we use for counterweights?

**Answer 3 :** The configuration based on the internal location of counterweight has obvious advantages and it is definitely very relevant. For this request, we decided to accept both configurations (inside or outside) to allow the maximum flexibility in the counterweight system design which may provide some unexpected advantages.

The whole space below the elevation axis is available for the counterweight as long as it does not interfere platform operation to comply with the specified characteristics such as:

- Azimuth field of view: minimum of 135 degrees
  - Azimuth pointing range:  $\pm 90$  degrees
  - Elevation pointing range: between -25 degrees and 60 degrees
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All other terms and conditions of the solicitation remain the same.