



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Bid Receiving - PWGSC / Réception des soumissions  
- TPSGC

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau

Quebec

K1A 0S5

Bid Fax: (819) 997-9776

**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**

Victoria Class Modernization (VCM) / Modernisation  
de la classe Victoria  
Louis St-Laurent Building (2)  
2nd Floor - SC19  
455 De la Carrière Blvd  
Gatineau  
Quebec  
K1A 0S5

<b>Title - Sujet</b> VCM Periscope System	
<b>Solicitation No. - N° de l'invitation</b> W8472-195765/A	<b>Amendment No. - N° modif.</b> 003
<b>Client Reference No. - N° de référence du client</b> W8472-195765	<b>Date</b> 2020-06-03
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$VCM-004-27601	
<b>File No. - N° de dossier</b> 002vcm.W8472-195765	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-06-30</b>	<b>Time Zone Fuseau horaire</b> Eastern Daylight Saving Time EDT
<b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Tom Swindlehurst	<b>Buyer Id - Id de l'acheteur</b> 002vcm
<b>Telephone No. - N° de téléphone</b> (819) 360-2327 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<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 (type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation W8472-195765/A	Amd. No. - N° de la modif. 003	Buyer ID - Id de l'acheteur 002VCM
Client Ref. No. - N° de réf. du client VME	File No. - N° du dossier	CCC No./N° CCC - FMS No./N°
W8472-195765	002VCM.W8472-195765/A	

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**REQUEST FOR INFORMATION (RFI)**  
**FOR THE PROVISION OF A PERISCOPE**  
**AMENDMENT NO. 003**

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This amendment is issued to provide responses to questions raised by industry relating to the Request for Information (RFI) for the provision of a Periscope, dated January 31<sup>st</sup>, 2020.

**Question 2:**

Are there existing scope Interface Control Drawings that can be provided?

- a. Lengths and optical length of periscopes, stroke, diameter (at bearing locations & Radar Absorbent Material allowance), Center of Gravity?
- b. Fairings – Dependent, Independent?
- c. Bearings – locations, diameters?
  - i. How many support bearings are there? What are their axial locations with regards to the hull seal?
  - ii. How much height is there between the top of the uppermost bearing and the top of the sail?
- d. Mast raising - What are the interfaces, dimensions and configuration of the periscopes to the Mast Raising Equipment and sail?
- e. Are there doors/covers/ on the top of the sail that the scope must pass through? What are there sizes?
- f. Periscope well – Diameter?

**Answer 2:**

Interface Control Drawings are not being provided as part of this Request for Information (RFI).

2a.

<b>For Attack Periscope</b>	<b>For Search Periscope</b>
Periscope tube length: 12200 mm	Periscope tube length: 11850 mm
Unsupported Optical length: 4993 mm	Unsupported Optical length: 4963 mm
Optical Length: 12310 mm	Optical Length: 11729 mm
Tube diameter: 254 mm at all bearing and hull gland locations	Tube diameter: 254 mm at all bearing and hull gland locations

Top stem diameter: 70 mm	Top stem diameter: 254 mm
Centre of Gravity is not being provided as part of the Request for Information (RFI)	Centre of Gravity is not being provided as part of the Request for Information (RFI)
Total weight of periscope: ~1775 kg	Total weight of periscope: ~1650 kg

2b.

<b>For Attack Periscope</b>	<b>For Search Periscope</b>
There are no fairings.	There are no fairings.

2c.

<b>For Attack Periscope</b>	<b>For Search Periscope</b>
Upper bearing location: 6206 mm from the top of the pressure hull	Upper bearing location: 5616 mm from the top of the pressure hull
Upper bearing diameter: 254 mm	Upper bearing diameter: 254 mm
Lower bearing location: 2820 mm from the top of the pressure hull	Lower bearing location: 2820 mm from the top of the pressure hull
Upper bearing diameter: 254 mm	Upper bearing diameter: 254 mm

2c(i).

<b>For Attack Periscope</b>	<b>For Search Periscope</b>
<p>Three in total:</p> <ol style="list-style-type: none"> <li>1. The primary support bearing is an integral component of the Crosshead which is fitted to the base of the periscope main tube which is located inboard. The crosshead is connected to the two rams of the elevating gear which pass through the Periscope Hull Gland and suspend the periscope.</li> <li>2. The lower bearing which is located 2820 mm from the top of the pressure hull.</li> <li>3. The Upper Bearing which is located 6206 mm from the top of the pressure hull.</li> </ol>	<p>Three in total:</p> <ol style="list-style-type: none"> <li>1. The primary support bearing is an integral component of the Crosshead which is fitted to the base of the periscope main tube which is located inboard. The crosshead is connected to the two rams of the elevating gear which pass through the Periscope Hull Gland and suspend the periscope.</li> <li>2. The lower bearing which is located 2820 mm from the top of the pressure hull.</li> <li>3. The Upper Bearing which is located 5616 mm from the top of the pressure hull.</li> </ol>

2c(ii).

<b>For Attack Periscope</b>	<b>For Search Periscope</b>
754 mm (from top of bearing not base of bearing)	1344 mm (from top of bearing not base of bearing)

2d.

For Attack Periscope	For Search Periscope
Periscope mast control is conducted by the operator from the Ships Control Console or Tactical Television Video Console which in turn manipulates the Attack Periscope Hydraulic Elevating Gear by means of the hydraulic Control, Throttle and Safety Valves on the Periscope Control Manifold.	Periscope mast control is conducted by the operator from the Ships Control Console or Tactical Television Video Console which in turn manipulates the Search Periscope hydraulic Elevating Gear by means of the hydraulic Control, Throttle and Safety Valves on the Periscope Control Manifold.

2e.

For Attack Periscope	For Search Periscope
No doors or covers on the top of the sail.	No doors or covers on the top of the sail.
Diameter of the of hole = 330mm	Diameter of the of hole = 330mm

2f.

For Attack Periscope	For Search Periscope
762 mm	762 mm

**Question 3:**

What is the electrical interface to the Mast Raising Equipment for Raise and Lower and any height indication?

**Answer 3:**

For Attack Periscope	For Search Periscope
There is a 24 Vdc supply that is utilized within the Ships Control Console and Tactical Television Video Console to manipulate the hydraulic Periscope Control Manifold valves which in turn manipulate the Attack Periscope Hydraulic Elevating Gear. Apart from "Raised" and "Lowered" buttons that illuminate on the Ships Control Console and Tactical Television Video Console when the respective limit switches are activated, there are no height indicators.	There is a 24 Vdc supply that is utilized within the Ships Control Console and Tactical Television Video Console to manipulate the hydraulic Periscope Control Manifold valves which in turn manipulate the Search Periscope Hydraulic Elevating Gear. Apart from "Raised" and "Lowered" buttons that illuminate on the Ships Control Console and Tactical Television Video Console when the respective limit switches are activated, there are no height indicators.

**Question 4:**

Is there an electrical and software Interface Control Drawings available for the interface to the Combat System / Fire Control, and any configuration identification of current installations?

**Answer 4:**

Interface Control Drawings are not being provided as part of this Request for Information (RFI).

**Question 5:**

What are the dimensions of the hoisting hydraulic dimensions and the space between the hoisting rods?

**Answer 5:**

<b>For Attack Periscope</b>	<b>For Search Periscope</b>
For the Attack Periscope Elevating Gear the two hydraulic rams are 520 mm apart (center of ram to center of ram)	For the Search Periscope Elevating Gear the two hydraulic rams are 520 mm apart (center of ram to center of ram)
Ram weight: 740 kg	Ram weight: 737 kg
Ram cylinder diameter: 76 mm	Ram cylinder diameter: 76 mm
Ram cylinder length: 5180 mm	Ram cylinder length: 5105 mm
Ram cylinder bore diameter: 57 mm	Ram cylinder bore diameter: 57 mm
Ram piston diameter: 38 mm	Ram piston diameter: 38 mm
Ram stroke length: 4425 mm	Ram stroke length: 4425 mm
Ram – refers to the machinery used to raise and lower the periscope	Ram – refers to the machinery used to raise and lower the periscope

**Question 6:**

Please clarify what the fifth boat set refers to within section 1.1 of Annex B? Should it be considered as a spare to be installed onboard, or a training system (for instance as a training platform onshore)?

**Answer 6:**

The fifth boat set was included to assist in determining if there were economic order of quantities associated with the potential procurement.

**ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED AND IN FULL EFFECT.**