

**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 0A1 / Noyau 0A1  
Gatineau  
Québec  
Core 0A1

**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**  
Tactical Armoured Patrol Vehicle Project/Projet du  
véhicule blindé tactique de patrouille.  
105 Hotel de Ville, 3rd Floor  
Gatineau  
Quebec  
K1A 0S5

<b>Title - Sujet</b> Rugged Processors & Displays	
<b>Solicitation No. - N° de l'invitation</b> W847L-140063/A	<b>Amendment No. - N° modif.</b> 006
<b>Client Reference No. - N° de référence du client</b> W847L-140063	<b>Date</b> 2013-09-11
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$TAP-004-23919	
<b>File No. - N° de dossier</b> 004tap.W847L-140063	<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 2013-10-31</b>	
<b>Time Zone</b> Fuseau horaire 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> Vallee, Jackie	<b>Buyer Id - Id de l'acheteur</b> 004tap
<b>Telephone No. - N° de téléphone</b> (819) 997-1709 ( )	<b>FAX No. - N° de FAX</b> (819) 997-0786
<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>

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**AMENDMENT 006:**

The purpose of this amendment is to:

1. Amend portions of the Statement of Work and its appendices; and
2. Provide answers to suppliers' questions.

**THE FOLLOWING MODIFICATIONS AND CLARIFICATIONS FORM PART OF THE SOLICITATION:**

1. Modifications related to Supplier Question #22

- (a) At Appendix A1, Paragraph 2.1.20.1 and Appendix C2, item 2.1.20.1:

**DELETE** in its entirety.

**INSERT** in lieu:

The 28 Volts DC input power of the RP-T should meet TEMPEST requirements in accordance with CID/09/15A, with the RP-T operating in standalone mode for Level II electric-field radiated (ER) and Level I BLACK Line Conduction (BLC).

- (b) At Appendix A2, section 2.1.17.1 and Appendix C4, item 2.1.17.1:

**DELETE** in its entirety.

**INSERT** in lieu:

The 28 Volts DC input power of the RD-T should meet TEMPEST requirements in accordance with CID/09/15A, with the RD-T operating in standalone mode for Level II electric-field radiated (ER) and Level I BLACK Line Conduction (BLC).

2. Modifications related to Supplier Question #25

- (a) At Appendix A1, Paragraph 2.1.2.2:

**DELETE** in its entirety.

**INSERT** in lieu:

*(not used)*

- (b) At Appendix C1:

**DELETE** row 2.1.2.2 in its entirety

- (c) At Appendix A1, Paragraph 2.1.2.3 and Appendix C2 item 2.1.2.3:

**DELETE** in its entirety.

**INSERT** in lieu:

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The RP-T RAM should be expandable to a total of 32.0 GB of RAM. When the memory is expandable, the expansion capability shall be installed in replaceable modules with a minimum of two module slots providing for the installation of additional memory. Memory expansion that requires the replacement of the original memory, through replacement with a higher density module, is acceptable.

3. Modification related to Supplier Question #26

At Appendix A1, Paragraph 2.1.12.6 and Appendix C1 item 2.1.12.6:

**DELETE:** three hundred and fifty (350)

**INSERT** in lieu: two hundred and fifty (250)

4. Modification related to Supplier Question #28

(a) At Appendix A1, Paragraph 2.1.10.2.3 and Appendix C1, item 2.1.10.2.3:

**DELETE** in its entirety.

**INSERT** in lieu:

Within Domain 2 the RP-T shall include at least one port compliant with the electrical and electronic requirements of the USB v2.0 or v3.0 specification (excluding the connector type limitations) in addition to the USB port required by the RD-T (App. A2, 2.1.8.5), if applicable (RD-T touchscreen / bezel buttons are accessed by USB).

(b) At Appendix A1, Paragraph 2.1.10.2.4 and Appendix C2, item 2.1.10.2.4:

**DELETE** in its entirety.

**INSERT** in lieu:

Within Domain 2 the RP-T should include at least two ports compliant with the electrical and electronic requirements of the USB v2.0 or v3.0 specification (excluding the connector type limitations) in addition to the USB port required by the RD-T (App. A2, 2.1.8.5), if applicable (RD-T touchscreen / bezel buttons are accessed by USB).

5. List of Suppliers' Questions:

#	RFP Ref.	Question	Answer
16	Annex A, para 4.2	<p>The reference states: "Technical documentation for this Contract includes interface control documentation and service and operator manuals for the equipment."</p> <p><b>Question: There are no DND CFTO Specifications listed as requirements for the documentation identified in section 4.2 of the SOW. Will the manuals need to be formatted to any DND Specs such as C-10-100-100/AG-006 or C-01-100-100/AG-008 or is supplier format acceptable?</b></p>	Supplier format is acceptable.
17	Annex A, para 4.2	<p>The reference states: "Except as noted otherwise, all technical documentation delivered under the Contract shall be delivered by electronic means in the portable document format (PDF)."</p> <p><b>Question: The requirement in section 4.2 of the SOW for document deliveries is PDF. Does the Canadian Government also expect original source file (i.e. MS Word, Framemaker, CGM files, or other, etc.) to be delivered as well?</b></p>	The sole requirement if for documentation in PDF format.
18	Annex A, para. 4.3.1	<p>The reference states: "Within four months of contract award, the Contractor shall deliver a draft maintenance training package sufficient to train DND technical staff to diagnose failures in the supplied equipment."</p> <p><b>Question: There are no DND CFTO Specifications listed as requirements for the training development and training documentation identified in section 4.3 of the SOW. Will the training have to be developed in accordance with A-P9-000 series specs (i.e. CFP 9000) or is supplier format acceptable?</b></p>	Supplier format is acceptable.
19	Annex A, para 4.3.1.1	<p>The reference states: "The final version of the training package shall be provided in both English and French."</p> <p><b>Question: Are stand-alone English/French documents acceptable or do the documents have to be in a bilingual side-by-side format?</b></p>	Either format is acceptable.

#	RFP Ref.	Question	Answer
20	Appendix A1, paragraphs 2.1.12.2, 2.1.12.3, 2.1.12.4, 2.1.12.5	<p>The reference states:</p> <p>2.1.12.2 The RP-T shall achieve a minimum composite computational performance score (CPU Mark) on the PassMark® benchmark of six thousand (6,000)</p> <p>2.1.12.3 The RP-T shall achieve a minimum composite computational performance score (CPU Mark) on the PassMark® benchmark of four thousand five hundred (4,500) while the video acquisition system is digitizing, encoding and recording full motion video (at full NTSC frame rates and a resolution of 640 by 480 pixels) from two (2) video sources</p> <p>2.1.12.4 The RP-T shall achieve a minimum composite 2D graphics performance score (2D Graphics Mark) on the PassMark® benchmark of four hundred (400)</p> <p>2.1.12.5 The RP-T shall achieve a minimum composite 3D graphics performance score (3D Graphics Mark) on the PassMark® benchmark of three hundred and fifty (350)</p> <p><b>Question: Would it be possible to substitute a performance metric based upon CPU utilization in the target application, rather than the benchmark criteria specified?</b></p>	No.
21	Appendix A1, paragraph 2.1.2.3	<b>Question: Would the Crown consider replacing the rated requirement relating to RAM expansion (Appendix A1 - 2.1.2.3) with a rated requirement relating to provision for upgrading the CPU?</b>	No.
22	Appendix A1 Paragraph 2.1.20.1	<p>The reference states: The RP-T should meet TEMPEST requirements in accordance with CID/09/15A, with the RP-T operating in standalone mode for Level II electric-field radiated (ER) and Level I BLACK Line Conduction (BLC).</p> <p><b>Question: We believe it is not technically feasible to achieve compliance with the TEMPEST Level 1 BLC requirements for all RP-T data-to-data interfaces within the space claim provided. Could you clarify that the Level 1 BLC requirement (Appendix A1: 2.1.20.1) should be applicable to the 28Vdc input power interface only.</b></p>	Yes. The requirement was amended.

#	RFP Ref.	Question	Answer
23	Appendix C2, Item 2.1.20.1 and Appendix C4, item 2.1.17.1	<p>The reference states: The contractor shall provide test results demonstrating compliance from an independent third party test laboratory for the equipment offered, or for a previous generation of the same equipment.</p> <p><b>Question: We believe that TEMPEST test results of a previous generation of the same equipment has minimal value to the TAPV program. We recommend that the bid sample be scanned instead to verify compliance (change the Means of Compliance from "Supporting Data" to "Bid Sample").</b></p>	The means of compliance will not be changed. The test results required to demonstrate compliance are to ensure that the bidder has a current and credible competence in this capability and that the risk of production deliverables failing to meet the requirement is reduced.
24	Appendix C2, Item 2.1.20.1 and Appendix C4, item 2.1.17.1	<b>Question: If the Means of Compliance stays the same (Supporting Data), could you confirm that any DND-certified TEMPEST facility qualifies as an "independent third party test laboratory"?</b>	Yes.
25	Appendix A1, Paragraph 2.1.2.2	<p>The reference states: "The RP-T memory shall be installed in replaceable modules with a minimum of two module slots."</p> <p>We know that socketed RAM modules experience high fallout rates at both manufacturing and in the field due to a range of factors. Testing shows that a 'memory down' architecture is more appropriate for the Combat vehicle environment.</p> <p><b>Question: Could you confirm that it is necessary to use replaceable memory modules in the RP-T (Appendix A1: 2.1.2.2) if the system will be bid with a maximum of 16 GB memory addressable by the processor?</b></p>	No, replaceable memory modules would not be required. The requirement is changed.
26	Appendix A1, Paragraphs 2.1.3.4 and 2.1.12.6	<p>The reference states: The SSD and controller shall conform to the Serial Advanced Technology Attachment (SATA) revision 2.6, 3.0, or 3.1 standard.</p> <p><b>Question: Is the disk performance requirement (Appendix A1: 2.1.12.6 - 350 MB/s) correct in that it is not achievable with the SATA 2.6 SSD interface which is allowed in the requirement at Appendix A1, 2.1.3.4?</b></p>	No. The disk performance requirement is amended to allow for a lower performance.
27	Appendix A2	<b>Question: The RD-T specification does not specify common combat vehicle crewstation display requirements such as Sunlight Readability, Viewing cone or Chromaticity. Are there additional display performance requirements beyond those stated?</b>	No.

#	RFP Ref.	Question	Answer
28	Appendix A1 Paragraphs 2.1.10.2.3, 2.1.10.2.5, 2.1.13.8 and 2.1.13.9	<p>The references state:</p> <p>2.1.10.2.3 Within Domain 2 the RP-T shall include at least two ports compliant with the electrical and electronic requirements of the USB v2.0 or v3.0 specification (excluding the connector type limitations)</p> <p>2.1.10.2.5 Within Domain 2 the RP-T shall include at least one RS 232 port</p> <p>2.1.13.8 The RP-T should support return to the operating state (wake) from the low latency sleep state upon receipt of characters (touchscreen input) on the RS 232 interface included in domain 2</p> <p>2.1.13.9 The RP-T should support return to the operating state (wake) from the low power sleep state upon receipt of characters (touchscreen input) on the RS 232 interface included in domain 2</p> <p><b>Question: Please clarify the requirement for USB and RS232 interfaces within Domain 2 of the RP-T (relating to requirements at A1: 2.1.10.2.3, 2.1.10.2.5, 2.1.13.8 and 2.1.13.9)</b></p>	<p>The USB and RS232 interfaces within Domain 2 support both the connection of the RP-T to the built-in displays of the TAPV and the RD-T offered by the bidder.</p> <p>The current TAPV built-in display requires an <u>RS232</u> interface to support its touchscreen.</p> <p>The bidder may use either RS232 or USB (in accordance with App. A2, 2.1.8.5) to support the touchscreen and bezel button functionality requirement of the RD-T.</p> <p>The RP-T requirement for USB ports is therefore amended to consider the possibility that a USB port may not be required for the RD-T offered by the bidder. Please refer to the amendment section.</p>
29	Appendix A1, Para 2.1.9.2	<p>The reference states: The RP-T shall support three security domains</p> <p><b>Question: Please clarify your definition of security domains. Is it different virtual machines running on the same processor with resources dedicated to each virtual machine? Or will there be only one host operating system with different physical resources, i.e. an Ethernet port on board and another on a PCIe?</b></p>	<p>The input / output is identified in terms of domains to allow the installation of a secure kernel that will statically allocate system resources to virtual machines. Each virtual machine may operate on data of a different security classification (Multiple Independent Levels of Security).</p>
30	Appendix A1, Para 2.1.10.2.1 and 2.1.10.2.2	<p>The references state:</p> <p>2.1.10.2.1 Within Domain 2 the RP-T shall include one video graphics array (VGA) compatible analog video output</p> <p>2.1.10.2.2 Within Domain 2 the RP-T shall include at least one additional video output conforming to the specifications of one of the VGA, DVI-I, DisplayPort v1.2, or HDMI standards</p> <p><b>Question: According to these two (2) requirements, the video outputs would be only used by Domain 2, which means there would be no mean of displaying images from security domain 1 and 3? How can the operator access those security domains?</b></p>	<p>Transfer of selected data between domains is a function of the software solution implementing multiple security domains.</p>

Solicitation No. - N° de l'invitation

W847L-140063/A

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

W847L-140063

Amd. No. - N° de la modif.

006

File No. - N° du dossier

004tapW847L-140063

Buyer ID - Id de l'acheteur

004tap

CCC No./N° CCC - FMS No/ N° VME

#	RFP Ref.	Question	Answer
31	Appendix C1, Items 2.1.18.1/2/3/4/5/7, Item 2.1.19.1/2/3, Appendix C2, Items 2.1.19.4 and 2.1.20.1	<b>Question: Those requirements refer to RD-T, but are under the RP-T requirements. Are these type errors or are these requirements only applicable to RD-T?</b>	These references to RD-T in Appendix C1 and C2 are a result of editing errors. Errors were corrected in Amendment 004.
32	Appendix A1 vs Appendix C1 and C2, Appendix A2 VS Appendix C3 and C4	<b>Question: If there are any discrepancies between requirements listed in Appendix A1/A2 and C1/C2/C3/C4 could you state which one has priority?</b>	Any discrepancies identified should be brought to the attention of the Contracting Authority and will be addressed on a case by case basis. Appendices A1 and A2 will normally have precedence over C1, C2, C3 and C4.

**ALL OTHER TERMS AND CONDITIONS OF THE SOLICITATION REMAIN UNCHANGED.**