



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

Title - Sujet Simulation de systèmes d'armes	
Solicitation No. - N° de l'invitation W7701-166176/B	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client W7701-166176	Date 2018-07-29
GETS Reference No. - N° de référence de SEAG PW-\$QCL-025-17429	
File No. - N° de dossier QCL-6-39317 (025)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-08-23	
Time Zone Fuseau horaire Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes	
Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Lemay, Hélène	Buyer Id - Id de l'acheteur qc1025
Telephone No. - N° de téléphone (418) 649-2974 ()	FAX No. - N° de FAX (418) 648-2209
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

Solicitation No – N° de l'invitation
W7701-166176/B
Client Ref No. – N° de réf. du client
W7701-166176

Amd. No. – N° de la modif.
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File No. – N° du dossier
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Buyer ID – id de l'acheteur
QCL025

W7701-166176/B – Weapons systems simulation

Amendment 002

The purpose of this amendment is:

- 1) To provide minutes from Bidder's Conference
 - 2) To provide Questions and Answers
 - 3) Amend the Request for proposal
-

1) Minutes from Bidder's Conference

The bidders' conference was held at 1550 Estimauville Avenue in Quebec City, July 4, 2018 at 10 a.m. in Public Works and Government Services Canada (PWGSC) offices.

The contracting authority gave the following information regarding the conference:

- Attendance at the conference is not mandatory in order to submit a proposal to the Request for Proposal W7701-166176/B;
- The conference cannot be recorded;
- A presentation will be made by the Technical authority;
- We will respond to the questions asked in the conference, as long as it remains unclassified;
- If we do not have the answer today, the answer will be provided by a questions and answers solicitation amendment;
- Minutes of the conference will be published in a solicitation amendment.

The Technical Authority has made a project's presentation and the Request for Proposal W7701-166176/B changes made were explained.

The content of the presentation can be found in Annex of this amendment.

The questions and answers provided at the conference can be found at item 2) questions and answers below.

The contracting authority concluded the Bidder's conference and inform bidders to submit their questions in writing to Helene.Lemay@tpsgc-pwgsc.gc.ca

The bidders' conference ended at 11:05.

2) Questions and Answers:

Question 1:

Is the integration to perform in task 5.10 a release, i.e. the code must be integrated in the trunk, it is not only a copy of a branch?

Answer 1:

Yes, the code integration must be performed in the trunk.

Question 2:

Is work with hardware-in-the-loop planned?

Answer 2:

No, it is not planned.

Question 3:

Is it possible to perform all work on-site?

Answer 3:

No, a small part of the work can be performed on-site when necessary, but most of the work must be performed off-site.

Question 4:

Is it possible to perform work on-site for the whole team?

Answer 4:

No, there is no room for an entire team. One person, for example responsible for the integration, could work on-site full-time, and a few people could work on-site on an ad hoc basis depending on the needs, but the remaining work must be performed off-site.

Question 5:

How often should the integration take place?

Answer 5:

At least once a month, it is possible to integrate more often when required, but the minimum is once a month.

Question 6:

What is the security level required for the facilities?

Answer 6:

The work is up to NATO SECRET and with controlled goods. There is no need for Top secret for this contract.

Question 7:

What is the delay to inform the Valcartier Research Centre gate for a visit in order to perform the integration?

Answer 7:

The gate must be informed at least 24 hours in advance.

Question 8:

Once the contract is awarded, will a special attention be paid to the awarding of the task authorizations in order to avoid laboratories or other VPG systems access problems?

Answer 8:

Yes, attention will be paid to provide the required access when applicable.

Question 9:

What type of license is required for a computer to be provided?

Answer 9:

These licenses are for compiling some Karma digital models. These models are used in almost all scenarios so having a computer able to compile them will be useful to perform the required tests prior to the integration.

Question 10:

Will the updates of the provided files available?

Answer 10:

Yes, there will be updates of the files in the trunk on a regular basis so the files update should be performed in both directions. The contractor will determine the frequency for the updates from the trunk located at DRDC – Valcartier Research Centre to the contractor facilities. It will be necessary to notify when the contractor enters and leaves DRDC with the transfer media.

Question 11:

Will there be a kick-off meeting and will the specifications on security and on files be addressed?

Answer 11:

Yes, a kick-off meeting will be held after contract award.

Question 12:

Is it possible to know when the minimum guarantee will be used, at the beginning or at the end of the contract?

Answer 12:

It will depend on tasks authorization issued, it should be staggered.

Question 13:

What is the programming vs modelling ratio? There is a percentage provided for evaluation purpose on the request for proposal, but what will it be operationally speaking?

Answer 13:

The ratio should be around 50-50, depending on the needs arising from the task authorizations.

Question 14:

What is the proportion of protected A vs secret work?

Answer 14:

According to the Security Requirements Check List (SRCL), the personnel must hold a security clearance at Secret level.

Question 15:

Is it a renewal of an existing contract?

Answer 15:

No, it is for a new need.

Question 16:

Is it possible to know if tasks authorization are planned in the current fiscal year (up to March 31 2019), and if so, to have an idea of the planned budget?

Answer 16:

It will depend on the rest of the process and the needs at the time of contract award. The amount should not be very high in 2018-2019.

3) Amendments to the Request for Proposal:

3.1) Part 3 – Bid Preparation Instructions, paragraph 1.1, Section 1; Technical Bid

Delete paragraph a)

Replace by :

- a) In their technical bid, bidders should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

3.2 At Annex A, *Statement of Work*

i) Delete paragraph 5.10 Integration of Work and replace by:

5.10 Integration of Work

The Contractor must:

- 5.10.1 Conduct tests prior to the integration of Work in order to minimize the time needed for the integration and the impact on the other development teams.
- 5.10.2 Integrate the Work into the configuration management tool that is already in place without it causing any loss of the tool's history.
- 5.10.3 Conduct the tests required to ensure that the integration of the Work is completed and that the additions/modifications that the Contractor made have no undesired impact on existing services, models and simulations. The Contractor must perform the tests on both networks used when the Work is conducted in Karma.
- 5.10.4 Correct any issue resulting from the integration of the Work as soon as the issue is detected.

The Contractor is responsible for the integration of its Work. The Contractor must integrate its Work at the DRDC – Valcartier Research Centre site at least once a month. The Contractor must take into account the fact that a number of other development teams can change the simulation architecture, the models and/or the tools over the course of the task, and it is the Contractor's responsibility to test its modifications with the latest file version before proceeding with the integration. The Contractor is responsible for gathering the files together and transferring them from its own facilities to the DRDC – Valcartier Research Centre and vice versa in a secure manner while adhering to all of the security rules and policies in place for the two networks used for this project at the DRDC – Valcartier Research Centre (a PA network and a classified network).

ii) Delete paragraph 9 – Location of Work and replace by:

9. LOCATION OF WORK

All Work must be carried out off the DRDC – Valcartier Research Centre site, except for Task 5.10 Work, for Work requiring the use of one of the licences from the second list of licences in section 14 (Special considerations) or when specified in the Task Authorization.

Task 5.10 Work, as well as the Work requiring the use of licences that are not available at the Contractor's facilities from the second list of licences in section 14 (Special consideration), must be performed at the DRDC – Valcartier Research Centre site at the following address:

Defence Research and Development Canada – Valcartier Research Centre
2459 de la Bravoure Road
Quebec City, Quebec
G3J 1X5
Canada

iii) Delete paragraph 13 Government Furnished Equipment (GFE) and replace by:

13. GOVERNMENT FURNISHED EQUIPMENT (GFE)

The complete list of government-furnished equipment will be specified in the Task Authorization Statement of Work. The government-furnished equipment may include the following:

- The Contractor will have access to a limited number of computers at the DRDC – Valcartier Research Centre site. The number of computers available will be specified in the Task Authorization Statement of Work. The software required to carry out the Work will be provided to the Contractor on these computers.
- The Contractor will have access to the WSL and Karma source code and technical documentation. This information must be used only to carry out the Work for this Contract.
 - o All of the necessary files will be provided to the Contractor at the DRDC – Valcartier Research Centre site.
 - o A sub-set of the files will be provided to the Contractor for use in the Contractor's facilities. Files that cannot be distributed to external Contractors and files that are not essential to the completion of the Work will be removed from the complete set.
- The Contractor will be lent one DRDC – Valcartier Research Centre computer on which certain software will be installed, and it can be used at the Contractor's facilities. This computer must be used only to perform the Work set out in this Contract, and the files/software that is on it must never be shared, copied, distributed or sold. The computer must be returned to the DRDC – Valcartier Research Centre at the end of the Contract.
- The Contractor will be provided with the hard drives and/or USB keys for performing classified Work. The hard drives and USB keys must be given back to the DRDC – Valcartier Research Centre at the end of the Contract.

The Contractor is responsible for maintaining the order and cleanliness of the facilities and equipment placed at its disposal by the DRDC – Valcartier Research Centre for the duration of the Work. The equipment provided must be returned in good working order and placed back in its original location at the end of the Work.

iv) Delete paragraph 14 Special considerations and replace by:

14. SPECIAL CONSIDERATIONS

A resource from the Junior Computer Scientist category must be proposed for a task only when he or she has the ability to carry out the Work effectively and independently. For certain tasks, the resource may need to be mentored by a resource in the Senior Computer Scientist category.

A resource from the Physics – Junior category must be proposed for a task only when he or she has the ability to carry out the Work effectively and independently. For certain tasks, the resource may need to be mentored by a resource in the Physics – Aeronautical or Physics – Optical category.

All of the products supplied by the DRDC – Valcartier Research Centre to the Contractor, and all of the products created and/or modified by the Contractor as part of this Contract must be used exclusively to carry out the Work as part of this Contract to meet DRDC – Valcartier Research Centre needs, and they must be given to the Technical Authority at the end of this Contract. No other use is permitted, and the Contractor must not save any copies of the products after the Contract is over. The products include, but are not limited to, source code, reports, models, configuration files, tools, documentation, diagrams, application software, etc. The products include all types of formats (paper, electronic, etc.). The Contractor must at all times take the necessary measures to ensure that the products are not shared, copied, distributed or sold to anyone who is not working on this Contract on behalf of the DRDC – Valcartier Research Centre.

The Contractor must have the following licences, at minimum:

- Microsoft Windows 7 64 bits and subsequent releases.
- Microsoft Visual Studio 2015 and subsequent releases.
- MathWorks Matlab and Simulink 64 bits R2013b, R2016a and subsequent releases.
- Microsoft Office 2010 and subsequent releases.
- Subversion (SVN) 1.8.13 and subsequent releases.
- TortoiseSVN 1.8.11 64 bits and subsequent releases.
- Spectral Sciences, Inc. (SSI) MODTRAN v5 64 bits and subsequent releases.

Having the following licences would enable the Contractor to perform certain Work in its own facilities:

- Sparx Systems Enterprise Architect 13.
- Remograph Remo 3D v2.6.1 64 bits.
- MathWorks Matlab coder and Simulink coder 64 bits R2013b, R2016a and subsequent releases.

The Contractor should use high-performance computers with graphics cards that can support intensive GPU calculations.

The Contractor is responsible for integrating its Work. The Contractor must integrate its Work at the DRDC – Valcartier Research Centre site at least once a month. The Contractor is responsible for gathering the files together and transferring them from its own facilities to the DRDC – Valcartier Research Centre and vice versa in a secure manner while adhering to all of the security rules and policies in place for the two networks used for this project at the DRDC – Valcartier Research Centre (a PA network and a classified network).

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Amd. No. – N° de la modif.
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All of the classified storage devices (hard drives, DVDs, USB keys, etc.) on which Karma components were copied must be given to the Technical Authority at the end of the Contract.

4. Annex 1 - Bidder's Conference presentation



Recherche et développement
pour la défense Canada

Defence Research and
Development Canada

Bidders' conference Contract W7701-166176



DRDC | RDDC



 Canada

Type of contract choice (TA)

- Reasons
 - Priorities reviewed on a regular basis
 - Very difficult to anticipate the specific needs several months/years in advance
- Measures to mitigate the risk for the contractors
 - Increase percentage of guaranteed work

Precisions on statement of work and evaluation criteria

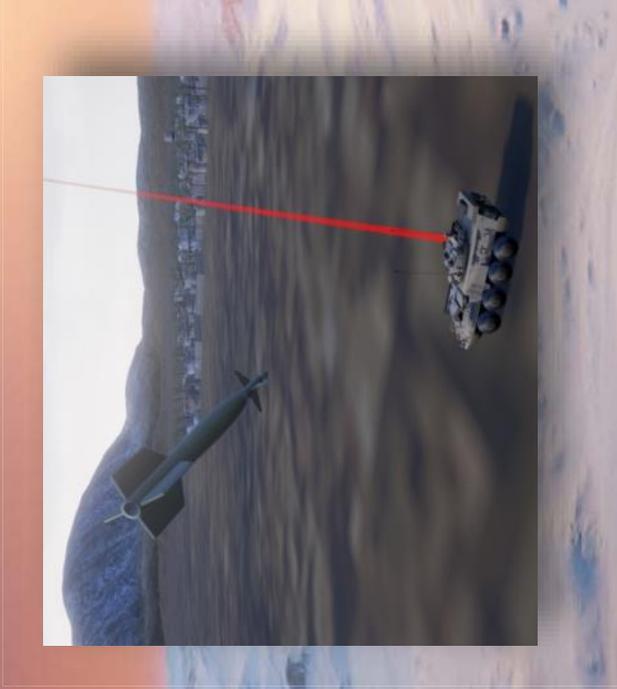
- Context
- Categories of resources
- Off-site work

Context

- Virtual Proving Ground (VPG)
 - Summary
 - VPG provides many modelling and simulation (M&S) tools, including a synthetic environment to conduct weapon engagement simulations, and is used, among other things, to assess the level of protection of some Canadian platforms against electro-optical threats.
 - Link between the contract and VPG
 - The contract is mainly intended to do the work required to support the Weapons Systems section projects that use VPG.
 - Current problem for contracts linked to VPG
 - Lack of contractors



VPG simulation images



Category of resources

- Multidisciplinary team
 - Computer scientist categories (senior and junior)
 - Required for the development of software tools and/or simulation environment following best practices of software engineering.
 - Physics categories (aeronautical, optical and junior)
 - Required for modelling and understanding the functioning of weapons systems and physical phenomenon that could impact and/or guide them.
 - Resources of computer scientist and physics categories must work together because their work are closely linked.
 - Partnerships are welcome and encouraged.
- Junior categories were added to ease succession.

Off-site work (1/6)

- Most of the work can be performed off-site.
- Integration on DRDC – Valcartier Research Centre site
 - Reasons
 - Many projects/contracts work simultaneously on VPG
 - Continuous integration in place

Off-site work (2/6)

- Integration on DRDC – Valcartier Research Centre site (continued)
 - File transfer by the contractor
 - Example of current security constraints to take into account:
 - Virus scan must be performed before data transfer.
 - The transfer device must comply with NDSOD, for example:
 - Blank or reformatted before use
 - No wireless technology
 - Some files must be gathered in a compressed folder (zip)
 - Proper transport and storage according to the classification level
 - Data transfer must be done by a designated and trained person
 - DRDC – Valcartier Research Centre gate must be informed of the entry of the transfer device on site and the proper form must be filled.
 - Security standards and procedures can change at any time

Off-site work (3/6)

- Integration on DRDC – Valcartier Research Centre site (continued)
 - 2 networks of interest for VPG work
 - Protected A network
 - Secret network
 - Synchronization between the 2 networks.
- Meetings
 - Follow-up meetings
 - Architecture meetings
 - Teleconference

Off-site work (4/6)

- Required hardware and software
 - Computers
 - Example of a VPG simulation computer configuration:
 - Processor: Intel i7 5930K
 - RAM memory : 32 GB
 - Video card: NVIDIA GeForce GTX 1070
 - A lot of GPU computation so graphic card is important
 - Hard drive : 1 SSD 512 GB + 1 disk of 1 TB

Off-site work (5/6)

- Required hardware and software (continued)
 - 2 software lists are included in the statement of work
 - One list for frequently used software (mandatory)
 - Difficult to carry out off-site work without these software
 - One list for software used occasionally (optional)
 - Work that require these software could be performed on-site when required

Off-site work (6/6)

- Furnished equipment
 - Classified hard drives
 - 1 computer
 - Some models can only be compiled on this computer
- Files
 - All PA files
 - Only required files for controlled good and/or secret files

Extent of VPG

- Current contracts that include VPG work (all contracts of type task authorisation)

# contract	Title	Start - end of contract	Amount (\$)
W7701-155961	Modelling and Simulation of Military Systems	2016 - 2021	4 M
W7701-166175	Tech Support for Development EO Simulator	2017 - 2022	6 M
W7701-155932	Weapons Systems Integration and Analysis	2015 - 2020	4 M
W7701-155943	Development and Integration of Simulation Capabilities with Hardware	2016 - 2020	850 k

- Increasing demand for work in VPG

Conclusion

- Lack of contractors for contracts including VPG work
 - Partnerships are encouraged
- Main changes made from original tender notice in order to make it possible for more contractors to bid
 - Allow off-site work
 - Evaluation criteria less specific
 - Increase of the percentage of guaranteed work



Questions





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FOR CANADA'S DEFENCE AND SECURITY

SCIENCE, TECHNOLOGIE ET SAVOIR
POUR LA DÉFENSE ET LA SÉCURITÉ DU CANADA



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Client Ref No. – N° de réf. du client
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ALL OTHER TERMS AND CONDITIONS REMAINS UNCHANGED