



**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

**REQUEST FOR PROPOSAL**  
**DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

|  |  |
|--|--|
| <b>Title - Sujet</b><br>Simulation de systèmes d'armes   |  |
| <b>Solicitation No. - N° de l'invitation</b><br>W7701-166176/B   | <b>Date</b><br>2018-06-22  |
| <b>Client Reference No. - N° de référence du client</b><br>W7701-166176  |  |
| <b>GETS Reference No. - N° de référence de SEAG</b><br>PW-\$QCL-025-17429  |  |
| <b>File No. - N° de dossier</b><br>QCL-6-39317 (025)   | <b>CCC No./N° CCC - FMS No./N° VME</b>                                     |
| <b>Solicitation Closes - L'invitation prend fin</b><br><b>at - à 02:00 PM</b><br><b>on - le 2018-07-19</b>   | <b>Time Zone</b><br><b>Fuseau horaire</b><br>Heure Avancée de l'Est<br>HAE |
| <b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes<br><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><br>Lemay, Hélène   | <b>Buyer Id - Id de l'acheteur</b><br>qcl025                               |
| <b>Telephone No. - N° de téléphone</b><br>(418) 649-2974 ( )   | <b>FAX No. - N° de FAX</b><br>(418) 648-2209                               |
| <b>Destination - of Goods, Services, and Construction:</b><br><b>Destination - des biens, services et construction:</b><br>RDDC-R et D Défense Canada-Valcartier<br>DRDC-Défence R&D Canada-Valcartier<br>Bâtisse 53<br>2459, route de la Bravoure<br>QUEBEC<br>Québec<br>G3J1X5<br>Canada |  |

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**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>Delivery Required - Livraison exigée</b><br>Voir doc.   | <b>Delivery Offered - Livraison proposée</b> |
| <b>Vendor/Firm Name and Address</b><br><b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>   |  |
| <b>Telephone No. - N° de téléphone</b><br><b>Facsimile No. - N° de télécopieur</b>   |  |
| <b>Name and title of person authorized to sign on behalf of Vendor/Firm</b><br><b>(type or print)</b><br><b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b><br><b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b> |  |
| <b>Signature</b>   | <b>Date</b>                                  |

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**This bid solicitation cancels and supersedes previous bid solicitation number W7701-166176/A dated June 16, 2017 with a closing of August 31, 2017 at 2:00 PM. A debriefing or feedback session will be provided upon request to bidders/offerors/suppliers who bid on the previous solicitation.**

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## PART 1 - GENERAL INFORMATION

### 1. Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include :

- Annex A Statement of Work
- Annex B Basis of Payment
- Annex C Contractor Disclosure of Foreground Information
- Annex D Security Requirements Check List
- Annex E DND 626, Task Authorization Form

Attachments include:

- Attachment 1 Evaluation of Price
- Attachment 2 Mandatory and Point Rated Technical Criteria
- Attachment 3 Financial Bid Presentation Sheet
- Attachment 4 Federal Contractors Program for Employment Equity – Certification

### 2. Summary

#### 2.1 Objective

The Weapons Systems (WS) Section uses the WeaponsSystemsLibrary (WSL) for its work involving weapons systems modelling and simulation. This library uses the Matlab/Simulink environment, which is very familiar to and valued by members of the Section. The Section would therefore like to continue working with this library. Also, the Electro-Optical Warfare (EOW) and Defence Engineering Valcartier (DeV) sections use Virtual Proving Ground (VPG) for their modelling and simulation work. VPG includes Simulink and C++ models, a simulation environment entitled Karma that is developed in C++, as well as other tools. With respect to software architecture and services provided, Karma is more flexible and advanced than WeaponsSystemsLibrary. In fact, Karma includes an infrared scene generator and an advanced environmental model. For some of its work, the WS Section would like to use models and

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services available in VPG to study the impact of a degraded environment on the performance of a weapons system. In addition, the integration of the WeaponsSystemsLibrary models into VPG would make it possible to promote collaborative work and the exchange of models between the WS Section and the EOW and DeV sections. It was therefore decided that, for certain projects, VPG would be used, which requires the integration of certain WSL models into VPG, the adaptation of the Karma simulation environment to the specific needs of these models, the execution of simulations in VPG and the Verification and Validation (V&V) of models.

The tasks to be carried out may be as follows:

- 5.1 Study of weapons systems / technology / models / software
- 5.2 Development of weapons systems models
- 5.3 Verification and Validation of weapons systems models, simulations or specialized software
- 5.4 Integration of models into a simulation environment
- 5.5 Addition to or modification of a simulation environment
- 5.6 Development/modification of modelling and simulation tools
- 5.7 Execution of simulations
- 5.8 Analysis of simulation results
- 5.9 Documentation
- 5.10 Integration of Work

## 2.2 Additional Information

- i. The organization for which the services are to be rendered is Defence Research and Development Canada - Valcartier (DRDC - Valcartier).
- ii. The period of the Contract is from the Contract Award date to five years after Contract Award date, inclusively.
- iii. The estimated maximum funding available for the Contract resulting from the bid solicitation is \$2 000 000.00 (Applicable Taxes extra).
- iv. All or parts of the Work will be performed on an "as and when requested basis", using a Task Authorization (TA).

A contract with Task Authorizations (TAs) is a method of supply for services under which all of the work or a portion of the work will be performed on an "as and when requested basis". Under contracts with TAs, the work to be carried out can be defined but the exact nature and timeframes of the required services, activities and deliverables will only be known as and when the service(s) will be required during the period of the contract. A TA is a structured administrative tool enabling the Crown to authorize work by a contractor on an "as and when requested" basis in accordance with the conditions of the contract. TAs are not individual contracts.

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- v. Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada
  - vi. Task 5.10 Work, as well as the Work requiring the use of licences that are not available at the Contractor's facilities, 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

**The other Work may be carried out off the DRDC – Valcartier Research Centre site.**

- vii. There is a security requirement associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 - Resulting Contract Clauses. Bidders should consult the "Security Requirements for PWGSC Bid Solicitations - Instructions for Bidders" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the Departmental Standard Procurement Documents website."
- viii. The requirement is subject to the Canadian Free Trade Agreement (CFTA).
- ix. The requirement is limited to Canadian goods and(or) services.
- x. This procurement is subject to the Controlled Goods Program.
- xi. There is a Federal Contractors Program (FCP) for employment equity requirement associated with this procurement; see Part 5 - Certifications, Part 7 - Resulting Contract Clauses and the attachment named Federal Contractors Program for Employment Equity – Certification.
- xii. The Contractor must complete and submit a Foreign Ownership, **Control and Influence (FOCI) Questionnaire and associated documentation identified in the FOCI** Guidelines for Organizations prior to contract award to identify whether a third party individual, firm or government can gain unauthorized access to CLASSIFIED FOREIGN information/assets.

### 3. Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within **15 working days** from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

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## PART 2 - BIDDER INSTRUCTIONS

### 1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2016-04-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

**Delete:** sixty (60) days

**Insert:** one hundred twenty (180) days

#### 1.1 SACC Manual Clauses

A7035T(2007-05-25), List of Proposed Subcontractors

### 2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit, at the address below, by the date and time indicated on page 1 of the bid solicitation.

**Bid Receiving - PWGSC  
1550, D'Estimauville Avenue  
Quebec, Quebec  
G1J 0C7**

Due to the nature of the bid solicitation, bids transmitted by facsimile or email to PWGSC will not be accepted.

### 3. Former Public Servant – Competitive bid

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

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## Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c. C-17, the *Defence Services Pension Continuation Act*, 1970, c. D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c. R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c. R-11, the *Members of Parliament Retiring Allowances Act*, R.S. 1985, c. M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c. C-8.

## Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes ( ) No ( )**

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

## Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes ( ) No ( )**

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;

- 
- c. date of termination of employment;
  - d. amount of lump sum payment;
  - e. rate of pay on which lump sum payment is based;
  - f. period of lump sum payment including start date, end date and number of weeks;
  - g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

#### **4. Communications - Solicitation Period**

All enquiries must be submitted in writing to the Contracting Authority, H el ene Lemay, at [Helene.Lemay@tpsgc-pwgsc.gc.ca](mailto:Helene.Lemay@tpsgc-pwgsc.gc.ca), **no later than 7 calendar days before the bid closing date**. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a "proprietary" nature must be clearly marked "proprietary" at each relevant item. Items identified as proprietary will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

#### **5. Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

#### **6. Bidder's Conference**

A bidders' conference will be held at Publics Works and Government Services Canada, 1550 av. D'Estimauville, Qu ebec, Qc, G1J 0C7 on **Wednesday July 4<sup>th</sup>, 2018**. The conference will begin at **10:00 AM**. The scope of the requirement outlined in the bid solicitation will be reviewed during the conference and questions will be answered. It is recommended that bidders who intend to submit a bid attend or send a representative.

Bidders are requested to communicate with the Contracting Authority before the conference to confirm attendance. Bidders should provide, in writing, to the Contracting Authority, the name(s) of the person(s) who will be attending and a list of issues they wish to table no later than Tuesday, **July 3<sup>rd</sup>, at 2:00 PM**

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Any clarifications or changes to the bid solicitation resulting from the bidders' conference will be included as an amendment to the bid solicitation. Bidders who do not attend will not be precluded from submitting a bid.

## **7. Basis for Canada's Ownership of Intellectual Property**

Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada on the following ground: National Security.

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## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

|              |                                      |
|--------------|--------------------------------------|
| Section I:   | Technical Bid (5 hard copies)        |
| Section II:  | Financial Bid (1 hard copy)          |
| Section III: | Certifications (1 hard copy)         |
| Section IV:  | Additional Information (1 hard copy) |

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper; and
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- (1) use paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- (2) use an environmentally-preferable format including black and white printing instead of colour printing, print double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### 1.1 Section I: Technical Bid

- a) In their technical bid, bidders must demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability in a thorough, concise and clear manner for carrying out the work.

The technical bid 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.

- b) The technical bid consists of the following:
  - (i) All the information required to demonstrate its conformity with the Mandatory and Point Rated Technical Criteria described in **Attachment 2**.
  - (ii) Each criterion should be addressed separately.
  - (iii) In order to allow the evaluation team to properly evaluate each technical evaluation criteria (mandatory and rated), the Bidder must clearly indicate the name of the

- 
- proposed resources. Each resource must be proposed for at least one category in Attachment 2.
- (iv) The technical bid should demonstrate that each proposed resources meets the qualification requirements described in Attachment 2 - Mandatory and Point Rated Technical Criteria:
- (A) Proposed resources may be employees of the Bidder or employees of a subcontractor.
  - (B) For educational requirements, Canada will only consider educational programmes that were successfully completed by the resource by the time of bid closing.
  - (C) For any requirements that specify a particular time period (for example, 2 months) of work experience, Canada will disregard any information about experience if the experience claimed does not include the relevant dates (i.e., the start date and end date).
  - (D) For work experience to be considered by Canada, the Bidder must not simply indicate the title of the resource's position, but must demonstrate that the resource has the required work experience by explaining the responsibilities and work performed by the resource while in that position.

## 1.2 Section II: Financial Bid

Bidders must submit their financial bid in accordance with the following:

- a. **Pricing:** Bidders must submit their financial bid in accordance with the **Financial Bid Presentation Sheet in Attachment 3**. The total amount of applicable taxes must be shown separately. Bidders must include a single, firm, all-inclusive price quoted in Canadian dollars.

i. **Regarding the Junior Computer Scientist category:**

For each period of the contract, only one hourly rate must be proposed for this resource category.

ii. **Regarding the Senior Computer Scientist category and the Project Management category:**

For each period of the contract, only one hourly rate must be proposed per resource category or one hourly rate must be proposed per resource.

iii. **Regarding the Physics category:**

For each period of the contract, only one hourly rate must be proposed per resource sub-category or one hourly rate must be proposed per resource. Sub-Categories are:

- Physics – Aeronautical Category
- Physics – Optical Category
- Physics - Junior

### 1.2.1 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

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**1.3 Section III: Certifications**

Bidders must submit the certifications required under Part 5 and must provide the requested Certification in Attachment 4.

**1.4 Section IV: Additional Information**

**1.4.1 Additional Information Precedent to Contract Award**

- i. Bidders must provide a list of names, or other related information as needed, pursuant to section 01 of Standard Instructions 2003.
- ii. For services requirements, Bidders must provide the required information, as detailed in article 3 of Part 2 of the bid solicitation, to comply with Treasury Board policies and directives on contracts awarded to Former Public Servant.
- iii. Security Information, if applicable :
  - a. Name of the individual as it appears on security clearance application form
  - b. Security Screening Certificate form file number
- iv. Canada requests that bidders provide the following information:

**Administrative representative :**

Name :

Telephone :

Facsimile :

Email :

**Technical representative :**

Name :

Telephone :

Facsimile :

Email :

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## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 1. Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### 1.1 Technical Evaluation

##### 1.1.1 Mandatory Technical Criteria

- (i) Each bid will be reviewed for compliance with the mandatory requirements of the bid solicitation. All elements of the bid solicitation that are mandatory requirements are identified specifically with the words “must” or “mandatory”. Bids that do not comply with each and every mandatory requirement will be considered non-responsive and be disqualified.
- (ii) The mandatory requirements are described in: Attachment 2, Mandatory and Point Rated Technical Criteria.

##### 1.1.2 Point Rated Technical Criteria

- (i) Each bid will be rated by assigning a score to the rated requirements, which are identified in the bid solicitation by the word “rated” or by reference to a score. Bidders who fail to submit complete bids with all the information requested by this bid solicitation will be rated accordingly.
- (ii) The rated requirements are described in: Attachment 2, Mandatory and Point Rated Technical Criteria.

#### 1.2 Financial Evaluation

##### 1.2.1 Mandatory Financial Criteria

Bidders must submit their financial bid in accordance with section 1.2 “**Section II: Financial Bid**” of the Part 3 – Bid preparation instructions.

##### 1.2.2 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.

The financial evaluation will be conducted by calculating the “Total Bid Price” using Attachment 4 --Financial Bid Presentation Sheet, completed by the bidders.

The financial evaluation process is described in Attachment 1, Evaluation of Price.

### 2. Basis of Selection

#### Highest Combined Rating of Technical Merit and Price

- 1. To be declared responsive, a bid must:

- a. comply with all the requirements of the bid solicitation;
- b. meet all mandatory technical evaluation criteria; and
- c. obtain the required minimum points for the technical evaluation criteria which are subject to point rating.

The rating is performed on a scale of 150.

2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70 % for the technical merit and 30 % for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted.

If two or more responsive bids receive the same combined score, the responsive bid with the highest score for all technical evaluation criteria will be recommended for award

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 70/30 ratio of technical merit and price, respectively. The total available points equals 195 and the lowest evaluated price is \$664 659,61.

|                                |   | <b>Bidder 1</b>                                | <b>Bidder 2</b>                                   | <b>Bidder 3</b>                                     |
|--------------------------------|---|--|---|---|
| <b>Overall Technical Score</b> |   | 190 / 195                                      | 125 / 195   | 170 / 195   |
| <b>Bid Evaluated Price</b>     |   | 964 535,05\$                                   | 664 659.61\$                                      | 770 878,14\$  |
| <b>Calculations</b>            | $190 / 195 \times 70 = 68,21$                     | $125 / 195 \times 70 = 44,87$                  | $170 / 195 \times 70 = 61,03$                     | $205 / 236 \times 70 = 60.81$                       |
|                                | $664\,659,61\$ / 964\,535,05\$ \times 30 = 20,67$ | $664\,659.61\$ / 664\,659,61\$ \times 30 = 30$ | $664\,659.61\$ / 770\,878,14\$ \times 30 = 25,87$ | $3,734,074.93\$ / 4,161,149.59\$ \times 30 = 26.92$ |
| <b>Combined Rating</b>         |   | 88,88  | 74,87   | 86,90   |
| <b>Overall Rating</b>          |   | 1 <sup>st</sup>                                | 3 <sup>rd</sup>                                   | 2 <sup>nd</sup>                                     |

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## PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and documentation to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default, if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

### 1. Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

#### 1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, if applicable, the Integrity declaration form available on the Forms for the Integrity Regime website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### 2. Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

#### 2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### 2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from [Employment and Social Development Canada \(ESDC\) - Labour's](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) website.

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Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the “[FCP Limited Eligibility to Bid](#)” list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the “[FCP Limited Eligibility to Bid](#)” list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex [Federal Contractors Program for Employment Equity - Certification](#), before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

### **3. Additional Certifications Precedent to Contract Award**

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

#### **3.1 Canadian Content Certification**

This procurement is limited to Canadian services.

The Bidder certifies that:

- ( ) the service(s) offered is (are) a Canadian service as defined in paragraph 2 of clause A3050T.

##### **3.1.1 SACC Manual clause A3050T (2014-11-27), Canadian Content Definition**

#### **3.2 Status and Availability of Resources**

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, by submitting a bid, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

#### **3.3 Education and Experience**

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The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

### **3.4 Language Capability**

The Bidder certifies that it has the language capability required to perform the Work, as stipulated in the Statement of Work.

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## PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

### 1. Security Requirement

1. Before award of a contract, the following conditions must be met:

- (a) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;
- (b) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Part 7 - Resulting Contract Clauses;

Before the award of a Contract, the Bidder(s) must meet the following minimum security requirements:

- i. at least one proposed resources in the "Senior Computer Scientist" category must have a current "NATO Secret" security screening level
  - ii. at least one proposed resources in the "Project Management" category must have a current "Secret" security screening level
  - iii. at least one proposed resources in the "Physics - Electro-optical" category must have a current "NATO Secret" security screening level
- (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.
2. Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.
3. For additional information on security requirements, bidders should consult the "Security Requirements for PWGSC Bid Solicitations - Instructions for Bidders" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the Departmental Standard Procurement Documents website.

### 2. Financial Capability

SACC Manual clause A9033T (2012-07-16), Financial Capability

### 3. Controlled Goods Requirement

SACC Manual clause A9130T (2014-11-27), Controlled Goods Program

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## PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### TITLE: WEAPONS SYSTEMS MODELLING AND SIMULATION

#### 1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_, as and when requested by Canada during the period of the Contract (**to be completed by Canada at contract award**).

An obligation for any Work will come into force only when a Task Authorization (TA) is approved and issued in accordance with the clause entitled "Task Authorization Process".

#### 1.1 Task Authorization

All or parts of the Work of the contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

##### 1.1.1 Task Authorization Process

##### 1.1.1.1 Description of Task Authorization (TA) tasks

Canada will provide the Contractor with a description of tasks.

The description of TA tasks will include information on activities to be performed, a description of the deliverables and a schedule indicating completion dates for the major activities or submission dates for the deliverables. It will also include the applicable bases and methods of payment as specified in the Contract.

More specifically, the description of TA tasks will include the following information:

- (a) the task number;
- (b) a detailed Statement of Work (SOW) for the task, outlining the activities to be performed and the deliverables (such as reports) to be submitted;
- (c) the required start and completion dates (if any);
- (d) a schedule of milestone completion dates for major work activities, deliverables and payments;
- (e) the level of security clearance required of the Contractor's personnel;

Where applicable, the description of TA tasks must also include the following:

- (a) a description of any travel requirements including the content and format of any required travel report;
- (b) the language profile required of the Contractor's personnel;
- (c) categories of resources;
- (d) any other constraints that might affect task completion.

##### 1.1.1.2 Contractor's TA proposal

**Within fifteen (15) business days** of receipt of the description of TA tasks, the Contractor must provide Canada with the proposed total estimated cost for

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performing the tasks and a breakdown of that cost, established in accordance with Annex B – Basis of Payment of the resulting Contract. The Contractor must submit a quote, identifying its proposed resources and detailing the cost and time to complete the task(s).

The proposal will be valid for **at least twenty (20) business days** from the date on which the offer was received. The Contractor will not be paid for preparing or submitting the quote or for providing other information required to prepare and issue the TA. The Contractor must provide all information requested and related to preparation of the TA, within 10 business days of the request by Canada.

When directed by Canada, the Contractor must also provide a technical proposal including, if applicable, the following:

- (a) a description of the understanding of the objectives and the scope of work;
- (b) a description of the approach and methodology that will be used to perform the work;
- (c) a description of the expected deliverables;
- (d) an estimate of the expected degree of success;
- (e) proposed deviations from the requirements;
- (f) identification of the major risks and a risk mitigation plan;
- (g) a comprehensive work schedule and prioritization of activities to be performed.

#### **1.1.1.3 Approval of the Task Authorization**

The Contractor must not begin the work until the approved TA has been received by Canada. The Contractor acknowledges that any work performed before the TA has been received will be done at the Contractor's own risk.

The work will be approved or confirmed by Canada through a Task Authorization Form – DND 626 (see Annex E).

#### **1.1.2 Task Authorization Limit**

The DND Procurement Authority may authorize individual task authorizations up to a limit of **\$125 000.00**, applicable taxes Tax included, inclusive of any revisions.

Any TA to be issued with a value in excess of these limits must be authorized by the Contracting Authority before issuance.

#### **1.1.3 Minimum Work Guarantee - All the Work - Task Authorizations**

1. In this clause,

"Maximum Contract Value" means the amount specified in the "Limitation of Expenditure" clause set out in the Contract, including the Firm part of the Work.

"Minimum Contract Value" **means 30%** of the Maximum Contract Value.

2. Canada's obligation under the Contract is to request Work in the amount of the Minimum Contract Value or, at Canada's option, to pay the Contractor at the end of the Contract in accordance with paragraph 3. In consideration of such obligation, the

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Contractor agrees to stand in readiness throughout the Contract period to perform the Work described in the Contract. Canada's maximum liability for work performed under the Contract must not exceed the Maximum Contract Value, unless an increase is authorized in writing by the Contracting Authority.

3. In the event that Canada does not request work in the amount of the Minimum Contract Value during the period of the Contract, Canada must pay the Contractor the difference between the Minimum Contract Value and the total cost of the Work requested.
4. Canada will have no obligation to the Contractor under this clause if Canada terminates the Contract in whole or in part for default.

#### **1.1.4 Task Authorization - Department of National Defence**

The administration of the Task Authorization process will be carried out by **the Procurement and Payment group at Defence Research and Development Canada - Valcartier, represented by the DND Procurement Authority**. This process includes monitoring, controlling and reporting on expenditures of the contract with task authorizations to the Contracting Authority.

#### **1.2 Disclosure Certification**

On completion of the Work, the Contractor must submit to the Technical Authority and to the Contracting Authority a copy of the Contractor Disclosure of Foreground Information attached as Annex C stating that all applicable disclosures were submitted.

### **2. Standard Clauses and Conditions**

All clauses and conditions identified in the Contract by number, date and title are set out in the *Standard Acquisition Clauses and Conditions* Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### **2.1 General Conditions**

2040 (2016-04-04), General Conditions - Research & Development, apply to and form part of the Contract.

#### **2.2 Supplemental General Conditions**

The following supplemental general conditions apply to and form part of the Contract:

4002 (2010-08-16), Software Development or Modification Services

#### **2.3 SACC Manual Clauses**

K3410C (2015-02-25), Canada to Own Intellectual Property Rights in Foreground Information  
K3305C (2008-05-12), License to Intellectual Property Rights in Foreground Information

### **3. Security Requirement**

The following security requirement (SRCL and related clauses) applies and form part of the Contract.

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### 3.1 SECURITY REQUIREMENT FOR CANADIAN SUPPLIER:

#### SECURITY REQUIREMENT FOR CANADIAN SUPPLIER: PWGSC FILE W7701-166176

1. The Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Facility Security Clearance (FSC) at the level of **NATO SECRET**, with approved Document Safeguarding at the level of **NATO SECRET**, issued by the Canadian Industrial Security Directorate (CISD), Public Works and Services Canada (PWGSC).
2. This contract includes *access to controlled goods*. Prior to access, the contractor must be registered in the Controlled Goods Program of PWGSC.
3. The Contractor/Offeror personnel requiring access to **CLASSIFIED & PROTECTED Non-Restricted CANADIAN** information, assets or *sensitive work site(s)* must EACH hold a valid personnel security screening at the level of **SECRET or NATO SECRET, as required**, granted or approved by CISD/PWGSC.
4. The Contractor/Offeror personnel requiring access to **CANADIAN or FOREIGN CLASSIFIED & PROTECTED Restricted** information, assets or sensitive work site(s) **must be citizens of Canada** and *must* EACH hold a valid personnel security screening at the level of **SECRET or NATO SECRET, as required**, granted or approved by CISD/PWGSC.
5. The Contractor/Offeror personnel requiring access to **NATO UNCLASSIFIED** information or assets **must be citizens of Canada**, and do not require to hold a personnel security clearance; however, the Contractor must ensure that the **NATO UNCLASSIFIED** information is not releasable to third parties and that the "need to know" principle is applied to personnel accessing this information.
6. The Contractor/Offeror personnel requiring access to **NATO CLASSIFIED** information, assets or *sensitive work site(s)* **must be citizens of Canada** and must EACH hold a valid personnel security screening at the level of **NATO SECRET**, granted or approved by the appropriate delegated NATO Security Authority.
7. The Contractor/Offeror MUST NOT utilize its Information Technology systems to electronically process, produce or store any sensitive **CLASSIFIED & PROTECTED** information until CISD/PWGSC has issued written approval. After approval has been granted, these tasks may be performed at the level of **NATO SECRET**.

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8. The Contractor must complete and submit a *Foreign Ownership, Control and Influence* (FOCI) Questionnaire and associated documentation identified in the *FOCI Guidelines for Organizations* prior to contract award to identify whether a third party individual, firm or government can gain unauthorized access to **CLASSIFIED NATO / FOREIGN** information/assets. PWGSC will determine if the company is “*Not Under FOCI*” or “*Under FOCI*”. When an organization is determined to be *Under FOCI*, PWGSC will ascertain if mitigation measures exist or must be put in place by the company so it can be deemed “*Not Under FOCI through Mitigation*”.
  9. The contractor should at all times during the performance of the contract possess a letter from PWGSC identifying the results of the FOCI assessment with a FOCI designation of *Not Under FOCI* or *Not Under FOCI through Mitigation*.
  10. All changes to Questionnaire and associated FOCI evaluation factors must immediately be submitted to the Industrial Security Sector (ISS) to determine if the changes impact the FOCI designation.
  11. Subcontracts, which contain security requirements, are NOT to be awarded without the prior written permission of CISD/PWGSC.
  12. The Contractor/Offeror must comply with the provisions of the:
    - a) *Security Requirements Check List* and Security Guide (if applicable), attached at Annex D ;
    - b) *Industrial Security Manual* (Latest Edition).

### 3.2 Visit Clearance Requests for Employees

As soon as the contract is awarded, the supplier will be required to obtain, without delay, visit clearance from ISS for each of its employees assigned to the contract.

Suppliers must submit a request for visit to ISS. To obtain the form, suppliers may consult the Visit section on the following website: <http://iss-ssi.pwgsc.tpsgc.gc.ca/formulaires-forms/index-eng.html>.

A minimum lead time of 25 working days is required to obtain a visit clearance from ISS.

Without visit clearance, the supplier's employees will not have access to DRDC-Valcartier facilities, leaving the supplier liable for delays in delivery.

Suppliers can consult the ISS Web site on visit clearances at: <http://iss-ssi.pwgsc.tpsgc.gc.ca/msi-ism/index-eng.html> , chapter 6.

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**4. Term of Contract**

**4.1 Period of Contract**

The period of the Contract is from date of Contract to five years after Contract award, inclusive.

**5. Authorities**

**5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Hélène Lemay  
Public Works and Government Services Canada  
1550, Avenue d'Estimauville, Québec, QC G1J 0C7

Telephone : 418-649-2824  
Facsimile : 418-648-2209  
Email : arlow.laliberteseyer@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

**5.2 Technical Authority (to be completed at Contract award)**

The Technical Authority for the Contract is:

Name : \_\_\_\_\_  
Organization: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

**5.3 Contractor's Representative (to be completed at Contract award)**

**Administrative representative :**

Name : \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile : \_\_\_\_\_  
Email : \_\_\_\_\_

**Technical representative :**

Name : \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile : \_\_\_\_\_  
Email : \_\_\_\_\_

**5.4 DND Procurement Authority (to be completed at Contract award)**

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The DND Procurement Authority for the Contract is:

Name : \_\_\_\_\_  
Organization: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The DND Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The DND Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Task Authorizations. The Contractor may discuss administrative matters identified in Task Authorizations with the DND Procurement Authority however the DND Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

## 6. Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](#) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

## 7. Payment

### 7.1 Basis of Payment

One of the following bases of payment will apply to the Task Authorization (TA). The price of the task must be established according to the Annex B- Basis of Payment.

**(i) Professional Services provided under a Task Authorization subject to a Firm Price:**

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the Contractor will be paid a firm price in accordance with the basis of payment, in Annex B, as specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

**(ii) Professional Services provided under a Task Authorization subject to a Ceiling Price:**

The Contractor will be reimbursed its costs reasonably and properly incurred in the performance of the Work, plus a profit, as determined in accordance with the Basis of Payment in Annex B, to the ceiling price specified in the approved TA. Customs duties are included and Applicable Taxes are extra.

The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.

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Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority, before their incorporation into the Work.

*Ceiling price: A ceiling price is the maximum amount of money that may be paid to a contractor. By establishing a ceiling price, the contractor must fulfill all of its contractual obligations relative to the work to which this basis of payment applies without additional payment whether or not the actual costs incurred exceed the ceiling price.*

**(iii) Professional Services provided under a Task Authorization subject to a Limitation of Expenditure:**

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work specified in the authorized Task Authorization (TA), as determined in accordance with the Basis of Payment in Annex B, to the limitation of expenditure specified in the authorized TA.

Canada's liability to the Contractor under the authorized TA must not exceed the limitation of expenditure specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized TA resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

**(iv) Travel and Living Expenses:**

Travel and living expenses will be paid in accordance with the terms and conditions established under Travel and Living Expenses of Annex B.

**7.2 Limitation of Expenditure**

1. Canada's total liability to the Contractor under the Contract must not exceed **2 000 000\$**. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
  - (a) when it is 75 percent committed, or
  - (b) four (4) months before the contract expiry date, or
  - (c) as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.

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3. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

### **7.3 Method of Payment**

**7.3.1** Payments will be made no more than once a month.

**7.3.2** Depending on the basis of payment specified in the applicable TA, one of the following methods of payment clauses will apply.

#### **7.3.2.1 Single Payment** (For a TA subject to a Firm Price, a Ceiling Price or a Limitation of Expenditure)

Canada will pay the Contractor upon completion and delivery of the Work associated with the Task Authorization in accordance with the payment provisions of the Contract if:

- (a) an accurate and complete claim for payment using PWGSC-TPSGC 1111, Claim for Progress Payment, and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all such documents have been verified by Canada;
- (c) the Work delivered has been accepted by Canada.

#### **7.3.2.2 Milestone Payments** (For a TA subject to a Firm Price)

For any task authorization issued under the Contract that includes a schedule of milestone payments to be made once specific portions of the work have been completed and accepted, Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Task Authorization and the payment provisions of the Contract if:

- (a) an accurate and complete claim for milestone payment using PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;
- (c) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

#### **7.3.2.3 Progress Payments** (For a TA subject to a Ceiling Price or a Limitation of Expenditure)

- (a) Canada will make progress payments in accordance with the payment provisions of the Task Authorization and the Contract, no more than once a month, for costs incurred in the performance of the Work up to 90 percent of the amount claimed and approved by Canada if:

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- (i) an accurate and complete claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
  - (ii) the amount claimed is in accordance with the Basis of Payment and the Task Authorization;
  - (iii) the total amount for all progress payments paid by Canada does not exceed 90 percent of the total amount to be paid under the Task Authorization.
  - (iv) all certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives.
- (b) The balance of the amount payable will be paid in accordance with the payment provisions of the Task Authorization and the Contract upon completion and delivery of all work required under the Task Authorization if the Work has been accepted by Canada and a final claim for the payment is submitted.
  - (c) Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the right to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

### **7.3.3 No Responsibility to Pay for Work not performed due to Closure of Government Offices**

- (a) Where the Contractor, its employees, subcontractors, or agents are providing services on government premises under the Contract and those premises are inaccessible because of the evacuation or closure of government offices, and as a result no work is performed, Canada is not responsible for paying the Contractor for work that otherwise would have been performed if there had been no evacuation or closure.
- (b) If, as a result of any strike or lock-out, the Contractor or its employees, subcontractors or agents cannot obtain access to government premises and, as a result, no work is performed, Canada is not responsible for paying the Contractor for work that otherwise would have been performed if the Contractor had been able to gain access to the premises.

## **7.4 SACC Manual Clauses**

A9117C (2007-11-30), T1204 - Direct Request by Customer Department

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C0305C (2014-06-26), Cost Submission

## 7.5 Discretionary Audit

SACC Manual Clause C0705C (2010-01-11), Discretionary Audit

## 8. Invoicing Instructions

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111. Form PWGSC-TPSGC 1111 is available at the following Website <http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>

Each claim must show:

- (a) all information required on form PWGSC-TPSGC 1111;
  - (b) all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
  - (c) the Task Authorization (TA) number, as applicable;
  - (d) the description of the milestone invoiced, as applicable.
2. For the TAs subject to a Ceiling Price or a Limitation of Expenditure, each invoice must be supported by:
    - (a) a list of all expenses, in accordance with the TA if applicable;
    - (b) a copy of time sheets to support the time claimed; the time sheet must also be signed by both the resource and the Contractor's project manager responsible for the work performed.
    - (c) a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses;
    - (d) a copy of the monthly progress report.
  3. Applicable Taxes must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.
  4. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Contracting Authority for certification.

**ATTN: \_\_\_\_\_ (to be completed at Contract award)**  
Public Works and Government Services Canada  
601-1550 D'Estimauville  
Québec, QC.  
G1J 0C7

The Contracting Authority will then forward the original and two (2) copies of the claim to the Technical Authority for appropriate certification after inspection and acceptance of the Work takes place, and onward submission to the Payment Office for the remaining certification and payment.

5. The Contractor must not submit claims until all work identified in the claim is completed.

## 9. Certifications

### 9.1 Compliance

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Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

#### **10. Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_. (***The province or territory will be specified at Contract award.***)

#### **11. Priority of Documents**

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4002 (2010-08-16), Software Development or Modification Services;
- (c) the general conditions 2040 (2016-04-04), General Conditions - Research & Development;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) Annex C, Contractor Disclosure of Foreground Information;
- (g) Annex D, Security Requirements Check List;
- (h) Annex E, DND 626, Task Authorization Form;
- (i) the signed Task Authorizations (including all of its annexes, if any);
- (j) the Contractor's bid dated \_\_\_\_\_ (***to be inserted at contract award.***)

#### **12. Defence Contract**

SACC Manual clause A9006C (2012-07-16), Defence Contract

#### **13. Foreign Nationals (Canadian Contractor)**

SACC Manual clause A2000C (2006-06-16), Foreign Nationals (Canadian Contractor)

#### **14. Insurance**

SACC Manual clause G1005C (2016-01-28), Insurance –No specific requirement

#### **15. Controlled Goods Program**

**15.1** SACC Manual clause A9131C (2014-11-27), Controlled Goods Program

**15.2** SACC Manual clause B4060C (2011-05-16), Controlled Goods

#### **16. Progress Reports**

1. The Contractor must submit monthly reports, on the first business day of each month, in electronic format, on the progress of the Work, to both the Technical Authority and the Contracting Authority.
2. The progress report must contain two parts:

- 
- (a) PART 1: The Contractor must answer the following three questions:
- (i) Is the project on schedule?
  - (ii) Is the project within budget?
  - (iii) Is the project free of any areas of concern in which the assistance or guidance of Canada may be required?
- Each negative response must be supported with an explanation.
- (b) PART 2: A narrative report, brief, yet sufficiently detailed to enable both the Technical Authority and the Contracting Authority to evaluate the progress of the Work, containing as a minimum:
- (i) A description of the progress of each task and of the Work as a whole during the period of the report. Sufficient sketches, diagrams, photographs, etc., must be included, if necessary, to describe the progress accomplished.
  - (ii) An explanation of any variation from the work plan.
  - (iii) A description of trips or conferences connected with the Contract during the period of the report.
  - (iv) A description of any major equipment purchased or constructed during the period of the report.

#### **17. Site Regulations**

The Contractor must comply with all standing orders or other regulations, instructions and directives in force on the site where the Work is performed.

#### **18. Identification Badge**

SACC Manual clause A9065C (2006-06-16), Identification Badge

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## Annex A

### STATEMENT OF WORK

#### 1. TITLE

WEAPONS SYSTEMS MODELLING AND SIMULATION.

#### 2. BACKGROUND AND OBJECTIVE

The Weapons Systems (WS) Section uses the WeaponsSystemsLibrary (WSL) for its work involving weapons systems modelling and simulation. This library uses the Matlab/Simulink environment, which is very familiar to and valued by members of the Section. The Section would therefore like to continue working with this library. Also, the Electro-Optical Warfare (EOW) and Defence Engineering Valcartier (DeV) sections use Virtual Proving Ground (VPG) for their modelling and simulation work. VPG includes Simulink and C++ models, a simulation environment entitled Karma that is developed in C++, as well as other tools. With respect to software architecture and services provided, Karma is more flexible and advanced than WeaponsSystemsLibrary. In fact, Karma includes an infrared scene generator and an advanced environmental model. For some of its work, the WS Section would like to use models and services available in VPG to study the impact of a degraded environment on the performance of a weapons system. In addition, the integration of the WeaponsSystemsLibrary models into VPG would make it possible to promote collaborative work and the exchange of models between the WS Section and the EOW and DeV sections. It was therefore decided that, for certain projects, VPG would be used, which requires the integration of certain WSL models into VPG, the adaptation of the Karma simulation environment to the specific needs of these models, the execution of simulations in VPG and the Verification and Validation (V&V) of models.

#### 3. ACRONYMS

|      |   |
|------|---|
| DeV  | Defence experimentation Valcartier      |
| DLL  | Dynamic Link Library                    |
| DRDC | Defence Research and Development Canada |
| EOW  | Electro-optical warfare                 |
| M&S  | Modelling and simulation                |
| PDF  | Portable document format                |
| SOW  | Statement of Work                       |
| TA   | Technical Authority                     |

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|     |                             |
|-----|-----------------------------|
| UML | Unified Modeling Language   |
| V&V | Verification and validation |
| VPG | Virtual Proving Ground      |
| WS  | Weapons systems             |
| WSL | WeaponsSystemsLibrary       |
| XML | eXtensible Markup Language  |

#### 4. APPLICABLE DOCUMENTS & REFERENCES

None.

#### 5. TASKS

##### **5.1 Study of weapons systems / technology / models / software**

The study will be specified in the Task Authorization Statement of Work. The study may deal with:

- Specific weapons systems;
- Technology used by weapons systems;
- Existing models from different sources; and/or
- Modelling/simulation software or analysis tools.

The objective of the study will be specified in the Task Authorization Statement of Work. The type of objective may include:

- Gathering and analyzing the information available on a topic and making recommendations based on this analysis;
- Analyzing and comparing models or software and making recommendations on their use;
- Studying a model or software to determine possible options for adding a new module and determining the pros and cons of each option; and/or
- Studying a model or software to determine its current condition (functionalities, limitations, complexity, scalability, etc.).

The Contractor must carry out one or more of the following activities:

5.1.1. Conduct a literature review. The subject and potential sources of information will be specified in the Task Authorization Statement of Work.

5.1.2. Conduct software tests to complete, validate or develop specific elements. When the documentation for a model or software is incomplete, insufficiently reliable or out of date, it may be necessary to conduct tests to verify the accuracy of the information or clarify certain undocumented aspects. The aspects to be studied will be specified in the Task Authorization Statement of Work.

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5.1.3. Determine and analyze possible options. When the study pertains to the feasibility of adding a module to an existing software or model, it is important that the different options be evaluated so that the Technical Authority can make an informed decision.

5.1.4. Document the results of the study and/or the options analysis.

5.1.5. Give a presentation and/or demonstration of the Work.

## **5.2 Development of weapons systems models**

The Contractor must carry out one or more of the following activities:

5.2.1 Identify the modelling and simulation requirements.

5.2.2 Carry out the conceptual modelling of the system.

5.2.3 Create the software design.

5.2.4 Develop the digital model.

5.2.5 Conduct software tests.

5.2.6 Document the model.

The Contractor must carry out these activities while following an iterative development process. If the Technical Authority requires a development process in order to, for instance, ensure optimal coordination between the different teams working on the same simulation environment, the process will be clearly described in the Task Authorization Statement of Work. If the Technical Authority requires a modelling language and/or a programming language and/or a development environment and/or a specific documentation template, for reasons of compatibility with the existing models, for example, they will be specified in the Task Authorization Statement of Work.

The Contractor must ensure effective coordination between the steps of the development process and those of the Verification and Validation process if both processes are executed at the same time.

The system to be modelled and the expected fidelity level will be specified in the Task Authorization Statement of Work. The type of systems that the Contractor may be asked to develop could include:

- Generic or specific weapons systems;
- Weapons sub-systems (guidance, control, autopilot, propulsion, aerodynamics, sensor, etc.);
- Systems/technologies used in guided weapons (laser, GPS, etc.);
- Signatures of weapons systems and/or land, maritime or aerial platforms (targets); and
- Environment.

## **5.3 Verification and Validation of weapons systems models, simulations or specialized software**

Verification and Validation could pertain to:

- Digital models;
- The integration of models into a simulation environment;

- 
- Simulations; and
  - Modelling and simulation software or tools.

The Contractor must:

- 5.3.1 Become familiar with the system to be verified and validated.
- 5.3.2 Verify the development requirements of the model/simulation/software to be verified and validated. The Contractor must ensure that all requirements are correct, coherent and complete and that each requirement is testable and stated clearly.
- 5.3.3 Create a Verification and Validation plan. The Contractor must define the tests to carry out and the expected results of the tests, identify the people involved and the validation data to be used.
- 5.3.4 Validate the conceptual model. The Contractor must ensure that the conceptual model is correct, understandable and coherent, and that it incorporates all development requirements.
- 5.3.5 Verify the software design of the model/simulation/software to be verified and validated. The Contractor must ensure that the design was created in accordance with best practices for software engineering and that it fairly and clearly represents the conceptual model.
- 5.3.6 Verify the implementation of the model/simulation/software to be verified and validated. The Contractor must ensure that the implementation meets the established standards (for example, programming rules), is correct, understandable, optimized and properly documented. Certain tests must also be carried out, such as unit and integration tests.
- 5.3.7 Validate results. The Contractor must demonstrate that each requirement is met and carry out tests to compare the results obtained from the execution of the model/simulation/software to verify and validate with the data obtained from the current system, to ensure that the model/simulation/software is representative of the current system.
- 5.3.8 Document the steps, tests and results of the Verification and Validation.

The Contractor must carry out these activities in accordance with a formal Verification and Validation process. The details of this process will be provided in the Task Authorization Statement of Work.

To carry out this task, the Contractor may be required to provide a minimum of two resources for the Verification and Validation, including one resource who was not involved in the development of the model/simulation/software to be verified and validated.

The Contractor must ensure effective coordination between the steps of the Verification and Validation process and those of the development process if both processes are executed at the same time.

The Contractor must plan for interactions with a number of stakeholders, including experts on the system to be validated, whether these are employees of the Contractor or external stakeholders.

#### **5.4 Integration of models into a simulation environment**

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The Contractor must carry out one or more of the following activities:

- 5.4.1 Evaluate the feasibility of integrating the model into a selected simulation environment. Evaluate and document possible problems relating to the integration.
- 5.4.2 Define and evaluate the possible options for integration of the model. Document the options, the Work required for each option and the evaluation of the options. The evaluation must include, but is not limited to:
  - the work required to carry out the integration;
  - standards or processes relating to the simulation environment;
  - the work required for maintenance;
  - ease of use once the model is integrated; and
  - potential for reuse of the model once integrated.
- 5.4.3 Integrate the model in a selected simulation environment.
- 5.4.4 Test the model in the simulation environment. The Contractor must ensure that the integration of the model has not affected the results produced by this model after its integration in the simulation environment. The Contractor must ensure that the model interacts correctly with the other elements of the simulation environment.
- 5.4.5 Document the integration.
- 5.4.6 Give a presentation and/or demonstration of the Work.

The model to be integrated and the selected simulation environment will be specified in the Task Authorization Statement of Work.

### **5.5 Addition to or modification of a simulation environment**

When a weapons system uses a concept that is unavailable, or at an insufficient fidelity level, in the selected simulation environment, it will be necessary to add, or modify the implementation of the concept in the architecture of the simulation environment.

The Contractor must carry out one or more of the following activities:

- 5.5.1 Identify the development requirements of the concept to be added or modified.
- 5.5.2 Develop the conceptual model of the concept to be added/modified.
- 5.5.3 Evaluate the best way to add/modify the concept in the simulation environment. The Contractor must use an approach compatible with the guidelines, philosophy, standards, tools and processes of the selected simulation environment.
- 5.5.4 Create the software design.
- 5.5.5 Carry out the implementation. The Contractor must follow the guidelines, standards and processes of the selected simulation environment. The Contractor must use the programming language and tools used for the development of the selected simulation environment. The Contractor must ensure that the additions/modifications made as part of this task have no undesired effects on the existing services, models and simulations.
- 5.5.6 Conduct software tests.

- 
- 5.5.7 Create the documentation.
  - 5.5.8 Give a presentation and/or demonstration of the Work.

The Contractor must carry out these activities while following an iterative development process. If the Technical Authority requires a development process in order to, for instance, ensure optimal coordination between the different teams working on the same simulation environment, the process will be clearly described in the Task Authorization Statement of Work.

The simulation environment, the concept to be added or modified and the expected fidelity level will be specified in the Task Authorization Statement of Work.

### **5.6 Development/modification of modelling and simulation tools**

The Contractor must carry out one or more of the following activities:

- 5.6.1 Define the development requirements of the tool.
- 5.6.2 Conduct an analysis to determine the best way to create or modify the tool.
- 5.6.3 Create the software design for the tool.
- 5.6.4 Carry out the implementation.
- 5.6.5 Conduct software tests.
- 5.6.6 Create the documentation.
- 5.6.7 Give a presentation and/or demonstration of the Work.

The Contractor must carry out these activities while following an iterative development process. If the Technical Authority requires a development process, the process will be clearly described in the Task Authorization Statement of Work. If the Technical Authority requires a programming language and/or a development environment and/or a specific documentation template, they will be specified in the Task Authorization Statement of Work.

The tool to be developed, or the modifications to be made to an existing tool, will be described in the Task Authorization Statement of Work.

The type of tools that the Contractor may be required to develop/modify include:

- Analysis tools;
- Scenario editing tools;
- Visualization tools; and
- Testing tools.

### **5.7 Execution of simulations**

The Contractor must carry out one or more of the following activities:

- 5.7.1 Establish an execution plan. The Contractor must factor in the number of simulations to be performed, the number of computers available, the time allocated to perform the

- 
- simulations and the risk of having to restart a part of the simulation because of human, software or hardware errors.
- 5.7.2 Develop the scenarios to be performed. The Contractor must configure the simulation parameters. The Contractor must log the values for the parameters of interest for each simulation.
  - 5.7.3 Make the necessary configurations to perform the batch simulations.
  - 5.7.4 Run the simulations.
  - 5.7.5 Verify the results. The Contractor must ensure that all planned simulations have been carried out correctly and without error and that they have produced the expected results.
  - 5.7.6 Present the results clearly and in a format that the Technical Authority can re-use.
  - 5.7.7 Give a presentation and/or demonstration of the Work.

The Contractor must carry out these activities while following an iterative process. The scenario editing tool and the simulation execution tool to be used will be specified in the task Statement of Work. If the Technical Authority requires a data presentation format, it will be specified in the Task Authorization Statement of Work.

The number of simulations to be performed, the scenarios to be developed, the parameters to be changed, the number of computers available and the length of time for which (or the dates for which) the computers will be available to run the simulations will be specified in the Task Authorization Statement of Work.

### **5.8 Analysis of simulation results**

The Contractor must carry out one or more of the following activities:

- 5.8.1 Become familiar with the formats of the raw data to be used for the analysis. The data to be analyzed will be provided by the Technical Authority. The data may come from a number of different sources and be presented in different formats.
- 5.8.2 Analyze data. The type of analysis to be carried out will be specified in the Task Authorization Statement of Work.
- 5.8.3 Present the analyzed data clearly and in a format that the Technical Authority can re-use.
- 5.8.4 Document the data analysis results.
- 5.8.5 Give a presentation and/or demonstration of the analysis.

The type of data that the Contractor may be required to analyze includes:

- Simulation results;
- Trial results;
- Lab experiment results; and
- Data from external sources (allies, international collaborations, etc.).

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## **5.9 Documentation**

The Contractor must:

- 5.9.1 Create a document on the selected product.

The product to be documented, the documentation format, the type of documentation to be prepared and the expected level of detail will be specified in the Task Authorization Statement of Work.

The types of products that the Contractor may be required to document include:

- Models;
- Simulations;
- Analyses;
- Processes; and
- Software.

The types of documentation that the Contractor may be required to prepare include:

- User documentation;
- Developer documentation; and
- Scientific documentation.

## **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. If Work is performed at the Contractor’s own facilities, 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).

## 6. DELIVERABLES

The deliverables will be specified in the Task Authorization Statement of Work. The deliverables may include:

| Number | Reference task | Description of Deliverables   | Quantity and Format   |
|--------|----------------|---|---|
| 6.1    | 5.1            | A report documenting the results of the study or the options analysis.  | 1 copy in Microsoft Word delivered on DVD.  |
| 6.2    | 5.2            | Documentation on the modelling requirements. The documentation must include, and is not limited to, the acceptance criteria for each requirement.             | 1 copy in Microsoft Word delivered on DVD.  |
| 6.3    | 5.2 and 5.10   | The source code of the functional and tested version of the model for each step of development (conceptual model, design, implementation and tests)           | Each file in .eap, .xml, .mdl, .m, .h and .cpp format integrated into the selected configuration management system. |
| 6.4    | 5.2 and 5.10   | The compiled and functional version of the model.   | Each file in DLL or executable format integrated into the selected configuration management system.                 |
| 6.5    | 5.2 and 5.10   | The parameter file(s).  | Each file in XML and/or .m format integrated into the selected configuration management system.                     |
| 6.6    | 5.2            | The technical documentation of the model created. The documentation must include all relevant information for understanding, using and maintaining the model. | 1 copy in Microsoft Word delivered on DVD.  |
| 6.7    | 5.3            | A complete verification and validation report using the selected template and following the selected V&V process.   | 1 copy in Microsoft Word delivered on DVD.  |

|             |                 |   |  |
|-------------|-----------------|---|--|
| <b>6.8</b>  | 5.3 and<br>5.10 | The source code of the functional version of all the tests conducted during Verification and Validation.  | Each file in .xml, .m and .mdl format integrated into the selected configuration management system.  |
| <b>6.9</b>  | 5.4 and<br>5.10 | The source code of the functional and tested model that was integrated into the simulation environment.   | Each file in .mdl, .m, .h, .cpp and .xml format integrated into the selected configuration management system.  |
| <b>6.10</b> | 5.4 and<br>5.10 | The source code of the functional version of all the tests conducted during the integration.  | Each file in .xml, .m and .mdl format integrated into the selected configuration management system.  |
| <b>6.11</b> | 5.4             | A report describing the feasibility study, the options analysis, the Work carried out, the tests conducted and the information needed for the use and maintenance of the model.                             | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.12</b> | 5.5             | The documentation on the development requirements.  | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.13</b> | 5.5 and<br>5.10 | The source code of the functional and tested version of the additions to/modifications of the simulation environment for each step of the development (conceptual model, design, implementation and tests). | Each file produced or modified in .eap, .xml, .mdl, .m, .h, .cpp, .sln and .vcxproj format integrated into the selected configuration management system. |
| <b>6.14</b> | 5.5 and<br>5.10 | The compiled and functional version of the simulation environment.  | Each file in DLL or executable format integrated into the selected configuration management system.  |
| <b>6.15</b> | 5.5 and<br>5.10 | The parameter file(s).  | Each file in XML or .m format integrated into the selected configuration management system.  |
| <b>6.16</b> | 5.5             | The documentation on the Work carried out and the information needed for the understanding, use and maintenance of the developed/modified code.   | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.17</b> | 5.6             | The documentation on the development requirements.  | 1 copy in Microsoft Word delivered on DVD.   |

|             |              |   |  |
|-------------|--------------|---|--|
| <b>6.18</b> | 5.6 and 5.10 | The source code of the functional and tested version of the tool for each step of the development (conceptual model, design, implementation and tests). | Each file produced or modified in .eap, .xml, .mdl, .m, .h, .cpp, .sln and .vcxproj format integrated into the selected configuration management system. |
| <b>6.19</b> | 5.6 and 5.10 | The compiled and functional version of the developed/modified tool.   | Each file in DLL or executable format integrated into the selected configuration management system.  |
| <b>6.20</b> | 5.6 and 5.10 | The parameter file(s).  | Each file in XML, .m or other format integrated into the selected configuration management system.   |
| <b>6.21</b> | 5.6          | The documentation on the Work carried out and the information needed for the understanding, use and maintenance of the developed/modified tool.         | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.22</b> | 5.7 and 5.10 | The source code of the scenarios used.  | Each file in XML, .m, .mdl or other format integrated into the selected configuration management system.   |
| <b>6.23</b> | 5.7 and 5.10 | The simulation results files.   | Each file in original format (raw data) integrated into the shared drive selected on the server.   |
| <b>6.24</b> | 5.7          | The documentation of the scenarios (models used, parameters, etc.) and results.   | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.25</b> | 5.8 and 5.10 | The file of the analyzed simulation results.  | The file in .xlsx format integrated into the shared drive selected on the server.  |
| <b>6.26</b> | 5.8          | A report documenting the analysis results.  | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.27</b> | 5.9          | The documentation on the selected product.  | 1 copy in Microsoft Word delivered on DVD.   |
| <b>6.28</b> | All tasks    | A monthly report including an updated Gantt chart and the updated Work plan.  | 1 copy in Microsoft Word, Microsoft Excel or portable document format (PDF), integrated  |

|             |                 |   |  |
|-------------|-----------------|---|--|
|             |                 |   | into the shared drive selected on the server.                                |
| <b>6.29</b> | All tasks       | An end-of-task report describing the task completed, deliverables, budget spent compared with the forecast budget, problems encountered, lessons learned and improvements to make in similar tasks in the future.   | 1 copy in Microsoft Word delivered on DVD.                                   |
| <b>6.30</b> | End of Contract | All of the government-furnished equipment (GFE) given to the Technical Authority and all of the classified storage devices (hard drives, DVDs, USB keys, etc.) on which Karma (or Karma components) were installed/copied must be given to the Technical Authority.                     |  |
| <b>6.31</b> | End of Contract | A written statement indicating that all of the products (including all of the files and software) from the DRDC – Valcartier Research Centre as part of this Contract have been given to the Technical Authority or destroyed and that no copies remain at the Contractor’s facilities. | 1 copy in electronic format delivered on DVD along with 1 signed paper copy. |

**7. DELIVERY DATE**

The delivery date for each deliverable will be specified in the Task Authorization Statement of Work.

**8. LANGUAGE OF WORK**

Meetings will be held in French but the documentation will be created in English.

**9. LOCATION OF WORK**

Task 5.10 Work, as well as the Work requiring the use of licences that are not available at the Contractor’s facilities, 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

The other Work may be carried out off the DRDC – Valcartier Research Centre site.

## **10. TRAVEL**

The Contractor is not required to travel.

## **11. MEETINGS**

When a Task Authorization is active, meetings will be held every two weeks at the DRDC – Valcartier Research Centre offices to evaluate progress made, problems encountered or anticipated and the deliverables, and to assess the financial situation with respect to the schedule and the progress made. The frequency of the meetings may be changed as needed, in accordance with a mutual agreement between the DRDC Technical Authority and the Contractor.

When a Task Authorization is active, weekly architecture meetings may be held in DRDC – Valcartier Research Centre offices to discuss current and planned Work, at the technical level, with the person in charge of Karma architecture and the other development teams. The meetings will be used to discuss the risks and potential impact of the planned modifications on each project and decide the preferred technical approach to minimize those impacts.

Additional meetings may be held as needed, in accordance with a mutual agreement between the DRDC Technical Authority and the Contractor.

The Contractor can participate in some of the meetings via conference call, in accordance with a mutual agreement between the DRDC Technical Authority and the Contractor.

## **12. GOVERNMENT SUPPLIED MATERIAL (GSM)**

None.

## **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.
- If the Contractor does Work off the DRDC – Valcartier Research Centre site, 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

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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.

- If the Contractor performs Work off the DRDC – Valcartier Research Centre site, 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.

#### **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.

If the Contractor performs Work off the DRDC – Valcartier Research Centre site, 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.

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If the Contractor does Work off the DRDC – Valcartier Research Centre site, 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.

If the Contractor performs Work off the DRDC – Valcartier Research Centre site, it should use high-performance computers with graphics cards that can support intensive GPU calculations.

If the Contractor performs Work off the DRDC – Valcartier Research Centre site, 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).

If the Contractor performs Work off the DRDC – Valcartier Research Centre site, 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.

## **15. PROJECT MANAGEMENT**

For each Task Authorization, the Project Manager must:

- 15.1 Create and maintain a Work schedule and cost report.
- 15.2 Manage human and material resources to achieve optimal execution of the Work.
- 15.3 Provide written minutes of meetings to the Technical Authority. The Technical Authority will inform the Contractor if there are changes or additions to the minutes and will confirm his/her approval.
- 15.4 Coordinate the Work and ensure effective progress.
- 15.5 Provide, on a regular and as-requested basis, the budget spent vs. total planned budget for each sub-task and problems encountered.
- 15.6 Create and maintain a Work plan including Work to be carried out, resources assigned to each sub-task, planned start- and end-dates for each sub-task, progress made in terms of planned hours vs. actual hours worked and the estimate, per sub-task, of the hours needed to complete the Work.
- 15.7 Indicate all current or potential problems that may delay delivery or reduce the quantity or quality of the Work.

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File No. – N° du dossier  
QCN-6-39317

Buyer ID – id de l'acheteur  
QCL025

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**ANNEX B**

**BASIS OF PAYMENT**

*(to be completed by Canada at Contract award; for the preparation of their bid, bidders must refer to  
"Attachment 3 - Financial Bid Presentation Sheet)*

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**ANNEX C**

**CONTRACTOR DISCLOSURE OF FOREGROUND INFORMATION**

Please refer to **Article 1 - Interpretation of 2040 General Conditions** for the definition of Foreground Information to determine what information must be disclosed. <http://sacc.pwgsc.gc.ca/sacc/query-e.jsp>.

The Contractor must provide the following information:

1. Contract No.:
2. What is the descriptive title of the FIP (Foreground Intellectual Property)?
3. Abbreviated description of the FIP and, if applicable, of the different systems and sub-systems.
4. What is or was the objective of the project?
5. Explain how the FIP meets the objective of the project (for example: the advantage of the new solution, what problem did the FIP resolve or what benefits did the FIP deliver).
6. Under which category (ies) would you best describe the FIP and why: Patents, Inventions, Trade Secrets, Copyright, Industrial Designs, Rights in Integrated Circuit Topography, Know-how, Other?
7. Describe the features or aspects of the FIP that are novel, useful and not obvious.
8. Has the FIP been tested or demonstrated? If yes, please summarise the results.
9. Has any publication or disclosure to others been made? If so, to whom, when, where and how?
10. Provide names and addresses of the inventors.
11. Provide an explicit and detailed description of the FIP developed during the contract (Refer to pertinent section of the technical report, if necessary).

Please specify name and position of person approving / authorizing this disclosure. This person is to sign and date the disclosure.

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Signature \_\_\_\_\_ Date \_\_\_\_\_

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Name \_\_\_\_\_ Title \_\_\_\_\_

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(Internal DRDC Valcartier)

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Signature \_\_\_\_\_ Date \_\_\_\_\_

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Name \_\_\_\_\_ Title (Technical authority) \_\_\_\_\_

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## **ANNEX D**

### **SECURITY REQUIREMENTS CHECK LIST**

The Security Requirements Check List (SRCL), which is enclosed, is to be inserted at this point and forms part of this document



Government of Canada

Gouvernement du Canada

RECEIVED  
JAN 11 2018  
DSIC

W7701-166176 Amd 1

Contract Number / Numéro du contrat

W7701-166176 (revision 1)

Security Classification / Classification de sécurité

Unclassified / Non classifiée

SN

SECURITY REQUIREMENTS CHECK LIST (SRCL)

LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

RV Rév 001

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine: DND  
2. Branch or Directorate / Direction générale ou Direction: DRDC Valcartier

3. a) Subcontract Number / Numéro du contrat de sous-traitance  
3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant

4. Brief Description of Work / Brève description du travail: Modélisation et simulation de systèmes d'armes

5. a) Will the supplier require access to Controlled Goods? / Le fournisseur aura-t-il accès à des marchandises contrôlées?  No / Non  Yes / Oui

5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? / Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?  No / Non  Yes / Oui

6. Indicate the type of access required / Indiquer le type d'accès requis

6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? / Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? / Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes?  No / Non  Yes / Oui

6. c) Is this a commercial courier or delivery requirement with no overnight storage? / S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?  No / Non  Yes / Oui

7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès: Canada  NATO / OTAN  Foreign / Étranger

7. b) Release restrictions / Restrictions relatives à la diffusion: No release restrictions / Aucune restriction relative à la diffusion  All NATO countries / Tous les pays de l'OTAN  No release restrictions / Aucune restriction relative à la diffusion  Not releasable / À ne pas diffuser  Restricted to: / Limité à: Specify country(ies) / Préciser le(s) pays: Canada  Restricted to: / Limité à: Specify country(ies) / Préciser le(s) pays: Canada  Restricted to: / Limité à: Specify country(ies) / Préciser le(s) pays: Canada

7. c) Level of information / Niveau d'information: PROTECTED A / PROTÉGÉ A  NATO UNCLASSIFIED / NATO NON CLASSIFIÉ  PROTECTED A / PROTÉGÉ A  PROTECTED B / PROTÉGÉ B  NATO RESTRICTED / NATO DIFFUSION RESTREINTE  PROTECTED B / PROTÉGÉ B  PROTECTED C / PROTÉGÉ C  NATO CONFIDENTIAL / NATO CONFIDENTIEL  PROTECTED C / PROTÉGÉ C  CONFIDENTIAL / CONFIDENTIEL  NATO SECRET / NATO SECRET  CONFIDENTIAL / CONFIDENTIEL  SECRET / SECRET  COSMIC TOP SECRET / COSMIC TRÈS SECRET  SECRET / SECRET  TOP SECRET / TRÈS SECRET  TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT)  TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT)

Security Classification / Classification de sécurité: NON CLASSIFIÉE



RL



**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

If Yes, indicate the level of sensitivity:

Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?  No / Non  Yes / Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

- |  |   |  |  |
|--|---|--|--|
| <input type="checkbox"/> RELIABILITY STATUS<br>COTE DE FIABILITÉ   | <input type="checkbox"/> CONFIDENTIAL<br>CONFIDENTIEL           | <input checked="" type="checkbox"/> SECRET<br>SECRET           | <input type="checkbox"/> TOP SECRET<br>TRÈS SECRET               |
| <input type="checkbox"/> TOP SECRET-SIGINT<br>TRÈS SECRET - SIGINT | <input type="checkbox"/> NATO CONFIDENTIAL<br>NATO CONFIDENTIEL | <input checked="" type="checkbox"/> NATO SECRET<br>NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET<br>COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS<br>ACCÈS AUX EMPLACEMENTS     |   |  |  |

Special comments:  
Commentaires spéciaux \_\_\_\_\_

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.  
REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?  No / Non  Yes / Oui

If Yes, will unscreened personnel be escorted?  
Dans l'affirmative, le personnel en question sera-t-il escorté?  No / Non  Yes / Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)**

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC?  No / Non  Yes / Oui

**PRODUCTION**

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ?  No / Non  Yes / Oui

**INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)**

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale?  No / Non  Yes / Oui



**PART C - (continued) / PARTIE C - (suite)**

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

| Category<br>Catégorie                          | PROTECTED<br>PROTÉGÉ                |                                     |                          | CLASSIFIED<br>CLASSIFIÉ             |                                     |                                 | NATO                            |                                     |                                     |   | COMSEC                   |                          |                          |                              |                          |                                 |
|--|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|---------------------------------|---------------------------------|-------------------------------------|-------------------------------------|---|--------------------------|--------------------------|--------------------------|------------------------------|--------------------------|---------------------------------|
|  | A                                   | B                                   | C                        | CONFIDENTIAL<br>CONFIDENTIEL        | SECRET                              | TOP<br>SECRET<br>TRÈS<br>SECRET | NATO<br>RESTRICTED              | NATO<br>CONFIDENTIAL                | NATO<br>SECRET                      | COSMIC<br>TOP<br>SECRET<br>COSMIC<br>TRÈS<br>SECRET | PROTECTED<br>PROTÉGÉ     |                          |                          | CONFIDENTIAL<br>CONFIDENTIEL | SECRET                   | TOP<br>SECRET<br>TRÈS<br>SECRET |
|  |                                     |                                     |                          |                                     |                                     |                                 | NATO<br>DIFFUSION<br>RESTREINTE | NATO<br>CONFIDENTIEL                | A                                   |   | B                        | C                        |                          |                              |                          |                                 |
| Information / Assets<br>Renseignements / Biens | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>        | <input type="checkbox"/>        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/>        |
| Production                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>        | <input type="checkbox"/>        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/>        |
| IT Media /<br>Support TI                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>        | <input type="checkbox"/>        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/>        |
| IT Link /<br>Lien électronique                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>        | <input type="checkbox"/>        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>     | <input type="checkbox"/> | <input type="checkbox"/>        |

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?  
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

No / Non  Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".  
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?  
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

No / Non  Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).  
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

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**ANNEX E**

**DND 626, TASK AUTHORIZATION FORM**

The DND 626, *Task Authorization Form*, which is enclosed, is to be inserted at this point and forms part of this document

**TASK AUTHORIZATION  
AUTORISATION DES TÂCHES**

|  |   |  |
|--|---|--|
| All invoices/progress claims must show the reference Contract and Task numbers.<br>Toutes les factures doivent indiquer les numéros du contrat et de la tâche.   |   | Contract no. – N° du contrat   |
|  |   | Task no. – N° de la tâche  |
| Amendment no. – N° de la modification  | Increase/Decrease – Augmentation/Réduction  | Previous value – Valeur précédente   |
| To – À   | <p><b>TO THE CONTRACTOR</b></p> <p>You are requested to supply the following services in accordance with the terms of the above reference contract. Only services included in the contract shall be supplied against this task.</p> <p>Please advise the undersigned if the completion date cannot be met. Invoices/progress claims shall be prepared in accordance with the instructions set out in the contract.</p> <p><b>À L'ENTREPRENEUR</b></p> <p>Vous êtes prié de fournir les services suivants en conformité des termes du contrat mentionné ci-dessus. Seuls les services mentionnés dans le contrat doivent être fournis à l'appui de cette demande.</p> <p>Prière d'aviser le signataire si la livraison ne peut se faire dans les délais prescrits. Les factures doivent être établies selon les instructions énoncées dans le contrat.</p> |  |
| Delivery location – Expédiez à   |   |  |
| Delivery/Completion date – Date de livraison/d'achèvement  |   |  |
| _____<br>Date  |   | _____<br>for the Department of National Defence<br>pour le ministère de la Défense nationale |
| Contract item no.<br>N° d'article<br>du contrat  | Services  | Cost<br>Prix   |
|  |   |  |
|  | <b>GST/HST<br/>TPS/TVH</b>  |  |
|  | <b>Total</b>  |  |
| <p><b>APPLICABLE ONLY TO PWGSC CONTRACTS:</b> The Contract Authority signature is required when the total value of the DND 626 exceeds the threshold specified in the contract.</p> <p><b>NE S'APPLIQUE QU'AUX CONTRATS DE TPSGC :</b> La signature de l'autorité contractante est requise lorsque la valeur totale du formulaire DND 626 est supérieure au seuil précisé dans le contrat.</p> |   |  |
| _____<br>for the Department of Public Works and Government Services<br>pour le ministère des Travaux publics et services gouvernementaux   |   |  |

## Instructions for completing DND 626 - Task Authorization

### Contract no.

Enter the PWGSC contract number in full.

### Task no.

Enter the sequential Task number.

### Amendment no.

Enter the amendment number when the original Task is amended to change the scope or the value.

### Increase/Decrease

Enter the increase or decrease total dollar amount including taxes.

### Previous value

Enter the previous total dollar amount including taxes.

### To

Name of the contractor.

### Delivery location

Location where the work will be completed, if other than the contractor's location.

### Delivery/Completion date

Completion date for the task.

### for the Department of National Defence

Signature of the DND person who has delegated **Authority** for signing DND 626 (level of authority based on the dollar value of the task and the equivalent signing authority in the PAM 1.4). **Note:** the person signing in this block ensures that the work is within the scope of the contract, that sufficient funds remain in the contract to cover this task and that the task is affordable within the Project/Unit budget.

### Services

Define the requirement briefly (attach the SOW) and identify the cost of the task using the contractor's quote on the level of effort. The Task must use the basis of payment stipulated in the contract. If there are several basis of payment then list here the one(s) that will apply to the task quote (e.g. milestone payments; per diem rates/labour category hourly rates; travel and living rates; firm price/ceiling price, etc.). All the terms and conditions of the contract apply to this Task Authorization and cannot be ignored or amended for this task. Therefore it is not necessary to restate these general contract terms and conditions on the DND 626 Task form.

### Cost

The cost of the Task broken out into the individual costed items in **Services**.

### GST/HST

The GST/HST cost as appropriate.

### Total

The total cost of the task. The contractor may not exceed this amount without the approval of DND indicated on an amended DND 626. The amendment value may not exceed 50% (or the percentage for amendments established in the contract) of the original value of the task authorization. The total cost of a DND 626, including all amendments, may not exceed the funding limit identified in the contract.

### Applicable only to PWGSC contracts

This block only applies to those Task Authorization contracts awarded by PWGSC. The contract will include a specified threshold for DND sole approval of the DND 626 and a percentage for DND to approve amendments to the original DND 626. Tasks that will exceed these thresholds must be passed to the PWGSC Contracting Authority for review and signature prior to authorizing the contractor to begin work.

### Note:

Work on the task may not commence prior to the date this form is signed by the DA Authority - for tasks within the DND threshold; and by both DND and PWGSC for those tasks over the DND threshold.

## Instructions pour compléter le formulaire DND 626 - Autorisation des tâches

### N° du contrat

Inscrivez le numéro du contrat de TPSGC en entier.

### N° de la tâche

Inscrivez le numéro de tâche séquentiel.

### N° de la modification

Inscrivez le numéro de modification lorsque la tâche originale est modifiée pour en changer la portée.

### Augmentation/Réduction

Inscrivez le montant total de l'augmentation ou de la diminution, y compris les taxes.

### Valeur précédente

Inscrivez le montant total précédent, y compris les taxes.

### À

Nom de l'entrepreneur.

### Expédiez à

Endroit où le travail sera effectué, si celui-ci diffère du lieu d'affaires de l'entrepreneur.

### Date de livraison/d'achèvement

Date d'achèvement de la tâche.

### pour le ministère de la Défense nationale

Signature du représentant du MDN auquel on a délégué le **pouvoir d'approbation** en ce qui a trait à la signature du formulaire DND 626 (niveau d'autorité basé sur la valeur de la tâche et le signataire autorisé équivalent mentionné dans le MAA 1.4). **Nota :** la personne qui signe cette attache de signature confirme que les travaux respectent la portée du contrat, que suffisamment de fonds sont prévus au contrat pour couvrir cette tâche et que le budget alloué à l'unité ou pour le projet le permet.

### Services

Définissez brièvement le besoin (joignez l'ET) et établissez le coût de la tâche à l'aide de la soumission de l'entrepreneur selon le niveau de difficulté de celle-ci. Les modalités de paiement stipulées dans le contrat s'appliquent à la tâche. Si plusieurs d'entre elles sont prévues, énumérez ici celle/celles qui s'appliquera/ront à la soumission pour la tâche à accomplir (p.ex. acompte fondé sur les étapes franchies; taux quotidien ou taux horaire établi selon la catégorie de main-d'œuvre; frais de déplacement et de séjour; prix fixe ou prix plafond; etc.). Toutes les modalités du contrat s'appliquent à cette autorisation de tâche et ne peuvent être négligées ou modifiées quant à la tâche en question. Il n'est donc pas nécessaire de répéter ces modalités générales afférentes au contrat sur le formulaire DND 626.

### Prix

Mentionnez le coût de la tâche en le répartissant selon les frais afférents à chaque item mentionné dans la rubrique **Services**.

### TPS/TVH

Mentionnez le montant de la TPS/TVH, s'il y a lieu.

### Total

Mentionnez le coût total de la tâche. L'entrepreneur ne peut dépasser ce montant sans l'approbation du MDN, formulaire DND 626 modifié à l'appui. Le coût de la modification ne peut pas être supérieur à 50 p. 100 du montant initial prévu dans l'autorisation de tâche (ou au pourcentage prévu dans le contrat pour les modifications). Le coût total spécifié dans le formulaire DND 626, y compris toutes les modifications, ne peut dépasser le plafond de financement mentionné dans le contrat.

### Ne s'applique qu'aux contrats de TPSGC

Le présent paragraphe s'applique uniquement aux autorisations de tâche accordées par TPSGC. On inscrira dans le formulaire DND 626 un plafond précis qui ne pourra être approuvé que par le MDN et un pourcentage selon lequel le MDN pourra approuver des modifications au formulaire DND 626 original. Les tâches dont le coût dépasse ces plafonds doivent être soumises à l'autorité contractante de TPSGC pour examen et signature avant qu'on autorise l'entrepreneur à débuter les travaux.

### Nota :

Les travaux ne peuvent commencer avant la date de signature de ce formulaire par le responsable du MDN, pour les tâches dont le coût est inférieur au plafond établi par le MDN, et par le MDN et TPSGC pour les tâches dont le coût dépasse le plafond établi par le MDN.

**ATTACHMENT 1**

**EVALUATION OF PRICE**

For evaluation purposes only, the Total Bid Price will be determined as follows:

**1 – Approximate percentage use**

The Bid Price will be evaluated on the basis of the following estimated level of effort:

|                                       |     |
|---------------------------------------|-----|
| 1- Junior Computer Scientist category | 15% |
| 2- Senior Computer Scientist category | 30% |
| 3- Project Management category        | 10% |
| 4- Physics – Junior Category          | 10% |
| 5- Physics – Optical Category         | 20% |
| 6- Physics – Aeronautical Category    | 15% |

**2 - Cost of labour:**

To establish labour costs, the effort available in terms of hours must be determined. The effort available for each resource category will be calculated as follows:

|                  |   |  |
|------------------|---|--|
| Effort available | = | [Total anticipated available funding] X [Approximate percentage use] |
|                  |   | [Average hourly rate for the resource category]*                     |

\* The average rate for the Physics Category corresponds to the average of the sub-categories Physics - Electro-Optical, Physics - Radiofrequency, Physics - Weapons and Physics - Laser

**The firm hourly rate for a resource that does not meet all mandatory technical criteria will not be considered in the average hourly rate for the resource category.**

The cost of labour for a given category (for a given bid) is then obtained by multiplying the effort available by the hourly rate provided for the given category (for a given bid).

Lastly, the cost of labour is calculated by adding the labour costs per category for a given bid.

For example:

- Anticipated funding for the work = \$2 000 000.00
- Percentage of use for “PM” = 10%
- If the average hourly rate for bid A = \$50.00 and that for bid B = \$60.00, then the average hourly rate for the resource category = \$55.00.

Therefore,

- Effort available  $\$2\,000\,000.00 \times 0.15 / \$55.00 = 3\,636.36$  hours

and

- Labour costs for PM, bid A  
 $= 3\,636.36 \text{ hours} \times 50\$ = 181\,818.18\$$

### 3 - Sample calculations for the price of the three bids

| Resource category                  | % of use | Rate A (\$) | Price for A (\$) | Rate B (\$) | Price for B (\$) | Qty (hrs)     |
|------------------------------------|----------|-------------|------------------|-------------|------------------|---------------|
| Junior Computer Scientist category | 15%      | 40\$        | 342 857.20\$     | 30\$        | 257 142.90\$     | 8 571.43 hrs  |
| Senior Computer Scientist category | 30%      | 50\$        | 545 454.50\$     | 60\$        | 654 545.40\$     | 10 909.09 hrs |
| Project Management category        | 10%      | 50\$        | 181 818.00\$     | 60\$        | 218 181.60\$     | 3 636.36 hrs  |
| Physics – Junior category          | 10%      | 50\$        | 181 818.00\$     | 60\$        | 218 181.60\$     | 3 636.36 hrs  |
| Physics – Optical Category         | 20%      | 55\$        | 366 666.85\$     | 65\$        | 433 333.55\$     | 6 666 67 hrs  |
| Physics – Aeronautical Category    | 15%      | 60\$        | 276 922.80\$     | 70\$        | 323 076 60\$     | 4 615.38 hrs  |
|                                    |          |             | 1 895 537.35\$   |             | 2 104 461.65\$   |               |

The “percentages of use” listed in the table are provided solely for the purpose of determining the estimated price for each bid. They represent approximate needs, provided in good faith, and should not be considered as a contractual guarantee.

These rates are provided as an example only and must not be interpreted as an indicator of the experience of the labour categories.

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## ATTACHMENT 2

### MANDATORY AND POINT RATED TECHNICAL CRITERIA

#### General Information

The minimum information required to evaluate the relevance of the experience includes:

- Project title;
- Description of the project;
- The name of the client;
- Start and end dates of the project (month and year).
- The start and end dates of the resource’s contribution to the project (month and year);  
and
- The Work performed by the resource for the project.

A project may consist of a contract or a Task Authorization.

Only resources meeting the mandatory technical criteria will be assessed on the rated technical criteria. Resources that do not meet the mandatory technical criteria will not be part of the Contract, if applicable.

When the resources have been evaluated according to the mandatory technical criteria, the minimum resources required for the categories must be met by the Bidder. Failing this, the bid will be considered non responsive.

To be considered by the evaluation team, the diploma must be from a recognized Canadian university, or an equivalent established by a recognized Canadian credential-assessment service if the diploma was obtained abroad. The list of recognized organizations is posted on the Web site of the Canadian Information Centre for International Credentials at the following address: <http://cicic.ca>.

**1. MANDATORY TECHNICAL CRITERIA**

| Criteria   |  |
|------------|--|
| <b>K1</b>  | The Bidder must propose a minimum of two resources in the Senior Computer Scientist category. The same individual cannot be proposed for the Senior Computer Scientist and the Junior Computer Scientist category.   |
| <b>K2</b>  | The Bidder must propose a minimum of one resource in the Junior Computer Scientist category. The same individual cannot be proposed for the Junior Computer Scientist and the Senior Computer Scientist category.  |
| <b>K3</b>  | The Bidder must propose at least one resource in the Physics – Aeronautical category. The same individual cannot be proposed for the Physics – Aeronautical and the Physics – Optical or Physics – Junior categories.  |
| <b>K4</b>  | The Bidder must propose at least one resource in the Physics – Optical category. The same individual cannot be proposed for the Physics – Optical and the Physics – Aeronautical or Physics – Junior categories.   |
| <b>K5</b>  | The Bidder must propose a minimum of one resource in the Physics – Junior category. The same individual cannot be proposed for the Physics – Junior and the Physics – Aeronautical or Physics – Optical categories.  |
| <b>K6</b>  | The Bidder must propose a minimum of one resource in the Project Management category. The same individual can be proposed for the Project Management category and one of the following categories: Senior Computer Scientist, Physics – Aeronautical and Physics – Optical.  |
| <b>K7</b>  | All the resources proposed for the Senior Computer Scientist category and for the Junior Computer Scientist category must hold a Bachelor’s degree in Computer Science or Computer Engineering or Software Engineering.<br><br>A Master’s and/or a Doctoral degree in Computer Science or Computer Engineering or Software Engineering will also be accepted so that the resources proposed for these categories meet this criterion.  |
| <b>K8</b>  | All the resources proposed for the Physics – Aeronautical, Physics – Optical and Physics – Junior categories must hold a Bachelor’s degree in Physics or Engineering Physics or Electrical Engineering or Mechanical Engineering or Aerospace Engineering.<br><br>A Master’s and/or a Doctoral degree in Physics or Engineering Physics or Electrical Engineering or Mechanical Engineering or Aerospace Engineering will also be accepted so that the resources proposed for this category meet this criterion. |
| <b>K9</b>  | All the resources proposed for the Project Management category must have a minimum of 12 months’ experience in project management.<br><br>The resource should have performed at least a few tasks identified in section 15 (Project management) of Annex A (Statement of work) in order to consider the experience as project management.  |
| <b>K10</b> | All the resources proposed for the Physics – Aeronautical and Physics – Optical categories must have a minimum of 24 months of work experience in physics or engineering.  |

## 2. POINT RATED TECHNICAL CRITERIA

### Summary of the rated technical criteria

| Description   | Min. Score | Max Score  |
|---|------------|------------|
| <b>PR 1 Clarity and Structure of Proposal</b>   | 15         | 25         |
| <b>PR2 Management Proposal</b><br><i>PR2.1 Project Management Approach (min 12; max 20)</i><br><i>PR2.2 Risk Element Identification and Management (min 0; max 5)</i>   | 12         | 25         |
| <b>PR3 Work Experience</b><br><i>PR3.1 Basic Work Experience (min 15; max 70)</i><br><i>PR3.1.1 Physics – Aeronautical Category (min 0; max 15)</i><br><i>PR3.1.2 Physics – Optical Category (min 0; max 20)</i><br><i>PR3.1.3 Senior Computer Scientist Category (min 15; max 30)</i><br><i>PR3.1.4 Project Management Category (min 0; max 5)</i><br><i>PR3.2 Specific Work Experience (min 0; max 15)</i><br><i>CC3.2.1 Physics – Optical Category (min 0; max 8)</i><br><i>CC3.2.2 Physics – Aeronautical Category (min 0; max 7)</i> | 15         | 85         |
| <b>PR4 Additional resources</b>   | 0          | 15         |
| <b>TOTAL</b>  | <b>42</b>  | <b>150</b> |

When it is indicated in the text, the criterion will be assessed according to the following generic evaluation table. The score will be weighted according to the score for the criterion being evaluated using the rule of three. For example, if the maximum point value of the evaluated criteria is 15 and the generic evaluation table is used and the evaluation for that criteria is “fair,” which corresponds to six points out of a maximum of ten according to the generic table, the score assigned will be calculated as follows:  $6 \times 15 / 10 = 9$  points.

**Table 1: Generic Evaluation Table1**

| Non responsive                                      | Extremely low                  | Very Low  | Low  | Fair  | Average  | Above average   | Outstanding   |
|---|--------------------------------|---|--|---|--|---|---|
| 0 points  | 1–2 points                     | 3–4 points  | 5 points   | 6 points  | 7–8 points   | 9 points  | 10 points   |
| Did not submit information which could be evaluated | Does not meet requirements     | Generally does not meet requirements                          | Lack of details                                    | Just meets requirements   | Meets requirements   | Exceeds requirements                                      | Far exceeds requirements  |
|   | Weaknesses cannot be corrected | Generally doubtful that weaknesses can be corrected           | Weaknesses can be corrected                        | Weakness can be easily corrected                                    | No significant weaknesses                                    | No apparent weaknesses                                    | No weaknesses   |
|   | Unacceptable                   | Extremely poor, insufficient to meet performance requirements | Little capability to meet performance requirements | Minimum acceptability; should meet minimum performance requirements | Average capability, should be adequate for effective results | Superior capability, should ensure very effective results | Exceptional capability; should ensure extremely effective results |

|            | POINT RATED TECHNICAL CRITERIA  | Min       | Max       |
|------------|---|-----------|-----------|
| <b>PR1</b> | <b>Clarity and structure of proposal</b><br>The proposal is well structured and easy to understand. <b>See Table 1.</b> | <b>15</b> | <b>25</b> |

|              | POINT RATED TECHNICAL CRITERIA   | Min       | Max       |
|--------------|--|-----------|-----------|
| <b>PR2</b>   | <b>Management proposal</b>   | <b>12</b> | <b>25</b> |
| <b>PR2.1</b> | <b>Project Management Approach</b><br>The Bidder should detail the proposed project management approach. The following elements will be considered for the evaluation of the criterion:<br><br>(a) Complete and relevant description of the proposed resource control system, including the proposed method to manage overtime and the availability of resources. If the use of business partners is expected, the | <b>12</b> | <b>20</b> |

|              |  |          |          |
|--------------|--|----------|----------|
|              | <p>agreements with the partners must be submitted and signed by the partners in order to be considered.</p> <p>(b) Complete and relevant description of the proposed method for controlling the quality of the services provided.</p> <p><b>See Table 1.</b></p>   |          |          |
| <b>PR2.2</b> | <p><b>Risk Element Identification and Management</b></p> <p>For each task, the Bidder should clearly describe the elements that it believes could pose a risk and propose a realistic mitigation strategy for carrying out the required Work, while adhering to the deadlines and costs established.</p> <p>The following elements will be considered for the evaluation of the criterion:</p> <p>a) Complete identification of elements that could pose a risk and relevance of identified risks.</p> <p>b) Relevant and realistic mitigation strategy for each risk identified.</p> <p><b>See Table 1.</b></p> | <b>0</b> | <b>5</b> |

|            | <b>POINT RATED TECHNICAL CRITERIA</b>  | <b>Min</b> | <b>Max</b> |
|------------|--|------------|------------|
| <b>PR3</b> | <p><b>Work Experience</b></p> <p><i>For each sub-criterion of the PR3 group, the following applies:</i></p> <ul style="list-style-type: none"> <li>- The Bidder should provide the C.V. of the proposed resources;</li> <li>- Experience acquired during practicums and the resource’s studies cannot be counted and will therefore not be considered; and</li> <li>- Activities carried out at the same time for a single work experience will be considered only once. For example, if a resource</li> </ul> | <b>15</b>  | <b>85</b>  |

|                |   |           |           |
|----------------|---|-----------|-----------|
|                | worked on two projects at the same time between January 1, 2013, and December 31, 2013, using UML for both projects, then the resource’s experience with UML for this period is 12 months, not 24.  |           |           |
| <b>PR3.1</b>   | <p><b>Basic Work Experience</b></p> <p><i>For each of the categories of the PR3.1 group, the following elements apply:</i></p> <ul style="list-style-type: none"> <li>- Each resource proposed for a category will be evaluated individually. The scores obtained for each resource will be added and then divided by the number of resources proposed for the category in order to obtain the average score. This average will be the score awarded to the Bidder for the evaluated criterion.</li> <li>- The minimum score indicated must be achieved by the team average and not for each of the resources proposed.</li> </ul>  | <b>15</b> | <b>70</b> |
| <b>PR3.1.1</b> | <p><b>Physics – Aeronautical Category</b></p> <p><b>Experience of each proposed resource with physical phenomena surrounding aeronautical elements of interest.</b></p> <p>The aeronautical elements of interest include the following:</p> <ul style="list-style-type: none"> <li>- The following aeronautical engineering elements: <ul style="list-style-type: none"> <li>o Aerodynamics; and</li> <li>o propulsion;</li> </ul> </li> </ul> <p>and</p> <ul style="list-style-type: none"> <li>- the following closely linked aeronautical fields: <ul style="list-style-type: none"> <li>o Flight mechanics; and</li> <li>o Guidance, navigation &amp; control (GNC).</li> </ul> </li> </ul> | <b>0</b>  | <b>15</b> |

|                |  |           |           |
|----------------|--|-----------|-----------|
|                | <p>Points will be awarded in accordance with the following method:</p> <p><b>15 points:</b> 36 months or more experience with physical phenomena surrounding aeronautical elements of interest.</p> <p><b>12 points:</b> 24 months or more experience with physical phenomena surrounding the aeronautical elements of interest, but less than 36 months.</p> <p><b>8 points:</b> 12 months or more experience with physical phenomena surrounding the aeronautical elements of interest, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding the aeronautical elements of interest.</p>  |           |           |
| <b>PR3.1.2</b> | <p><b>Physics – Optical Category</b></p> <p><b>Experience of each proposed resource with physical phenomena surrounding optics.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>20 points:</b> 36 months or more of experience with physical phenomena surrounding optics.</p> <p><b>16 points:</b> 24 months or more of experience with physical phenomena surrounding optics, but less than 36 months.</p> <p><b>12 points:</b> 18 months or more of experience with physical phenomena surrounding optics, but less than 24 months.</p> <p><b>8 points:</b> 12 months or more of experience with physical phenomena surrounding optics, but less than 18 months.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding optics.</p> | <b>0</b>  | <b>20</b> |
| <b>PR3.1.3</b> | <b>Senior Computer Scientist Category</b>  | <b>15</b> | <b>30</b> |

|                         |  |                  |                  |
|-------------------------|--|------------------|------------------|
| <p><b>PR3.1.3.1</b></p> | <p><b>Experience of each proposed resource with the C++ programming language.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>20 points:</b> 60 months or more of experience with the C++ programming language.</p> <p><b>18 points:</b> 48 months or more of experience with the C++ programming language, but less than 60 months.</p> <p><b>14 points:</b> 36 months or more of experience with the C++ programming language, but less than 48 months.</p> <p><b>10 points:</b> 24 months or more of experience with the C++ programming language, but less than 36 months.</p> <p><b>4 points:</b> 12 months or more of experience with the C++ programming language, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience with the C++ programming language.</p> | <p><b>10</b></p> | <p><b>20</b></p> |
| <p><b>PR3.1.3.2</b></p> | <p><b>Experience of each proposed resource with UML and/or software architecture development.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>10 points:</b> 36 months or more experience with UML and/or software architecture development.</p> <p><b>8 points:</b> 30 months or more experience with UML and/or software architecture development, but less than 36 months.</p> <p><b>6 points:</b> 24 months or more experience with UML and/or software architecture development, but less than 30 months.</p> <p><b>3 points:</b> 12 months or more experience with UML and/or software architecture development, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience with UML and/or software architecture development.</p>                                    | <p><b>5</b></p>  | <p><b>10</b></p> |

|                         |  |                 |                  |
|-------------------------|--|-----------------|------------------|
| <p><b>PR3.1.4</b></p>   | <p><b>Project Management Category</b></p> <p><b>Experience of each proposed resource with software project management.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>5 points:</b> 24 months or more experience in software project management.</p> <p><b>2 points:</b> 12 months or more experience in software project management, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience in software project management.</p> | <p><b>0</b></p> | <p><b>5</b></p>  |
| <p><b>PR3.2</b></p>     | <p><b>Specific Work Experience</b></p> <p><i>For each of the categories of the PR3.2 group, the following elements apply:</i></p> <ul style="list-style-type: none"> <li>- Each resource proposed for a category will be evaluated individually. The scores of each resource will be added. The sum of the scores, up to the maximum number of points allotted, will be the score awarded to the Bidder for the evaluated criterion.</li> </ul>  | <p><b>0</b></p> | <p><b>15</b></p> |
| <p><b>PR3.2.1</b></p>   | <p><b>Physics – Optical Category</b></p>   | <p><b>0</b></p> | <p><b>8</b></p>  |
| <p><b>PR3.2.1.1</b></p> | <p><b>Experience of each proposed resource with physical phenomena surrounding electro-optics.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>4 points:</b> 36 months or more of experience with physical phenomena surrounding electro-optics.</p> <p><b>3 points:</b> 24 months or more of experience with physical phenomena surrounding electro-optics, but less than 36 months.</p>   | <p><b>0</b></p> | <p><b>4</b></p>  |

|                  |  |          |          |
|------------------|--|----------|----------|
|                  | <p><b>2 points:</b> 12 months or more of experience with physical phenomena surrounding electro-optics, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding electro-optics.</p>   |          |          |
| <b>PR3.2.1.2</b> | <p><b>Experience of each proposed resource with physical phenomena surrounding radio frequency.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>3 points:</b> 24 months or more of experience with physical phenomena surrounding radio frequency.</p> <p><b>2 points:</b> 12 months or more of experience with physical phenomena surrounding radio frequency, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding radio frequency.</p> | <b>0</b> | <b>3</b> |
| <b>PR3.2.1.3</b> | <p><b>Experience of each proposed resource with physical phenomena surrounding lasers.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>1 point:</b> 12 months or more of experience with physical phenomena surrounding lasers.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding lasers.</p>   | <b>0</b> | <b>1</b> |
| <b>PR3.2.2</b>   | <b>Physics – Aeronautical Category</b>   | <b>0</b> | <b>7</b> |
| <b>PR3.2.2.1</b> | <p><b>Experience of each proposed resource with physical phenomena surrounding aerodynamics and/or flight mechanics.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>3 points:</b> 24 months or more experience with physical phenomena surrounding aerodynamics and/or flight mechanics.</p>   | <b>0</b> | <b>3</b> |

|           |   |   |   |
|-----------|---|---|---|
|           | <p><b>2 points:</b> 12 months or more experience with physical phenomena surrounding aerodynamics and/or flight mechanics, but less than 24 months.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding aerodynamics and/or flight mechanics.</p>   |   |   |
| PR3.2.2.2 | <p><b>Experience of each proposed resource with physical phenomena surrounding guidance, navigation &amp; control (GNC).</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>3 points:</b> 24 months or more experience with physical phenomena surrounding guidance, navigation &amp; control (GNC).</p> <p><b>2 points:</b> 12 months or more experience with physical phenomena surrounding guidance, navigation &amp; control (GNC), but less than 24 months.</p> <p><b>0 point:</b> Less than 12 months of experience with physical phenomena surrounding guidance, navigation &amp; control (GNC).</p> | 0 | 3 |
| PR3.2.2.3 | <p><b>Experience of each proposed resource with physical phenomena surrounding propulsion.</b></p> <p>Points will be awarded in accordance with the following method:</p> <p><b>1 point:</b> 12 months or more of experience with physical phenomena surrounding propulsion.</p> <p><b>0 points:</b> Less than 12 months of experience with physical phenomena surrounding propulsion.</p>  | 0 | 1 |

|     | POINT RATED TECHNICAL CRITERIA | Min | Max |
|-----|--------------------------------|-----|-----|
| PR4 | Additional Resources           | 0   | 15  |

|  |   |  |  |
|--|---|--|--|
|  | <p>The Bidder should demonstrate its ability to provide additional resources for the completion of the Work.</p> <ul style="list-style-type: none"> <li>a) The Bidder has proposed at least one additional resource beyond the minimum required by the mandatory criteria for the Senior Computer Scientist category <b>(5 points)</b>.</li> <li>b) The Bidder has proposed at least one additional resource beyond the minimum required by the mandatory criteria for the Physics – Aeronautical category <b>(4 points)</b>.</li> <li>c) The Bidder has proposed at least one additional resource beyond the minimum required by the mandatory criteria for the Physics – Optical category <b>(6 points)</b>.</li> </ul> |  |  |
|--|---|--|--|

|  | Min       | Max        |
|--|-----------|------------|
| <b>SCORE FOR PR1, PR2, PR3, AND PR4 GROUPS</b> | <b>42</b> | <b>150</b> |

**ATTACHMENT 3**

**FINANCIAL BID PRESENTATION SHEET**

**NOTE:** Bidders must submit their financial bid in accordance with section 1.3 “Section II: Financial Bid” of the Part 3 – Bid preparation instructions.

1. **LABOUR:** Firm all-inclusive rates (including profit, administration fees and overhead), Applicable Taxes extra, as follows:

If the resource is subcontracted, bidder should indicate the name of the subcontractor.

|   | Firm Hourly Rate                      |                                      |                                      |                                      |                                      |   |
|---|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
|   | From Contract Award to March 31, 2019 | From April 1, 2019 to March 31, 2020 | From April 1, 2020 to March 31, 2021 | From April 1, 2020 to March 31, 2021 | From April 1, 2021 to March 31, 2022 | From April 1, 2022 to 5 years after Contract Award, inclusively |
| <b>Junior Computer Scientist category</b> |                                       |                                      |                                      |                                      |                                      |   |
| 1- _____                                  | _____ \$                              | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$  |
| ...                                       |                                       |                                      |                                      |                                      |                                      |   |
| <b>Senior Computer Scientist category</b> |                                       |                                      |                                      |                                      |                                      |   |
| 1- _____                                  | _____ \$                              | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$  |
| 2- _____                                  |                                       |                                      |                                      |                                      |                                      |   |
| ...                                       |                                       |                                      |                                      |                                      |                                      |   |
| <b>Project Management category</b>        |                                       |                                      |                                      |                                      |                                      |   |
| 1- _____                                  | _____ \$                              | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$  |
| ...                                       |                                       |                                      |                                      |                                      |                                      |   |
| <b>Physics – Aeronautical Category</b>    |                                       |                                      |                                      |                                      |                                      |   |
| 1- _____                                  | _____ \$                              | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$  |
| ...                                       |                                       |                                      |                                      |                                      |                                      |   |

|   | Firm Hourly Rate                      |                                      |                                      |                                      |                                      |   |
|---|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
|   | From Contract Award to March 31, 2019 | From April 1, 2019 to March 31, 2020 | From April 1, 2020 to March 31, 2021 | From April 1, 2020 to March 31, 2021 | From April 1, 2021 to March 31, 2022 | From April 1, 2022 to 5 years after Contract Award, inclusively |
| <b>Physics – Optical Category</b><br>1-<br>_____<br>... | _____ \$                              | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$  |
| <b>Physics – Junior Category</b><br>1-<br>_____<br>...  | _____ \$                              | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$                             | _____ \$  |

**2. TRAVEL AND LIVING EXPENSES:**

- (a) Canada will not accept any travel and living expenses incurred by the Contractor in the performance of the Work, for:
  - (i) Services provided within the Québec City Region (including Defence Research and Development Canada, Valcartier Reseach Centre facility), and;
  - (ii) Any travel between the Contractor's place of business and the Québec City Region (including Defence Research and Development Canada, Valcartier Reseach Centre facility).
- (b) For services to be provided outside the Québec City Region, the Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal and private vehicle allowances specified in Appendices B, C and D of the *National Joint Council Directive*, and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.
- (c) Canada will not accept any travel and living expenses incurred by the Contractor as a consequence of any relocation of personnel required to satisfy the terms of this Contract.
- (d) All travel must have prior authorization of the Technical Authority. All payments are subject to government audit.

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#### ATTACHMENT 4

### FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\)-Labour's website](#).

Date: \_\_\_\_\_ (YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- A1. The Bidder certifies having no work force in Canada.
- A2. The Bidder certifies being a public sector employer.
- A3. The Bidder certifies being a federally regulated employer being subject to the Employment Equity Act.
- A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

- A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC-Labour.

**OR**

- A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- B1. The Bidder is not a Joint Venture.

**OR**

- B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)