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## **PART 1 - GENERAL INFORMATION**

### **1.1 Introduction**

The Request for Standing Offers (RFSO) is divided into seven parts plus attachments and annexes, as follows:

- Part 1            General Information: provides a general description of the requirement;
- Part 2            Offeror Instructions: provides the instructions applicable to the clauses and conditions of the RFSO;
- Part 3            Offer Preparation Instructions: provides offerors with instructions on how to prepare their offer to address the evaluation criteria specified;
- Part 4            Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria which must be addressed in the offer, and the basis of selection;
- Part 5            Certifications and Additional Information: includes the certifications and additional information to be provided;
- Part 6            Security, Financial and Insurance Requirements: includes specific requirements that must be addressed by offerors; and
- Part 7            7A, Standing Offer, and 7B, Resulting Contract Clauses:
- 7A, includes the Standing Offer containing the offer from the Offeror and the applicable clauses and conditions;
- 7B, includes the clauses and conditions which will apply to any contract resulting from a call-up made pursuant to the Standing Offer.

The Annexes include the Statement of Work, the Basis of Payment, the Mandatory and Point Rated Technical Evaluation Criteria, the Reporting Requirements, the Electronic Payment Instruments, and any other annexes.

### **1.2 Summary**

1.2.1 The Herzberg Astronomy and Astrophysics (HAA) research centre of the National Research Council of Canada (NRC) is a world leader in design and deployment of correlator digital signal processing systems for large radio telescopes. The NRC/HAA Astronomy Technology Directorate (ATD) has a requirement for the following resources to provide support to the NRC correlator team on various projects:

- Project Manager / SAFe Scrum Master
- System Engineer
- Signal Processing Firmware Engineer
- Signal Processing Embedded Software Engineer

Anticipated types of deliverables are as follows:

- Monthly status reports

- 
- SAFe work items: Epics, Capabilities, Features, Stories, etc.
  - Firmware/Software Design Specifications
  - Firmware/Software User Manuals
  - Integration and Test Plans
  - Integration and Test Results
  - Firmware modules and bench test code
  - Software modules and unit test code
  - Engineering documents and reports

Travel to the Dominion Radio Astrophysical Observatory (DRAO) in Penticton, BC will be required for various project milestones. International travel will also likely be required to support various projects the NRC correlator team is involved with.

The Standing Offer will be for a period of one (1) year with the option to renew for up to four (4) additional years. The estimated value of the Standing Offer is \$1.2M per year.

The requirement is subject to the provisions of the Canada Free Trade Agreement (CFTA).

**The requirement is limited to Canadian services.**

This RFSO allows offerors to use the epost Connect service provided by Canada Post Corporation to transmit their offers electronically. Offerors must refer to Part 2 of the RFSO entitled Offeror Instructions and Part 3 of the RFSO entitled Offer Preparation Instructions, for further information on using this method.

### 1.3 Debriefings

Offerors may request a debriefing on the results of the request for standing offers process. Offerors should make the request to the Standing Offer Authority within 15 working days of receipt of the results of the request for standing offers process. The debriefing may be in writing, by telephone or in person.

### 1.4 Anticipated migration to an e-Procurement Solution (EPS)

Canada is currently developing an online EPS for faster and more convenient ordering of goods and services. In support of the anticipated transition to this system and how it may impact any resulting Standing Offer that is issued under this solicitation, refer to 7.15 Transition to an e-Procurement Solution (EPS).

The Government of Canada's [press release](#) provides additional information.

## PART 2 - OFFEROR INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

The 2006 standard instructions is amended as follows:

- Section 08, entitled Submission of offers, is amended as follows:
  - subsection 2. is deleted entirely and replaced with the following:
    2. epost Connect
      - a. Unless specified otherwise in the RFSO, offers may be submitted by using the [epost Connect service](#) provided by Canada Post Corporation.

- i. PWGSC, National Capital Region: The only acceptable email address to use with epost Connect for responses to RFSOs issued by PWGSC headquarters is:

[tpsgc.dgareceptiondessomissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca](mailto:tpsgc.dgareceptiondessomissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca)

or if applicable, the email address identified in the RFSO.

- ii. PWGSC regional offices: The only acceptable email address to use with epost Connect for responses to RFSOs issued by PWGSC regional offices is identified in the RFSO.
- b. To submit an offer using epost Connect service, the Offeror must either:
    - i. send directly its offer only to the specified PWGSC Bid Receiving Unit using its own licensing agreement for epost Connect provided by Canada Post Corporation; or
    - ii. send as early as possible, and in any case, at least six business days prior to the RFSO closing date and time, (in order to ensure a response), an email that includes the RFSO number to the specified PWGSC Bid Receiving Unit requesting to open an epost Connect conversation. Requests to open an epost Connect conversation received after that time may not be answered.
  - c. If the Offeror sends an email requesting epost Connect service to the specified Bid Receiving Unit in the RFSO, an officer of the Bid Receiving Unit will then initiate an epost Connect conversation. The epost Connect conversation will create an email notification from Canada Post Corporation prompting the Offeror to access and action the message within the conversation. The Offeror will then be able to transmit its offer afterward at any time prior to the RFSO closing date and time.
  - d. If the Offeror is using its own licensing agreement to send its offer, the Offeror must keep the epost Connect conversation open until at least 30 business days after the RFSO closing date and time.
  - e. The RFSO number should be identified in the epost Connect message field of all electronic transfers.
  - f. It should be noted that the use of epost Connect service requires a Canadian mailing address. Should an offeror not have a Canadian mailing address, they may use the Bid Receiving Unit address specified in the RFSO in order to register for the epost Connect service.
  - g. For offers transmitted by epost Connect service, Canada will not be responsible for any failure attributable to the transmission or receipt of the offer including, but not limited to, the following:
    - i. receipt of a garbled, corrupted or incomplete offer;
    - ii. availability or condition of the epost Connect service;
    - iii. incompatibility between the sending and receiving equipment;
    - iv. delay in transmission or receipt of the offer;
    - v. failure of the Offeror to properly identify the offer;
    - vi. illegibility of the offer;
    - vii. security of offer data; or,
    - viii. inability to create an electronic conversation through the epost Connect service.
  - h. The Bid Receiving Unit will send an acknowledgement of the receipt of offer document(s) via the epost Connect conversation, regardless of whether the conversation was initiated by the supplier using its own license or the Bid Receiving Unit. This acknowledgement will confirm only the receipt of offer document(s) and will not confirm if the attachments may be opened nor if the content is readable.
  - i. Offerors must ensure that that they are using the correct email address for the Bid Receiving Unit when initiating a conversation in epost Connect or communicating with the Bid Receiving Unit and should not rely on the accuracy of copying and pasting the email address into the epost Connect system.

- j. An offer transmitted by epost Connect service constitutes the formal offer of the Offeror and must be submitted in accordance with section 05.

All instructions, clauses and conditions identified in the Request for Standing Offers (RFSO) 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) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Offerors who submit an offer agree to be bound by the instructions, clauses and conditions of the RFSO and accept the clauses and conditions of the Standing Offer and resulting contract(s).

The [2006 \(2018-05-22\)](#) Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the RFSO.

Subsection 5.4 of [2006](#), Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 90 days

## 2.2 Submission of Offers

Offers must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the RFSO:

Address:

Bid Receiving Public Works and Government Services Canada  
Pacific Region  
401-1230 Government Street  
Victoria, BC  
V8W 3X4

**e-post Connect email:**

**[TPSGC.RPReceptiondessaoumissions-PRBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca](mailto:TPSGC.RPReceptiondessaoumissions-PRBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca)**

**Note:** Offers will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instruction [2006](#), or to send offers through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Bid Facsimile number:  
(250) 363-3344

## 2.3 Former Public Servant

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 FPS, offerors must provide the information required below before the issuance of a standing offer. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of offers is completed, Canada will inform the Offeror 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 offer non-responsive.

## 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 Offeror a FPS in receipt of a pension? **YES** ( ) **NO** ( )

If so, the Offeror must provide the following information, for all FPS 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, Offerors agree that the successful Offeror'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 Offeror a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **YES** ( ) **NO** ( )

If so, the Offeror 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.

## **2.4 Enquiries - Request for Standing Offers**

All enquiries must be submitted in writing to the Standing Offer Authority no later than **FIVE (5)** calendar days before the Request for Standing Offers (RFSO) closing date. Enquiries received after that time may not be answered.

Offerors should reference as accurately as possible the numbered item of the RFSO to which the enquiry relates. Care should be taken by offerors 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 offerors do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all offerors. Enquiries not submitted in a form that can be distributed to all offerors may not be answered by Canada.

## **2.5 Applicable Laws**

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in British Columbia.

Offerors may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their offer, 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 offerors.

## **PART 3 - OFFER PREPARATION INSTRUCTIONS**

### **3.1 Offer Preparation Instructions**

- If the Offeror chooses to submit its offer electronically, Canada requests that the Offeror submits its offer in accordance with section 08 of the 2006 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation. The offer must be gathered per section and separated as follows:

Section I: Technical Offer  
Section II: Financial Offer  
Section III: Certifications

- If the Offeror chooses to submit its offer in hard copies, Canada requests that the Offeror provides its offer in separately bound sections as follows:

Section I: Technical Offer (one (1) hard copy)

Section II: Financial Offer (one (1) hard copy)

Section III: Certifications (one (1) hard copy)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

- If the Offeror is simultaneously providing copies of its offer using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

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

Canada requests that offerors follow the format instructions described below in the preparation of hard copy of their offer:

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

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](https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, Offerors should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) 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, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

**Section I: Technical Offer**

In their technical offer, offerors should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

**Section II: Financial Offer**

Offerors must submit their financial offer in accordance with Annex B – Basis of Payment.

**3.1.1 Electronic Payment of Invoices - Offer**

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex "E" Electronic Payment Instruments, to identify which ones are accepted.

If Annex "E" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

### **3.1.2 Exchange Rate Fluctuation**

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

**Section III: Certifications** Offerors must submit the certifications and additional information required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- (a) Offers will be assessed in accordance with the entire requirement of the Request for Standing Offers including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the offers.

#### **4.1.1 Technical Evaluation**

##### **4.1.1.1 Mandatory Technical Criteria**

See Annex "C".

##### **4.1.1.2 Point Rated Technical Criteria**

See Annex "C".

#### **4.1.2 Financial Evaluation**

*SACC Manual* Clause M0220T (2016-01-28), Evaluation of Price

### **4.2 Basis of Selection**

#### **4.2.1 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, and
  - b. meet all mandatory criteria; and
  - c. obtain the required minimum points specified for each criterion for the technical evaluation, and

- d. obtain the required minimum of 4900 points overall for the technical evaluation criteria which are subject to point rating.

The rating is performed on a scale of 6650 points.

2. Bids not meeting (a) or (b) or (c) and (d) 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. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

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 135 and the lowest evaluated price is \$45,000 (45).

**Basis of Selection – Highest Combined Rating of Technical Merit (70%) and Price (30%)**

		Bidder 1	Bidder 2	Bidder 3
<b>Overall Technical Score</b>		115/135	89/135	92/135
<b>Bid Evaluated Price</b>		\$55,000.00	\$50,000.00	\$45,000.00
<b>Calculations</b>	<b>Technical Merit Score</b>	$115/135 \times 70 = 59.63$	$89/135 \times 70 = 46.15$	$92/135 \times 70 = 47.70$
	<b>Pricing Score</b>	$45/55 \times 30 = 24.55$	$45/50 \times 30 = 27.00$	$45/45 \times 30 = 30.00$
<b>Combined Rating</b>		84.18	73.15	77.70
<b>Overall Rating</b>		1 <sup>st</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>

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## PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Offerors must provide the required certifications and additional information to be issued a standing offer.

The certifications provided by offerors to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare an offer non-responsive, will have the right to set-aside a standing offer, or will declare a contractor in default if any certification made by the Offeror is found to be untrue whether made knowingly or unknowingly during the offer evaluation period, during the Standing Offer period, or during the contract period.

The Standing Offer Authority will have the right to ask for additional information to verify the Offeror's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Standing Offer Authority will render the offer non-responsive, result in the setting aside of the Standing Offer or constitute a default under the Contract.

### 5.1 Certifications Required with the Offer

Offerors must submit the following duly completed certifications as part of their offer.

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

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

### 5.2 Certifications Precedent to the Issuance of a Standing Offer and Additional Information

The certifications and additional information listed below should be submitted with the offer, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Standing Offer Authority will inform the Offeror 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 provided will render the offer non-responsive.

#### 5.2.1 Integrity Provisions – Required Documentation

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

#### 5.2.2 Federal Contractors Program for Employment Equity - Standing Offer Certification

By submitting an offer, the Offeror certifies that the Offeror, and any of the Offeror's members if the Offeror is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list ) available at the bottom of the page of the [Employment and Social Development Canada-Labour's](https://www.canada.ca/en/employment-social-development/canada-labour) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#s4>).

Canada will have the right to declare an offer non-responsive, or to set-aside a Standing Offer, if the Offeror, or any member of the Offeror if the Offeror is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of issuing of a Standing Offer or during the period of the Standing Offer.

#### 5.2.3 Additional Certifications Precedent to Issuance of a Standing Offer

### 5.2.3.1 Canadian Content Certification

This procurement is limited to Canadian services.

The Offeror certifies that:

( ) the service offered is a Canadian service as defined in paragraph 2 of clause [A3050T](#).

**5.2.3.1.1** SACC Manual clause [A3050T](#) (2018-12-06) Canadian Content Definition

### 5.2.3.2 Education and Experience

The Offeror certifies that all the information provided in the résumés and supporting material submitted with its offer, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Offeror to be true and accurate. Furthermore, the Offeror warrants that every individual offered by the Offeror for the requirement is capable of performing the Work resulting from a call-up against the Standing Offer.

## PART 6 - INSURANCE REQUIREMENTS

### 6.1 Insurance Requirements – No Specific Requirement

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

## PART 7 - STANDING OFFER AND RESULTING CONTRACT CLAUSES

### A. STANDING OFFER

#### 7.1 Offer

7.1.1 The Offeror offers to perform the Work in accordance with the Statement of Work at Annex "A".

#### 7.2 Security Requirements

7.2.1 There is no security requirement applicable to the Standing Offer.

#### 7.3 Standard Clauses and Conditions

All clauses and conditions identified in the Standing Offer and resulting contract(s) 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.

##### 7.3.1 General Conditions

[2005 \(2017-06-21\)](#) General Conditions - Standing Offers - Goods or Services, apply to and form part of the Standing Offer.

### **7.3.2 Standing Offers Reporting**

The Offeror must compile and maintain records on its provision of goods and services to Canada under contracts resulting from the Standing Offer. This data must include all purchases done by Canada, including those acquired and paid for by Canada acquisition cards.

The Offeror must provide this data in accordance with the reporting requirements detailed in annex "D". If some data is not available, the reason must be indicated in the report. If no goods or services is provided during a given period, the Offeror must provide a "nil" report.

The data must be submitted on a quarterly basis to the Standing Offer Authority.

The quarterly reporting periods are defined as follows:

- first quarter: April 1 to June 30
- second quarter: July 1 to September 30
- third quarter: October 1 to December 31
- fourth quarter: January 1 to March 31

The data must be submitted to the Standing Offer Authority no later than **FIFTEEN (15)** calendar days after the end of the reporting period.

### **7.4 Term of Standing Offer**

#### **7.4.1 Period of the Standing Offer**

The period for making call-ups and providing services against the Standing Offer is for a one (1) year period from the date of award.

#### **7.4.2 Extension of Standing Offer**

If the Standing Offer is authorized for use beyond the initial period, the Offeror offers to extend its offer for four (4) additional one (1) year periods under the same conditions and at the rates or prices specified in the Standing Offer, or at the rates or prices calculated in accordance with the formula specified in the Standing Offer.

The Offeror will be advised of the decision to authorize the use of the Standing Offer for an extended period by the Standing Offer Authority 30 days before the expiry date of the Standing Offer. A revision to the Standing Offer will be issued by the Standing Offer Authority.

### **7.5 Authorities**

#### **7.5.1 Standing Offer Authority**

The Standing Offer Authority is:

Name: Erin Fletcher  
Title: Supply Specialist  
Public Works and Government Services Canada  
Acquisitions Branch  
Directorate: Pacific Region  
Address: 401 – 1230 Government St. Victoria, BC V8W 3X4

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Telephone: 250-415-6020  
E-mail address: erin.fletcher@pwgsc-tpsgc.gc.ca

The Standing Offer Authority is responsible for the establishment of the Standing Offer, its administration and its revision, if applicable. Upon the making of a call-up, as Contracting Authority, he is responsible for any contractual issues relating to individual call-ups made against the Standing Offer by any Identified User.

### 7.5.2 Project Authority

The Project Authority for the Standing Offer is identified in the call-up against the Standing Offer.

The Project Authority is the representative of the department or agency for whom the Work will be carried out pursuant to a call-up against the Standing Offer and is responsible for all the technical content of the Work under the resulting Contract.

### 7.5.3 Offeror's Representative (*BIDDER TO COMPLETE*)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_

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

### 7.6 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.

### 7.7 Identified Users

The Identified User authorized to make call-ups against the Standing Offer is: National Research Council Canada, Herzberg Institute of Astrophysics.

### 7.8 Call-up Instrument

The Work will be authorized or confirmed by the Identified User(s) using the duly completed forms or their equivalents as identified in paragraphs 2 and 3 below, or by using Canada acquisition cards (Visa or MasterCard) for low dollar value requirements.

1. Call-ups must be made by Identified Users' authorized representatives under the Standing Offer and must be for goods or services or combination of goods and services included in the Standing Offer at the prices and in accordance with the terms and conditions specified in the Standing Offer.
2. Any of the following forms could be used which are available through [PWGSC Forms Catalogue](#) website:
  - PWGSC-TPSGC 942 Call-up Against a Standing Offer
  - PWGSC-TPGSC 942-2 Call-up Against a Standing Offer - Multiple Delivery
  - PWGSC-TPSGC 944 Call-up Against Multiple Standing Offers (English version)

- PWGSC-TPSGC 945 Commande subséquente à plusieurs offres à commandes (French version)

or

3. An equivalent form or electronic call-up document which contains at a minimum the following information:
- standing offer number;
  - statement that incorporates the terms and conditions of the Standing Offer;
  - description and unit price for each line item;
  - total value of the call-up;
  - point of delivery;
  - confirmation that funds are available under section 32 of the Financial Administration Act;
  - confirmation that the user is an Identified User under the Standing Offer with authority to enter into a contract.

## 7.9 Limitation of Call-ups

Individual call-ups against the Standing Offer must not exceed **\$400,000.00 (Applicable Taxes included)**.

### 7.9.1 Elevated Call-ups

Elevated call-ups against the Standing Offer **between \$400,001.00 and \$999,999.00 (Applicable Taxes included)** must be authorized by the Standing Offer Authority.

## 7.10 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 call up against the Standing Offer, including any annexes;
- b) the articles of the Standing Offer;
- c) the general conditions 2005 (2017-06-21), General Conditions - Standing Offers - Goods or Services;
- d) the supplemental general conditions 4001 (2015-04-01), Hardware Purchase, Lease and Maintenance; 4002 (2010-08-16), Software Development or Modification Services; 4003 (2010-08-16), Licensed Software; 4004 (2013-04-25), Maintenance and Support Services for Licensed Software;
- e) the general conditions 2040 (2018-06-21), General Conditions – Research and Development as amended in 7.2.1.1 below;
- f) Annex A, Statement of Work;
- g) Annex B, Basis of Payment;
- h) the Offeror's offer dated \_\_\_\_\_ (*insert date of offer*), (*if the offer was clarified or amended, insert at the time of issuance of the offer: "as clarified on \_\_\_\_\_" or "as amended on \_\_\_\_\_" and insert date(s) of clarification(s) or amendment(s) if applicable*).

## 7.11 Certifications and Additional Information

### 7.11.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Offeror with its offer or precedent to issuance of the Standing Offer (SO), and the ongoing cooperation in providing additional information are conditions of issuance of the SO and failure to comply will constitute the Offeror

in default. Certifications are subject to verification by Canada during the entire period of the SO and of any resulting contract that would continue beyond the period of the SO.

### 7.11.2 Canadian Content Certification

*SACC Manual* Clause M3060C (2008-05-12), Canadian Content Certification

### 7.12 Applicable Laws

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_.

### 7.13 Transition to an e-Procurement Solution (EPS)

During the period of the Standing Offer, Canada may transition to an EPS for more efficient processing and management of individual call-ups for any or all of the SO's applicable goods and services. Canada reserves the right, at its sole discretion, to make the use of the new e-procurement solution mandatory.

Canada agrees to provide the Offeror with at least a three-month notice to allow for any measures necessary for the integration of the Offer into the EPS. The notice will include a detailed information package indicating the requirements, as well as any applicable guidance and support.

If the Offeror chooses not to offer their goods or services through the e-procurement solution, the Standing Offer may be set aside by Canada.

## B. RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from a call-up against the Standing Offer.

### 7.1 Statement of Work

The Contractor must perform the Work described in the call-up against the Standing Offer.

### 7.2 Standard Clauses and Conditions

#### 7.2.1 General Conditions

2040 (2018-06-21) General Conditions – Research and Development, apply to and form part of the Contract.

#### 7.2.1.1 *SACC Manual* Clause K3410C (2015-02-25), Canada to Own Intellectual Property Rights in Foreground Information

##### 7.2.1.2 Basis for Canada's Ownership of Intellectual Property

The National Research Council Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, for the following reasons, as set out in the [\*Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts\*](#):

1. Where the main purpose of the Crown Procurement Contract, or the deliverables contracted for, is:

- 1.1 to augment an existing body of Crown Background as a prerequisite to the transfer of the augmented Background to the private sector, through licensing or assignment of ownership (not necessarily to the original Contractor), for the purposes of Commercial Exploitation;
- 1.2 to deliver a not-yet fully developed component or subsystem that will be incorporated into a complete system at a later date (not necessarily by the original Contractor), as a prerequisite to the planned transfer of the complete system to the private sector (not necessarily to the original Contractor), through licensing or assignment of ownership, for the purposes of Commercial Exploitation;
- 1.3 where the Foreground consists of material subject to copyright, with the exception of computer software and all documentation pertaining to that software.

## 7.2.2 Supplemental General Conditions

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

4001 (2015-04-01), Hardware Purchase, Lease and Maintenance  
4002 (2010-08-16), Software Development or Modification Services  
4003 (2010-08-16), Licensed Software  
4004 (2013-04-25), Maintenance and Support Services for Licensed Software

## 7.3 Term of Contract

### 7.3.1 Period of the Contract

The Work must be completed in accordance with the call-up against the Standing Offer.

## 7.4 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.

## 7.5 Payment

### 7.5.1 Basis of Payment

One of the following types of basis of payment will form part of the approved call-up.

The Contractor will be paid firm daily rates as per Annex "B", for work performed in accordance with the Contract. Customs duties are included and Applicable Taxes are extra.

## Travel and Living Expenses

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 Travel 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.

All travel must have the prior authorization of the Project Authority. All payments are subject to government audit.

### **Miscellaneous Materials**

Miscellaneous materials (except free issue) will be paid at cost plus a mark-up of \_\_\_\_ percent, upon submission of an itemized statement supported by a copy of the invoice.

**Total cost of materials not to exceed 10% of the value of the call-up.**

#### **7.5.2 Single Payment**

*SACC Manual* Clause H1000C (2008-05-12), Single Payment

#### **7.5.3 Multiple Payments**

*SACC Manual* Clause H1001C (2008-05-12), Multiple Payments

#### **7.5.4 Progress Payments**

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work, up to 100 percent of the amount claimed and approved by Canada if:
  - a. 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;
  - b. the amount claimed is in accordance with the basis of payment;
  - c. the total amount for all progress payments paid by Canada does not exceed 100 percent of the total amount to be paid under the Contract;
  - d. all certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives.
2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of the item if the Work has been accepted by Canada and a final claim for the payment is submitted.
3. Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the rights 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.

#### **7.5.5 Electronic Payment of Invoices – Call-up**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);

- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

#### **7.5.6 Discretionary Audit**

C0705C (2010-01-11), Discretionary Audit

#### **7.6 Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- a. a copy of time sheets to support the time claimed;
  - b. a copy of the invoices, receipts, vouchers for all direct expenses, all and travel and living expenses;
  - c. all information required on form [PWGSC-TPSGC 1111](#) (if applicable);
  - d. a copy of the monthly progress report (if applicable).
2. Invoices must be distributed as follows:
    - a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
    - b. One (1) copy must be forwarded to the Contracting Authority identified on the call-up.

#### **7.7 Insurance**

*SACC Manual* Clause G1005C (2016-01-28), Insurance – No Specific Requirement

## ANNEX "A" - STATEMENT OF WORK

### LIST OF ACRONYMS AND ABBREVIATIONS

ALMA	Atacama Large Millimeter Array
ATD	Astronomy Technology Directorate
CBF	Correlator / Beamformer
CDR	Critical Design Review
CSP	Central Signal Processing Element / Consortium
DRAO	Dominion Radio Astrophysical Observatory
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interface
FPGA	Field Programmable Gate Array
FSA	Frequency Slice Architecture
FTE	Full-time Equivalent
FW	Firmware
HAA	Herzberg Astronomy and Astrophysics
ILS	Integrated Logistics Support
I&T	Integration and Test
LRU	Line Replaceable Unit
M&C	Monitor and Control
Mid.CBF	SKA Mid Frequency Correlator / Beamformer
ngVLA	Next Generation Very Large Array
NRC	National Research Council of Canada
OS	Operating System
RAMS	Reliability, Availability, Maintainability and Safety
SAFe	Scaled Agile Framework for Lean Enterprise
SKA	Square Kilometer Array
SKAO	SKA Project Office
SOW	Statement of Work
SW	Software
TDC	TALON Demonstration Correlator

## **Correlator Support Statement of Work**

The Herzberg Astronomy and Astrophysics (HAA) research center of the National Research Council of Canada (NRC) is a world leader in design and deployment of correlator digital signal processing systems for large radio telescopes.

The NRC/HAA Astronomy Technology Directorate (ATD) has been leading the design phase of the Correlator / Beamformer (Mid.CBF) system for the Square Kilometer Array (SKA) mid-frequency telescope. The team recently completed the critical design review (CDR) for the sub-element. The SKA Project Office is moving into a “bridging” phase prior to the expected start of the construction in 2021. The bridging phase begins with the consolidation of element designs and interfaces in order to execute a Telescope level System Critical Design Review (CDR) in December 2019, then follows on with the preparation for and execution of a Project Cost Review, and finally the development of a Construction Proposal.

The SKA development, based on our TALON technology and Frequency Slice Architecture (FSA) signal processing algorithms, has positioned HAA ATD to be the leading correlator supplier for astronomy projects worldwide. HAA ATD will also pursue opportunities to provide correlators for other observatories around the world.

HAA ATD will develop a TALON Demonstrator Correlator (TDC). The TDC will be a small correlator using the NRC TALON technology and FSA signal processing algorithms. Its purpose is to demonstrate TALON/FSA technology readiness and performance. The TDC will build on the prototyping work done by the NRC team during SKA pre-construction. The TALON technology includes the TALON-DX Intel Stratix 10 FPGA based signal processing board and the TALON LRU, a 2U custom server box to house two TALON-DX boards.

In addition to the TDC project, the NRC correlator team will be involved in other activities:

1. The NRC correlator team is supporting the SKA Project Office (SKAO) as it moves towards the SKA System CDR in December 2019.
2. The NRC correlator team has generated a reference design and costing for a correlator/beamformer for the ngVLA. Additional design and support work for the ngVLA correlator is expected in the future.
3. A proposal is in progress for a study to investigate the feasibility of using the NRC correlator technology for an upgrade to the ALMA correlator. If this proposal is accepted, the NRC correlator team will develop a design and integration solution for an ALMA correlator upgrade based on TALON technology and FSA signal processing algorithms.

Involvement of Canadian industry in NRC's past work on the SKA CSP Element and Mid.CBF Sub-element was a significant success. Teaming NRC's world class radio astronomy domain knowledge with an industrial partner with a track record of delivering large high-tech systems through rigorous project

management, sub-contract management and system engineering processes enabled the team to navigate a difficult project through two successful CDRs. This model will be continued by the NRC correlator team moving forward by forming an integrated team comprised of NRC and Canadian industry resources.

This Statement of Work covers the activities that an industrial partner will perform as part of the Correlator Support Standing Offer. The purpose of the Standing Offer is to provide resources with specific skillsets to complement the existing NRC correlator team. In order to meet internal and external project commitments, a requirement for the following resources is anticipated:

- Project Manager / SAFe Scrum Master (1,125 hrs annually)
- System Engineer (1,500 hrs annually)
- Signal Processing FPGA Firmware Engineer (1,500 hrs annually)
- Signal Processing Embedded Software Engineer (1,500 hrs annually)

Specific work required by the Contractor will be defined in the call-ups against the Standing Offer. These call-ups will describe the tasks, milestones and deliverables required for the NRC correlator team to execute work on various projects.

Anticipated types of deliverables are as follows:

- Monthly status reports
- SAFe work items: Epics, Capabilities, Features, Stories, etc.
- Firmware/Software Design Specifications
- Firmware/Software User Manuals
- Integration and Test Plans
- Integration and Test Results
- Firmware modules and bench test code
- Software modules and unit test code
- Engineering documents and reports

Travel to the Dominion Radio Astrophysical Observatory (DRAO) in Penticton, BC will be required for various project milestones. International travel will also likely be required to support various projects the NRC correlator team is involved with. Detailed travel requirements will be defined in the call-up.

### **Skillset and Loading**

The goal of the Correlator Support Standing Offer is to augment the skillset of the NRC correlator team with resources from Canadian industry in order to fulfil the NRC's mandate to support astronomy in Canada.

Detailed descriptions of the required resources are found below:

## **Project Manager / SAFe Scrum Master**

### Description:

The NRC Correlator team requires a resource to perform project management activities and act as the SAFe Scrum Master for one or more agile development teams.

### Tasks:

1. Prepare monthly status reports to NRC
2. Attend all project related meetings, including travel as necessary
3. Interface with NRC and external project stakeholders
4. Perform Scrum Master role for the SAFe Agile Development Team(s)
  - a. Exhibits Lean-Agile leadership
  - b. Supports the team rules
  - c. Facilitates the team's progress toward team goals
  - d. Leads team efforts in relentless improvement
  - e. Facilitates meetings
  - f. Supports the Product Owner
  - g. Eliminates impediments
  - h. Promotes SAFe quality practices
  - i. Builds a high-performing team
  - j. Protects and communicates
  - k. Coordinates with other teams
  - l. Facilitates preparation and readiness for ART events
  - m. Attends Scrum Masters meetings (scrum of scrums)

## **System Engineer**

### Description:

The NRC correlator team requires a resource to perform system engineering activities focused on integration and test, RAMS/ILS and EMI/EMC compliance. The System Engineer will be responsible for performing the tasks below, primarily for correlator systems based on the NRC's TALON technology.

### Tasks:

1. Provide System / Specialty Engineering leadership
2. Develop and coordinate execution of integration and test plans
3. Perform Reliability, Availability, Maintainability and Safety (RAMS) engineering for digital signal processing systems and generate reports.
4. Perform Integrate Logistics Support (ILS) engineering for digital signal processing systems and generate reports.

5. Perform EMI/EMC measurements of custom signal processing hardware modules and document results.
6. Coordinate and execute EMI/EMC compliance campaign.
7. Contribute as a member of a SAFe agile development team.

### **Signal Processing FPGA Firmware Engineer**

#### Description:

The NRC correlator team requires a resource to perform FPGA firmware design and development activities. The FPGA Firmware Engineer will primarily be developing FPGA firmware for the Intel Stratix 10 FPGA used by the NRC's TALON technology.

#### Tasks:

1. Write design specifications for FPGA firmware IP blocks.
2. Write test plans for verification of FPGA firmware IP blocks.
3. Review design specifications and test plans.
4. Implement FPGA firmware and test bench code.
5. Perform peer review on implemented code.
6. Execute test plans and record results.
7. Implement software to access IP block register sets.
8. Integrate FPGA firmware IP blocks into top-level FPGA designs.
9. Support integration and test activities to integrate hardware/firmware/software.
10. Contribute as a member of a SAFe agile development team.

### **Signal Processing Embedded Software Engineer**

#### Description:

The NRC correlator team requires a resource to perform embedded and signal processing software development activities. The Software Engineer will primarily be involved in developing software to run on the ARM processors embedded on the Intel Stratix 10 FPGA used by the NRC's TALON technology. Graphical User Interface (GUI) and Monitor and Control (M&C) software development on standard servers also required.

#### Tasks:

1. Write design specifications for software modules.
2. Write test plans for verification of software modules.
3. Review design specifications and test plans.
4. Implement software module and unit test code.
5. Perform peer review on implemented code.
6. Execute test plans and record results.

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7. Implement signal processing algorithms in Matlab and C++.
8. Integrate software modules into top-level applications.
9. Support integration and test activities to integrate hardware/firmware/software.
10. Contribute as a member of a SAFe agile development team.

### **References**

Some general references to SKA, ngVLA, ALMA and SAFe are below:

<https://www.skatelescope.org/>

<http://ngvla.nrao.edu/>

<https://www.almaobservatory.org/en/home/>

<https://www.scaledagileframework.com/>

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**ANNEX "B" – BASIS OF PAYMENT**

For Work performed in accordance with the call-up, the Contractor will be paid as specified below.

**Pricing is in Canadian Dollars, the Goods and Services Tax (GST) excluded. Pricing must be provided for all resource categories.**

The Contractor will be paid all-inclusive fixed time rates as follows:

Table 1.0 – Professional Fees								
Category	Name	Estimated # of Hours for Evaluation Purposes Only	All Inclusive Fixed Daily Rate (CAD \$)				Extended Total = (A x B) + (A x C) + (A x D) + (A x E) + (A x F)	
		A	B	C	D	E	F	
			Standing Offer Year 1	Option Year 2	Option Year 3	Option Year 4	Option Year 5	
Project Manager / SAFE Scrum Master		1125 / yr	\$	\$	\$	\$	\$	\$
System Engineer		1500 / yr	\$	\$	\$	\$	\$	\$
Signal Processing FPGA Firmware Engineer		1500 / yr	\$	\$	\$	\$	\$	\$
Signal Processing Embedded Software Engineer		1500 / yr	\$	\$	\$	\$	\$	\$
							<b>TOTAL</b>	<b>\$</b>

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**For the purposes of this Standing Offer, a day is defined as 7.5 hours of work, exclusive of meal breaks. Payment will be made for days actually worked, with no provision for annual leave, statutory holidays and sick leave. If time worked is more or less than a day, the all-inclusive fixed daily rate must be prorated to reflect the actual time worked.**

**Travel and Living Expenses**

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 Travel 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.

All travel must have the prior authorization of the Project Authority. All payments are subject to government audit.

<b>Table 2.0 – Miscellaneous Materials</b>						
<b>Estimated \$ for Evaluation Purposes Only</b>	Miscellaneous materials (except free issue) will be paid at cost plus a mark-up of ____ percent, upon submission of an itemized statement supported by a copy of the invoice.					
A	B	C	D	E	F	<b>Extended Total = (A x B) + (A x C) + (A x D) + (A x E) + (A x F)</b>
	Standing Offer Year 1	Option Year 2	Option Year 3	Option Year 4	Option Year 5	
\$40,000	____ % mark-up	____ % mark-up	____ % mark-up	____ % mark-up	____ % mark-up	<b>\$</b>

**TOTAL EVALUATED BID PRICE = TOTAL TABLE 1.0 + TOTAL TABLE 2.0**

**ANNEX “C” – MANDATORY AND POINT RATED TECHNICAL EVALUATION CRITERIA**

**1.0 MANDATORY TECHNICAL EVALUATION CRITERIA**

A BID MUST COMPLY WITH THE REQUIREMENTS OF THE BID SOLICITATION AND MEET ALL MANDATORY TECHNICAL EVALUATION CRITERIA TO BE DECLARED RESPONSIVE.

<b>Project Manager / SAFe Scrum Master Name:</b> _____				
#	Mandatory Criteria	Met	Not Met	Cross-Reference to Proposal (pg. #)
MT1	Minimum 5 years of experience as a Project Manager in the past 10 years.			
MT2	Minimum 4 years of post-secondary education.			
MT3	Minimum 3 years of experience in the past 5 years as project manager of at least one large international technical project with a minimum of 15 engineers located in at least two countries. Proposal must include a summary of projects including a brief description, duration/budget, and size / geographical distribution of the engineering team.			
MT4	SAFe Scrum Master training and certification. Proof of certification required with the bid package.			

<b>System Engineer Name:</b> _____				
#	Mandatory Criteria	Met	Not Met	Cross-Reference to Proposal (pg. #)
MT5	Minimum 5 years of experience as a System Engineer in the past 10 years.			
MT6	Minimum 4 years of post-secondary education.			

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MT7	Minimum 2 years of experience in the past 5 years as a system engineer on at least one large international technical project with a minimum of 15 engineers located in at least two countries. Proposal must include a summary of projects including a brief description, duration/budget, and size / geographical distribution of the engineering team.			
MT8	Minimum 2 years of experience in the past 5 years with RAMS/ILS engineering.			
MT9	Minimum 2 years of experience in the past 5 years with EMI/EMC engineering and compliance.			

<b>Signal Processing FPGA Firmware Engineer Name: _____</b>				
#	Mandatory Criteria	Met	Not Met	Cross-Reference to Proposal (pg. #)
MT10	Minimum 5 years of experience as an FPGA Firmware Engineer in the past 10 years.			
MT11	Minimum 4 years of post-secondary education.			
MT12	Minimum 2 years of experience in the past 5 years with firmware development for Intel Stratix 10 FPGAs			
MT13	Minimum 2 years of experience in the past 5 years with signal processing focused FPGA firmware development.			

**Signal Processing Embedded Software Engineer Name:** \_\_\_\_\_

#	Mandatory Criteria	Met	Not Met	Cross-Reference to Proposal (pg. #)
MT14	Minimum 5 years of experience as a Software Engineer in the past 10 years.			
MT15	Minimum 4 years of post-secondary education.			
MT16	Minimum 3 years of experience in the past 5 years with signal processing software development			

**Bidding Organization Name:** \_\_\_\_\_

#	Mandatory Criteria	Met	Not Met	Cross-Reference to Proposal (pg. #)
MT17	Minimum 10 years of experience with project management and system engineering for large international programs, as defined as follows: <ul style="list-style-type: none"> <li>• One or more international relationship (client, sub-contractor, partner)</li> <li>• Management of multiple sub-contracts</li> <li>• Coordination of multiple engineering teams</li> <li>• Five years or longer program duration</li> </ul>			
MT18	Established and documented project management and system engineering processes. This can be proven either by narrative or providing example Project Management and System Engineering plans.			
MT19	Minimum 10 years of experience leading digital signal processing projects.			

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**2.0 POINT RATED TECHNICAL EVALUATION CRITERIA**

BIDDERS MUST OBTAIN THE MINIMUM PASS MARK FOR EACH SECTION TO BE DECLARED RESPONSIVE. THE MAXIMUM TOTAL ALLOWABLE NUMBER OF POINTS IS 6650 POINTS.

Project Manager / SAFe Scrum Master Name: _____					
#	Point Rated Technical Criterion	Weighting (Points)	Max Points	Cross-Reference to Proposal (pg. #)	Points
RT1	Relevant Education (related fields of study: project management, business admin/management, engineering, computer science, math, physics)	University Undergraduate Degree: 100 pts University Master's Degree or Higher: 150 pts	150 pts		
RT2	Relevant experience in Project Management	5 yrs and <7 yrs: 100 pts 7 yrs and <10 yrs: 200 pts 10 + yrs: 250 pts	250 pts		
RT3	Relevant experience in Project Management of large international technical projects as defined in MT3.	3 yrs and <5 yrs: 50 pts 5 yrs and <8 yrs: 150 pts 8 yrs and <10 yrs: 200 pts 10 + yrs: 250 pts	250 pts		
RT4	Relevant experience in Project Management of military, aerospace or large scientific programs requiring rigorous system engineering process.	1 yrs and <5 yrs: 100 pts 5 yrs and <10 yrs: 200 pts 10 + yrs: 250 pts	250 pts		
RT5	Relevant experience with signal processing instrumentation for radio astronomy.	1 yrs and < 2 yrs: 100 pts 2 yrs and < 5 yrs: 200 pts 5+ yrs: 300 pts	300 pts		

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RT6	Additional SAFe certification. Proof of certification required with the bid package.	One or more SAFe certification in addition to Scrum Master: 100 pts	100 pts	
RT7	SAFE scrum master experience in past two years	Scrum Master (other methodology): 50 pts SAFe Scrum Master: 150 pts	150 pts	
RT8	Experience working with technology related departments of the Government of Canada (DND, DRDC, NRC, etc.)	1 yr to < 3 yrs = 20 pts 3 yrs to < 5 yrs = 40 pts 5 yrs to < 7 yrs = 60 pts 7 yrs to < 10 yrs = 80 pts 10+ yrs: 100 pts	100 pts	
<b>MINIMUM PASS MARK</b>			<b>1000</b>	
<b>MAX POINTS</b>			<b>1550</b>	<b>TOTAL POINTS</b>

**System Engineer Name:** \_\_\_\_\_

#	Point Rated Technical Criterion	Weighting (Points)	Max Points	Cross-Reference to Proposal (pg. #)	Points
RT9	Relevant Education (related fields of study: engineering, computer science, math, physics)	University Undergraduate Degree: 100 pts University Master's Degree or Higher: 150 pts	150 pts		
RT10	Relevant experience in System Engineering	5 yrs and < 7 yrs: 100 pts 7 yrs and < 10 yrs: 200 pts 10 + yrs: 250 pts	250 pts		

RT11	Relevant experience in System Engineering on large international technical projects as defined in MT7.	2 yrs and <5 yrs: 50 pts 5 yrs and <7 yrs: 100 pts 7 yrs and <10 yrs: 200 pts 10 + yrs: 250 pts	250 pts	
RT12	Relevant experience in System Engineering on military, aerospace or large scientific programs requiring rigorous system engineering process.	1 yrs and <5 yrs: 100 pts 5 yrs and <10 yrs: 200 pts 10 + yrs: 250 pts	250 pts	
RT13	Relevant experience with integration and test using custom or specialized hardware	1 yrs and <5 yrs: 100 pts 5 yrs and <10 yrs: 200 pts 10 + yrs: 250 pts	250 pts	
RT14	Relevant experience with EMI/EMC engineering and testing using custom signal processing hardware	1 yrs and < 2 yrs: 50 pts 2 yrs and < 5 yrs: 150 pts 5+ yrs: 200 pts	200 pts	
RT15	Recent EMI/EMC engineering experience for radio astronomy applications in the past two years	150 pts	150 pts	
RT16	Relevant experience with RAMS/ILS engineering using custom digital signal processing hardware	1 yrs and < 2 yrs: 50 pts 2 yrs and < 5 yrs: 150 pts 5+ yrs: 200 pts	200 pts	
RT17	Relevant Experience with signal processing instrumentation for radio astronomy.	1 yrs and < 2 yrs: 100 pts 2 yrs and < 5 yrs: 200 pts 5+ yrs: 300 pts	300 pts	

RT18	Recent SAFe development team experience in past two years	Other agile development team: 50 pts SAFE agile development team: 150 pts	150 pts	
RT19	Experience working with technology related departments of the Government of Canada (DND, DRDC, NRC, etc.)	1 yr to < 3 yrs = 20 pts 3 yrs to < 5 yrs = 40 pts 5 yrs to < 7 yrs = 60 pts 7 yrs to < 10 yrs = 80 pts 10+ yrs: 100 pts	100 pts	
<b>MINIMUM PASS MARK</b>			<b>1300</b>	
<b>MAX POINTS</b>			<b>2250</b>	<b>TOTAL POINTS</b>

**Signal Processing FPGA Firmware Engineer Name:** \_\_\_\_\_

#	Point Rated Technical Criterion	Weighting (Points)	Max Points	Cross-Reference to Proposal (pg. #)	Points
RT20	Relevant Education (related fields of study: engineering, computer science, math, physics)	University Undergraduate Degree: 100 pts University Master's Degree or Higher: 150 pts	150 pts		
RT21	Relevant experience in FPGA firmware development	5 yrs and < 7 yrs: 100 pts 7 yrs and < 10 yrs: 200 pts 10 + yrs: 250 pts	250 pts		
RT22	Recent experience with firmware development for System on Chip (SoC) FPGA devices in the past two years.	Other SoC FPGA Devices: 50 pts Intel Stratix 10 SoC FPGA Devices: 150 pts	150 pts		

RT23	Recent experience with software development for embedded processors in the past two years.	Other embedded processors: 50 pts ARM HPS on Intel Stratix 10 Devices: 150 pts	150 pts	
RT24	Experience with VHDL	1 yr to < 2 yrs = 20 pts 2 yrs to < 3 yrs = 40 pts 3 yrs to < 4 yrs = 60 pts 4 yrs to < 5 yrs = 80 pts 5 years or more = 100 pts	100 pts	
RT25	Experience with Intel FPGA development tools (Quartus, Platform Designer, etc.)	1 yr to < 2 yrs = 20 pts 2 yrs to < 3 yrs = 40 pts 3 yrs to < 4 yrs = 60 pts 4 yrs to < 5 yrs = 80 pts 5 years or more = 100 pts	100 pts	
RT26	Experience with C / C++	1 yr to < 2 yrs = 10 pts 2 yrs to < 3 yrs = 20 pts 3 yrs to < 4 yrs = 30 pts 4 yrs to < 5 yrs = 40 pts 5 years or more = 50 pts	50 pts	
RT27	Experience with Python	1 yr to < 2 yrs = 10 pts 2 yrs to < 3 yrs = 20 pts 3 yrs to < 4 yrs = 30 pts 4 yrs to < 5 yrs = 40 pts 5 years or more = 50 pts	50 pts	
RT28	Relevant Experience with signal processing instrumentation for radio astronomy.	1 yrs and < 2 yrs: 100 pts 2 yrs and < 5 yrs: 150 pts 5+ yrs: 200 pts	200 pts	

RT29	Recent SAFE development team experience in past two years	Other agile development team: 50 pts SAFE agile development team: 150 pts	150 pts	
RT30	Experience working with technology related departments of the Government of Canada (DND, DRDC, NRC, etc.)	1 yr to < 3 yrs = 10 pts 3 yrs to < 5 yrs = 20 pts 5 yrs to < 7 yrs = 30 pts 7 yrs to < 10 yrs = 40 pts 10+ yrs: 50 pts	50 pts	
<b>MINIMUM PASS MARK</b>			<b>800</b>	
<b>MAX POINTS</b>			<b>1400</b>	<b>TOTAL POINTS</b>

**Signal Processing Embedded Software Engineer Name:** \_\_\_\_\_

#	Point Rated Technical Criterion	Weighting (Points)	Max Points	Cross-Reference to Proposal (pg. #)	Points
RT31	Relevant Education (related fields of study: engineering, computer science, math, physics)	University Undergraduate Degree: 100 pts University Master's Degree or Higher: 150 pts	150 pts		
RT32	Relevant experience in signal processing software development	5 yrs and < 7 yrs: 100 pts 7 yrs and < 10 yrs: 200 pts 10 + yrs: 250 pts	250 pts		
RT33	Relevant experience with software development on custom or specialized hardware.	1 yr to < 2 yrs = 20 pts 2 yrs to < 3 yrs = 40 pts 3 yrs to < 4 yrs = 60 pts 4 yrs to < 5 yrs = 80 pts 5 years or more = 100 pts	100 pts		

RT34	Experience with Matlab	1 yr to < 2 yrs = 20 pts 2 yrs to < 3 yrs = 40 pts 3 yrs to < 4 yrs = 60 pts 4 yrs to < 5 yrs = 80 pts 5 years or more = 100 pts	100 pts	
RT35	Experience with C / C++	1 yr to < 2 yrs = 20 pts 2 yrs to < 3 yrs = 40 pts 3 yrs to < 4 yrs = 60 pts 4 yrs to < 5 yrs = 80 pts 5 years or more = 100 pts	100 pts	
RT36	Experience with Python	1 yr to < 2 yrs = 10 pts 2 yrs to < 3 yrs = 20 pts 3 yrs to < 4 yrs = 30 pts 4 yrs to < 5 yrs = 40 pts 5 years or more = 50 pts	50 pts	
RT37	Relevant Experience with signal processing instrumentation for radio astronomy.	1 yrs and < 2 yrs: 100 pts 2 yrs and < 5 yrs: 150 pts 5+ yrs: 200 pts	200 pts	
RT38	Recent experience with software development for embedded processors in the past two years.	Other embedded processors: 50 pts ARM HPS on Intel Stratix 10 Devices: 150 pts	150 pts	
RT39	Recent experience with TANGO distributed control systems.	Other control system package: 50 pts TANGO control system package: 150 pts	150 pts	
RT40	Recent SAFE development team experience in past two years.	Other agile development team: 50 pts SAFE agile development team: 150 pts	150 pts	

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RT41	Experience working with technology related departments of the Government of Canada (DND, DRDC, NRC, etc.)	1 yr to < 3 yrs = 10 pts 3 yrs to < 5 yrs = 20 pts 5 yrs to < 7 yrs = 30 pts 7 yrs to < 10 yrs = 40 pts 10+ yrs: 50 pts	50 pts	
<b>MINIMUM PASS MARK</b>			<b>800</b>	
<b>MAX POINTS</b>			<b>1450</b>	<b>TOTAL POINTS</b>

**Bidding Organization Name:** \_\_\_\_\_

#	Point Rated Technical Criterion	Weighting (Points)	Max Points	Cross-Reference to Proposal (pg. #)	Points
RT42	Relevant project experience with large international programs as described in MT17.	10 yrs and <15 yrs: 100 pts 15 yrs and <20 yrs: 200 pts 20 yrs and <25 yrs: 300 pts 25 + yrs: 400 pts	400 pts		
RT43	Relevant experience in Project Management and System Engineering for military, aerospace or large scientific programs requiring rigorous system engineering process.	1 yrs and <5 yrs: 100 pts 5 yrs and <10 yrs: 200 pts 10 yrs and <15 yrs: 300 pts 15 + yrs: 400 pts	400 pts		
RT44	Relevant experience with digital signal processing projects.	10 yrs and <15 yrs: 100 pts 15 yrs and <20 yrs: 200 pts 20 yrs and <25 yrs: 300 pts 25 + yrs: 400 pts	400 pts		

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RT45	Relevant experience with Agile development teams and methodologies.	1 yrs and<5 yrs: 50 pts 5 yrs and<10 yrs: 100 pts 10 yrs and<15 yrs: 150 pts 15 + yrs: 200 pts	200 pts	
RT46	Recent experience with SAFe agile development teams in the past two years.	Other agile methodologies: 100 pts SAFe agile methodology: 200 pts	200 pts	
<b>MINIMUM PASS MARK</b>			<b>1000</b>	
<b>MAX POINTS</b>			<b>1600</b>	<b>TOTAL POINTS</b>

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### ANNEX "D" – REPORTING REQUIREMENTS

Quarterly Usage Report Submission Schedule:

QUARTER	START DATE	END DATE	REPORT DUE
Q1	01 April	30 June	15 July
Q2	01 July	30 September	15 October
Q3	01 October	31 December	15 January
Q4	01 January	31 March	15 April

### REPORT ON THE VOLUME OF BUSINESS

Date of Call-up	Description of Services	Extended Price (\$) (GST extra)	Expended to Date (\$) (GST extra)

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## **ANNEX "E" to PART 3 OF THE REQUEST FOR STANDING OFFERS**

### **ELECTRONIC PAYMENT INSTRUMENTS**

The Offeror accepts to be paid by any of the following Electronic Payment Instrument(s):

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)