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11 Laurier St. / 11, rue Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau  
Québec  
K1A 0S5  
Bid Fax: (819) 997-9776

**LETTER OF INTEREST  
LETTRE D'INTÉRÊT**

Comments - Commentaires

Vendor/Firm Name and Address  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**

Electronics, Simulators and Defence Systems Div.  
/Division des systèmes électroniques et des systèmes de  
simulation et de défense  
11 Laurier St. / 11, rue Laurier  
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K1A 0S5

<b>Title - Sujet</b> Radar Equipment procurements at CCG	
<b>Solicitation No. - N° de l'invitation</b> F7048-160039/D	<b>Date</b> 2019-05-09
<b>Client Reference No. - N° de référence du client</b> F7048-160039	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$\$\$QF-117-27312
<b>File No. - N° de dossier</b> 117qf.F7048-160039	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2019-05-17</b>	
<b>Time Zone</b> Fuseau horaire Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b> Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Deck, Cindy	<b>Buyer Id - Id de l'acheteur</b> 117qf
<b>Telephone No. - N° de téléphone</b> (819) 420-4557 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

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



Destination Code - Code destinataire	Destination Address - Adresse de la destination	Invoice Code - Code bur.-comptable	Invoice Address - Adresse de facturation
D-1	All regions CCG	F7048	Radar remplacements Project Manager  200 KENT ST - STN 7S036 OTTAWA Ontario K1A0E6 Canada



Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM	Destination	Plant/Usine	Del. Offered Liv. offerte	See Herein
3	line for sol D	D - I	F7048	1	Each	XXXXXXXXXXXX				

As a result of Request for Information F7048-160039/C, several comments and recommendations were received from Industry with respect to the Articles of Agreement and the technical documents. This Industry engagement provided valuable feedback to Canada and after careful consideration, Canada has reviewed its documentation and made some changes. The requirement will be published under F7048-160039/E to ensure an open, fair and transparent competitive process.

The following are Request for Information F7048-160039/C questions received from Industry, and Canada's responses.

### **Questions pertaining to draft F7048-160039 /C, Articles of Agreement**

#### **Question 1:**

In Section 5.1.2.1 of the F7048-160039 /C Request for Information (RFI) Canadian Content Certification, PSPC specifies HS codes that may differ for a particular radar system depending on the nature of the design and its subsystems and components. This may result in errors in this section. For example, HS 8516.29 may be in error. We would suggest that Public Services and Procurement Canada remove this paragraph so as to not confuse bidders. It is a bidder's responsibility to determine how to satisfy the NAFTA rules depending on their particular solution.

#### **Answer 1:**

Canada acknowledges the errors in the HS Codes. Canada has deemed it necessary to provide as much clarity as it can regarding the application of the policy. As such, it is anticipated that a paragraph will be included in F7048-160039 /E, and amended from the one in F7048-160039 / C to cite certain examples of HS Codes to demonstrate how a supplier may obtain a valid Canadian Content certification.

#### **Question 2:**

Confirm additional warranty cannot be purchased 'ad hoc' and must be ordered before expiry of the initial warranty.

#### **Answer 2:**

Canada confirms additional warranty cannot be purchased 'ad hoc' and must be ordered before expiry of a warranty period. Optional Goods and Services, will be amended in F7048-160039 /E to clarify this.

#### **Question 3:**

Clarification needed: which provisions from Comprehensive Land Claims Agreements have direct implication to the project,  
Is the Crown obliged under those provisions to consider employment of First Nations citizens for activities in project?

#### **Answer 3:**

There are no procurement obligations with respect to the two CLCAs identified.

#### **Question 4:**

Clarification requested that warranty for work shall not last longer than 18 month after the delivery of such work to the relevant premises of the Contracting Authority.

#### **Answer 4:**

The warranty period is defined as 12 months after delivery (in accordance with section 6.6 of F7048-160039 /C) and acceptance of the Work or the length of the contractor's or manufacturer's standard warranty period, whichever is longer.

#### **Question 5:**

Clarification requested that all Government Property is to be listed / specified and a delivery date assigned to it; Contractor to provide such list / Annex with its tender to eventually become an annex to the contract.

Further clarification requested that the consequences of failures to provide Government Property in time and/or quantity are for the account of Canada.

**Answer 5:**

There are no plans to deliver Government Property to the Contractor. Government Property subject to the Contractor's control is inclusive of all property that is located at government locations as identified in the RFP related to the fulfillment of the contracted requirements, however were there such, failures to provide Government Property in time and/or quantity identified in the contract would be to the account of Canada.

**Question 6:**

Clarification requested that Contractor shall be granted the possibility to cure a default prior to termination.

**Answer 6:**

Depending on the specific circumstance of default, the Contractor may or may not be granted the possibility to cure a default prior to termination.

**Question 7:**

Clarification requested that non-performance of acceptance testing or non-notification of deficiencies within the 30 days acceptance period renders the Hardware accepted.

**Answer 7:**

Supplemental Conditions 4001 10 (2008-05-12) Acceptance, paragraph 3b, Canada will have thirty (30) days to perform its acceptance procedures (the "Acceptance Period"). Should the supplier not receive notification of deficiencies within the 30 day period, the Hardware is deemed accepted by Canada.

**Question 8:**

Clarification requested that non-performance of inspection or non-notification of deficiencies within the 30 days acceptance period renders the Licensed Software accepted.

**Answer 8:**

Supplemental Conditions 4001 10 (2008-05-12) Acceptance, paragraph 4, if the Contract states that the System consists of the Hardware together with Licensed Software and/or Custom Software, the period for conducting any acceptance tests for the System, including any Licensed Software and any Custom Software components of the System, will be the acceptance period for the Hardware specified in these supplemental general conditions. Should the supplier not receive notification of deficiencies within the 30 day period, the Licensed software is deemed accepted by Canada.

**Question 9:**

Clarification needed if Incoterms 2010 apply - Could you clarify which INCOTERMS shall apply between 2000 and 2010?

**Answer 9:**

DDP 2010 will apply. Shipping Instructions – Delivery Duty Paid, will be amended in F7048-160039 /E to clarify this.

**Question 10:**

For Pricing Schedule A table 1 item 8, we understand that the contractor can quote 31 units OR an alternative with 36 units (replacing the existing CCG antennas). Does it mean that the contractor has a choice or both solution should be quoted?

**Answer 10:**

The bidder may elect to retain or replace any number of the five (5) Central & Artic existing CCG antenna systems and to quote this one solution. Pricing Schedule A, table 1, will be amended in F7048-160039 /E to clarify this.

**Question 11:**

We understand that the mentioned item 9 of Pricing Schedule A table 1, F7048-160039 /C, amends and replaces the items from 10 to 15 of Pricing Schedule A table 1, F7048-160039 /B; could you kindly confirm it?

**Answer 11:**

Canada confirms that the mentioned item 9 of Pricing Schedule A table 1, F7048-160039 /C, amends and replaces the items from 10 to 15 of Pricing Schedule A, Table 1, F7048-160039 /B.

**Question 12:**

For Pricing Schedule A, optional requirements A table 2 item 27, we understand that the contractor can quote 31 units OR an alternative with 36 units (replacing the existing CCG antennas). Does it mean that the contractor has a choice or both solution should be quoted?

**Answer 12:**

The bidder may elect to retain or replace any number of the five (5) Central & Artic existing CCG antenna systems and to quote this one solution. Pricing Schedule A, table 1, will be amended in F7048-160039 /E to clarify this.

**Question 13:**

INNAV Interface Development Support has disappeared from the price list but remains as a technical requirement § 4.2.2 in the annex B, could you clarify whether this requirement is still required and needs to be quoted or not?

**Answer 13:**

Canada confirms that the INNAV Interface Development Support requirement needs to be quoted and will amend the Pricing Schedule A to include it in F7048-160039 /E.

**Question 14:**

In Part 4 of the RFI, in the Phase 1 Financial Bid section, reference is made to 'Bids other than those described in "c"'. Can PSPC please clarify what 'c' is referring to?

**Answer 14:**

Under 4.1, c), formatting was lost and therefore it is impossible to identify c) within this section as written. The formatting issue will be corrected in F7048-160039 /E.

c) refers to the following paragraph:

"Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive."

**Question 15:**

In Part 4 of the RFI Section 4.1(c), reference is made to "circumstances described in subsection (c)". Can PSPC please clarify what "c" is referring to?

**Answer 15:**

Under 4.1, c), formatting was lost and therefore it is impossible to identify c) within this section as written. The formatting issue will be corrected in F7048-160039 /E.

c) refers to the following paragraph:

"Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing

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in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.”

**Question 16:**

In Section 5.1.2.1 of the F7048-160039 /C RFI Canadian Content Certification uses the term "total bid price". Can PSPC please define the total bid price?

**Answer 16:**

The term "total bid price", in F7048-160039 /C, paragraph 5.1.2.1, Canadian Content Certification, is equivalent to "evaluated price", as determined by the total extended price of Tables 1 through 3 of Schedule A.

**Question 17:**

In Part 4 of the F7048-160039 /C RFI Phase II Technical, can PSPC please confirm that the Compliance Assessment Report (CAR) process will include a pre-CAR clarification process similar to that used in the RFP F7048-160039 /B?

**Answer 17:**

As per Standard Instructions - Goods or Services - Competitive Requirements 2003, section 16 (2008-05-12) Conduct of evaluation, paragraph 1, "In conducting its evaluation of the bids, Canada may, but will have no obligation to, do the following: a) seek clarification or verification from bidders regarding any or all information provided by them with respect to the bid solicitation"

**Questions pertaining to draft F7048-160039 /C Annex B, Statement of Work (SOW)**

**Question 18:**

Will the three B.C. Terma SCANTER radars included in F7048-160039 /B and removed from the F7048-160039 /C be upgraded to a redundant configuration under some other contract?

**Answer 18:**

Canada will determine this at a later date.

**Question 19:**

Why were the three existing B.C. Terma SCANTER radars removed from the F7048-160039 /C?

**Answer 19:**

It became apparent during the course of the evaluations of the bid submissions in the previous solicitation for RADAR equipment replacements that bidders had interpreted the requirement to provide redundant Terma Transceivers for three RADAR systems recently procured by the Prince Rupert Port Authority in a jointly funded project with RCMP as the solution of choice for CCG's overall replacement strategy for its Radar Equipment. CCG wants to remedy this interpretation.

It is not CCG's procurement strategy to limit or steer the replacement of its Radars to a specific manufacturer or radar equipment model. In an effort to eliminate this confusion the requirement for redundant Terma transceivers at Prince Rupert has been removed from this RFP.

It should be noted that in exchange for access by CCG to the data from the equipment at the three sites in Prince Rupert and given CCG's extensive Radar infrastructure and Life Cycle Management processes and experience, CCG was asked to take over the Life Cycle Management (LCM) of the three radars from the Prince Rupert Port Authority and the RCMP and is in the midst of interface development to integrate this equipment with CCG's VTMS INNAV. It should also be noted that the requirements originally defined by the Prince Rupert Port authority and the RCMP in their procurement did not include CCGs INNAV interface requirements and many of the Integrated Logistic Support requirements that CCG requires to effectively manage this equipment over its life cycle.

It should also be noted that 11 new radar equipment configurations that will be deployed on both coasts have been specifically included and due to the loss of a year in the procurement process and the limited

funding window associated with these additions, CCG has added a rated criteria related to VTMS integration experience. This is to minimize the likelihood of schedule delays related to system configuration definition, interface development and integration time with INNAV to ensure that all 11 new sites are tested, deployed and operational within a two year window. Thus the emphasis on the point rating criteria that are part of the evaluation process for both experience and equipment delivery.

**Question 20:**

F7048-160039 /C, Annex B: SOW Section 4.2.1

It is understood that the only existing equipment are 5 antenna systems at C&A regions. Any other equipment (existing extractor or radar equipment) should be disregarded, even during any transition phase during project delivery?

**Answer 20:**

This is correct. For the purposes of the resulting RADAR Equipment Configurations for each site, there are no requirements to retain or integrate with any of CCG's existing, Antenna Systems (except for the five C&A antenna systems if the bidder has chosen to retain any number of those 5 ), RADAR Transceivers and Extractors.

**Question 21:**

F7048-160039 /C, Annex B: SOW Section 4.1.2

Would it be possible to extend the delivery schedule for CCG Test Lab from 30 days to 60 after FAT?

**Answer 21:**

F7048-160039 /C, Annex B – SOW Section 4.1.2.1 and 4.1.2.2 are Desirable requirements with a rated criteria. Meeting this schedule is a priority for CCG in order to meet a very restricted funding window.

**Question 22:**

F7048-160039 /C, Annex B: SOW Section 5.1.2

What will be the requested radar configuration, performances and lead time?

**Answer 22:**

For the purposes of submitting a complete bid and determining a total cost, it is requested that bidders use the proposed equipment configurations defined for the performance requirements of Site F, Mt. Ozzard, Bowan Island, Site K and Georges Island.

**Question 23:**

Why were the rated criteria for bidder experience introduced in draft Solicitation F7048-160039/C?

**Answer 23:**

Through the development of the documents, it became apparent for the need to evaluate the experience of the Bidder; and subsequently, Canada will include a definition of Bidder in the Articles of Agreement in F7048-160039/E for the purpose of this evaluation.

The introduction of Rated Criteria provides an equal opportunity for Industry to furnish a proposal to exceed the requirements and for Canada to receive Best Value.

**Questions pertaining to draft F7048-160039 /C Annex C, RADAR Transceiver and Antenna Technical Statement of Requirements (TSOR)**

**Question 24:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 7.2.1-7.2.4 Assessment baseline (CARPET model)

Besides the Pd and Pfa figures, Single Scan Detection Probability is assumed, not cumulative! Please confirm in RFP material.

**Answer 24:**

Canada will revise the text in the corresponding sections of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates employing the following draft text:

The RADAR Transceiver and Antenna System must be able to detect all moving and stationary targets meeting the specified detection criteria within the coverage area (excluding obstructed coverage). Target detection criteria are based on a Probability of Detection (PD) of 80%, with a Probability of False Alarm PFA of  $10^{-6}$ , including the effects of Signal to Noise (S/N) improvements through signal processing, and based on single-scan detection probability.

The RADAR Transceivers and Antenna Systems must meet the requirements defined in the Table 7-4 to 7-8, which are based upon standards for vessel detection by the replacement and new RADAR equipment, disregarding the limitations of the site-specific RADAR horizon. However, RADAR coverage to longer ranges or for smaller targets is a benefit to the surveillance of the region. The detection ranges listed in Table 7-4 to 7-8 are based on using a Swerling Case 1, a nominal 80% PD and a PFA of  $10^{-6}$ , Sea State 3, horizontal polarization, and single-scan detection probability.

The Contractor must provide with the bid, a range table for each site (for site data, see Section 3.7.1) , using the parameters of Swerling Case 1, a nominal 80% PD and a PFA of  $10^{-6}$ , Sea State 3, horizontal polarization, single-scan detection probability, and presenting the results in the same format as shown in Table 7-4 to 7-8. For conventional RADAR Transceivers and Antenna Systems, the Contractor must do simulations using CARPET version 2 or 3. Non-conventional RADAR Transceivers and Antenna Systems (e.g., phased array RADAR) may require different analysis software (Contractor to specify). In either case, the Contractor must list the detailed parameters and assumptions used for calculating the new RADAR Transceivers and Antenna Systems performance in each case.

**Question 25:**

F7048-160039 /C, RADAR Transceiver and Antenna, TSOR - 7.3.2  
CARPET 3 will be used for analysis. Please confirm this is acceptable.

**Answer 25:**

As per revisions to section 7.3.4 of the Transceiver TSOR, CARPET 2 or 3 may be used under F7048-160039 /E, RADAR Transceiver and Antenna.

**Question 26:**

F7048-160039 /C, RADAR Transceiver and Antenna, TSOR - 7.5.12 Without waveguide induced interference.

Please clarify this specification.

**Answer 26:**

The following line will be removed from the F7048-160039 /E, RADAR Transceiver and Antenna TSOR:  
"Without waveguide induced interference"

**Question 27:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - Table 7-9 Range resolution  
Please elaborate on how demonstration of compliance with the range resolution requirement is anticipated. With a digital radar the characteristics are determined by a number of factors but not at least the number of available range cells, the pulse compression ratio and sweep bandwidth.

**Answer 27:**

After review of the request, CCG will not make any change to the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna. Please refer to the requirements of T 7-9.2, T 7-9.7, and T 7-9.12, in the F7048-160039 /C RADAR Transceiver and Antenna TSOR, and the compliance demonstration method of T 7-9.2, T 7-9.7, and T 7-9.12 in the F7048-160039 /C, RADAR Transceiver and Antenna Evaluation Matrix, Annex J.

**Question 28:**

F7048-160039 /C, RADAR Transceiver and Antenna, TSOR - Table 7-9 30m short range  
Please confirm whether the short range requirement is independent of the installed height or not i.e. the 30m is in the main beam of the antenna.

**Answer 28:**

Canada anticipates revising the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna with the addition of a footnote:  
"Minimum detection range is independent of the installed height, and this range is in the main beam of the antenna."

**Question 29:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 8.1.1 (T 8-1.12) Motor voltage rating, 208V/60Hz  
Will 230VAC/50Hz motors be accepted provided frequency converter is provided as part of the antenna system?

**Answer 29:**

Yes. The line (mains) supply for RADAR Antenna System is 208V 60Hz 3Phase.

**Question 30:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR Section 8.1.1 (T 8-1.18)  
Our antennas do not offer 'build-in lightning protection'. We recommend use of lightning rods and good, proper grounding of installations in order to distract lightning away from the electronics. It is our experience that this is the most effective way of protecting sensitive electronics. Therefore, we see lightning protection as an installation issue rather than a product issue

**Answer 30:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates employing the following draft text:

"Lightning protection must be included in the installation design."

**Question 31:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 8.1.1 (T 8.1.23/24) Ice Loading  
Will an anti-ice option for those antennas in regions of concern be acceptable if the ice-loading requirement cannot be fulfilled?

**Answer 31:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates employing the following draft text:

- "Heating element: As required to meet the operational temperature and operational ice specification."  
And,  
- "Ice Loading: Survival (non-operational due to power outage) (Desirable):  
- 30 mm ice (25' and 21' antennas)  
- 25.4mm ice (7' – 18' antennas). "

**Question 32:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 8.2.2.11  
Confirmation that this specification relates to a fixed panel array antenna.

**Answer 32:**

Yes, this refers to fixed panel arrays antenna.  
This requirement has been reviewed and it has been determined that it is no longer required.  
Subsequently it will be removed in F7048-160039 /E, RADAR Transceiver and Antenna TSOR.

**Question 33:**

What is the purpose of the unused analogue interface required in the Radar TX & Antenna TSOR 9.1.2?

**Answer 33:**

This requirement has been reviewed and it has been determined that this is no longer required.  
Subsequently it will be removed from the F7048-160039 /E, RADAR Transceiver and Antenna TSOR requirements.

**Question 34:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 9.9.5.3 Min range alarm  
Please elaborate. The transceiver Profile is calculated and setup to cater for short, medium and long range coverage given the site specifics

**Answer 34:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates employing the following draft text:

-"Minimum Range Alarm, as applicable"

**Question 35:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 9.5.10 Spurious artefacts  
Specification of spurious artefact levels required in dB (Peak side lobe ratio, Integrated side lobe level). Is CCG referring to range and time side-lobes from pulse compression?

**Answer 35:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates employing the following draft text:

-"Spurious Artefacts

The RADAR receiver video output must be free of spurious artefacts caused by elements of the transceiver and its signal processing techniques. In particular, range and time side lobes or other self-generated clutter due to the use of pulse-compression techniques must be suppressed by suitable filtering so that they do not compete with bona-fide targets nearby. This is to ensure that the requirements in Section 7 can be met."

**Question 36:**

F7048-160039 /C, RADAR Transceiver and Antenna TSOR - 10.4 AC power transients  
The definition is unclear on several points (transient rise times, Common Mode, Differential Mode) and missing other potential disturbances (RF injections, ESD). Please specify an overall immunity standard (EN61000-6-2)?

**Answer 36:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates adding a specific reference to IEC61000-6-2.

**Questions pertaining to draft F7048-160039 /C, Annex D, RADAR Extractor/Tracker Technical Statement of Requirements (TSOR)**

**Question 37:**

F7048-160039 /C RADAR Extractor/Tracker TSOR Section 8.3  
Emission characteristics as well as immunity characteristics appear to be missing. What EMC standards is the component required to comply with?

**Answer 37:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna, and anticipates adding a specific reference to IEC61000-6-2 and IEC61000-6-3.

**Question 38:**

F7048-160039 /C RADAR Extractor/Tracker TSOR Section 7.3.2.1 / 7.4.2  
Please specify the category and optional data fields required

**Answer 38:**

Canada will revise the text in the corresponding section of F7048-160039 /E, RADAR Transceiver and Antenna to clarify.

**Question 39:**

Would it not be expedient for Canada not to include the procurement of the extractor/tracker as part of the radar procurement, but rather in combination with the VTS procurement when the existing INNAV system is renewed?

**Answer 39:**

This is not an option for Canada at this time. Canada will proceed with purchase of Extractors with Transceivers and Antenna Systems, both are required to complete and operate the systems at the 11 new sites.

**Question 40:**

Regarding the F7048-160039/C Extractor/Tracker Rated Criteria 1, why are the greatest number of points accorded to ``Extractor digitizer with compression at remote site integrated within the Transceiver, - Processing unit and interface module at MCTS centre``, and thus fully integrated extractors are considered less desirable? Legacy radar systems needed an (external) extractor in order to provide suitable target information and radar video for VTMISS, however modern radars have largely eliminated the need for external extractors. An external extractor cannot enhance in any way the quality of the video signal.

**Answer 40:**

There is nothing in the TSOR or SOW that prevents a bidder from integrating extractor functionalities in the transceiver. All bids will be considered and evaluated. It is a rated requirement for Canada to limit the amount of equipment at the remote site because some remote sites are very hard to reach, have variable environmental conditions or have limitations in terms of availability and stability of electrical power. These elements will have an impact on the installation, maintenance, support and longevity of the RADAR equipment. Hence, it is a rated requirement for Canada for the extractors to be located at MCTS centres, in a more controlled environment, closer to CCG operations and technicians to mitigate these risks to the RADAR service. The rated requirement for external extractor is not related to performance of external vs internal extractors.

**Questions pertaining to draft F7048-160039 /C, all documentation**

**Question 41:**

Will Canada be identifying all changes in the subsequent solicitation as a result of the F7048-160039 /C?

**Answer 41:**

In this document F7048-160039 /D, Canada is providing a response to bidder's questions or comments received for F7048-160039 /C, and may identify some of the changes that will take place in the subsequent solicitation (F7048-160039 /E). It is the bidder's responsibility to review the complete solicitation documents.