

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Réception des soumissions - TPSGC / Bid
Receiving - PWGSC
601-1550, Avenue d'Estimauville
Québec
Québec
G1J 0C7

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

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

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

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

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

Comments - Commentaires

Title - Sujet Passive Broadband	
Solicitation No. - N° de l'invitation W7701-125247/A	Date 2012-10-19
Client Reference No. - N° de référence du client W7701-12-5247	
GETS Reference No. - N° de référence de SEAG PW-\$QCL-028-14930	
File No. - N° de dossier QCL-1-34690 (028)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2012-11-13	
Time Zone Fuseau horaire Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Roy, Josée	Buyer Id - Id de l'acheteur qcl028
Telephone No. - N° de téléphone (418) 649-2932 ()	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: R & D POUR LA DÉFENSE CANADA - VALCARTIER BATIMENT 53 2459 BOUL. PIE XI NORD QUÉBEC Québec G3J1X5 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

TPSGC/PWGSC
601-1550, Avenue d'Estimauville
Québec
Québec
G1J 0C7

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

Evaluation of the phenomenology of broadband passive polarimetric imagery for target discrimination in complex environments.

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- Annex D Contractor Disclosure of Foreground Information

PART 1 - GENERAL INFORMATION

1. Introduction

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

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

List of Attachments:

- Attachment 1 Financial Bid Presentation Sheet
- Attachment 2 Mandatory and Point Rated Technical Criteria

List of Annexes:

- Annex A Statement of Work or Requirement
- Annex B Basis of Payment
- Annex C Security Requirements Check List
- Annex D Contractor Disclosure of Foreground Information

2. Summary

- (a) **Title:** Evaluation of the phenomenology of broadband passive polarimetric imagery for target discrimination in complex environments.
- (b) **Objectives:**
 - 1) Further understanding of the phenomenology of broadband passive polarimetric images (visible, shortwave infrared, midwave infrared and longwave infrared).
 - 2) Develop semi-automated or fully automated exploitation algorithms for broadband passive polarimetric images (visible, shortwave infrared, midwave infrared and longwave infrared).

(c) Tasks:

- Task 1 - Analyze phenomenology
- Task 2 - Develop and validate performance of algorithms
- Task 3 - Collect data and conduct experiments

For each of the above task many sub-tasks are associated.

(d) Work location:

Given the exclusive ownership by the Department of National Defence of certain equipment (e.g., spectro-goniometer, sensor, military targets of interest, etc.) and the fact that performance of all tasks under this contract will require the use of resources that are only available at DRDC Valcartier, the Contractor must perform all work on DRDC Valcartier premises, located at 2459 Pie-XI Boulevard North, Quebec City, Quebec, G3J 1X5.

(e) Client department :

The services will be rendered to Defence Research and Development Canada (DRDC-Valcartier).

(f) Period of the contract :

The period of the contract is from the date of the contract to March 31, 2015 inclusive.

(g) Maximum funding available

The maximum funding available for the contract resulting from the bid solicitation is **\$275 000.00 CAD** (Goods and Services Tax or the Harmonized Sales Tax extra, as appropriate). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

(h) Intellectual property rights

Any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada.

(i) Security Requirement

There is a security requirement associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 - Resulting Contract Clauses. Bidders should consult the "[Security Requirements for PWGSC Bid Solicitations - Instructions for Bidders](http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31)" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the Departmental Standard Procurement Documents Web site.

(j) Other informations

- The requirement is subject to the the Agreement on Internal Trade (AIT).
- The requirement is limited to Canadian services.

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4. Debriefings

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

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

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

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

The 2003 (2012-07-11) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The text under Subsection 4 of Section 01 - Code of Conduct and Certifications of 2003 referenced above is replaced by:

"Bidders should provide, with their bid or promptly thereafter, a complete list of names of all individuals who are currently directors of the Bidder. If such a list has not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to provide such a list within the required time frame will render the bid non-responsive. Bidders must always submit the list of directors before contract award.

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

The text under Subsection 5 of Section 01 - Code of Conduct and Certifications of 2003 referenced above is replaced by:

The Bidder must diligently maintain the list up-to-date by informing Canada in writing of any change occurring during the validity period of the bid, and must also provide Canada, when requested, with the corresponding Consent Forms. The Bidder will also be required to diligently maintain the list and when requested, provide Consent Forms during the period of any contract arising from this bid solicitation."

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

Delete: sixty (60) days

Insert: one hundred twenty (120) days

1.1 SACC Manual Clauses

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

2. Submission of Bids

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

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

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority (Josee.Roy@tpsgc-pwgsc.gc.ca) no later than **five (5)** calendar days before the bid closing date. Enquiries received after that time may not be answered.

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

4. Applicable Laws

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

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

5. Basis for Canada's Ownership of Intellectual Property

Defence Research and Development Canada - Valcartier has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada.

The Treasury Board, granted Defence Research and Development Canada exemption from the Treasury Board Policy on "Title to Intellectual Property Arising Under Crown Procurement Contracts"

6. Maximum Funding

The maximum funding available for the contract resulting from the bid solicitation is **\$275 000.00** (Goods and Services Tax or the Harmonized Sales Tax extra, as appropriate). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

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

Section I : Technical Bid (4 hard copies and 3 soft copies on CD, DVD)

Section II : Financial Bid (2 hard copies)

Section III : Certifications (1 hard copy)

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

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

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

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use 30% recycled paper;
- (c) print double sided (duplex printing);
- (d) use a numbering system that corresponds to the bid solicitation; and
- (e) submit bound bids using cerlox, staples, etc., but no binders.

Section I : Technical Bid

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

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

Section II: Financial Bid

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

- (a) A Total Cost to a Limitation of Expenditure, which must not exceed the maximum funding specified in Part 2. The total amount of Goods and Services Tax or Harmonized Sales Tax is to be shown separately, if applicable. The information should be provided in accordance with the Financial Bid Presentation Sheet at Attachment 1.
- (b) Prices must be in Canadian funds, Canadian customs duties and excise taxes included, and Goods and Services Tax (GST) or Harmonized Sales Tax (HST) excluded.

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Section III: Certifications

Bidders must submit the certifications required under **Part 5**.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

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

1.1 Technical Evaluation

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered.

1.1.1 Mandatory Technical Criteria

Refer to Attachment 2, Mandatory and Point Rated Technical Criteria.

1.1.2 Point Rated Technical Criteria

Refer to Attachment 2, Mandatory and Point Rated Technical Criteria.

1.2 Financial Evaluation

1.2.1 Mandatory Financial Criteria

The Bidder must submit a Basis of Payment to a Limitation of Expenditure that does not exceed the maximum funding specified in Part 2, GST/HST excluded, FOB Destination (for goods), all applicable customs duty and excise taxes included.

1.2.2 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, the Goods and Services Tax or the Harmonized Sales Tax excluded, FOB destination, Canadian customs duties and excise taxes included.

2. Basis of Selection

2.1 Basis of Selection - Highest Rated Within Budget

To be declared responsive, a bid must:

- (a) comply with all the requirements of the bid solicitation;
- (b) meet all mandatory technical evaluation criteria;
- (c) obtain the required minimum points for each criterion with a pass mark; and
- (d) obtain the required minimum points overall for the technical evaluation criteria which are subject to point rating.

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Bids not meeting (a) or (b) or (c) or (d) will be declared non responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement. In the event that the highest number of points is obtained by more than one responsive bid, the responsive bid with the lowest evaluated price will be recommended for award of a contract.

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications to be awarded a contract. Canada will declare a bid non-responsive if the required certifications are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify the bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

1. Code of Conduct Certifications - Certifications Required Precedent to Contract Award

- 1.1 Bidders should provide, with their bids or promptly thereafter, a complete list of names of all individuals who are currently directors of the Bidder. If such a list has not been received by the time the evaluation of bids is completed, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Bidders must submit the list of directors before contract award, failure to provide such a list within the required time frame will render the bid non-responsive.

The Contracting Authority may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

2. Certifications Precedent to Contract Award

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

2.1 Federal Contractors Program for Employment Equity - Certification

2.1.1 Federal Contractors Program - \$200,000 or more

1. The Federal Contractors Program (FCP) requires that some suppliers, including a supplier who is a member of a joint venture, bidding for federal government contracts, valued at \$200,000 or more (including all applicable taxes), make a formal commitment to implement employment equity. This is a condition precedent to contract award. If the Bidder, or, if the Bidder is a joint venture and if any member of the joint venture, is subject to the FCP, evidence of its commitment must be provided before the award of the Contract.

Suppliers who have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive government contracts over the threshold for solicitation of bids as set out in the *Government Contracts Regulations*. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by

HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

2. If the Bidder does not fall within the exceptions enumerated in 3.(a) or (b) below, or does not have a valid certificate number confirming its adherence to the FCP, the Bidder must fax (819-953-8768) a copy of the signed form LAB 1168, Certificate of Commitment to Implement Employment Equity, to the Labour Branch of HRSDC.
3. The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

- (a) is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada;
- (b) is not subject to the FCP, being a regulated employer under the *Employment Equity Act*, S.C. 1995, c. 44;
- (c) is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC (having not bid on requirements of \$200,000 or more), in which case a duly signed certificate of commitment is attached;
- (d) is subject to the FCP, and has a valid certificate number as follows: _____ (e.g. has not been declared an ineligible contractor by HRSDC.)

Further information on the FCP is available on the HRSDC Web site (<http://www.hrsdc.gc.ca/eng/labour/equality/fcp/index.shtml>).

2.2 Former Public Servant Certification

Contracts with 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 with FPS, bidders must provide the information required below.

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, in the context of the fee abatement formula, 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

Is the Bidder a FPS in receipt of a pension as defined above? **Yes () No ()**

If so, the Bidder must provide the following information:

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

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? **Yes () No ()**

If so, the Bidder must provide the following information:

- a.name of former public servant;
- b.conditions of the lump sum payment incentive;
- c.date of termination of employment;
- d.amount of lump sum payment;
- e.rate of pay on which lump sum payment is based;
- f.period of lump sum payment including start date, end date and number of weeks;
- g.number and amount (professional fees) of other contracts subject to the restrictions of a work force reduction 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 the Goods and Services Tax or Harmonized Sales Tax.

Certification

By submitting a bid, the Bidder certifies that the information submitted by the Bidder in response to the above requirements is accurate and complete.

2.3 Canadian Content Certification

This procurement is limited to Canadian services.

The Bidder certifies that:

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

2.3.1 SACC Manual clause A3050T (2010-01-11), Canadian Content Definition

2.4 Status and Availability of Resources

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

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

2.5 Education and Experience

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

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

1. Security Requirement

1. The Contractor must, at all times during the performance of the Contract, hold a valid Facility Security Clearance at the level of SECRET, issued by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
2. The Contractor personnel requiring access to CLASSIFIED information, assets or sensitive work site(s) must EACH hold a valid personnel security screening at the level of SECRET, granted or approved by CISD/PWGSC. Until the security screening of the Contractor personnel required by this Contract has been completed satisfactorily by the Canadian Industrial Security Directorate, Public Works and Government Services Canada, the Contractor personnel MAY NOT HAVE ACCESS to CLASSIFIED information or assets, and MAY NOT ENTER sites where such information or assets are kept, without an escort.
3. The Contractor MUST NOT remove any CLASSIFIED information from the identified work site(s), and the Contractor must ensure that its personnel are made aware of and comply with this restriction.
4. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
5. The Contractor must comply with the provisions of the:
 - (a) Security Requirements Check List and security guide (if applicable), attached at Annex C
 - (b) Industrial Security Manual (Latest Edition).

2. Financial Capability

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

PART 7 - RESULTING CONTRACT CLAUSES

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

1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled _____, dated _____. **(to be completed at contract award)**

1.1 Disclosure Certification

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

2. Standard Clauses and Conditions

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

2.1 General Conditions

2040 (2012-07-16), General Conditions - Research & Development, apply to and form part of the Contract.

The text under Subsection 4 of Section 52 - Code of Conduct and Certifications of 2040 (2012-07-16) referenced above is replaced by:

“During the entire period of the Contract, the Contractor must diligently update, by written notice to the Contracting Authority, the list of names of all individuals who are directors of the Contractor whenever there is a change. As well, whenever requested by Canada, the Contractor must provide the corresponding Consent Forms.”

2.2 Supplemental General Conditions

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

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

2.3 SACC Manual Clauses

K3410C (2008-12-12), Canada to Own Intellectual Property Rights in Foreground Information

K3305C (2008-05-12), License to Intellectual Property Rights in Foreground Information

3. Security Requirement

1. The Contractor must, at all times during the performance of the Contract, hold a valid Facility Security Clearance at the level of SECRET, issued by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
2. This contract includes access to controlled goods. Prior to access, the contractor must be registered in the Controlled Goods Program of Public Works and Government Services Canada. In order to gain access to Controlled Goods, the contractor personnel, who DND would deem to be embedded contractors, pursuant to the 2007 Exchange of Letters between DND and the U.S. Department of State, must EACH be citizens of Canada or of the United States and hold a valid SECRET clearance, granted or approved by CISD/PWGSC.
3. The Contractor personnel requiring access to CLASSIFIED information, assets or sensitive work site(s) must EACH hold a valid personnel security screening at the level of SECRET, granted or approved by CISD/PWGSC. Until the security screening of the Contractor/Offeror personnel required by this Contract/Standing Offer has been completed satisfactorily by the Canadian Industrial Security Directorate, Public Works and Government Services Canada, the Contractor/Offeror personnel MAY NOT HAVE ACCESS to CLASSIFIED information or assets, and MAY NOT ENTER sites where such information or assets are kept, without an escort.
4. The Contractor MUST NOT remove any CLASSIFIED information from the identified work site(s), and the Contractor must ensure that its personnel are made aware of and comply with this restriction.
5. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
6. The Contractor must comply with the provisions of the:
 - (a) Security Requirements Check List and security guide (if applicable), attached at Annex C.
 - (b) Industrial Security Manual (Latest Edition).

4. Term of Contract

4.1 Period of Contract

The period of the Contract is from date of Contract to 31 March, 2015 inclusive.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Josée Roy
Title: Supply Officer
Public Works and Government Services Canada

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qcl028

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W7701-12-5247

File No. - N° du dossier

QCL-1-34690

CCC No./N° CCC - FMS No/ N° VME

Acquisitions and Compensation Directorate
1550 D'Estimauville Avenue
Quebec, Quebec
G1J 0C7

Telephone: 418 649-2932
Facsimile: 418 648-2209
E-mail address: Josee.Roy@tpsgc-pwgsc.gc.ca

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

5.2 Technical Authority (to be completed at contract award)

The Technical Authority for the Contract is:

Name : _____
Title : _____
Organization : _____
Address : _____

Telephone: _____
Facsimile: _____
E-mail address: _____

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

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

Administrative representative :

Technical representative :

Name :

Name :

Telephone :

Telephone :

Facsimile :

Facsimile :

Email :

Email :

6. Payment

6.1 Basis of Payment - Limitation of Expenditure

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, and profit, as determined in accordance with the Basis of Payment in Annex B, to a limitation

of expenditure of \$_____ **(to be inserted at contract award)**. Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

6.2 Limitation of Expenditure

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

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

6.3 Method of Payment

6.3.1 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 90 percent of the amount claimed and approved by Canada if:
 - (a) an accurate and complete claim for payment using form PWGSC-TPSGC 1111 (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf>) 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 90 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 all work required under the Contract 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 right to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

6.3.2 Funding by Fiscal Year

Despite the Total Estimated Cost (Limitation of Expenditure) specified in the Contract, and unless otherwise authorized in writing by the Contracting Authority, the maximum amount which may be paid for work completed in the period ending 31 March of the year specified is as follows:

Period of award to March 31st 2013:	\$60 000.00
Period of April 1st 2013 to March 31st 2014:	\$115 000.00
Period of April 1st 2014 to March 31st 2015:	\$100 000.00

6.4 SACC Manual Clauses

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

C0305C (2008-05-12), Cost Submission

6.5 Discretionary Audit

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

7. Invoicing Instructions - Progress Claim

1. The Contractor must submit a claim for progress payment using form PWGSC-TPSGC 1111 (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf>).

Each claim must show:

- (a) all information required on form PWGSC-TPSGC 1111;
- (b) all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
- (c) a list of all expenses.

Each claim 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, and all travel and living expenses;
 - (c) a copy of the monthly progress report.
2. Goods and Services Tax (GST) or Harmonized Sales Tax (HST), as applicable, must be calculated on the total amount of the claim before the holdback is applied. At the time the

holdback is claimed, there will be no GST/HST payable as it was claimed and payable under the previous claims for progress payments.

3. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the following address for certification.

ATTN : Mrs Suzanne Larrivée

Supply Support Clerk

Public Works and Government Services Canada

601-1550 Avenue D'Estimauville

Québec, Québec

G1J 0C7

E-mail address : suzanne.larrivee@tpsgc-pwgsc.gc.ca

The Contracting Authority will then forward the original and two (2) copies of the claim to the Technical Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

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

8. Certifications

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

8.2 SACC Manual Clauses

A3060C (2008-05-12), Canadian Content Certification

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

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 Articles of Agreement;
- (b) the supplemental general conditions 4002 (2010-08-16), Software Development or Modification Services;
- (c) the general conditions 2040 (2012-03-02), General Conditions - Research & Development, apply to and form part of the Contract;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) Annex C, Security Requirements Check List;
- (g) Annex D, Contractor Disclosure of Foreground Information;
- (h) the Contractor's bid dated _____ **(to be completed at contract award)**.

11. Defence Contract

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

12. Foreign Nationals (Canadian Contractor)

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

13. Insurance

SACC Manual clause G1005C (2008-05-12), Insurance

14. Progress Reports

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

15. Site Regulations

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

16. Identification Badge

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

ATTACHMENT 1**FINANCIAL BID PRESENTATION SHEET**

1. **LABOUR** : at firm all-inclusive hourly rates (inclusive of overhead and profit), GST/HST extra, in accordance with the following:

BIDDERS ARE REQUESTED TO QUOTE ONE RATE PER PROPOSED RESOURCES, PER PERIOD.

If the resource works for a subcontractor, bidders must also provide the name of the subcontractor.

Proposed Resources (If the resource works for a subcontractor, bidders must also provide the name of the subcontractor.)	Firm Hourly Rates						Extended Total per Proposed Resource
	Proposed Contract Period						
	Date of Award to 31 March 2013	Total Est. Hours	01-04-13 to 31-03-14	Total Est. Hours	01-04-14 to 31-03-15	Total Est. Hours	
1	\$		\$		\$		\$
2	\$		\$		\$		\$
3	\$		\$		\$		\$
4	\$		\$		\$		\$
...	\$		\$		\$		\$

TOTAL ESTIMATED LABOUR: \$ _____

2. TRAVEL AND LIVING EXPENSES:

The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the Treasury Board Travel Directive (http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees" are applicable.

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

The Contractor should foresee at least 5 000.00\$ to cover the costs to carry out task 3.

TOTAL ESTIMATED TRAVEL AND LIVING EXPENSES: **\$5 000.00** + \$ _____

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TOTAL ESTIMATED COST TO A LIMITATION OF EXPENDITURE: \$ _____
(GST/HST extra)
(GST/HST extra)

ATTACHMENT 2

MANDATORY AND POINT RATED TECHNICAL CRITERIA

1. Mandatory Technical Criteria

At bid closing time, the Bidder must comply with the following mandatory technical criteria and provide the necessary documentation to support compliance. Any bid which fails to meet the following mandatory technical criteria will be declared non-responsive. Each criterion should be addressed separately.

The bidder must demonstrate the experience of the resources proposed for this contract by presenting the projects realized by those resources in each area of expertise identified in the criteria. Each project proposed must be described in sufficient detail to allow the evaluation team to properly assess the experience of the resources proposed. If, for any of the mandatory criteria, it is not possible to demonstrate the experience of the resources proposed, the bid will be considered non-responsive.

The following information should be provided for each project listed to demonstrate the experience of the proposed resources: project name or contract number; project description; description of tasks performed by the proposed resource (and exact duration of each task); monetary value of the contract; software solutions used as part of the project; type of algorithm used in the project; client name; and any other relevant information demonstrating the bid's compliance.

For each mandatory criterion, members of the evaluation team will consider only those resources that were active in at least 5% of the total number of hours, for each project listed (e.g. if the total number of project hours (total of the hours of all the resources involved in the project) is 2,000, a resource will have to have worked a minimum of 100 hours on the project in order to be considered.

Experience of the resources proposed in R&D projects in remote-sensing image processing	
1. Scope of prior projects in remote-sensing image processing	At least one member of the team proposed to work on this contract must have realized a minimum of two projects involving algorithms for processing and analyzing remote-sensing images of a value of \$200K or more.
Experience of the resources proposed in remote-sensing image processing and analysis	
2. Practical experience with algorithms for processing and analyzing visible-band (400-700 nm) polarimetric electro-optical images	At least one of the members of the team proposed to work on this contract must have practical experience (a minimum of 12 months) in developing and programming algorithms for processing and analyzing polarimetric electro-optical images in the visible band of the electromagnetic spectrum (400 to 700 nm).
3. Practical experience with algorithms for processing and analyzing polarimetric electro-optical images (1-3 μm)	At least one of the members of the team proposed to work on this contract must have practical experience (a minimum of 12 months) in developing and programming algorithms for processing and analyzing polarimetric electro-optical images in the SWIR band of the electromagnetic spectrum (1 to 3 μm).
4. Practical experience with algorithms for processing and analyzing polarimetric electro-optical images (3-5 μm)	At least one of the members of the team proposed to work on this contract must have practical experience (a minimum of 12 months) in developing and programming algorithms for processing and analyzing polarimetric electro-optical images in the MWIR band of the electromagnetic spectrum (3 to 5 μm).
5. Practical experience with algorithms for processing and analyzing polarimetric electro-optical images (8-12 μm)	At least one of the members of the team proposed to work on this contract must have practical experience (a minimum of 12 months) in developing and programming algorithms for processing and analyzing polarimetric electro-optical images in the LWIR band of the electromagnetic spectrum (8 to 12 μm).

2. Point Rated Technical Criteria	Max	Min
A. COMPANY'S EXPERIENCE	5	2
<p>1. Company's experience in similar R&D projects</p> <p>Experience of the company with R&D projects involving the development of algorithms for processing and analyzing polarimetric electro-optic images.</p> <p>The bidder should demonstrate its experience by presenting projects executed in this area of expertise. Each project proposed should be described in sufficient detail to allow the evaluation team to properly assess the experience of the bidder. If it is not possible to demonstrate the bidder's experience, no points will be awarded for that rated criterion.</p> <p>The following information should be provided for each project presented: project name or contract number; project description; description of the tasks carried out by the company; duration of the contract; software solutions used as part of the project; the type of algorithm used in the project; client name and contact information; and any other relevant information supporting the project's eligibility.</p>	5	
<p>A score of 0 to 5 points will be awarded to the bidder according to the following evaluation scale:</p> <p>0 or 1 project: 0 point</p> <p>2 projects: 2 points</p> <p>3 projects: 3 points</p> <p>4 projects: 4 points</p> <p>5 or more projects: 5 points</p>		

B. MANAGEMENT PROPOSAL		8	4
<p>1. Effort allocation</p> <p>The bidder should propose a work schedule that includes an effort level for each of the project's tasks and sub-tasks. The work schedule should respect project deadlines. The effort level allocated to each task and sub-task should be appropriate and realistic, and should ensure that project objectives are met.</p>	<p>Effort allocation evaluation:</p> <p>All other information: 0 point</p> <p>Weak effort allocation: 1 point -Obscure effort allocation documentation; task effort level for the most part realistic, with a few deficiencies; strong probability that a number of objectives will not be achieved.</p> <p>Good effort allocation: 2 points -Complete effort allocation documentation; effort level of most tasks is realistic; strong probability that objectives will be achieved.</p> <p>Very good effort allocation: 3 points -Effort allocation documentation is complete and clear; effort level of most tasks is appropriate and realistic; very strong probability that objectives will be achieved.</p> <p>Excellent effort allocation: 4 points -Effort allocation documentation is complete, clear and explicit; effort level of all tasks is appropriate and realistic; excellent probability that objectives will be achieved.</p>	4	
<p>2. Human resources allocation</p> <p>The bidder should assign all the resources proposed to the various project tasks and sub-tasks. The effort level of each of the resources should be realistic. The resources should be assigned to tasks that correspond to their area of expertise.</p>	<p>Personnel allocation evaluation:</p> <p>All other information: 0 point</p> <p>Weak personnel allocation: 1 point - Unclear personnel allocation, with a few deficiencies; at least 50% of the personnel are assigned a realistic effort level.</p> <p>Good personnel allocation: 2 points - Personnel allocation is complete; at least 60% of the personnel are assigned an appropriate effort level; and 60% of resources are assigned to tasks that correspond to their area of skills/expertise.</p>	4	

	<p>Very good personnel allocation: 3 points</p> <ul style="list-style-type: none">- Personnel allocation is complete and detailed; at least 75% of the personnel are judiciously assigned in terms of effort level; and 75% of resources are assigned to tasks that correspond to their area of skills/expertise. <p>Excellent personnel allocation: 4 points</p> <ul style="list-style-type: none">- Excellent allocation of personnel; all personnel are assigned appropriate effort levels; and resources are assigned to tasks that correspond to their area of skills/expertise.	
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C. TECHNICAL PROPOSAL		15	
<p>1. Bidder's understanding of the project</p> <p>The bidder should use its own words to provide a convincing demonstration of its clear understanding of the context, scope and objectives of the statement of work. The demonstrated understanding of the context, scope and objectives should be complete and should not be limited to the description in the statement of work.</p>	<p>The understanding of the three elements (context, scope, objectives) will be evaluated independently. The score given will be the average of the individual scores for the three elements.</p> <p>a) The demonstrated understanding far exceeds the requirements. (5 points)</p> <p>b) The demonstrated understanding exceeds the requirements. (4 points)</p> <p>c) The demonstrated understanding meets the requirements. (3 points)</p> <p>d) The demonstrated understanding is slightly below the requirements. (2 points)</p> <p>e) The demonstrated understanding is considerably below the requirements. (1 point)</p> <p>f) All other situations. (0 point)</p>	5	
<p>2. Project risk management</p> <p>The bidder should mention the risks that could compromise the project and propose a method to manage said risks. The factors described should be suitable, and the risk-management method realistic.</p>	<p>a) The main risk elements and the management method thereof are identified for all activities. The bidder demonstrates an excellent understanding and ability to resolve these problems very efficiently. (5 points)</p> <p>b) The bidder is aware of the main risk elements, and provides a list thereof, but omits one or two risks considered significant by the evaluation team. Nonetheless, the bidder demonstrates a good understanding and ability to resolve the risks it has identified. (4 points)</p> <p>c) The bidder is aware of the project's main risk elements, and provides a list thereof, but demonstrates a limited ability to resolve some of those risks. (2-3 points)</p>	5	

	<p>d) Certain risk elements and the management method thereof are identified for some of the tasks. The bidder demonstrates poor understanding of the problems and minimal ability to resolve them. (1 point)</p> <p>e) All other answers (0 point)</p>		
<p>3. Strategy and methodology proposed to achieve objectives</p> <p>Bidders should clearly describe the strategy and methodology they intend to adopt to meet the requirements and should provide an assessment of the level of success anticipated. The technical strategy proposed should be consistent with the requirements of the statement of work included in the request for proposals. Sufficient detail should be provided to demonstrate that the bidder clearly understands the requirements and that the strategy and methodology proposed will ensure that the objectives are achieved.</p>	<p>5 pts: Excellent strategy and methodology proposed to achieve objectives. Description of strategy and methodology is very clear and precise. The proposed approach fully meets the needs of the project.</p> <p>4 pts: Very good strategy and methodology proposed to achieve objectives. Description of strategy and methodology is very clear and precise. The proposed approach meets of the needs of the project very well.</p> <p>3 pts: Good strategy and methodology proposed to achieve objectives. Description of strategy and methodology is very clear or precise. The proposed approach meets the needs of the project.</p> <p>2 pts: Average strategy and methodology proposed to achieve objectives. Description of strategy and methodology is limited. The proposed approach partially meets some needs of the project.</p> <p>1 pt: Poor strategy and methodology proposed to achieve objectives. Description of strategy and methodology is inadequate The proposed approach meets few needs of the project.)</p>	5	
<p>D. EXPERIENCE OF PERSONNEL DIRECTLY INVOLVED IN THE PROJECT</p> <p>The personnel's experience will be evaluated on the basis of the CVs of the resources proposed by the bidder to carry out the various project tasks. Each CV must include enough information to allow the evaluation team to properly assess</p>		28	12

<p>the experience of the resources proposed by describing the professional experience related to each criterion.</p> <p>The following information should be provided for each project listed to demonstrate the experience of the proposed resources: project name or contract number; project description; description of tasks performed by the proposed resource (and exact duration of each task); overall duration of the contract; monetary value of the contract; number of full-time-equivalent employees involved in the project; software solutions used as part of the project; type of algorithm involved in the project; client name and contact information; and any other relevant information demonstrating the bid's compliance.</p> <p>For each mandatory criterion, members of the evaluation team will consider only those resources that were active in at least 5% of the total number of hours, for each project listed (e.g. if the total number of project hours (total of the hours of all the resources involved in the project) is 2,000, a resource will have to have worked a minimum of 100 hours on the project in order to be considered.</p> <p>For criteria 1 to 6, more than one resource can be proposed. In this case, each resource will be evaluated individually. For each criteria, the overall scores obtained by each resource will be added and then divided by the number of resources available to obtain an average. The average will be the rating assigned to the bidder.</p>			
<p>1. Knowledge of the mechanisms of optical dispersion</p> <p>One or more of the resources proposed by the bidder to work on the project should have knowledge of the mechanisms of optical dispersion in relation to its scattering on:</p> <p>a) surfaces b) vegetation c) water</p> <p>The evaluation team will consider a resource to have the necessary knowledge if that resource has completed one of the following:</p> <p>1) at least one project in the field; or 2) at least one master's or doctoral thesis in the field; or 3) at least one report or publication in the field.</p>	<p>The scoring method is binary:</p> <p>Knowledge not demonstrated: 0 point Knowledge demonstrated: 1 point</p> <p>Knowledge of the mechanisms of light dispersion in relation to its scattering on:</p> <p>a) surfaces (1 point) b) vegetation (1 point) c) water (1 point)</p> <p>Note: If a project, thesis, report or publication covers more than one of the above elements, all the elements covered will be counted. For example, if in Project X the resource conducted an analysis of the mechanisms of light dispersion in relation to its scattering on both water and vegetation, 2 points will be awarded for that project.</p> <p>To obtain the maximum score, the bidder can propose more than one resource for this criterion.</p>	3	1

<p>2. Knowledge of the concepts and notions fundamental to broadband polarimetric imagery phenomenology modelling.</p> <p>One or more of the resources proposed by the bidder to work on the project should have a comprehensive understanding of the theory behind phenomenology modelling in association with broadband polarimetric imagery (in particular the vectors/matrices of Jones, Stokes and Mueller) in relation to:</p> <p>a) the light beam b) the optical elements c) their interaction.</p> <p>The evaluation team will consider a resource to have the necessary knowledge if that resource has completed one of the following:</p> <p>(1) at least one project in the field; or (2) at least one master's or doctoral thesis in the field, or (3) at least one report or publication in the field.</p>	<p>The scoring method is binary:</p> <p>Knowledge not demonstrated: 0 point Knowledge demonstrated: 1 point</p> <p>Comprehensive understanding of the theory behind the concept of phenomenology modelling in association with broadband polarimetric imagery (in particular the vectors/matrices of Jones, Stokes and Mueller) in relation to:</p> <p>a) the light beam (1 point) b) the optical elements (1 point) c) their interaction (1 point)</p> <p>Note: If a project, thesis, report or publication covers more than one of the above elements, all the elements covered will be counted. For example, if in Project Y the resource modelled the broadband polarimetric image phenomenology in relation to both a light beam and the optical elements, 2 points will be awarded for that project.</p> <p>To obtain the maximum score, the bidder can propose more than one resource for this criterion.</p>	3	2
<p>3. Experience in the use of atmospheric correction tool</p> <p>One or more of the resources proposed by the bidder to work on the project should have experience in using scalar and vector atmospheric correction tools (algorithms) :</p> <p>a) Discrete Ordinate Radiative Transfer (DISORT) b) Moderate Resolution Atmospheric Transmittance and Radiance (MODTRAN, including MODTRAN - P) c) 6S (including 6Sv) d) SHARM</p>	<p>The scoring method is binary</p> <p>Experience not demonstrated: 0 point Experience demonstrated: 1 point</p> <p>Experience in the use of the following atmospheric correction tools (algorithms)</p> <p>a) DISORT (1 point) b) MODTRAN (1 point) c) 6S (and 6Sv) (1 point) d) SHARM (1 point)</p> <p>Note: If a project covers more than one of the above elements, all the elements covered will be counted. For example, if in Project Z the resource used both MODTRAN and SHARM atmospheric correction algorithms, 2 points will be awarded for that project.</p>	4	1

<p>The evaluation team will consider a resource to have the necessary knowledge if that resource has completed at least one project in the field. Note that the practical experience acquired during a master's or PhD project will be considered by the evaluation team if that experience is directly related to the area evaluated for the criterion.</p>	<p>To obtain the maximum score, the bidder can propose more than one resource for this criterion.</p>		
<p>4. Experience using the various components of a spectro-goniometer</p> <p>One or more of the resources proposed by the bidder to work on the project should have experience using the optical/mechanical components of a polarized spectro-goniometer, such as:</p> <p>a) a light source b) linear and circular polarizers c) electrooptical sensors d) motor automation</p> <p>The evaluation team will consider a resource to have the necessary knowledge if that resource has completed at least one project in the field. Note that the practical experience acquired during a master's or PhD project will be considered by the evaluation team if that experience is directly related to the area evaluated for the criterion.</p>	<p>The scoring method is binary:</p> <p>Experience not demonstrated: 0 point Experience demonstrated: 1 point</p> <p>Experience using the optical/mechanical components of a polarized spectro-goniometer, such as:</p> <p>a) a light source (1 point) b) Linear and circular polarizers (1 point) c) Electrooptical sensors (1 point) d) Motor automation (1 point)</p> <p>Note: If a project covers more than one of the above elements, all the elements covered will be counted. For example, if in Project A the resource used both a light source and electrooptical sensors to design a spectro-goniometer, 2 points will be awarded for that project.</p> <p>To obtain the maximum score, the bidder can propose more than one resource for this criterion.</p>	4	1
<p>5. Experience in programming algorithms for operating a spectro-goniometer</p> <p>One or more of the resources proposed by the bidder to work on the project should have experience in developing and implementing algorithms to:</p> <p>a) Acquire and save spectral data b) Acquire and process BRFD data</p>	<p>The scoring method is binary:</p> <p>Experience not demonstrated: 0 point Experience demonstrated: 1 point</p> <p>Experience in developing and implementing algorithms to:</p> <p>a) Acquire and save spectral data (1 point)</p>	4	2

<p>c) Acquire and process pBRFD data d) Control the spectro-gonionmeter motors</p> <p>The evaluation team will consider a resource to have the necessary knowledge if that resource has completed at least one project in the field. Note that the practical experience acquired during a master's or PhD project will be considered by the evaluation team if that experience is directly related to the area evaluated for the criterion.</p>	<p>b) Acquire and process BRFD data (1 point) c) Acquire and process pBRFD data (1 point) d) Control the spectro-goniometer motors (1 point)</p> <p>Note: If a project covers more than one of the above elements, all the elements covered will be counted. For example, if in Project B the resource developed and implemented algorithms to acquire and save spectral data, as well as algorithms to acquire and process pBRFD data, 2 points will be awarded for that project.</p> <p>To obtain the maximum score, the bidder can propose more than one resource for this criterion.</p>		
<p>6. Experience in programming algorithms using compiled programming languages</p> <p>At least one of the resources proposed by the bidder to work on the project should have experience in programming algorithms using the following programming languages:</p> <p>a) C b) C++ c) LabView</p> <p>The bidder can propose only one resource for this criterion.</p>	<p>Experience in programming algorithms using the following programming languages:</p> <p>a) C -Less than 24 months' experience (0 point) - Between 24 and 36 months' experience (1 point) -Over 36 months' experience (2 points)</p> <p>b) C++ -Less than 24 months' experience (0 point) - Between 24 and 36 months' experience (1 point) - Over 36 months' experience (2 points)</p> <p>c) LabView -Less than 24 months' experience (0 point) -Between 24 and 36 months' experience(1 point) - Over 36 months' experience (2 points)</p>	6	3
<p>7. Experience in programming</p>	<p>Experience in programming algorithms</p>	4	2

<p>algorithms using interpreted programming languages</p> <p>At least one of the resources proposed by the bidder to work on the project should have experience in programming algorithms using the following programming languages:</p> <p>a) Matlab b) IDL</p> <p>The bidder can propose only one resource for this criterion.</p>	<p>using the following programming languages:</p> <p>a) Matlab</p> <ul style="list-style-type: none"> - Less than 24 months' experience (0 point) - Between 24 and 36 months' experience (1 point) Over 36 months' experience (2 points) <p>b) IDL</p> <ul style="list-style-type: none"> - Less than 24 months' experience (0 point) - Between 24 and 36 months' experience (1 point) - Over 36 months' experience (2 points) 		
TOTAL	56	18	

ANNEX A STATEMENT OF WORK

1. General

1.1 Title

Evaluation of the phenomenology of broadband passive polarimetric imagery for target discrimination in complex environments.

1.2 Objectives

The objectives of this contract are:

1. Further understanding of the phenomenology of broadband passive polarimetric images (visible, shortwave infrared, midwave infrared and longwave infrared).
2. Develop semi-automated or fully automated exploitation algorithms for broadband passive polarimetric images (visible, shortwave infrared, midwave infrared and longwave infrared).

1.3 Background

Context

In recent years, DRDC Valcartier conducted many experimental studies to investigate the contribution of the phenomenological passive polarimetric in the visible, shortwave infrared, midwave infrared and longwave infrared. In these experimental studies, field trials were conducted to acquire the polarized signatures of various objects utilized as targets of interest simultaneously in the bands from visible to thermal. The original design goal of these experimentation was to refine the knowledge inherent to the phenomenology of passive polarized images, and explore the feasibility to discriminate the targets from their background. To accomplish this, algorithms designed to exploit passive polarimetric images were created and applied to polarimetric images in summer and winter conditions.

Phenomenology and experimental results to date

Following these field trials, the experimental results obtained confirmed that, in certain scenarios, such passive polarimetric images can be used to discriminate man-made objects and events from their natural background. Table 1 contains some brief observations experimentally obtained by processing the polarization of light in the visible to thermal according to certain objects/events and given scenarios.

Table 1 - Experimental observations of polarized signatures

Spectral band VIS	VIS	SWIR	MWIR	LWIR	Scenario
Tracks on sand/vegetation	+	?	*	*	Summer trial
Tracks on snow	++	++	*	*	Winter trial
Melting snow/ice	+	+	*	*	Winter trial
Holes dug in ground	?	?	?	?	Summer trial
Civilian/military vehicles	++	?	++	++	Summer/winter trial
Painted metal panels	++	?	+	++	Summer/winter trial
Wood panel	+	+	*	--	Winter trial
Transparent plexiglas panel	--	++	--	*	Winter trial
White plexiglas panel	--	*	--	*	Winter trial
Acrylic panel	*	*	--	*	Winter trial
Metal panel	++	+	+	++	Winter trial
Glass panel	--	--	*	*	Winter trial
Plastic bottles	+	+	--	--	Winter trial
Exposed/buried wires	+	+	*	*	Summer/winter trial
Shadow penetration	++	++	++	*	Summer trial
Objects under water	*	*	*	*	Summer trial

In Table 1, two plus signs (++) indicate that several positive discriminations were achieved, and one plus sign (+) indicates that positive discrimination was achieved only once. Two minus signs (--) indicate that light polarization made no significant contribution to target discrimination in several attempts. A question mark (?) means discrimination results were ambiguous. An asterisk (*) indicates that no conclusion could be drawn, due for example to the absence of experimental measures.

Based on the experimental results presented in Table 1, it was found that the exploitation of light polarization clearly contributed to the discrimination of certain objects/events from their natural background. In other cases, either the results were ambiguous or no conclusion could be drawn with certainty. Consequently, further study of the phenomenology of light polarization is needed in order to determine the optimum operating conditions required to discriminate certain targets in specific scenarios, taking into consideration the geometry of the scene (including the angle of the illumination source, sensor angle and the surface characteristics of the target), as well as the spectral bands ranging from visible to thermal.

Exploitation algorithms

In previous studies, numerous generic exploitation algorithms for polarimetric data were developed and tested on experimental data. Essentially, these algorithms utilize light polarization to enhance the contrast between the objects in a scene relative to the background of the scene. Some of the algorithms developed are degree of linear polarization (DoLP), angle of polarization, the Duggin algorithm, the OSCI algorithm, the Breugnot algorithm, a shadow penetration algorithm, the Poincaré sphere, the Walraven DoLP algorithm, etc. These algorithms were used in mostly generic fashion, i.e., irrespective of spectral band, thereby limiting the conclusions drawn regarding their specific exploitation to one particular band.

Rationale behind contract

The work performed under this contract will consist of an evaluation of the phenomenology of light polarization as a property offering some potential for enhanced discrimination of specific objects in polarimetric images acquired in the visible, shortwave infrared, midwave infrared and longwave infrared bands of the spectrum (VIS/SWIR/MWIR/LWIR). The objects used can be man-made items (such as vehicles, convoys, camouflage nets, mines, etc.) and/or other events of interest (such as deployment of forces, tracks in sand or snow, troop movements, etc.). Various types of backgrounds (such as winter and summer scenes) and atmospheric conditions (clear or cloudy sky, fog, snowfall and high or low temperatures) will be considered. By confirming the discrimination results obtained previously and to resolve ambiguous observations, the experimental results of the work performed under this contract will further our understanding of how passive polarization images can be used to enhance the discrimination of objects in complex environments.

1.4 Abbreviations

BRDF:	bidirectional reflectance distribution function
CCD:	charge-coupled device
DoLP:	degree of linear polarization
DRDC:	Defence Research and Development Canada
IP:	intellectual property
LWIR:	longwave infrared
MWIR:	midwave infrared
PBRDF:	polarimetric bidirectional reflectance distribution function
SWIR:	shortwave infrared
VIS:	visible

2. SCOPE OF WORK

2.1 Phases

This contract is comprised of two phases:

a) **Phase 1 (Phenomenology)**

In the first phase, the Contractor must carry out Task 1 (phenomenological analysis).

b) Phase 2 (Algorithms)

In the second phase, the Contractor must carry out Tasks 2 (develop and validate performance of algorithms) and 3 (collect data and conduct experiments).

2.2 Tasks

The Contractor is required to complete the tasks described below:

Task 1 - Analyze phenomenology:

The Contractor must analyze the phenomenology of the processing of broadband polarimetric images in the visible, shortwave infrared, midwave infrared and longwave infrared bands. The analysis must include the following elements:

1.1 Modelling of the phenomenology of the polarimetric image acquisition process, taking into consideration the inherent parameters of the scene topology and the different possible configurations of the source of illumination, the objects used and the considered spectral bands (visible to thermal).

1.2 Study the influence of the atmosphere on the polarized spectral response (reflective / thermal) of targets of interest, based on their surface parameters and spectral signature. Evaluate polarized atmospheric correction tools and their impact on the spectral domain and resulting polarimetric images (visible to thermal).

Task 2 - Develop and validate performance of algorithms:

The Contractor must evaluate the performance of the existing algorithms developed previously, devise new ones, and analyze their performance. This task includes the following elements:

2.1 Studying the exploitation algorithms developed previously and identify their inherent limitations.

2.2 Developing, encoding, testing and validating new semi-automated or fully automated algorithms designed to discriminate targets using polarimetric images (visible to thermal) based on the phenomenological analysis (Task 1) and on performance metrics provided by the technical authority. The algorithms developed must be validated using the experimental data acquired by DRDC Valcartier's spectro-goniometer.

Task 3 - Collect data and conduct experiments:

The Contractor must capture the polarized signatures of targets of interest in laboratory experiments and field trials. This task includes the following elements :

3.1 Setting up and validating mechanical-optical devices of a polarized spectro-goniometer available in a DRDC Valcartier laboratory. The Contractor must validate the feedback control process of the spectro-goniometer motors so as to automate and optimize the operation of the spectro-goniometer, program the user interfaces required to operate it, and program the process of spectro-goniometer data acquisition (to acquire and save BRDF and pBRDF data on the targets) using compiled and interpreted programming languages (e.g., C/C++, Matlab and IDL).

3.2 Acquiring new signatures of targets and materials of interest (as selected by the technical authority and based on different experimental scenarios) with DRDC Valcartier spectro-goniometer (to acquire BRDF and pBRDF data on specified targets) and during field trials.

3. REPORTS AND OTHER DELIVERABLES

3.1 Reports and other deliverables:

The Contractor must submit the following documents:

- (a) Three interim reports, one at the conclusion of each task.
- (b) A final report documenting all activities during the term of the contract (the finished version of this report must be submitted at the end of the work period).

A preliminary version of each of the above reports must be submitted to the technical authority in a Microsoft Word (.doc), Acrobat (.pdf) and/or LaTeX (.tex) file at least 15 days before the report deadline. The technical authority will review the preliminary version and send comments to the Contractor not more than 10 days after receiving it. The Contractor must incorporate all comments received from the technical authority into the final version of the report and must submit it to the technical authority by the deadline indicated in the previous paragraph.

All reports must be submitted in at least 10 printed and bound copies. A version of the reports in Microsoft Word (.doc), Acrobat (.pdf) and/or LaTeX (.tex) must be included. The format of the reports must conform to the standards and requirements for DRDC documents. These standards are available from the project technical authority.

All source code created and all experimental data acquired must be submitted in the original format on CD and/or DVD.

Each interim report and the final report must include the following elements:

- 1) The objectives of the R&D contract or of the task reported on (as the case may be).
- 2) The methodology employed to achieve the objectives (a list of all activities carried out).
- 3) A list of all algorithms considered, including a description of each, and the algorithms implemented, tested and validated.
- 4) The issues and problems encountered during the activities performed and the solutions proposed and implemented to resolve those problems.
- 5) The Contractor's assessment of the effectiveness of the activities carried out.
- 6) The signatures (spectral/polarized) of the targets and materials of interest as acquired in the lab or in the field.
- 7) A list of the mechanical-optical modifications made to the polarized spectro-goniometer.
- 8) A quantitative analysis of the results (desired rates of discrimination, false alarms, etc.).

-
- 9) The limitations of the algorithms considered.
 - 10) The source code (analyzed, annotated and cleaned up) and executable files created during the contract or during the task being reported on (as the case may be)
 - 11) The data collected in lab tests and in field trials.
 - 12) Work suggested for the future and the desired outcomes.

In addition to the disclosure obligation under Section 28 of the general conditions 2040, any Foreground Information must be fully disclosed and documented by the Contractor in the technical reports delivered by the Contractor to the Technical Authority under this Contract.

3.3 Publications:

Any papers to be published in reviews, journals or other publications, including abstracts of presentations or other types of publications, must be submitted to the technical authority for review and approval at least ninety (90) days before the date of the presentation or publication. The text must include an explicit reference to funding by Canada and must indicate clearly that the author is responsible for its content. The technical authority will provide an objection in writing if any specific elements (e.g., the target audience) are not in the interests of Canada. If the technical authority objects in writing, he or she will submit the written objection to the organization responsible for the publication (the journal or conference).

3.4 Disclosure of foreground information:

In addition to complying with the disclosure requirement under section 28 of 2040, General Conditions, the Contractor must disclose and present in detail all foreground information in the technical reports that it submits to the technical authority under the contract.

4. MEETINGS

4.1 General instructions concerning all meetings:

4.1.1 Location of meetings:

All meetings will require in-person attendance at the DRDC Valcartier facility. However, if the members of the work team are geographically dispersed when a meeting is to be held, the video conference system could be used as an alternative to an in-person meeting.

4.1.2 Preparation and participation:

The Contractor must make the preparations necessary to participate actively in all meetings. Also, when required, it will be responsible for preparing the agenda, which must be distributed to all persons attending the meeting at least 12 hours before it begins.

4.1.3 Minutes of the meeting:

The Contractor must prepare minutes documenting all discussions and/or all decisions taken at the meeting and must submit them to the technical authority within five days after each meeting. The technical authority will review and approve the minutes within five days after receiving them.

4.1.4 Language:

Meetings may be conducted in either English or French at the Contractor's option.

4.2 Start-up meeting:

At the beginning of the contract term, the Contractor must hold a start-up meeting at the DRDC Valcartier facility. The purpose of this meeting will be, among other things, to review the project schedule, the work requirements and objectives, the DRDC standard for the presentation of deliverables, project risks, the material to be supplied to the Contractor to perform the work, and related matters. The start-up meeting must be held within one month after the contract is awarded.

4.3 Progress meetings:

The project schedule must also include progress review meetings. Over the course of the contract term, the Contractor must hold one progress review meeting per month to discuss the work done during the current period, the progress made since the last review meeting, problems encountered and practical considerations, work scheduled for the next period, the progress made according to the schedule (and any delays incurred), matters for which DRDC direction is required, and financial statements, including expenditures to date, anticipated expenditures, and any variances from budget forecasts.

4.4 Closing meeting:

A closing meeting must be held to submit the final report to the technical authority and colleagues at DRDC Valcartier. This meeting must be held during the last month of the contract term.

5. Government-supplied material - GSM

All optical equipment (cameras, polarization filters, motor slaving, mechanical-optical devices, etc.) required for tasks under this contract will be supplied by the government. Additional material requested by the Contractor may be supplied by the government (GSM), subject to approval by the technical authority. The Contractor must allow time for the acquisition of the GSM required, given procurement lead times of 6 to 12 months.

6. Government-supplied equipment - GSE

The government will not lend GSE to the Contractor.

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W7701-125247/A

Amd. No. - N° de la modif.

File No. - N° du dossier

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Buyer ID - Id de l'acheteur

qc1028

CCC No./N° CCC - FMS No/ N° VME

W7701-12-5247

7. Location of work

Given the exclusive ownership by the Department of National Defence of certain equipment (e.g., spectro-goniometer, sensors, military targets of interest, etc.) and the fact that performance of all tasks under this contract will require the use of resources that are only available at DRDC Valcartier, the Contractor must perform all work on DRDC Valcartier premises, located at 2459 Pie-XI Boulevard North, Quebec City, Quebec, G3J 1X5.

ANNEX B**BASIS OF PAYMENT**

1. **LABOUR** : at firm all-inclusive hourly rates (inclusive of overhead and profit), GST/HST extra, in accordance with the following:

Proposed Resources	Firm Hourly Rates						Extended Total per Proposed Resource
	Proposed Contract Period						
	Date of Award to 31 March 2013	Total Est. Hours	01-04-13 to 31-03-14	Total Est. Hours	01-04-14 to 31-03-15	Total Est. Hours	
1	\$		\$		\$		\$
2	\$		\$		\$		\$
3	\$		\$		\$		\$
4	\$		\$		\$		\$
...	\$		\$		\$		\$

TOTAL ESTIMATED LABOUR: \$ _____

2. **TRAVEL AND LIVING EXPENSES:**

The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the Treasury Board Travel Directive (http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees" are applicable.

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

The Contractor should foresee at least 5 000.00\$ to cover the costs to carry out task 3.

TOTAL ESTIMATED TRAVEL AND LIVING EXPENSES: **\$5 000.00 +**
\$ _____

Estimated Cost to a Limitation of Expenditure: \$ _____
(GST/HST extra)

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

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With the exception of the firm rate(s) and price(s), the amounts shown in the various items specified above are estimates only. Minor changes to these estimates will be accepted for billing purposes as the Work proceeds, provided that these changes have the prior approval of the Technical Authority and provided that the estimated cost does not exceed the aforementioned Limitation of Expenditure.

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ANNEX C

SECURITY REQUIREMENTS CHECK LIST

The Security Requirements Check List (SRCL) (Annex C) appended to the bid solicitation package is to be inserted at this point and forms part of this document

ANNEX D

CONTRACTOR DISCLOSURE OF FOREGROUND INFORMATION

Please see reference applicable in your contract to look into **Article 1 - Interpretation of 2040 General Conditions** to obtain the complete definition of the term Foreground Information and thus to help you to determine the information which must be revealed. <http://sacc.pwgsc.gc.ca/sacc/query-e.jsp>.

The Contractor shall respond to the following questions:

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

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

Name:
Title:

Date

(Internal DRDC Valcartier)

Nom
Titre : (Technical authority)

Date



Government of Canada

Gouvernement du Canada

Contract Number / Numéro du contrat
W7701-125247

Security Classification / Classification de sécurité
Unclassified

**SECURITY REQUIREMENTS CHECK LIST (SRCL)
LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)**

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine	DND	2. Branch or Directorate / Direction générale ou Direction	DRDC Valcartier / SGE Section
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	

4. Brief Description of Work / Brève description du travail
Passive broadband polarimetric imaging phenomenology assessment for target detection in complex cluttered environments

5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
5. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)	<input type="checkbox"/> No Non	<input checked="" type="checkbox"/> Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui

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

Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>
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7. b) Release restrictions / Restrictions relatives à la diffusion

No release restrictions Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>
Not releasable À ne pas diffuser <input type="checkbox"/>		
Restricted to: / Limité à : Specify country(ies) / Préciser le(s) pays : <input type="checkbox"/>	Restricted to: / Limité à : Specify country(ies) / Préciser le(s) pays : <input type="checkbox"/>	Restricted to: / Limité à : Specify country(ies) / Préciser le(s) pays : <input type="checkbox"/>

7. c) Level of information / Niveau d'information

PROTECTED A PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>
PROTECTED B PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>
SECRET SECRET <input checked="" type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>



PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui
If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? No / Non Yes / Oui
Short Title(s) of material / Titre(s) abrégé(s) du matériel :
Document Number / Numéro du document :

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

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

- RELIABILITY STATUS / COTE DE FIABILITÉ
- TOP SECRET - SIGINT / TRÈS SECRET - SIGINT
- SITE ACCESS / ACCÈS AUX EMPLACEMENTS
- CONFIDENTIAL / CONFIDENTIEL
- NATO CONFIDENTIAL / NATO CONFIDENTIEL
- SECRET / SECRET
- NATO SECRET / NATO SECRET
- TOP SECRET / TRÈS SECRET
- COSMIC TOP SECRET / COSMIC TRÈS SECRET

Special comments:

Commentaires spéciaux

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.

REMARQUE: Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? No / Non Yes / Oui
If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? No / Non Yes / Oui

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

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

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

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

PRODUCTION

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

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

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

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



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

For users completing the form manually use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.
Les utilisateurs qui remplissent le formulaire manuellement doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form online (via the Internet), the summary chart is automatically populated by your responses to previous questions.
Dans le cas des utilisateurs qui remplissent le formulaire en ligne (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

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

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

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

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

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