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Québec  
G1J 0C7

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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

Issuing Office - Bureau de distribution  
TPSGC/PWGSC  
1550 Avenue d'Estimauville  
Québec  
Québec  
G1J 0C7

Title - Sujet Hyperspectral target detection	
Solicitation No. - N° de l'invitation W7701-125249/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client W7701-12-5249	Date 2012-02-22
GETS Reference No. - N° de référence de SEAG PW-\$QCL-028-14421	
File No. - N° de dossier QCL-1-34689 (028)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2012-03-15	
Time Zone Fuseau horaire Heure Normale du l'Est HNE	
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) 649-2883 ( )	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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

## AMENDMENT 002

You will find below some amendment to the tender document. You must take into account the aforementioned at the time of submitting your proposal.

**Amendment 1** : Amendment of criteria 5.1 (see Point Rated Technical Criteria (Part 4 - Evaluation procedures and basis of selection))

**Remove the following text from criteria 5.1:**

5.1 - Number of projects successfully completed by bidder in the last **5 years** involving Research and development or other project of similar nature to this SOW.

**Replace it by the following text:**

5.1 - Number of projects successfully completed by bidder in the last **10 years** involving Research and development or other project of similar nature to this SOW.

You will find below the Point Rated Technical Criteria that include the amendment 1.

### 1.1.1 Point Rated Technical Criteria

High performance hyperspectral target detection and identification data processing capability for airborne wide area search.			
Evaluation criteria	Evaluation Scale	Max	Min
<b>1. TECHNICAL PROPOSAL / STRATEGY, APPROACH, METHODOLOGY</b>		<b>90</b>	<b>60</b>
<b>1.1 - Degree of understanding of context, scope, tasks and objectives</b>  Understanding of the context, scope, tasks and objectives should be demonstrated, and not limited to the description provided in the "Statement of work and work plan". The bidder should clearly demonstrate in their own words that they thoroughly understand the context, scope and objectives of the "Statement of work and work plan".	<b>30 pts:</b> Excellent understanding of context, scope, tasks and objectives demonstrated. All key elements are identified and discussed. <b>24 pts:</b> Very good understanding of context, scope, tasks and objectives demonstrated. Almost all key elements are identified and discussed. <b>18 pts:</b> Good understanding of context, scope, tasks and objectives demonstrated. Most key elements are identified and discussed. <b>12 pts:</b> Average understanding of context, scope, tasks and objectives demonstrated. Some key elements are identified and discussed. <b>0 pt:</b> Poor understanding of context, scope, tasks and objectives demonstrated. Few key elements are identified and discussed.	30	18
<b>1.2 - Recognition of all direct and related problems/risks and ability to resolve them</b>  The bidder should indicate all significant difficulties and risks that they expect to	<b>10 pts:</b> Excellent indication of foreseen difficulties/risks and matching coping strategy. Numerous potential problems/risks, relating to all aspects of	10	

<p>encounter and how they intend to resolve them. Issues and challenges related to the domain and the nature of the required work (hyperspectral target detection and identification, real-time data processing and software architecture) should be addressed.</p>	<p>the project, are mentioned and good solutions are proposed for all of them.</p> <p><b>8 pts:</b> Very good indication of foreseen difficulties/risks and matching coping strategy. Numerous potential problems/risks, relating to various aspects of the project, are mentioned and good solutions are proposed for some of them.</p> <p><b>6 pts:</b> Good indication of foreseen difficulties/risks and matching coping strategy. Some potential problems/risks, relating to some aspects of the project, are mentioned and good solutions are proposed for all of them.</p> <p><b>4 pts:</b> Average indication of foreseen difficulties/risks and matching coping strategy. Some potential problems/risks, relating to some aspects of the project, are mentioned and good solutions are proposed for some of them.</p> <p><b>0 pt:</b> Poor indication of foreseen difficulties/risks and matching coping strategy. Few potential problems/risks, relating to some aspects of the project, are mentioned and good solutions are proposed for some of them.</p>		
<p><b>1.3 - Strategy and methodology proposed to achieve objectives</b></p> <p>The bidder 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. Selected platform, software and algorithms to be used should also be described.</p>	<p><b>40 pts:</b> 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><b>32 pts:</b> Very good strategy and methodology proposed to achieve objectives. Description of strategy and methodology is clear and precise. The proposed approach meets the needs of the project very well.</p> <p><b>24 pts:</b> Good strategy and methodology proposed to achieve objectives. Description of strategy and methodology is clear and precise. The proposed approach meets most of the needs of the project.</p> <p><b>16 pts:</b> 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>	40	16

	<p><b>0 pt:</b> 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>		
<p><b>1.4 - Completeness, clarity and correctness of information provided</b></p> <p>The bidder will be evaluated on the clarity, completeness and correctness of their proposal.</p>	<p><b>10 pts:</b> Excellent completeness, clarity and correctness of the proposal. Every aspect of the proposal is discussed clearly, completely, and correctly.</p> <p><b>8 pts:</b> Very good completeness, clarity and correctness of the proposal. Almost all aspects of the proposal are discussed clearly, completely, and correctly.</p> <p><b>6 pts:</b> Good completeness, clarity and correctness of the proposal. Most aspects of the proposal are discussed clearly, completely, and correctly.</p> <p><b>4 pts:</b> Average completeness, clarity and correctness of the proposal. Some aspects of the proposal are discussed clearly, completely, and correctly.</p> <p><b>0 pt:</b> Poor completeness, clarity and correctness of the proposal. Few aspects of the proposal are discussed clearly, completely, and correctly.</p>	10	
<b>2. COMPETENCE OF PERSONNEL DIRECTLY INVOLVED IN PROJECT</b>		<b>75</b>	<b>40</b>

<p><b>2.1 - Experience of spectral specialist(s)</b></p> <p>The bidder should demonstrate the competence and experience of the proposed personnel involved as spectral specialist(s). Professional experience and training should be detailed in order to clearly demonstrate competence and experience in the field of multispectral or hyperspectral imagery exploitation in:</p> <ol style="list-style-type: none"> <li>1) target detection;</li> <li>2) target identification;</li> <li>3) geo-referencing;</li> <li>4) multi-source fusion and</li> <li>5) extraction of information in a production environment.</li> </ol> <p>Professional experience should be detailed by providing a list and a description of the projects the proposed person has been involved with, including: project name, data (years), scope (financial), objectives, deliverables, nature of the fonction(s), his/her level of effort and the technological environment for the project. Experience is defined as significant participation to at least one documented project with a scope greater than 6 months or 50K\$.</p> <p>If numerous experts are identified, the global score will be attributed based on the relative involvement of each expert in the related tasks. (e.g.:Expert A has a score of 40 and does 40% of related tasks, Expert B has a score of 32 and does 60% of related tasks: global score=35.2).</p>	<p><b>10 points:</b> The resource has demonstrated experience all the above fields;</p> <p><b>8 points :</b> The resource has demonstrated experience in 4 of the above fields;</p> <p><b>7 points:</b> The resource has demonstrated experience in 3 of the above fields;</p> <p><b>6 points:</b> The resource has demonstrated experience in 2 of the above fields;</p> <p><b>5 points:</b> The resource has demonstrated experience in one of the above fields;</p> <p><b>0 points:</b> The resource has no demonstrated experience any of the above fields.</p>	10	6
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<p><b>2.2 - Experience of System engineer (software and/or hardware)</b></p> <p>The bidder should demonstrate the competence and experience of the proposed personnel involved as system engineer(s). Professional experience and training should be detailed in order to clearly demonstrate competence and experience. Professional experience should be detailed by providing a list and a description of the projects the proposed person has been involved with, including: project name, data (years), scope (financial), objectives, deliverables, nature of the function(s), his/her level of effort and the technological environment for the project.</p> <p>Relevant fields for this project are:</p> <ul style="list-style-type: none"> <li>• Signal processing systems;</li> <li>• High performance computing;</li> <li>• Muti-sensors integration;</li> <li>• Remote sensing data exploitation systems;</li> <li>• Real-time exploitation of sensor systems;</li> </ul> <p>Competence and experience in system engineering of software or hardware should be clearly demonstrated and projects should be provided to highlight the relevant elements.</p> <p>Experience is defined as significant participation to at least one documented project with a scope greater that 12 months or 200K\$.</p> <p>If numerous experts are identified, the global score will be attributed based on the relative involvement of each expert in the related tasks. (e.g.:Expert A has a score of 12 and does 40% of related tasks, Expert B has a score of 20 and does 60% of realted tasks: global score=16.8).</p>	<p><b>20 pts:</b> The resources has demonstrated experience in all the above fields;</p> <p><b>16 pts:</b> The resources has demonstrated experience in 4 of the above fields;</p> <p><b>12 pts:</b> The resources has demonstrated experience in 3 of the above fields;</p> <p><b>8 pts:</b> The resources has demonstrated experience in 2 of the above fields;</p> <p><b>4 pts:</b> The resources has demonstrated experience in 1 of the above fields;</p> <p><b>0 pts:</b> The resource has no demonstrated experience in any of the above fields;</p>	20	4
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<p><b>2.3 - Experience of Software developer</b></p> <p>The Bidder should demonstrate the competence and experience of the proposed personnel in the following fields:</p> <ul style="list-style-type: none"> <li>- development using graphical processing units (GPU) using the NVIDIA CUDA libraries;</li> <li>- development of high-performance computing (HPC) and /or real-time data processing applications;</li> <li>- development of hyperspectral analysis and exploitation tools;</li> <li>- development of modular architectures for data processing;</li> <li>- development of graphical user interface;</li> <li>- experience in MATLAB programming language;</li> <li>- experience in PYTHON programming language;</li> <li>- experience in IDL/ENVI programming language;</li> <li>- experience in object-oriented development.</li> </ul> <p>If numerous experts are identified, the global score will be attributed based on the most experienced member of the team. The score for each criteria will be defined by the personnel demonstrating the highest level of competence and experience. (e.g.:Expert A has 4 months of experience in field 1 and Expert B has 23 months of experience in field 1 = 4 points (12-24 months of experience)).</p>	<p>For each field except "experience in object-oriented development"</p> <p><b>5 points:</b> more than 24 months of experience in the field</p> <p><b>4 points:</b> more than 12 to 24 months of experience in the field</p> <p><b>2 points:</b> from 6 to 12 month of experience in the field</p> <p><b>0 points:</b> less than 6 month of experience in the field</p> <p>For field "experience in object-oriented development"</p> <p><b>5 points:</b> more than 60 months of experience in the field</p> <p><b>4 points:</b> more than 24 to 60 months of experience in the field</p> <p><b>2 points:</b> from 12 to 24 month of experience in the field</p> <p><b>0 points:</b> less than 12 month of experience in the field</p>	45	30
<p><b>3. MANAGEMENT - PROJECT MANAGER</b></p>		20	10
<p><b>3.1 - Experience and education of project manager</b></p> <p>The bidder should clearly demonstrate that the project manager has experience in the supervision of R&amp;D projects regarding software engineering and/or hardware system engineering and/or high performance data processing and/or production of imagery-derived intelligence and/or hyperspectral data exploitation. The bidder should also clearly demonstrate that the project manager has received formal education in project management if this is the case. The training duration could be considered as experience up to a year.</p>	<p><b>15 pts:</b> At least a total of 60 months of experience as project manager.</p> <p><b>12 pts:</b> from 48 to 60 months of experience as project manager.</p> <p><b>9 pts:</b> from 36 to 48 months of experience as project manager.</p> <p><b>6 pts:</b> from 24 to 36 months of experience as project manager.</p> <p><b>3 pts:</b> from 12 to 24 months of experience as project manager.</p> <p><b>0 pt:</b> No experience as project manager.</p>	15	9

<b>3.2 - Projects accomplished in allocated time</b>  The bidder should clearly demonstrate that the project manager has delivered projects within the allocated time.	<b>5 points:</b> more than 5 projects delivered within the allocated time and budget <b>3 points:</b> from 3 to 5 projects delivered within the allocated time and budget <b>1 point:</b> from 1 to 2 projects delivered within the allocated time and budget <b>0 point:</b> no projects delivered within the allocated time and budget	5	1
<b>4. MANAGEMENT - TASK/TIME ALLOCATION</b>		<b>30</b>	<b>15</b>
<b>4.1 - Task/time allocation (For tasks 1 to 5)</b>  The bidder should clearly describe how they intend to allocate hours of work to each project task (i.e., the estimated number of hours to be worked by each person on each task). The task/time allocation should be appropriate and realistic for this type of project, in order to meet the objectives of the project.  The bidder should clearly describe how they intend to assign their personnel to the various tasks and the role of each person with regard to each task. Personnel assignments to the tasks should be realistic, relevant and appropriate for the execution of the project.	<b>20 pts:</b> Excellent allocation of efforts to tasks. The documentation of the allocation of efforts to tasks in the proposal is very clear and complete. Without a doubt, the level of effort allocated to each and every tasks is appropriate and realistic. The confidence is very high that the objectives of the project will be met. <b>15 pts:</b> Very good allocation of efforts to tasks. The documentation of the allocation of efforts to tasks in the proposal is clear and complete. The level of effort allocated to most of the tasks is appropriate and realistic. The confidence is high that the objectives of the project will be met. <b>10 pts:</b> Good allocation of efforts to tasks. The documentation of the allocation of efforts to tasks in the proposal is complete. The level of effort allocated to most of the tasks is appropriate and realistic. The confidence is good that the objectives of the project will be met. <b>5 pts:</b> Poor allocation of efforts to tasks. The documentation of the allocation of efforts to tasks in the proposal is unclear and/or lacking important aspects. The level of effort allocated to some of the tasks is appropriate and realistic. There are indications of too much (or not enough) effort on some tasks. There is a risk that some objectives of the project will not be met. <b>0 pt:</b> Weak allocation of efforts to tasks. The documentation of the allocation of efforts to tasks in the proposal is unclear and/or lacking important aspects. The level of effort allocated to many of the	20	10



	tasks is not appropriate and realistic. There are many indications of too much (or not enough) effort on many of the tasks. There is a high risk that some objectives of the project will not be met.		
<b>4.2 Project work breakdown struction (For tasks 1 to 5)</b>  The Bidder should describe the comprehensive plan that will be used to execute the tasks as defined in the SOW. Each Task should be subdivided into appropriate Work Breakdown Elements (WBE)s, together forming a comprehensive Project Work Breakdown Structure (WBS). The Project Management Schedule should include the timeline for each WBE, precedence relationships between WBEs, due dates of deliverables, PRMs, and other important events derived from the SOW. The plan proposal should make explicit the following for each task: outline of how it will be conducted, level of effort (\$ and labour hrs) and specific personnel resource allocation to WBEs.	<b>10 points :</b> A detailed WBS is presented, is consistent with the proposed schedule defined in the SOW. Mechanisms exists for the contract to adapt its WBS to unexpected delays in interrelated tasks <b>5 points:</b> A detailed WBS is presented, is consistent with the proposed schedule defined in the SOW. <b>3 points:</b> A WBS is presented, but is not consistent with the proposed schedule defined in the SOW. <b>0 points:</b> No WBS presented	10	
<b>5. CAPABILITIES AND EXPERIENCE OF FIRM</b>		<b>20</b>	<b>10</b>
<b>5.1 - Number of projects successfully completed by bidder in the last 10 years involving Research and development or other project of similar nature to this SOW.</b>  The bidder must provide the description and the references for the relevant projects (i.e., contract number and name, project description, address, telephone number, and e-mail address of the client).  Project of similar nature is defined as: real-time imagery data processing, software development for imagery exploitation, multispectral or hyperspectral imagery exploitation in the field of target detection and/or target identification.	<b>20 pts:</b> The bidder completed at least 4 projects of similar nature. <b>15 pts:</b> The bidder completed 3 projects of similar nature. <b>10 pts:</b> The bidder completed 2 projects of similar nature. <b>5 pts:</b> The bidder completed 1 project of similar nature. <b>0 pt:</b> The bidder has not completed any project of similar nature.	20	10
<b>1. TECHNICAL PROPOSAL / STRATEGY, APPROACH, METHODOLOGY</b>		<b>90</b>	<b>60</b>
<b>2. COMPETENCE OF PERSONNEL DIRECTLY INVOLVED IN PROJECT</b>		<b>75</b>	<b>40</b>
<b>3. MANAGEMENT - PROJECT MANAGER</b>		<b>20</b>	<b>10</b>
<b>4. MANAGEMENT - TASK/TIME ALLOCATION</b>		<b>30</b>	<b>15</b>
<b>6. CAPABILITIES AND EXPERIENCE OF FIRM</b>		<b>20</b>	<b>10</b>
<b>TOTAL</b>		<b>235</b>	<b>135</b>

Solicitation No. - N° de l'invitation

W7701-125249/A

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

W7701-12-5249

Amd. No. - N° de la modif.

002

File No. - N° du dossier

QCL-1-34689

Buyer ID - Id de l'acheteur

qc1028

CCC No./N° CCC - FMS No/ N° VME

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ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.