

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving Public Works and Government  
Services Canada/Réception des soumissions  
Travaux publics et Services gouvernementaux  
Canada**  
1713 Bedford Row  
Halifax, N.S./Halifax, (N.É.)  
B3J 1T3  
Bid Fax: (902) 496-5016

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

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

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

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

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

**Comments - Commentaires**

<b>Title - Sujet</b> UNDERWATER VEHICLES	
<b>Solicitation No. - N° de l'invitation</b> W7707-115269/A	<b>Date</b> 2010-12-30
<b>Client Reference No. - N° de référence du client</b> W7707-11-5269	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$HAL-210-8186	
<b>File No. - N° de dossier</b> HAL-0-62589 (210)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2011-01-19</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Atlantic Standard Time AST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Thorpe, Susan 210 R.	<b>Buyer Id - Id de l'acheteur</b> hal210
<b>Telephone No. - N° de téléphone</b> (902) 496-5191 ( )	<b>FAX No. - N° de FAX</b> (902) 496-5016
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE 9 GROVE ST DARTMOUTH Nova Scotia B3A3C5 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**  
Acquisitions  
1713 Bedford Row  
Halifax, N.S./Halifax, (N.É.)  
B3J 3C9

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

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**Title: Operational Support and Maintenance of DRDC Atlantic's Arctic Explorer Autonomous Underwater Vehicle (AUV)**

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Solicitation No. - N° de l'invitation

W7707-115269/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

hal210

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

W7707-11-5269

File No. - N° du dossier

HAL-0-62589

CCC No./N° CCC - FMS No/ N° VME

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Annex "A"	Statement of Work
Annex "B"	Basis of Payment
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Annex "D"	Task Authorization Procedures

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## **PART 1 - GENERAL INFORMATION**

### **1. Introduction**

The bid solicitation and resulting contract document is divided into seven (7) parts plus 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 and states that the Bidder agrees to be bound by the clauses and conditions contained in all parts of 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, if applicable, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Financial Requirements and Other Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, Basis of Payment, Evaluation Procedures, and Task Authorization Procedures

### **2. Summary**

Under ice Arctic bathymetric Arctic mapping is a challenging task, due to the remoteness of the region and the unpredictable weather and ice conditions. DRDC Atlantic (Defence Research and Development Canada) is collaborating with Natural Resources Canada (NRCan) and the Department of Fisheries and Oceans (DFO) in mapping the continental shelf in the Arctic Ocean using AUVs. To support AUV under ice mapping, DRDC is responsible as the scientific authority for the operation and maintenance of the AUVs in Arctic surveys. NRCan and DFO are responsible for logistical support for the Arctic AUV mapping activity.

This requirement is to provide operational support, operator training and general maintenance services for two DRDC Atlantic Arctic Explorer Autonomous Underwater Vehicles (AUV) and associated equipment on an "as and when requested" basis, through a contract with Task Authorizations. This work is to provide specialized support services for two ISE Research Ltd. (ISER) designed and built "Arctic Explorer" autonomous underwater vehicles (AUV). These AUVs are under-ice capable, 5000m depth rated, are modular in construction and support both in-water battery charging and a variable ballast system for surfacing under the ice or resting on the sea bottom. The experienced vendor will provide support services related to AUV vehicle operations and maintenance in various locations including the Arctic and other non ice covered waters as required.

The period of work will be from date of Contract award up to and including March 31, 2012 with the option to extend for 3 additional 12 month periods

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The requirement is limited to Canadian goods and/or services.

### **3. Communications Notification**

As a courtesy, the Government of Canada requests that successful bidders notify the Contracting Authority in advance of their intention to make public an announcement related to the award of a contract.

### **4. Debriefings**

After contract award, bidders may request a debriefing on the results of the bid solicitation. Bidders should make the request to the Contracting Authority within 15 working days of receipt of notification that their bid was unsuccessful. The debriefing may be provided 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 (<http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/acho-eng.jsp>) 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 (2010-10-07) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

### **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.

### **3. Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than 10 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 the Province of Nova Scotia.

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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

DRDC has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, on the following grounds: 6.4.2

Note: Third party intellectual property may be used or referenced during the execution of the Task Authorizations.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

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

Section I A: Technical Bid 2 hard copies  
Section I B: Management Bid 2 hard copies  
Section II: Financial Bid 1 hard copy  
Section III: Certifications 1 hard copy

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

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

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

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

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

### Section I A: 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 address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To

avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

### **Section I B: Management Bid**

In their management bid, bidders must describe their capability and experience, the project management team and provide client contact(s).

### **Section II: Financial Bid**

**1.1** Bidders must submit their financial bid in accordance with the Annex "B". The total amount of Goods and Services Tax or Harmonized Sales Tax must be shown separately, if applicable.

### **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, management and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **1.1 Technical Evaluation**

Mandatory and point rated technical evaluation criteria is included in Annex "C"

### **2. Basis of Selection**

As indicated in Annex "C".

## **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 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. 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.

## 1.1 Federal Contractors Program - Certification

### 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.

## 1.2 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.

### 1.3 Status and Availability of Resources

SACC Manual clause A3005T (2010-08-16) Status and Availability of Resources

### 1.4 Education and Experience

SACC Manual clause A3010T (2010-08-16) Education and Experience

## PART 6 - FINANCIAL AND OTHER REQUIREMENTS

### 1. Financial Capability

SACC Manual clause A9033T (2010-08-16) Financial Capability

### 2. Insurance

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

## PART 7 - 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 \_\_\_\_\_.

#### 1.2 Task Authorization Overview

- (a) Work described at Annex "A", Task 01, shall be provided under the Contract. On-going work shall be provided on an "as and when requested basis".
- (b) An obligation for optional Work will come into force only when a Task Authorization (TA), inclusive of any amendment, is approved and issued in accordance with this clause and only to the extent designated in the approved TA;
- (c) The TA Approval Authority will be determined on Contract award.
- (d) Any Work performed by the Contractor in advance of an approved TA will be at the Contractor's own risk and expense;

- (e) The task description, inclusive of any amendment, of any Work must fall within the scope of the Statement of Work, Annex "A"; and
- (f) The approved TA, inclusive of any amendment, for any Work will be issued under the Contract through the use of Task Authorization Form, or form DND 626, Requisition on a Contract, duly completed and signed by the TA Approval Authority.

### 1.2.1 Task Authorization Limit

- (a) The Project Authority may approve individual task authorizations up to a limit of \$350,000.00 GST or HST extra, inclusive of any amendment. Any TA to be issued in excess of that limit or any amendment to the approved TA which will increase the TA total value above that limit must be approved by the Contracting Authority before issuance.

### 1.2.2 Minimum Work Guarantee

1. In this clause,

"Maximum Contract Value" means the amount specified in the "Limitation of Expenditure" clause set out in the Contract; and

"Minimum Contract Value" means \$20,000.00 plus applicable taxes.

2. Canada's obligation under the Contract is to request Work in the amount of the Minimum Contract Value or, at Canada's option, to pay the Contractor at the end of the Contract in accordance with paragraph 3. In consideration of such obligation, the Contractor agrees to stand in readiness throughout the Contract period to perform the Work described in the Contract. Canada's maximum liability for work performed under the Contract must not exceed the Maximum Contract Value, unless an increase is authorized in writing by the Contracting Authority.

3. In the event that Canada does not request work in the amount of the Minimum Contract Value during the period of the Contract, Canada must pay the Contractor the difference between the Minimum Contract Value and the total cost of the Work requested.

4. Canada will have no obligation to the Contractor under this clause if Canada terminates the Contract in whole or in part for default.

### 1.2.3 Canada's Obligation - Portion of the Work - Task Authorizations

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

### 1.2.4 Task Authorization - Department of National Defence

The administration of the Task Authorization process will be carried out by the TA Authority. This process includes monitoring, controlling and reporting on expenditures of the contract with task authorizations to the Contracting Authority.

## 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 (<http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/achoc-eng.jsp>) Manual issued by Public Works and Government Services Canada

## 2.1 General Conditions

2040 (2010-08-16) General Conditions - Research and Development, apply to and form part of the Contract.

## 3. Term of Contract

### 3.1 Period of Contract

The Work is to be performed during the period from contract award to March 31, 2012.

### 3.2 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to 3 additional 12 month periods under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least 15 calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

## 4. Authorities

### 4.1 Contracting Authority

The Contracting Authority for the Contract is:

**Susan Thorpe**  
**Supply Specialist**  
**Public Works and Government Services Canada**  
**Acquisitions Branch**  
**Telephone: 902-496-5191**  
**Facsimile: 902-496-5016**  
**E-mail address: susan.thorpe@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.

### 4.2 Project Authority

The Project Authority for the Contract is:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_-\_\_\_\_-\_\_\_\_\_

Facsimile: \_\_\_\_-\_\_\_\_-\_\_\_\_\_

E-mail address: \_\_\_\_\_

The Project 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 Project Authority; however, the Project 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.

#### 4.3 Contractor's Representative

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone: \_\_\_\_-\_\_\_\_-\_\_\_\_\_

Facsimile: \_\_\_\_-\_\_\_\_-\_\_\_\_\_

E-mail address: \_\_\_\_\_

### 5. Payment

#### 5.1 Basis of Payment

##### 5.1.1 Contract's Basis of Payment - Task 1

The Contractor will be paid its costs reasonably and properly incurred in the performance of the Work, determined in accordance with the Contract's Basis of Payment, Annex "B". Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

##### 5.1.2 Task Authorizations' Basis of Payment

Each Task Authorization will stipulate a "Basis of Payment - Firm Price" or "Basis of Payment - Limitation of Expenditure" for the Task Authorization's Basis of Payment for the performance of the Task Authorization's Work, both as determined in accordance with the Annex "B".

##### 5.1.3 Task Authorizations with a Basis of Payment - Firm Price

For a Task Authorization with a Basis of Payment - Firm Price, in consideration of the Contractor satisfactorily completing all of its obligations under the Task Authorization, the Contractor will be paid a firm price of \$ (*to be determined*) . Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

##### 5.1.4 Task Authorization subject to a Limitation of Expenditure

- (a) The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work specified in the approved TA, as determined in accordance with the Basis of Payment, in Annex "B", to the limitation of expenditure specified in the approved TA.
- (b) Canada's total liability to the Contractor under the approved TA must not exceed the limitation of expenditure specified in the approved TA. Customs duties are included.

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## 5.2 Limitation of Expenditure

### 5.2.1 Limitation of Expenditure - Cumulative Total of all Task Authorizations

1. Canada's total liability to the Contractor under the Contract for all approved Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of \$550,000.00. Funds, estimated to be \$100,000.00 for each option year, shall be added on exercising the option period if applicable. 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 will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. 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,
  - (c) as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all approved TAs, inclusive of any revisions,whichever comes first.
4. 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.

## 5.3 Method of payment

### Contract's Method of Payment - Task Authorizations:

Payments for each Task Authorization will be made not more frequently than once a month. Task Authorizations will state if the method of payment is "single payment" or "milestone payments".

### 5.3.1 Method of Payment for Task Authorization with a Basis of Payment - Firm Price

For Task Authorizations with a Basis of Payment Firm Price, one of the following will be used:

#### 5.3.1.1 METHOD OF PAYMENT - SINGLE PAYMENT

SACC Manual Clause H1000C (2008-05-12) Single Payment  
See 6.1 Invoicing Instructions - Single Payment, below.

- OR -

#### 5.3.1.2 METHOD OF PAYMENT - MILESTONE PAYMENTS

SACC Manual Clause H3010C (2010-01-11) Milestone Payments  
SACC Manual Clause H4012C (2010-01-11) Schedule of Milestones  
See 6.2 Invoicing Instructions - Progress Claim, below.

## 5.4 SACC Manual Clauses

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

C0711C (2008-05-12) Time Verification

## 6. Invoicing Instructions

### 6.1 Invoicing Instructions - Single Payment

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

Each invoice must be supported by:

- (a) a copy of time sheets to support the time claimed;
- (b) a copy of the release document and any other documents as specified in the Contract;
- (c) a copy of the invoices, receipts, vouchers for all direct expenses, and all travel and living expenses;
- (d) a copy of the monthly progress report.

2. Invoices must be distributed as follows:

(a) The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract, attention Project Authority for certification and payment.

(b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract for information only.

### 6.2 Invoicing Instructions - Progress Claim

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111 (<http://www.pwgsc.gc.ca/acquisitions/text/forms/forms-e.html>).

Each claim must show:

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

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, travel and living expenses; and
- (c) a copy of the applicable monthly progress report.

2. Goods and Services Tax or Harmonized Sales Tax (GST/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 one (1) copy of the claim on form PWGSC-TPSGC 1111, and forward it to the Project Authority, identified under the section entitled "Authorities" of the Contract, for appropriate certification after inspection and acceptance of the Work takes place.

The Project Authority will then forward the original and one (1) copy of the claim to Finance for the remaining certification and payment action. Progress Claims will **NOT** be sent to the Contracting Authority for signature.

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

## 7. Certifications

7.1 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 term of the Contract. 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. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the Province of Nova Scotia.

## 9. 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 general conditions 2040 (2010-08-16) Research and Development
- (c) Annex "A", Statement of Work
- (d) Annex "B", Basis of Payment;
- (e) Annex "D", Task Authorization Procedures
- (f) the Contractor's bid dated \_\_\_\_\_

## 10. Insurance

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

## 11. Inspection and Acceptance

The Project Authority is the Inspection Authority. All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

## 12. Canada to Own Intellectual Property Rights in Foreground Information

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

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File No. - N° du dossier

HAL-0-62589

Buyer ID - Id de l'acheteur

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CCC No./N° CCC - FMS No/ N° VME

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## Annex "A"

### Statement of Work

Work shall be performed in accordance with the following information:

#### Requirement

To provide operational support, operator training and general maintenance services for two DRDC Atlantic Arctic Explorer Autonomous Underwater Vehicles (AUV) and associated equipment on an "as and when requested" basis, through a contract with Task Authorizations

DRDC Atlantic has a requirement for interested vendors to provide specialized support services for two ISE Research Ltd. (ISER) designed and built "Arctic Explorer" autonomous underwater vehicles (AUV). These AUVs are under-ice capable, 5000m depth rated, are modular in construction and support both in-water battery charging and a variable ballast system for surfacing under the ice or resting on the sea bottom. The experienced vendor will provide support services related to AUV vehicle operations and maintenance in various locations including the Arctic and other non ice covered waters as required.

#### Background

Under ice Arctic bathymetric Arctic mapping is a challenging task, due to the remoteness of the region and the unpredictable weather and ice conditions. DRDC Atlantic (Defence Research and Development Canada) is collaborating with Natural Resources Canada (NRCan) and the Department of Fisheries and Oceans (DFO) in mapping the continental shelf in the Arctic Ocean using AUVs. To support AUV under ice mapping, DRDC is responsible as the scientific authority for the operation and maintenance of the AUVs in Arctic surveys. NRCan and DFO are responsible for logistical support for the Arctic AUV mapping activity.

#### Tasks

The first task is detailed Individual Task Authorization documents may address the following contractor supplied services:

1. Leased or rental equipment to support AUV trials and operations.

If requested in a Task Authorization the contractor shall make arrangements to lease and/or rent off-the-shelf equipment or components to support AUV operations. Specific equipment or components required will be specifically identified in a call up. One example of such equipment is an Ultra Short Baseline (USBL) positioning system.

2. AUV Integration.

Integration of contractor or crown supplied AUV components, sensors, equipment, software, firmware, hardware may be required during the course of this requirement. For all integration work the contractor shall develop an integration and shop test plan which is satisfactory to the SA. When the item(s) to be integrated have been received by the contractor, the contractor shall integrate them and conduct a shop test according to the integration and shop test plan.

3. AUV Maintenance and upgrades.

Work may address the maintenance, upgrade, refurbishment, replacement and/or improvement of any AUV or ancillary component, system, mechanism, sensor, software/firmware, hardware, software and spare parts. Each requested specialized maintenance or upgrade service shall be explicitly outlined in the individual Task Authorization.

#### 4. Equipment documentation.

For equipment or components procured or leased/rented from other suppliers, the contractor shall provide sufficient documentation to permit its operation and maintenance as well as any other documentation that is provided by the supplier in the normal course of procurement/lease/rental.

#### 5. Operator/Maintainer Training:

As identified in a Task Authorization the contractor shall provide instruction to DRDC operators and maintainers or representative(s) on the safe and correct operations specific to Arctic explorer AUV maintenance, repair, operations, mission planning and ancillary equipment and systems.

#### 6. AUV Expert Advice:

The contractor shall provide specific Arctic Explorer AUV expert advice on an as required basis; this may include but is not limited to the following:

- a. AUV and associated equipment problems, fault diagnoses and investigation;
- b. AUV repair, problem remediation;
- c. AUV mission planning;
- d. AUV logistics;
- e. AUV sensors;
- f. AUV enhancement/upgrade recommendations; and
- g. AUV operations.

#### 7. Sea Trials/Testing.

In consultation with the PA the contractor shall plan and conduct sea-trials (in-water testing) to validate the functional performance of the AUV vehicle and or integrated systems and equipment. The contractor shall produce a Trial plan which must be approved by the PA in advance of the trial; the PA or representative (s) will have the option to attend and witness the sea trial. When tasked with the responsibility, the contractor is responsible for sea trial logistics and for providing facilities and resources to complete the trial. The contractor shall report on the outcome of the trials, noting any and all results that might have an operational impact on AUV performance.

#### 8. AUV Operational Deployment Preparation.

All AUV survey mission requirement and subsequent AUV deployment will be determined by DRDC. Specific details of mission area, schedule and survey type to be performed will be identified in a DRDC Atlantic produced deployment plan for AUV missions. The contractor shall follow this deployment plan to prepare for the AUV deployment and subsequent survey. Required services may include but is not limited to the following:

- a. Prepare and package the AUVs and support equipment for transport during the pre and post deployment period;
- b. As directed by DRDC the contractor will assist or lead in the preparation of any required operational plans, trial plans and mission plans;
- c. As directed by DRDC the contractor shall acquire the necessary materials for packaging the vehicle, spares and support equipment for transport;
- d. Supervise the loading and offloading of the equipment; and
- e. Identifying the optimum experienced contractor supplied AUV operations team.

#### 9. AUV Operational Deployment

The AUV crew may be deployed for extended periods of time, upward of 6 weeks duration, without relief when ship based in the Arctic (eg. on an Ice Breaker).

On site and in consultation with the PA or designated representative, the contractor shall assist DRDC personnel operate the AUV(s). DRDC personnel shall participate in all aspects of AUV operations, mission planning, maintenance and logistics. At all times the PA or designate is the final arbiter for any

decision related to the AUV(s) and operations. The contractor, as detailed in a Task Authorization, shall provide which may include but is not limited to:

a. Supply the optimum experienced AUV operations team, capable of operations for up to two simultaneous in water AUV(s); The vendor shall recommend the number of personnel required to support each activity, and the role each contractor will have in supporting AUV operations to the PA. The final team composition requires PA approval

b. AUV logistics;

i. scheduling the contractor crew; planning travel arrangements; coordinating with DRDC for planning for AUV and equipment transport by air/road/rail and sea, as appropriate; and organizing the packing of AUV and equipment if vehicles are on site at the contractors facility or providing support to DRDC if the AUVs are stored off site from the contractors facility;

ii. The contractor shall support and assist DRDC in dangerous goods preparations as required. For example packaging the AUV batteries if DRDC personnel are not on site.

c. AUV and support equipment mobilization and demobilization;

d. Arranging for AUV transportation to/from storage and launch platform/area;

e. AUV and support equipment maintenance and repair while deployed at a remote ice camp or shipborne or shore based location;

f. AUV and support equipment setup and disassembly on site;

g. AUV operational support, as required, 24 hours per day, 7 days per week while the AUV is deployed in the water. Typical mission duration is limited by battery endurance, this in turn bounds the time operators are required to maintain watch;

h. Determining and arranging for 3rd party leased equipment;

i. On completion of the deployment, the contractor shall report on the trials, noting any and all deficiencies in the Arctic Explorer system and making recommendations for the conduct of future missions;

j. removing and installing the AUV main batteries and preparing them for shipment, for example when shipping by air;

k. Preparing the vehicles for launch;

l. Charging the AUV batteries while the AUV is on the ice surface, ships deck or while underwater using the AUV underwater mechanical restraint and holding mechanism called CATCHY;

m. Performing AUV pre and post dive procedures;

n. Developing new or modifying existing AUV pre or post dive procedures for better or safer operations;

o. Carrying out PHINS INU (Inertial Navigation Unit) alignment procedures, this is especially critical and more difficult to perform at very high latitudes as seen in Arctic operations;

p. Assist with launching and recovering the AUVs through an ice hole using over head gantries and/or over the side with cranes when shipborne or jetty launched;

q. Downloading and analysis of vehicle data;

r. Mission Planning using MIMOSA

DRDC Atlantic uses MIMOSA (Mission Management for Subsea Autonomous vehicles) mission planning software, developed by IFREMER (French Research Institute for Exploration of the Sea), to plan AUV missions. DRDC will provide the contractor with a copy of the software and user guide if applicable. Any time spent familiarizing and training contractor personnel with this software is at the contractor's expense.

i. In consultation with DRDC or representative the contractor shall prepare first drafts of AUV missions for DRDC review; and

ii. the contractor shall produce the final mission plan(s) acceptable to the PA. Finalized AUV mission approval rests with the DRDC PA or representative.

s. Inventory

i. The contractor shall compile an inventory of items, hardware, software/firmware, equipment, consumables and tools required for any at sea AUV operation;

1. any items not held by the contractor or DRDC or representative and deemed required shall be identified;

2. The contractor shall provide a quote for purchase or rental to the PA. Pending funding approval by the PA, the item shall be purchased/rented by the contractor;

10. Reliability Verification.

Reliability assessments of the AUVs are undertaken to assess reliability for operations. Data is collected from every deployment and operation to aid the statistical analysis. In all operations of the AUV in which the contractor is involved, the contractor shall document the reliability of the vehicle, including all failures, faults or unexpected behaviour of the vehicle and the related or suspected related cause(s), the time between failure and the time to repair. The contractor shall report on these findings, noting any equipment or procedures with inadequate reliability for AUV operations and recommending alternative approaches or rectifications;

11. Seagoing Launch Platform:

From time to time at sea operations of the AUVs will be required on both the East, West and Arctic coastal areas of Canada. Due to the environmental conditions, for operations in ice-covered Arctic waters, a Government supplied ice capable vessel will be provided for Arctic operations. For East coast AUV operations DRDC has at its disposal the CFAV Quest. Therefore for West coast operations in the Victoria/Vancouver/Nanose Bay area the contractor shall provide for the services of a vessel with:

- a. deck space to hold two Arctic Explorer AUV's (each 7.5m long, 29" diameter, 1800kg);
- b. covered, heated and secure work space for, at a minimum, one opened up AUV;
- c. Crane launch and recovery capability for an Arctic Explorer AUV.

12. Travel

It is expected that some of the work performed will be completed at the Contractor's work site. Any travel requirements will be addressed in the relevant Task Authorization (specifically for sea trials outside of the contractor's area) including sea trial dates, locations and conditions.

Contractor travel to/from difficult to access, remote work site(s) (eg. Arctic) may be provided via Government furnished transportation and accommodation. Note: time preparing for and packing contractor personnel supplies and luggage is the responsibility of the contractor.

The contractor will make all necessary travel arrangements for their personnel where travel is not provided by the Government.

13. Miscellaneous

a. Personal protective equipment

Contractor personnel traveling to the arctic may require specific personal protective clothing. DRDC or a representative will provide, on a loan basis, specialized outer wear protective clothing (such as parkas, snow pants, arctic mitts, survival suits, personal floatation devices), specialized footwear (such as mukluks) and arctic sleeping bags or other specialized personal equipment that may be required. All undergarments and clothing that touch the skin are the responsibility of the contractor to supply;

b. Location specific Requirements

i. Contractor personnel working in Arctic field locations are required to:

1. Have passed the Canadian "Standard First Aid + CPR (Cardiopulmonary Resuscitation ) Level C + AED (Automated External Defibrillator)" course or equivalent. This course is the responsibility of the

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contractor to supply to their own personnel;

2. Provide confirmation that a 'fit for duty' medical has been completed, indicating that the individual has been seen by a physician and the individual is deemed fit to participate in work the operational conditions;

ii. Any specific courses other than what is listed above will be identified in an individual Task Authorization.

## Security

All work is unclassified and the contractor will not have access to any classified information. Contractors may require access to DRDC Atlantic facilities, such as the lab (9 Grove St, Dartmouth), the acoustic calibration barge or the test tanks. Contractor personnel must be escorted at all times while in DND facilities by fully screened DND personnel.

## Contractor Personnel

All contractor personnel directly involved in this work shall be named in the contract. All proposed changes in contractor personnel shall be addressed by the contractor to Public Works and Government Services Canada who in turn will request DRDC Atlantic's approval.

## Travel

Contract support personnel may be required to participate on sea trials and Arctic based operations on occasion. Any travel requirements will be addressed in the individual Task Authorization, including trial dates, locations and conditions.

Trials may include AUV operations in remote locations including the Canadian Arctic and possibly from Canadian Forces (CF) auxiliary vessels. For example, travel could include travel to an Arctic trial staging location such as Resolute Bay, Nunavut or meeting CFAV Quest in port at Nassau, Bahamas.

The Contractor will make all necessary travel arrangements for their personnel unless travel is provided on specific Government provided charter flights. Travel and living expenses (when not provided by DRDC or representative) will be in accordance with the Treasury Board Travel Directive.  
[http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/td-dv\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv_e.asp)

## Direct Charges

All equipment and software purchases must be specifically authorized in advance in the Task Authorization. These items shall be limited to components, equipment and software purchased, designed, fabricated or compiled as required and detailed within the Task Authorization. All items purchased during the execution of the Task Authorization, and charged to the contract, shall become the property of DRDC and shall be delivered to DRDC as part of the final deliverables.

## Deliverables

In addition to the return of all non-expended items (equipment, software, books, etc.) acquired by the contractor in support of and claimed for under each Task Authorization, the deliverables shall include but is not limited to:

1. Short monthly progress reports during the course of each Task Authorization,
2. Any newly purchased, designed or fabricated component, part, equipment or compiled software as described in each Task Authorization's Statement of Work.

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3. A final report for each Task Authorization summarizing the work done, and including any system documentation called for in the contract.

Additional deliverables shall be identified with each Task Authorization.

### **Report Standard and Format**

Reports when required will be to a standard acceptable to the PA of the Task Authorization. Should a report not be in accordance with the requirement of the work, the PA shall have the right to reject it or require its correction.

The Project Authority will provide the Contractor with a CD that contains: 1) a word template of a Contract Report, 2) a PDF file of a sample Contract Report, and 3) a PDF file of the "Requirements for DRDC Atlantic Contractor Reports". The contractor is responsible for delivering a draft copy of the Contract Report to the Project Authority for review. This review may require the contractor to make changes as directed by the Project Authority. Also, this review will help to ensure the report is in keeping with contract requirements and that DND interests, including security, are safeguarded. The final report format shall comply with the standards set out in the DRDC Atlantic guide "Requirements for DRDC Atlantic Contractor Reports". The contractor shall supply an English abstract, an Executive Summary, and a softcopy of the final report to the Project Authority, prior to contract completion. The format of the final report will be a Microsoft Word doc file.

Designated User

Defence R&D Canada - Atlantic  
9 Grove Street  
P.O. Box 1012  
Dartmouth NS B2Y 3Z7

### **Government Furnished Equipment**

Requirements for Government Furnished Equipment will be identified in individual Task Authorizations.

In general, the contractor may have access to:

1. Arctic Explorer AUVs and support equipment;
2. MIMOSA Mission Planning software, laptop and software key.

### **DRDC Atlantic Support, Facilities and Responsibilities**

Requirement for DRDC support, facilities and responsibilities will be identified in individual Task Authorizations.

On an as available basis the contractor may have access to:

1. DRDC calibration tank;
2. DRDC calibration barge;
3. DRDC saltwater test tank;
4. DRDC pressure test tank; and
5. Vessels and/or field sites (e.g. ice camps), with accommodation facilities during sea or Arctic trials.

In general, DRDC's responsibilities will include:

1. DRDC will be responsible for all transportation costs associated with transporting the AUVs and the associated support equipment to/from trials/operational locations and AUV storage location;
2. DRDC will be responsible for all costs associated with preparing dangerous goods paperwork and packaging for the two AUVs and associated spares and support equipment. This includes supplying a certified shipper onsite (local and remote Arctic location) to prepare dangerous goods and paperwork for shipping;
  - Contractor support may be required to assist in dangerous goods preparations and if required will be explicitly specified in the individual Task Authorization document;
3. DRDC is responsible to compile and compare contractor supplied AUV reliability data with existing data used in the AUV reliability assessment.

All of the onsite DRDC facilities and services are shared and require advance booking. Usage needs must be determined early and booked through the SA.

Specific Task Authorizations may require access to facilities beyond this list.

As deemed appropriate by the PA, reports and textbooks from the DRDC Atlantic library will be made available to the contractor during the course of the contract. These must be returned prior to the completion of the contract.

### **Work Site**

Maintenance and trial preparation work are to be performed at the contractors site. The contractor must have access to suitable warm, dry facilities to handle, maintain, upgrade, store and an in ground pool to conduct initial in water testing for two Arctic Explorer AUVs. Contractor must also have local access to a suitable sheltered year round non ice covered Canadian coastal area for in-sea water testing of the AUVs. In-water testing will be done to validate maintenance work and to prepare for operational deployments. In-water testing will include running test missions, and the test location must have suitable water depth and area for running race track missions of 1km length, 500m width, in water depths greater than 50m. For in-water testing AUVs can be launched from a vessel or dockside, however there must be resources available onsite to facilitate a quick recovery of the AUV at any point in the test mission in case of vehicle fault or failure.

The contractor will be required to perform work at various locations including DRDC Atlantic, remote locations including Arctic ice camps, Arctic ice breakers, CFAV Quest and other vessels of opportunity.

The contractor is responsible for ensuring that personnel are fit and capable of working in remote sites. All work at the remote sites will be under the control of the site lead (eg. Chief Scientist) and as required their designates (eg. Safety Officer). The contractor will be required to follow the established site procedures and policies, including those related to safety and security. Applicable organization structure, procedures and policies will be provided to the contractor in advance.

### **Control Procedures**

Inspection shall be by and to the satisfaction of the Director General, Defence R&D Canada - Atlantic.

For Milestone and lump sum payments: The work shall be deemed 100% complete upon receipt and approval of all deliverables.

For Progress Claims: Progress will be monitored through brief monthly written reports submitted with progress claims and regular consultations between the contractor and the Scientific Authority. The work shall be deemed 100% complete upon receipt and approval of the deliverables identified in each call up.

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### **Approval Prior To Publication**

All manuscripts for publication in scientific journals or the like, abstracts of oral presentations and any releases that describe portions of the contract work or related information shall be submitted to the Scientific Authority for approval of release. If the inadvertent presence of either defence classified or proprietary material is determined, the Scientific Authority will consult with the contractor to redraft the relevant sections to their joint satisfaction to produce an unclassified text or theme without sensitive information. Review of manuscripts and releases will be completed within two months after receipt. Review of abstracts and any other releases will proceed rapidly and approval of release will follow without delay.

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**Appendix C****Task 01**

Available funding \$20k

The contractor will provide the following work under Task authorization 1.

DRDC Atlantic has a requirement to carry out repairs to the NRCan/DRDC Arctic Explorer AUV vehicle. Recent usage in the Arctic 2010 under ice survey of the Arctic Explorer AUV (serial number B06) resulted in damage to the AUV Variable ballast system.

During the recent system inspection and power up of the NRCan/DRDC AUV it was discovered that the VB system has an electrical ground fault. The inspecting contractor also measured voltages between the VB frame and connector contacts. This voltage indicates there may have been water ingress into the system when the AUV was deployed. There are no visible oil leaks on the system.

Without further investigation we can not be certain if the system has taken on water or the ground faults are caused by other problems.

The contractor shall provide the following:

**Repair Work Activities**

The following repair work is to be carried out under this requirement:

1. The contractor shall investigate this problem and ascertain if the system has taken on water or if the ground faults are caused by other problems; and
2. The contractor shall carry out repairs necessary resulting in a fully operable B06 Variable ballast system.

## Annex "B"

### Basis of Payment

Your Financial Bid will be used to determine the Contract's Basis of Payment. A total price shall be given exclusive of applicable taxes for Task 1.

#### 1. Prices shall be submitted for Task 1 in the following format:

Labour: For each individual and/or labour category to be employed on the project, indicate the proposed hourly rate (including overhead, excluding profit).

Other Direct Charges to be paid at cost without mark-up:

Equipment: Identify the items required to complete the work and identify the pricing basis inclusive of customs duty. These items will be delivered to Canada upon completion of the project.

Materials, Supplies, Components: Indicate general categories and the pricing basis. Indicate whether the items are likely to be used or consumed during the course of the Work.

Other Charges: Identify any other direct charges anticipated such as long distance communication and rentals and provide the estimated costs and relevance to the proposed work.

Travel and Living Expenses: The Contractor will be paid its authorized travel and living expenses, reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead, in accordance with the meal, private vehicle and incidental allowances specified in the following web site <http://www.njc-cnm.gc.ca/directive/index.php?did=10&lang=eng>. All travel must have the prior authorization of the Project Authority. All payments are subject to government audit.

Subcontracts: Identify potential subcontractors and provide the same cost breakdown information detailed herein.

Profit: State your proposed profit, in accordance with the Price Certification as stated herein, and the basis on which it is computed and applied.

**Total Estimated Cost for Task 1 \$ \_\_\_\_\_ exclusive of HST**

**2. All labour rates shall be detailed separately for personnel to be utilized in the performance of this work.** These rates shall be used to calculate the Price Proposal's "price for evaluation". These rates shall be included in the Basis of Payment of any resultant Contract.

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**Annex "C"**
**Evaluation Procedures**

Proposals will be evaluated and scored in accordance with the following evaluation criteria. It is recommended that bidders address all criteria in sufficient detail in their proposals as to ensure that the evaluation team may adequately assess capabilities. In addition, bidders must provide a "Cross Reference" index that identifies the paragraphs and page numbers associated with each criterion.

Bidders not meeting the minimum points for any of the three categories (technical, management or sea trial support) shall not be considered further.

**EVALUATION CRITERIA**
**MANDATORY REQUIREMENTS**

The following mandatory requirements shall be demonstrated with examples of previous similar projects detailing work description. Resumes shall be submitted for proposed personnel.

1. Must have Experience operating AUVs larger than 3m in length
2. Must have Experience conducting AUV operations in ice covered Arctic or Antarctic waters
3. Must have Experience in fault finding in an Explorer AUV
4. Must have the ability to provide expert AUV instruction to DRDC operators and maintainers or representative(s) on the safe and correct operations specific to Arctic explorer AUV maintenance, repair, operations, and mission planning
5. Must have Experience carrying out PHINS INU (Inertial Navigation Unit) alignment procedures
6. Must be able to provide a suitable warm, dry facility to temporarily handle, maintain, upgrade, store the AUVs
7. Must be able to provide an in ground pool to conduct initial in water testing for two Arctic Explorer AUVs
8. Must be able to provide access, within 3 hours, to a suitable sheltered year round non-ice covered Canadian coastal area for in-sea water testing of the AUVs;
9. Must have unrestricted access to in-sea water testing area capable of running race track AUV missions of 1km length, 500m width, in water depths greater than 50m

**RATED REQUIREMENTS:**
**1. TECHNICAL POINT RATED CRITERIA (maximum 1000 pts/minimum 700 pts)**

- |  |     |
|--|-----|
| (a) Demonstrated understanding of scope and objectives.  | 400 |
| (b) Proposed work approach and methodology are feasible and efficient.   | 400 |
| (c) Demonstrated understanding of the direct, as well as peripheral, problems related to the work and reasonable solutions proposed to mitigate the risks of those problems. | 200 |

Sub total (Maximum) 1000

**2. MANAGEMENT POINT RATED CRITERIA (maximum 2460 points/min 1722 points)**

- |   |     |
|---|-----|
| (a) Proposed management structure for the project is effective. The proposed project manager has demonstrated qualifications and experience, including position within the organization, relevant experience, education, and demonstrated ability to control costs. | 100 |
|---|-----|

(b) Proposed key personnel's demonstrated capability, including relevant experience, qualifications, and competence with the following:

#### AUV (Autonomous Underwater Vehicle) Operations

- i. Experience in using commercially available AUV GUI (Graphic User Interface) based mission planning software capable of transformations of complex mission plans to the Explorer ".mis" mission plan file format;
- ii. Experience in the creation, export and downloading of AUV mission plans to an AUV;
- iii. AUV performance analysis using AUV generated log files
- iv. AUV localization and tracking using 3rd party USBL (Ultra Short Base Line) systems;
- v. Arctic Explorer AUV maintenance and repairs;
- vi. Conducting multi day AUV missions;
- vii. Conducting AUV missions with two or more AUVs;
- viii. Conducting AUV operations from an Arctic or Antarctic ice based camp;
- ix. Operation of AUV variable ballast systems while operating under ice;
- x. Conducting AUV operations from ships;
- xi. Creating and modifying Explorer AUV fault management tables to optimize mission success;
- xii. experience in the packaging and shipment of AUV for deploying in the Arctic or Antarctic
- xiii. Operating AUVs in deep water (greater than 2000m)

#### AUV Engineering Services

- xiv AUV Control Software. The AUV control software environment is the ISE produced "Automated Control Engine (ACE) using the QNX 4.25 operating system. The ACE software architecture is constructed to allow for ease of modification and is based on simple, modular and reusable component libraries written in the C++ programming language. These software components are interconnected graphically or in ASCII text files. This graphical and textual configuration completely defines the control of the AUV. If a new AUV component is required for a new or modified function the appropriate C++ code is compiled and linked into ACE for use on the Vehicle Control computer (VCC) or Surface control computer (SCC).

1. Experience in producing, compiling and linking C++ code,
2. Experience with QNX 4.25 operating system.
3. Experience in writing ACE components;

#### xv. Explorer Hardware

1. Experience in maintaining built Explorer AUVs;
2. Experience in incorporating new sensors into an Explorer AUV

xvi. The contractor shall provide specific Arctic Explorer AUV expert advice on an as required basis, this includes:

1. AUV and associated equipment problem diagnoses and investigation;
2. repair, problem remediation;
3. mission planning; and
4. enhancement/upgrade recommendations 100

(c) Adequacy of planned team organization, including availability of team members and back-up capability, reporting structure, management of project 100

Sub total (Maximum) 2460

### 3. Sea Trial Support Point Rated Criterion (maximum 1040 pts/minimum 728 pts)

(a) Demonstrated capability of proposed individual(s) to provide at sea and/or ice based camp AUV trial support. The individuals attending the trials are expected to be:

- i. physically fit, with previous documented experience providing shipborne and/or ice based experimental trials support within the last three years
- ii. Capable of deploying for ship or ice camp based AUV operations for periods of 6 weeks or more.

(b) Ability to provide for the services of a vessel for sea trials, with:

- i. deck space to hold two Arctic Explorer AUV's (each 7.5m long, 29" diameter, 1800kg);
- ii. covered, heated and secure work space for at a minimum one opened up AUV;
- iii. Crane launch capability for an Arctic Explorer AUV

(c) Ability to provide experienced personnel for assembly and disassembly of the modular Explorer vehicle(s) on site prior to and upon completion of the activity.

(d) Ability to provide sea trial logistics and provision of facilities and resources to complete the trial

Sub total (Maximum) 1040

### PRICE PROPOSAL (MAXIMUM TOTAL 500 POINTS)

The Price Proposals of bids with responsive Technical/Management Proposals will be scored in accordance with the following:

FOR EVALUATION PURPOSES ONLY, a Price Proposal's proposed hourly rates, taxes extra, will be used to calculate the Price Proposal's "Price for evaluation", rounded to the nearest cent, as follows:

where H = highest proposed rate, L = lowest proposed rate, and A = average of remaining proposed rates

If one (1) hourly rate is proposed, "Price for evaluation" = proposed rate

If two (2) hourly rates are proposed, "Price for evaluation" =  $(5/6 \times H) + (1/6 \times L)$

If three (3) or more hourly rates are proposed, "Price for evaluation" =  $(1/2 \times H) + (1/6 \times L) + (1/3 \times A)$

For example, fictionally assuming responsive Bid A proposes the following hourly rate:

Project Manager	\$99.00
Software Designer	\$99.00
Engineer	\$99.00
Computer Programmer	\$99.00
Subject Matter Expert	\$99.00

For this example, one (1) hourly rate is proposed:

"Price for evaluation" = proposed rate = \$99.00

Continuing the example, responsive Bid B proposes the following hourly rates:

Project Manager	\$99.00
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Engineer \$66.73

Computer Programmer \$66.73

For this example, two (2) hourly rates are proposed:

H = highest proposed rate = \$99.00

L = lowest proposed rate = \$66.73

"Price for evaluation" =  $(5/6 \times H) + (1/6 \times L) = (5/6 \times \$99.00) + (1/6 \times \$66.73) = \$93.62$

Continuing the example, responsive Bid C proposes the following hourly rates:

Project Manager \$94.00

Subject Matter Expert \$75.00

Engineer 1 \$62.00

Engineer 2 \$51.00

Computer Programmer \$38.00

For this example, five (5) hourly rates are proposed:

H = highest proposed rate = \$94.00

L = lowest proposed rate = \$38.00

A = average of remaining proposed rates =  $(\$75.00 + \$62.00 + \$51.00)/3$

"Price for evaluation" =  $(1/2 \times H) + (1/6 \times L) + (1/3 \times A)$   
 $= (1/2 \times \$94.00) + (1/6 \times \$38.00) + [1/3 \times (\$75.00 + \$62.00 + \$51.00)/3] = \$74.22$

Continuing the example, each responsive bid's calculated "Price for evaluation" shall then be prorated as per the following:

Bid A's "Price for evaluation" = \$99.00

Bid B's "Price for evaluation" = \$93.62

Bid C's "Price for evaluation" = \$74.22

Formula:

Price Proposal Score =

Lowest "Price for evaluation"/Subject "Price for evaluation" x 500 points (rounded to the nearest point)

Lowest "Price for evaluation" = Bid C's "Price for evaluation" = \$74.22

Bid A's Price Proposal Score =  $\$74.22/\$99.00 \times 500 = 375$  points

Bid B's Price Proposal Score =  $\$74.22/\$93.62 \times 500 = 396$  points

Bid C's Price Proposal Score =  $\$74.22/\$74.22 \times 500 = 500$  points

Continuing the example, each responsive bid's Total Overall Points shall then be calculated as per the following:

**TOTAL OVERALL POINTS (5000 POINTS MAXIMUM) =**

**TOTAL TECHNICAL/MANAGEMENT/SEA TRIAL PROPOSAL POINT RATED CRITERIA POINTS (4500 POINTS MAXIMUM) + PRICE PROPOSAL SCORE (500 POINTS MAXIMUM)**

### Basis of Selection

1. To be considered responsive, a bid shall:

A. Meet all of the terms and conditions of this solicitation document including the mandatory requirements, and

Solicitation No. - N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

W7707-115269/A

hal210

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

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

W7707-11-5269

HAL-0-62589

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**B. Obtain the required minimum 70% of the TOTAL points for EACH of the Technical Point Rated Criteria, Management Point Rated Criteria, and Sea Trial Support Point Rated Criteria**

Bids not meeting these terms will be given no further consideration. Responsive bids will then be evaluated on price proposal as outlined above. The bidder with the highest number of points calculated to include the technical points, management points, sea trial proposal points and the price points shall be recommended for Contract award. In the case of a tie, the bid with the highest technical points shall be recommended for Contract award.

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**Annex "D"****Task Authorization Procedures****DND626 Administrative Process**

The DND626 will be used to authorize tasks under this contract using the following administrative process:

1. The Project Authority prepares a SOW describing the task.
2. The DRDC Procurement authority submits the Task SOW to the contractor.
3. The contractor reviews the Task SOW and provides a quote on the level of effort (LOE) to complete the task, to the procurement/requisition authority, using the rates established in the contract.
4. The DRDC Procurement authority reviews the LOE quote with the technical authority and seeks approval to proceed;
5. If the LOE quote is within the DRDC Task approval ceiling, the DRDC Procurement authority signs the DND626 and forward copies to the contractor and the contracting authority.
6. If the quote exceeds DRDC's Task approval ceiling, the PWGSC contracting authority must also sign the DND626 prior to DRDC releasing it to the contractor;
7. Amendments to the DND626 require completion of a DND626 amendment form. The DRDC Procurement authority approves tasks where the amended value is within the threshold established in the contract. The PWGSC Contracting authority must sign any amendment that exceeds the threshold before the DRDC procurement authority releases it to the contractor.
8. The contractor may not begin work before receiving the approved DND626.

A copy of the DND626 shall be sent to PWGSC for information purposes including all amendments.

The DRDC Task Approval Limit is \$350,000.00 taxes extra including amendments. All Task Authorizations with a value greater than \$350,000.00, taxes extra, will be signed by the Contracting Authority.