

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving - PWGSC / Réception des
soumissions - TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau
Québec
K1A 0S5
Bid Fax: (819) 997-9776

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

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

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

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

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

Comments - Commentaires

Title - Sujet Supply and Delivery of AUV	
Solicitation No. - N° de l'invitation 5P033-130034/A	Date 2013-04-26
Client Reference No. - N° de référence du client 5P033-130034	
GETS Reference No. - N° de référence de SEAG PW-\$\$ML-016-23737	
File No. - N° de dossier 016ml.5P033-130034	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-05-14	
Time Zone Fuseau horaire Eastern Daylight Saving Time EDT	
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: Wilkie, Neil	Buyer Id - Id de l'acheteur 016ml
Telephone No. - N° de téléphone (819) 956-0704 ()	FAX No. - N° de FAX (819) 956-0897
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: PARKS CANADA 1800 WALKLEY RD OTTAWA Ontario K1A0M5 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

Marine Machinery and Services / Machineries et services
maritimes
11 Laurier St. / 11, rue Laurier
6C2, Place du Portage
Gatineau
Québec
K1A 0S5

Delivery Required - Livraison exigée See Herein	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

Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM	Destination Plant/Usine	Delivery Req. Livraison Req.	Del. Offered Liv. offerte
1	Supply and Delivery of AUV	5P033	5P033	1	Each	\$	XXXXXXXXXXXX	See Herein	

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PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with this Request for Proposal.

2. Statement of Requirement

The Underwater Archaeology Service (UAS) of Parks Canada conducts comprehensive scientific diving and remote-sensing surveys to identify, inventory, and assess submerged cultural resources within the Parks Canada mandate. This includes the expanding system of National Historic Sites, National Parks, National Park Reserves, National Marine Conservation Areas, National Marine Parks, and Heritage Rivers. The UAS is also a recognized Federal Authority for the evaluation of submerged cultural resources under the provisions of the Canadian Environmental Assessment Act. As such, the UAS is called upon to conduct archaeological site investigations throughout Canada in both marine and fresh water environments (including the Pacific, Atlantic, and Arctic Oceans, as well as the Great Lakes).

The UAS has a requirement for a 100 m depth rated autonomous underwater vehicle (AUV) equipped with high resolution side-scan sonar to support its archaeological survey operations across Canada, specifically to complement an existing capability for traditional towed side-scan sonar from surface vessels. A flexible and expandable AUV platform is required, one that will enable future integration of diverse mission-specific sensor packages including magnetometer, stereo-photogrammetric still photo, and multi-beam echo sounder configurations. The system design will necessarily have to be modular to permit end-user integration of 3rd party instrumentation.

The AUV will be deployed from a variety of vessel platforms, including survey vessels belonging to the UAS, as well as from other vessels of opportunity including rigid hull inflatable boats and zodiacs. Consequently, the system must be readily transportable to field locations by commercial air carrier, and must also be of a size and weight allowing manual deployment of the vehicle by a two-person crew from small boats.

As the vehicle will be used in all regions of the country, including at northern latitudes where traditional magnetic compasses are typically unreliable, a high-performance inertial navigation system is required to guarantee accurate navigation of planned survey lines and gap-free sonar coverage (with position drift typically not exceeding 0.5% of underwater distance travelled).

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GENERAL:

The basic system shall consist of the underwater vehicle, battery charging system, and mission planning software and be in accordance with the Statement of Requirement, attached as Annex "A".

3. Debriefings

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

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

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

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

The 2003 (2012-11-19) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

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

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

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaire-forms-eng.html>) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

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

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

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 five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

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

4. Applicable Laws

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

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.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

Section I: Technical Bid (3 hard copies) and 1 soft copy on CD

Section II: Financial Bid (3 hard copies) and 1 soft copy on CD

Section III: Certifications (2 hard copies)

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, bidders are encouraged to:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) 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: Technical Bid

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

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Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) 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 and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

1.1 Technical Evaluation

1.1.1 Mandatory Technical Criteria

MANDATORY REQUIREMENTS: Only proposals that meet all of the mandatory requirements will be considered. Should any of the requirements under this section be omitted from the proposal, it will be deemed as non-responsive and will be given no further consideration.

Performance Inspection and Acceptance Test Plan

The Contractor is to provide to the PWGSC Contracting Authority and PC Technical Authority a Performance Inspection and Acceptance Test Plan, three weeks after contract award. The Performance Inspection and Acceptance Test Plan is a detailed testing plan demonstrating how the contractor proposes to evaluate their Autonomous Underwater Vehicle to ensure compliance with the PC Statement of Requirement during the performance testing trials. The Performance Inspection and Acceptance Test Plan will be submitted electronically by email to the PWGSC Contracting Authority and PC Technical Authority. The PC Technical Authority will review the Performance Inspection and Acceptance Test Plan and either accept it outright or request changes and or clarifications.

Performance Testing Trial

The Performance Testing Trial will be an operational testing of the Contractor's Autonomous Underwater Vehicle at the Contractor's facility during the last week of July 2013. The Performance Testing Trial will be conducted by the Contractor at their expense and witnessed by representatives of Canada. The Performance Inspection and Acceptance Test Plan will be the baseline document which Canada will use during the Performance Testing Trial to confirm inspection and acceptance of the Autonomous Underwater Vehicle.

Please Note that the Canadian government representatives will be responsible for their own expenses related to attending and witnessing the "Performance Testing Trial".

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1.1.2 Evaluation of Price

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

2. Basis of Selection

2.1 Basis of Selection - Mandatory Technical Criteria

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

PART 5 - CERTIFICATIONS

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

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

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

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

The Contracting Authority may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

2. Certifications Precedent to Contract Award

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

2.1 Federal Contractors Program - Certification

Suppliers who are subject to the Federal Contractors Program (FCP) and have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive federal 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.

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

() 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;

() is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;

() 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;

() has not been declared an ineligible contractor by HRSDC, and has a valid certificate number as follows: _____ .

Further information on the FCP is available on the HRSDC Web site.

2.2 Former Public Servant Certification

Contracts with former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts with FPS, bidders must provide the information required below.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the Financial Administration Act, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- an individual;
- an individual who has incorporated;

a partnership made of former public servants; or
 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:

name of former public servant;
 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:

name of former public servant;
 conditions of the lump sum payment incentive;
 date of termination of employment;
 amount of lump sum payment;
 rate of pay on which lump sum payment is based;
 period of lump sum payment including start date, end date and number of weeks;
 number and amount (professional fees) of other contracts subject to the restrictions of a work force reduction program.

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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.

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirements assoaited with this Contract.

2. Statement of Requirement

The Contractor must perform the Work in accordance with the Statement of Requirement at Annex "A" and the Contractor's technical bid entitled _____, dated _____.

\$ _____ Canadian (HST extra)

2.1 *Performance Inspection and Acceptance Test Plan*

The Contractor is to provide to the PWGSC Contracting Authority and PC Technical Authority a Performance Inspection and Acceptance Test Plan, three weeks after contract award. The Performance Inspection and Acceptance Test Plan is a detailed testing plan demonstrating how the contractor proposes to evaluate their Autonomous Underwater Vehicle to ensure compliance with the PC Statement of Requirement during the performance testing trials. The Performance Inspection and Acceptance Test Plan will be submitted electronically by email to the PWGSC Contracting Authority and PC Technical Authority. The PC Technical Authority will review the Performance Inspection and Acceptance Test Plan and either accept it outright or request changes and or clarifications.

Performance Testing Trial

The Performance Testing Trial will be an operational testing of the Contractors Autonomous Underwater Vehicle at the Contractor's facility during the last week of July 2013. The Performance Testing Trial will be conducted by the Contractor at their expense and witnessed by represenatives of Canada. The Performance Inspection and Acceptance Test Plan will be the baseline document which Canada will use during the Performance Testing Trial to confirm inspection and acceptance of the Autonomous Underwater Vehicle.

Please Note that the Canadian government representatives will be responsible for their own expenses related to attending and witnessing the "Performance Testing Trial".

3. 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 Manual

(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>)

issued by Public Works and Government Services Canada.

3.1 General Conditions

2010A (2013-03-21), General Conditions - Goods (Medium Complexity) apply to and form part of the Contract.

The text under Subsection ____ (insert subsection number) of Section (insert section number) - Code of Conduct and Certifications - Contract of ____ (insert General Conditions number) referenced above is replaced by:

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

4. Term of Contract

4.1 Delivery Date

All the deliverables must be received on or before August 9, 2013.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Neil Wilkie
Title: Supply Team Leader
Public Works and Government Services Canada
Acquisitions Branch
Directorate: Marine Systems Directorate
Address: 6C2, Station 52, Place du Portage, Phase III

11 Laurier Street
Gatineau, Quebec
K1A 1C9

Telephone: 819-956-0704
E-mail address: neil.wilkie@tpsgc-pwgsc.gc.ca

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

5.2 The Procurement Authority for the Contract is:

Marilyn Bernier
Agente, Marches, approvisionnement
Contracts, Procurement Officer
Direction generale de la Dirigeante Principale des Finances
Chief Financial Officer Directorate Agence Parcs Canada
Parks Canada Agency 3, passage du Chien-d'Or
3 Passage du chien-d'Or Quebec
QC G1R 3Z8

Marilyn.Bernier@pc.gc.ca
Telephone/Telephone 418-648-4569

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

5.3 The Technical Authority for the Contract is:

Parks Canada
Cultural Sciences Branch
Underwater Archaeology Service
1800 Walkley Road
Ottawa, Ontario
K1A-0M5

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Telephone : 613-993-2125

Fax : 613-993-9796

E-mail : Ryan.Harris@pc.gc.ca

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

5.4 Contractor's Representative

6. Payment

6.1 Basis of Payment

For the Work described in section 1.3 of the Statement of Work identified in Annex A :

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid a "firm lot price(s) for a cost of \$_____ (insert the amount at contract award). Customs duties are _____ (insert "included", "excluded" OR "subject to exemption") and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

For the firm price portion of the Work only, Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.2 Limitation of Price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

6.3 Terms of Payment

SACC Manual clause H1000C (2008-05-12) Single Payment

7. Invoicing Instructions

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

Invoices must be distributed as follows:

The original and one (1) copy must be forwarded to the following address for certification and payment.

Parks Canada
1800 Walkley Road
Ottawa, Ontario
K1A 0M5

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

one (1) copy must be forwarded to the consignee.

8. Certifications

8.1 Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the 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.

9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____. (Insert the name of the province or territory as specified by the Bidder in its bid, if applicable)

10. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions _____ (insert number, date and title);
- (c) the general conditions _____ (insert number, date and title);
- (d) Annex X, Statement of Requirement;

ANNEX "A"

Statement of Requirement

AUTONOMOUS UNDERWATER VEHICLE (AUV)

BACKGROUND:

The Underwater Archaeology Service (UAS) of Parks Canada conducts comprehensive scientific diving and remote-sensing surveys to identify, inventory, and assess submerged cultural resources within the Parks Canada mandate. This includes the expanding system of National Historic Sites, National Parks, National Park Reserves, National Marine Conservation Areas, National Marine Parks, and Heritage Rivers. The UAS is also a recognized Federal Authority for the evaluation of submerged cultural resources under the provisions of the Canadian Environmental Assessment Act. As such, the UAS is called upon to conduct archaeological site investigations throughout Canada in both marine and fresh water environments (including the Pacific, Atlantic, and Arctic Oceans, as well as the Great Lakes).

The UAS has a requirement for a 100 m depth rated autonomous underwater vehicle (AUV) equipped with high resolution side-scan sonar to support its archaeological survey operations across Canada, specifically to complement an existing capability for traditional towed side-scan sonar from surface vessels. A flexible and expandable AUV platform is required, one that will enable future integration of diverse mission-specific sensor packages including magnetometer, stereo-photogrammetric still photo, and multi-beam echo sounder configurations. The system design will necessarily have to be modular to permit end-user integration of 3rd party instrumentation.

The AUV will be deployed from a variety of vessel platforms, including survey vessels belonging to the UAS, as well as from other vessels of opportunity including rigid hull inflatable boats and zodiacs. Consequently, the system must be readily transportable to field locations by commercial air carrier, and must also be of a size and weight allowing manual deployment of the vehicle by a two-person crew from small boats.

As the vehicle will be used in all regions of the country, including at northern latitudes where traditional magnetic compasses are typically unreliable, a high-performance inertial navigation system is required to guarantee accurate navigation of planned survey lines and gap-free sonar coverage (with position drift typically not exceeding 0.5% of underwater distance travelled).

GENERAL:

The basic system shall consist of the underwater vehicle, battery charging system, and mission planning software.

MANDATORY SYSTEM REQUIREMENTS:

The underwater vehicle must be equipped with a Kearfott KI-4921S inertial navigation system (INS).

The underwater vehicle must be equipped with an L3 Klein UUV-3500 dual-frequency (455 khz/900 kHz nominal) side-scan sonar system.

The underwater vehicle must be equipped with an RDI 600 kHz Explorer phased array Doppler velocity log (DVL).

The underwater vehicle must be equipped with a Teledyne Benthos ATM-900-BC1 acoustic modem OEM card with compatible remote transducer.

The underwater vehicle must be equipped with a direct-measurement sound velocity sensor accurate to ± 0.025 m/s or better.

The underwater vehicle with all specified instrumentation installed and integrated must be depth rated to at least 100 m of sea water, as certified by the Manufacturer.

UNDERWATER VEHICLE (BODY):

The vehicle shall be of a "torpedo" body style with single rear-mounted propeller.

Servo-powered control surfaces can comprise either individually actuated fins or a gimballed duct (Kort nozzle).

The vehicle shall possess an antenna mast containing both GPS and Wireless Ethernet antennae.

The antenna mast should also be fitted with an LED light to facilitate spotting of the vehicle when surfaced in conditions of limited visibility and/or darkness.

The body design should be modular allowing expansion with additional body sections as future sensor integration may require.

NAVIGATION SENSORS:

The INS shall accept real-time aiding inputs from an onboard GPS receiver (when surfaced) and DVL (in water depths of 80 m and less).

The DVL transducer shall be mounted on the underside of the vehicle to enable bottom tracking and altitude control.

The GPS antenna and receiver should have integrated satellite-based augmentation system (SBAS) reception capability.

The vehicle shall be equipped with a digital 3-axis compass.

The vehicle shall be equipped with a pressure depth sensor.

PAYLOAD SENSORS:

The side-scan transducers should be securely mounted and positioned along the vehicle body so as to minimize acoustic noise in the sonar data.

Ambient speed of sound from the sound velocity sensor must be relayed in real-time to the DVL to improve the accuracy of the bottom track vector.

The transducer for the acoustic modem shall be installed on the underside of the vehicle to enable acoustic communications with nearby surface vessels when the AUV is surfaced.

CPU AND DATA STORAGE

The underwater vehicle must possess an Intel Dual Core 1.6 GHz low power CPU or equivalent.

The underwater vehicle must possess a solid state hard drive of at least 250 GB capacity.

A water-tight data port should be provided on the vehicle to allow easy download of completed mission data and upload or planned mission parameters while on deck.

PROPULSION AND POWER SUPPLY:

The vehicle should be equipped with a brushless DC motor with velocity feedback.

The vehicle should be capable of a nominal underwater speed of 4 knots without current.

The underwater vehicle must be powered by lithium ion batteries providing at least 750 Whr of total reserve power. Individual batteries must not exceed 100 Whr capacity due to transportation restrictions on commercial aircraft in Canada.

A battery charger should be provided with the system.

A water-tight charging port or connector should be provided on the vehicle to allow easy replenishment of power while on deck.

SOFTWARE:

Mission planning software should be provided to allow the operator control of mission design and real-time monitoring of mission execution.

Via the specified acoustic modem (when underwater) and by wireless 802.11n ethernet (when on the surface), the mission planning software should enable critical mission status information such as the vehicle's estimated position, depth, altitude, heading, remaining battery power, sensor status, and survey progress to be transmitted. It should also permit the operator to command the vehicle to both start and abort missions as necessary.

The software should enable common geo-referenced raster and vector chart backgrounds such as Geotiff, S-57 and BSB to be displayed for mission planning purposes.

DELIVERY:

Delivery is requested by 9th August 2013.

Deliver to: Parks Canada
Cultural Sciences Branch
Underwater Archaeology Service
1800 Walkley Road
Ottawa, Ontario
K1A-0M5

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