



**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving Public Works and Government**  
**Services Canada/Réception des soumissions**  
**Travaux publics et Services gouvernementaux**  
**Canada**  
**Pacific Region**  
**401 - 1230 Government Street**  
**Victoria, B.C.**  
**V8W 3X4**  
**Bid Fax: (250) 363-3344**

## 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**

**Vendor/Firm Name and Address**

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

**Issuing Office - Bureau de distribution**

Public Works and Government Services Canada - Pacific  
Region  
401 - 1230 Government Street  
Victoria, B. C.  
V8W 3X4

<b>Title - Sujet</b> Helicopter Deck Monitoring System	
<b>Solicitation No. - N° de l'invitation</b> F7044-160231/A	<b>Date</b> 2016-11-07
<b>Client Reference No. - N° de référence du client</b> F7044-160231	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$XLV-166-7096	
<b>File No. - N° de dossier</b> XLV-6-39142 (166)	<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 2016-12-19</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Pacific Standard Time PST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Castle, David G.	<b>Buyer Id - Id de l'acheteur</b> xlv166
<b>Telephone No. - N° de téléphone</b> (250) 363-0110 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> Fisheries and Oceans Canada See herein	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <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/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

## TABLE OF CONTENTS

<b>PART 1 - GENERAL INFORMATION .....</b>	<b>2</b>
1.1 SECURITY REQUIREMENTS .....	2
1.2 STATEMENT OF WORK.....	2
1.3 DEBRIEFINGS .....	2
1.4 TRADE AGREEMENTS.....	2
<b>PART 2 - BIDDER INSTRUCTIONS.....</b>	<b>2</b>
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS .....	2
2.2 SUBMISSION OF BIDS.....	2
2.3 ENQUIRIES - BID SOLICITATION .....	2
2.4 APPLICABLE LAWS .....	3
2.5 IMPROVEMENT OF REQUIREMENT DURING SOLICITATION PERIOD .....	3
3.1 BID PREPARATION INSTRUCTIONS.....	3
3.2 SECTION I – TECHNICAL REQUIREMENT .....	3
3.3 SECTION II - FINANCIAL BID.....	4
3.4 SECTION III: CERTIFICATIONS.....	4
<b>PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION.....</b>	<b>4</b>
4.1 EVALUATION PROCEDURES .....	4
4.2 BASIS OF SELECTION.....	4
<b>PART 5 - CERTIFICATIONS.....</b>	<b>4</b>
5.1 CERTIFICATIONS REQUIRED WITH THE BID .....	5
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION .....	5
<b>PART 6 - RESULTING CONTRACT CLAUSES .....</b>	<b>5</b>
6.1 SECURITY REQUIREMENT .....	5
6.2 STATEMENT OF WORK.....	5
6.3 STANDARD CLAUSES AND CONDITIONS .....	5
6.4 TERM OF CONTRACT .....	6
6.5 AUTHORITIES.....	6
6.6 PAYMENT.....	7
6.7 INVOICING INSTRUCTIONS.....	7
6.8 CERTIFICATIONS.....	7
6.9 SACC MANUAL CLAUSES .....	8
6.10 APPLICABLE LAWS .....	8
6.11 PRIORITY OF DOCUMENTS.....	8
<b>ANNEX A – TECHNICAL STATEMENT OF REQUIREMENT.....</b>	<b>5</b>
<b>ANNEX B - DETAILED FINANCIAL BID PRESENTATION SHEET.....</b>	<b>5</b>
<b>ANNEX C – MANDATORY REQUIREMENTS .....</b>	<b>6</b>
<b>ANNEX D - INFORMATION REQUIRED FOR THE VERIFICATION OF INTEGRITY PROVISIONS.....</b>	<b>7</b>
<b>ANNEX E – BID PACKAGE CHECKLIST .....</b>	<b>9</b>

## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

There is no security requirement associated with this bid solicitation.

### **1.2 Statement of Work**

The Canadian Coast Guard have a requirement for the supply and delivery of one (1) Helicopter Deck Monitoring System in accordance with the Technical Statement of Requirement (TSOR) at Annex A. All deliverables are desired to be delivered on or before March 31, 2017.

There exists an option to acquire an additional two units as required.

### **1.3 Debriefings**

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.

### **1.4 Trade Agreements**

This requirement is subject to the provisions of the Agreement on Internal Trade (AIT), North American Free Trade Agreement (NAFTA) and World Trade Organization – Agreement on Government Procurement (WTO-AGP).

## **PART 2 - BIDDER INSTRUCTIONS**

### **2.1 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-manua>l) 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 (2016-04-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

#### **2.1.1 SACC Manual Clauses**

B3000T, 2006-06-16, Equivalent Products  
A9125T, 2007-05-25, Valid Labour Agreement

### **2.2 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.

### **2.3 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than 4 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 question(s) or may request that

the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

## **2.4 Applicable Laws**

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

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.

## **2.5 Improvement of Requirement During Solicitation Period**

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least five (5) working days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

# **PART 3 - BID PREPARATION INSTRUCTIONS**

## **3.1 Bid Preparation Instructions**

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

- Section I: Technical Bid – Two (2) hard copies and one (1) USB memory stick.
- Section II: Financial Bid – One (1) hard copy
- Section III: Certifications - One (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 (216mm 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 should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and 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.

## **3.2 Section I – Technical Requirement**

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 in a thorough, concise and clear manner for carrying out the work.

In order to demonstrate their capabilities, the bidders must use the **ANNEX C – Mandatory Requirement, answering yes or no** in responding to the technical requirements of the solicitation. Failure to respond positively will deem the bid non responsive in this section.

The technical bid must demonstrate that the proposed units will be mechanically sound, operable and fit in all respects for the purposes intended.

### **3.2.1 Bidder's Check List and Technical Confirmation**

The Bidders must submit a fully completed **Annex E - BID PACKAGE CHECKLIST** as part of their Technical Bid.

### **3.3 Section II - Financial Bid**

Bidders must submit their financial bid in accordance with the **Detailed Financial Bid Presentation Sheet at Annex B.**

#### **3.3.1 Exchange Rate Fluctuation**

C3011T, 2013-11-06, Exchange Rate Fluctuation

### **3.4 Section III: Certifications**

Bidders must submit the certifications required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

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

#### **4.1.1 Technical Evaluation**

##### **4.1.1.1 Mandatory Technical Criteria**

In order to be compliant, the Bidder's proposal must, to the satisfaction of Canada:

- a) Meet all requirements of the Annex A, TSOR; and
- b) Provide all information as requested in PART 3 - BID PREPARATION INSTRUCTIONS

#### **4.1.2 Financial Evaluation**

*SACC Manual* Clause A0220T (2014-06-26), Evaluation of Price.

### **4.2 Basis of Selection**

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

A mandatory requirement is described using the words "shall", "must", "will" "is required" or "is mandatory."

## **PART 5 - CERTIFICATIONS**

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

## **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

## **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

## **PART 6 - RESULTING CONTRACT CLAUSES**

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

### **6.1 Security Requirement**

There is no security requirement applicable to this Contract.

### **6.2 Statement of Requirement**

The Contractor must perform the Work in accordance with the Technical Statement of Requirement at Annex "A".

#### **6.2.1 Optional Goods**

The Contractor grants to Canada the irrevocable option to acquire up to two (2) Helicopter Deck Monitoring Systems, as described at Annex A of the Contract under the same conditions and at the prices stated in *Annex B* 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.

The Contracting Authority may exercise the option within twelve (12) months after contract award by sending a written notice to the Contractor.

### **6.3 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-manua> l) issued by Public Works and Government Services Canada.

### **6.3.1 General Conditions**

**2010A, (2016-04-04)** Goods (Medium Complexity) apply to and form part of the Contract.

## **6.4 Term of Contract**

### **6.4.1 Delivery Date**

All the deliverables must be received on or before \_\_\_\_\_.

### **6.4.2 Delivery Locations**

As per Annex B.

### **6.4.3 Shipping Instructions - Delivered Duty Paid**

Goods must be consigned and delivered to the destination specified in the contract:  
Incoterms 2000 "DDP Delivered Duty Paid" to the delivery location listed under article 6.4.2.

## **6.5 Authorities**

### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Dave Castle  
Title: Supply Specialist, Acquisitions, Marine  
Public Works and Government Services Canada  
Acquisitions Branch  
Address: Suite 401 - 1230 Government Street, Victoria B.C. V8W 3X4  
Telephone: 250-363-0110  
E-mail address: david.castle@pwgsc-tpsgc.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.

### **6.5.2 Technical Authority**

The Technical Authority for the Contract is provided upon contract award

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.

### **6.5.3 Inspection Authority**

The Inspection Authority for the Contract is provided upon contract award

The Inspection Authority is the representative of the department or agency for whom the Work is being performed under the Contract and is responsible for inspection of the Work and acceptance of the finished work. The Inspection Authority may be represented on-site by a designated inspector and any other Government of Canada inspector who may from time to time be assigned in support of the designated Inspector.

### **6.5.4 Contractor's Representative**

Name and telephone numbers of the person responsible for:

General Enquiries:

Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-mail address: \_\_\_\_\_

**Delivery Follow-up:**

Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-mail address: \_\_\_\_\_

**6.6 Payment**

**6.6.1 Basis of Payment**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm Price of \$ \_\_\_\_\_. Customs duties and Goods and Services Tax or Harmonized Tax is extra, if applicable.

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.

**6.6.2 Limitation of Price**

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.

**6.6.3 Method of Payment - Multiple Payments**

Canada will pay the Contractor upon completion and delivery of units in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada.

**6.7 Invoicing Instructions**

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.
2. Invoices must be distributed as follows:

An electronic copy must be forwarded to the following e-mail address for verification:

[Pac.Marine@pwgsc-tpsgc.gc.ca](mailto:Pac.Marine@pwgsc-tpsgc.gc.ca) Attn: Isabel La Bonte

- a. Upon verification, the invoice will be issued to the Invoicing Authority for payment.

**6.8 Certifications**

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.



## **6.9 SACC Manual Clauses**

D3015C - Dangerous Goods/Hazardous Products  
D0018C - Delivery and Unloading

2007-11-30  
2007-11-30

## **6.10 Applicable Laws**

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

## **6.11 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.

1. The Articles of Agreement;
2. The General Conditions **2010A, 2016-04-04**, Goods (Medium Complexity);
3. Annex A - Statement of Work;
4. Annex B, Basis of Payment;
5. The Contractor's bid dated \_\_\_\_\_.

## **ANNEX A TECHNICAL STATEMENT OF REQUIREMENT**

### **INTRODUCTION**

This document provides the operational requirements for a Helicopter Deck Monitoring System (HDMS) required on Canadian Coast Guard (CCG) vessels for support of joint ship and helicopter operations.

### **1 REQUIREMENT**

#### **1.1 BACKGROUND**

The CCG's mandate as stated in the Oceans Act gives the Minister of Fisheries and Oceans responsibility for providing:

- aids to navigation;
- marine communications and traffic management services;
- icebreaking and ice-management services;
- channel maintenance;
- marine search and rescue;
- marine pollution response;
- support of other government departments, boards and agencies by providing ships, aircraft and other services;

The effects of wind and waves on a ship and the resultant movement of the helicopter deck makes shipboard launch and recovery of helicopters a challenging and dangerous operation. A Helicopter Deck Monitoring System provides real-time data to operators by placing sensors at or near the helicopter deck. Data includes a range of motion parameters, including pitch, roll and heave. The information provided by the systems enables both helicopter pilots and ships' crew to make operational-based decision on accurate data rather than perception and experience alone.

By displaying real-time dynamic ship motion information and comparing those values to critical predefined parameters, a Helicopter Deck Monitoring System assists in increasing operational safety and efficiency of helicopter-ship operations. As well, the system helps standardize flight regularity in connection with helicopter-ship operations.

This SOR describes the requirements for a Helicopter Deck Monitoring System for helicopter-ship operations to fulfill the above mandate.

Presently the Canadian Coast Guard does not have any Helicopter Deck Monitoring Systems. However, Helicopter Deck Monitoring Systems are commercially available off-the-shelf and have been employed for many years in both commercial and naval operations.

This equipment shall be fitted on CCG ships with certified flight decks.

#### **1.2 DESIGN OBJECTIVES**

a. This Statement of Operational Requirements (SOR) states, in generic terms, the operational requirements for a Helicopter Deck Monitoring System (HDMS) required by CCG for support of joint ship and helicopter operations.

---

b. The HDMS shall assist the shipboard personnel by providing them with real-time ship motion information in order to ensure that the helicopter operations are carried out within normal predetermined operating ranges.

c. The HDMS shall assist pilots by providing them with accurate motion data as well as providing them with a visual indicator at the helicopter deck area as to whether the pitch, roll and heave values are within acceptable limits.

d. The HDMS shall compare pitch, roll and heave values to acceptable established limits and display a visual "GO" or "NO GO" on the wheelhouse display as well as a visual indication at the helicopter deck by means of a light system that would be visible to the helicopter pilot.

## **2 ENVIRONMENT**

### **2.1 ENVIRONMENTAL PARAMETERS**

Operations may take in all climatic seasons in open water and in ice. These conditions include areas in the Arctic with wind speeds of up to 100 knots and sea conditions of sea state 8 (9 to 14 metres).

a. Above deck equipment shall be certified to operate in the applicable environmental conditions specified for the areas of operation.

b. All materials and components used must comply with applicable maritime standards. All components must be designed to withstand shock and vibration. Exterior components, if any, must also be designed to remain water proof, not affected by salty conditions and be able to withstand variations in temperature and the resultant freeze/thaw cycle.

## **3 OPERATIONAL PERFORMANCE REQUIREMENTS**

### **3.1 DUTY CYCLE CONSIDERATIONS**

The HDMS equipment will only be used when ships operate in conjunction with a helicopter. The equipment will often be turned OFF but will need to be reliable for when operations require its use. When a helicopter is assigned to the ship it is envisioned that the unit be turned ON and remain powered until the helicopter is re-assigned.

## **4 DESIGN FEATURES**

### **4.1 POWER CONSIDERATIONS**

a. Ships generate their own electrical power. Considerations shall be taken into account considering possible oscillation of electrical frequency and voltage. The possibility of blackout exists and equipment should be able to recover properly from a loss of electrical power. As much as possible the equipment should be able to simply be turned back ON after a power outage without impact to settings/configurations and without damaging the equipment. Any settings, set point, calibration values required for the system to properly operate must persist through a power cycle. Depending on the designed solution there may be a need to provide an uninterruptable power source to the equipment.

### **4.2 EXTERNAL INPUTS**

a. The sensor shall have ports for external inputs such as input from gyro compass or GPS to aid in the accuracy of the data.

#### **4.3 OPERATIONAL PARAMETERS**

- a) The HDMS shall be able to measure ship motion; heave amplitude and heave rate, roll and pitch of a ship in real time and compare it to allowable operational parameters.
- b) The HDMS system shall be able to supply weather data.
- c) The allowable limits programmed into the system shall persist through a power cycle so that an operator only needs to turn the equipment ON and OFF.

#### **4.4 USER INTERFACE REQUIREMENTS**

- a) The system shall have a display indicating the current state of the helicopter deck motion and meteorological measurements. It shall be clear to the operator what the settings are for allowable limits and how the current situation compares to those limits.
- b) When the system is in a "NO GO" state the display shall easily be interpreted to know why the system is indicating a "NO GO" state. This will allow the shipboard personnel to adjust the orientation or speed of the ship to attempt to achieve a "GO" state.
- c) The system shall have 1 display mounted in the wheelhouse. Considerations shall be taken into account for sharing monitors with existing equipment fitted on the ship if appropriate for the installation.
- d) A "traffic light" on the wheelhouse display shall indicate when one of the parameters has reached a threshold. When all the measured parameters are within limits it should show a green light, and when a limit is passed it should show a red light.
- e) The wheelhouse "traffic light" function shall be coupled to a light system installed in an unobstructed area on the helicopter deck that shifts between green and red in parallel to the traffic light to allow the helicopter pilot to see the status of the helideck from the cockpit on landing and when on the helideck. The indicator panel must be able to be turned off so that the monitoring can continue without having the visual pilot indicator light always powered.

#### **4.5 DATA LOGGING AND RECORDING**

- a. The HDMS will log/record the sensor information and condition of the system so that it can be retrieved if necessary. The system shall be able to log a minimum of 30 days of data. It shall be easy to transfer the data to an external memory source (USB, CD/DVD, external hard drive etc.). If specialised software is required to view the logged data, it shall be supplied as part of the system.

#### **4.6 OPTIONAL SYSTEM UPGRADES**

- a) The system software shall be easily upgraded to incorporate any future changes issued by civil aviation authorities.

---

## **5 PERSONNEL AND TRAINING REQUIREMENTS**

### **5.1 PERSONNEL – STAFFING**

- a. The system shall not have an impact on the required staffing levels for the conduct of any CCG mission.
- b. The system should not require extensive training in order to be operated by qualified flight deck officers and navigation officers.
- c. Reproducible User and Maintenance manuals shall be provided to CCG in both official languages.

## **6 REGULATORY AND STANDARDS REQUIREMENTS**

### **6.1 STANDARDS REQUIREMENTS**

The system must meet the requirements of the following:

- a. Standard Measuring Equipment for Helideck Monitoring System (HMS) and Weather Data", revision 8c.
- b. CAP 437 Standards for Offshore Helicopter Landing Areas.
- c. Mechanical Vibration IEC 60945/EN 60945
- d. EMC IEC 60945/EN 60945

## **7 ALARMS SYSTEMS AND SAFETY FEATURES**

### **7.1 ALARMS**

- a. The system must have a built-in self-diagnostics system to ensure accuracy of the system and data. The system must continuously monitor the sensors and related equipment when operational. The system must provide an immediate visual alert in case of a detected fault or system failure.

b The system must provide an immediate visual alert when any critical motion parameter is exceeded.

## **8 CALIBRATION AND ACCURACY**

### **8.1 CALIBRATION CERTIFICATION**

- a. All motion sensors shall pass a calibration test to ensure compliance with performance specifications and a certificate of calibration shall be provided to the Canadian Coast Guard.

### **8.2 ACCURACY CHECK**

- a. Procedures shall be provided by the manufacturer to allow the owner to verify the accuracy of the system whenever deemed necessary.

---

## ANNEX B - DETAILED FINANCIAL BID PRESENTATION SHEET

### B-1 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, customs duties are included and applicable taxes are extra, Incoterms 2000 Delivered Duty Paid (DDP) to destination.

a.	<b>One (1) Helicopter Deck Monitoring System (HDMS)</b> <b>As per Annex A.</b> <b>With included delivery Incoterms 2000 DDP to:</b> <b>Canadian Coast Guard (CCG) – Supply Depot, St. John's NL.</b> <b>A1C 5X1</b>	\$ _____
b.	<b>EVALUATION PRICE [a]</b>  For an EVALUATION PRICE of: (customs duties are included and applicable taxes are excluded)	\$ _____

### B-2 Delivery Date

The delivery of the HDMS to the destination is required on or before **March 31, 2017**.

---

## ANNEX C – MANDATORY REQUIREMENTS

Please respond to each section. All sections must be met for bidder to be considered responsive.

Bidders name: \_\_\_\_\_ Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_

TSOR

Mandatory Requirements

				Supporting documentation or Statement of compliance (please indicate where this information can be found in your bid).
		YES	NO	
SECTION				
4.3(a)				
4.3(b)				
4.3(c)				
4.4(a)				
4.4(b)				
4.4(c)				
4.4(d)				
4.4(e)				
4.5				
4.6				
5.1(c)				
6.1(a)				
6.1(b)				
6.1(c)				
6.1(d)				
7.1(a)				
7.1(b)				
8.1(a)				
8.2(a)				

[illegible]



---

## **ANNEX D - INFORMATION REQUIRED FOR THE VERIFICATION OF INTEGRITY PROVISIONS**

Please provide a list of names of the following entities, according to the ownership nature of the company

1. For a Corporation - each current member of the Bidder's Board of Directors;

---

---

---

2. For a Partnership, General Partnership or Limited Partnership - the names of all current partners;

---

---

---

3. For a Sole Proprietorship or an individual doing business under a firm name - the name of the sole proprietor or individual;

---

---

---

4. For a Joint Venture - the names of all current members of the Joint venture;

---

---

---

5. For an individual - the full name of the person

---

---

---

## ANNEX E – BID PACKAGE CHECKLIST

**Instruction to Bidders:** Table E-1 is a check list for self-verification purposes.

**Table E-1 Bidder's Bid Package Check List**

### **E1.1**

Notwithstanding deliverable requirements specified anywhere else within this bid solicitation and its associated Technical Specifications, the following are the only mandatory deliverables that must be submitted with the Bid documents at the time of bid closing. The following are mandatory and the Bidder must be compliant on each item to be considered responsive.

No	Part	Article	Description	Condition	Document provided
<b><u>Section I- Technical Bid</u></b>					
1		Front page	Request for Proposal document part 1 page 1 completed and signed;	Mandatory with the bid	<input type="checkbox"/>
2	3	3.2.1	Annex E - Bidder package Check list	Mandatory with the bid	<input type="checkbox"/>
3	Annex C	All	Mandatory Requirements – Annex C Technical Evaluation Plan	Mandatory with the bid	<input type="checkbox"/>
<b><u>Section II- Financial Bid</u></b>					
6	Annex B	All	Annex B- Detailed Financial Bid Presentation Sheet	Mandatory with the bid	<input type="checkbox"/>

### **E1.2 Supporting Deliverable Requirements**

If the following information which supports the bid is not submitted with the Bid; it will be requested by the Contracting Authority, and it must be provided within 48 hours (2 business days) of the written request:

No	Part	Article	Description	Condition	Document provided
<b><u>Section I- Technical Bid</u></b>					
6	6	6.5.4	Contractor representative	48 hrs of written request	
<b><u>Section III- Certification</u></b>					
8	5	5.2.1	Annex D Information required for the Verification of Integrity Provisions	48 hrs of written request	<input type="checkbox"/>
9	6	6.10	Applicable laws	48 hrs of written request	<input type="checkbox"/>