

**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**

<b>Title - Sujet</b> Fab & Del 7.2-7.4 GRP SOLAS RIBs	
<b>Solicitation No. - N° de l'invitation</b> F7047-150003/A	<b>Date</b> 2015-04-30
<b>Client Reference No. - N° de référence du client</b> F7047-150003	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$XLV-211-6721	
<b>File No. - N° de dossier</b> XLV-4-37266 (211)	<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 2015-06-10</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Pacific Daylight Saving Time PDT	
<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> Buchan, Torrey	<b>Buyer Id - Id de l'acheteur</b> xlV211
<b>Telephone No. - N° de téléphone</b> (250) 363-3249 ( )	<b>FAX No. - N° de FAX</b> (250) 363-3960
<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**

**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>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>

Solicitation No. - N° de l'invitation

F7047-150003/A

Amd. No. - N° de la modif.

File No. - N° du dossier

XLV-4-37266

Buyer ID - Id de l'acheteur

xlv211

CCC No./N° CCC - FMS No/ N° VME

F7047-150003

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Introduction**

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

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

The Annexes include the Statement of Work, Delivery Schedule, Basis of Payment, the Insurance Requirements and any other annexes.

### **1.2 Summary**

The Canadian Coast Guard (CCG) has a requirement for the supply and delivery of nine (9), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boats, diesel inboard engine, SOLAS-certified, with trailers, to multiple locations across Canada. The requirement includes an option to acquire up to an additional three (3) boats with trailers.

The boats will be used for search and rescue applications, and will be shipborne. The period of the Contract is from date of contract award to March 31, 2017.

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

The Federal Contractors Program (FCP) for employment equity applies to this procurement; see Part 5 - Certifications, Part 7 - Resulting Contract Clauses and the annex titled *Federal Contractors Program for Employment Equity - Certification*.

#### **1.2.1 Bidder Capabilities**

Bidders will be required to supply with their bid:

- A. Details of Bidder capabilities, how they will comply with mandatory requirements and how they will deliver any other requested goods and services.
- B. List of specialized sub-contractors to be engaged in the performance of the work.

#### **1.2.2 Integrity Provisions**

As per the Integrity Provisions under section 01 of *Standard Instructions 2003*, bidders must provide a list of all owners and/or Directors and other associated information as required. Refer to section 4.21 of the *Supply Manual* for additional information on the Integrity Provisions.

### **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 from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## **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-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 (2014-09-25) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

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

Delete: 60 days  
Insert: 120 days

### **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.

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

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

All enquiries must be submitted in writing to the Contracting Authority no later than ten (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 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 Public Bid Opening**

A public bid opening will be held in Boardroom 408, 1230 Government Street, Victoria, BC at 14:30 hrs PDT on the date noted on page one (1) of this bid solicitation.

## **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 hard copies and one soft copy on USB flash drive.
  - Section II: Financial Bid - one hard copy and one soft copy on USB flash drive.
  - Section III: Certifications - one hard copy and one soft copy on USB flash drive.
- \*The soft copies for all sections should be provided on a single USB flash drive.

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

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

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

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use 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) (<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.

### **The Bidder must provide all the deliverables as referenced in Annex M, Bid Package Checklist.**

#### **3.2 Section I: Technical Bid**

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



The technical bid should 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.

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

**3.3.1** Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet detailed in Annex J. The total amount of Applicable Taxes must be shown separately.

#### **3.3.2 Exchange Rate Fluctuation Risk Mitigation**



1. The Bidder may request Canada to assume the risks and benefits of exchange rate fluctuations. If the Bidder claims for an exchange rate adjustment, this request must be clearly indicated in the bid at time of bidding. The Bidder must submit form PWGSC-TPSGC 450 , Claim for Exchange Rate Adjustments with its bid, indicating the Foreign Currency Component (FCC) in Canadian dollars for each line item for which an exchange rate adjustment is required.
2. The FCC is defined as the portion of the price or rate that will be directly affected by exchange rate fluctuations. The FCC should include all related taxes, duties and other costs paid by the Bidder and which are to be included in the adjustment amount.
3. The total price paid by Canada on each invoice will be adjusted at the time of payment, based on the FCC and the exchange rate fluctuation provision in the contract. The exchange rate adjustment will only be applied where the exchange rate fluctuation is greater than 2% (increase or decrease).
4. At time of bidding, the Bidder must complete columns (1) to (4) on form PWGSC-TPSGC 450 , for each line item where they want to invoke the exchange rate fluctuation provision. Where bids are evaluated in Canadian dollars, the dollar values provided in column (3) should also be in Canadian dollars, so that the adjustment amount is in the same currency as the payment.
5. Alternate rates or calculations proposed by the Bidder will not be accepted for the purposes of this exchange rate fluctuation provision.

### **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) Canada will evaluate Bids in accordance with the entire requirement of this Solicitation, including the technical RFP response and financial evaluation criteria specified herein and in accordance with the RFP Bid Evaluation Plan attached to this Solicitation as Annex O.

The evaluation will include the mandatory criteria identified herein and in Annex O, Bid Evaluation Plan. To be considered responsive, a proposal must meet all the mandatory requirements of the RFP. Failure to meet any mandatory requirement will result in the Bidder's Proposal being declared non-compliant. Non-compliant proposals will be given no further consideration.

During the bid evaluation phase and upon Canada's request, the Bidder will allow Canada to conduct a verification of any aspect of the Bidder's Proposal, which may include but not be limited to Bidder's legal status, facilities and technical, financial and managerial capabilities to fulfil the requirements stated in this Solicitation. This verification may also include a visit to the facilities of the Bidder and/or its subcontractors. Should this information not be provided by the Bidder in a timely manner, the bid will be deemed non-responsive.

The various phases of the evaluation of the proposals may be completed concurrently to ensure completion of the evaluation in a timely fashion. Except as specifically provided otherwise in this Solicitation, Canada will evaluate a Bidder's Proposal on the documentation provided as part of that Proposal. References in a Proposal to additional information not submitted with the Proposal, including but not limited to the following will **not** be considered during the evaluation.:

- (i) website addresses where additional information can be found;
- (ii) technical manuals or brochures not submitted with the proposal; or
- (iii) existing standing offers, supply arrangements or contracts,

- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **4.1.1 Evaluation of Price**

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

### **4.2 Basis of Selection**

- 4.2.1** Of those bids that comply with all the mandatory requirements, the bid with the lowest evaluated price for the requirement will be recommended for award of Contract.
- 4.2.2** The calculation of the evaluated price is shown in Annex J, Financial Bid Presentation Sheet.

## **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 to 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 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 inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame specified will render the bid non-responsive.

#### **5.1.1 Integrity Provisions - Associated Information**

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

#### **5.1.2 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.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

## **PART 6 - FINANCIAL AND OTHER REQUIREMENTS**

### **6.1 Financial Capability**

SACC *Manual* clause A9033T (2012-07-06) Financial Capability

### **6.2 Insurance Requirements**

The Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in Annex D.

### **6.3 Contract Financial Security**

1. If the bid is accepted, the Bidder must provide the following contract financial security within 10 calendar days after the date of contract award:

Any bond must be accepted as security by one of the bonding companies listed in *Treasury Board Contracting Policy, Appendix L*, Acceptable Bonding Companies.

2. If Canada does not receive the required financial security within the specified period, Canada may terminate the Contract for default pursuant to the Contract default provision.

### **6.4 Workers' Compensation Certification – Letter of Good Standing**

The Bidder must have an account in good standing with the applicable provincial or territorial Workers' Compensation Board. At the request of the Contracting Authority, the Bidder must provide a certificate or letter from the applicable Workers' Compensation Board confirming the Bidder's good standing account.

### **6.5 Welding Certification**

1. Welding must be performed by a welder certified by the Canadian Welding Bureau and in accordance with the requirements of the following Canadian Standards Association (CSA) standards:
  - a. CSA W47.1-09, Certification of Companies for Fusion Welding of Steel (Minimum Division Level 2.1); and,
  - b. CSA W47.2-11, Certification of Companies for Fusion Welding of Aluminum (Minimum Division Level 2.1).
2. The Bidder must submit evidence demonstrating its (or its subcontractor's) certification to the welding standards. In addition, welding must be done in accordance with the requirements of the applicable drawings and specifications.

### **6.6 Valid Labour Agreement**

If the Bidder has a labour agreement, or other suitable instrument, in place with its unionized labour or workforce, it must be valid for the proposed period of any resulting contract. At the request of the Contracting Authority, the Bidder must provide evidence of that agreement.

### **6.7 List of Proposed Sub-contractors**

As part of their Technical Bid, Bidders must submit a completed Annex N, Subcontractor List.

If the bid includes the use of subcontractors, the bidder must submit a completed Annex N, Subcontractor List, which includes a description of the things to be purchased, a description of the work to be performed by specification section and the location of the performance of that work. The list should not include the purchase of off-the-shelf items, software and such standard articles and materials as are ordinarily produced by manufacturers in the normal course of business, or the provision of such incidental services as might ordinarily be subcontracted in performing the Work, i.e. subcontract work valued at less than \$1,000.00.

## 6.8 Project Schedule

- 6.8.1 As part of their technical bid, the Bidder must submit their preliminary project schedule, in MS Project, MS Excel format, or equivalent. The project schedule must include the Bidder's work breakdown structure, the scheduling of main activities and milestone events, and any potential problem areas involved in completing the Work.
- 6.8.2 The Bidder's schedule must also provide a target date for each of the following significant events for each boat:

### Prescribed Project schedule format:

- (a) Hull materials delivered to Contractor (Per Boat)
- (b) Vessels construction commenced; (Per boat)
- (b) Hulls and decks completed, deck not closed in to allow for full inspection of the structure. For the first vessel of the Contract, the Contractor will be required to supply a hard copy of the material certificates and construction drawings to the Technical/Inspection Authority one week prior to inspection by the Inspection Authority; (Per Boat)
- (c) Outfitting/electrical 75% complete but all equipment and components delivered to the Contractor and available for inspection. For the first vessel of the Contract, the Contractor will be required to supply a hard copy of the list of equipment and electrical supplies to the Inspection Authority one week prior to inspection by the Inspection Authority; (Per Boat)
- (d) Technical manuals delivered to Canada for approval (no less than 14 days prior to the planned delivery date); (For the first vessel of the contract only)
- (e) Contractor's tests and trial and final sea trials required by the SOW; (Per Boat)
- (f) Boat and trailer delivered to Canada for approval and acceptance. (Per Boat)

*Note: Technical Manuals will not be returned once approved.*

- 6.8.3 For the bidders scheduling purposes only, assume the contract will be awarded on June 26, 2015.

## 6.9 ISO 9001:2008 – Quality Management Systems

At the request of the Contracting Authority, the Bidder must provide its current ISO Registration Documentation indicating its registration to ISO 9001:2008.

Documentation and procedures of bidders not registered to the ISO standards may be subject to a Quality System Evaluation (QSE) by the Inspection Authority or designate before award of a contract.

## 6.10 Contractor's Quality Management System

1. As part of their technical bid, the Bidder must provide objective evidence that it has a Quality Assurance Program, which must be in place during the performance of the Work, and which addresses the quality control elements below.
2. The objective evidence may be in the form of a copy of the Bidder's Quality Assurance Manual which addresses these elements.
3. The Bidder must also provide a minimum of two (2) samples of completed quality records used on the most recent marine vessel construction at its facility.
4. The quality control elements must include, as a minimum:

Management Representative

Quality Assurance Manual  
Quality Assurance Program Descriptions  
Quality Reporting Organization  
Documentation  
Measuring and Testing Equipment  
Procurement  
Inspection and Test Plan  
Incoming Inspection  
In-Process Inspection  
Final Inspection  
Special Processes  
Quality Records  
Non Conformance Corrective Action

1. Bidders' facilities may be audited by Canada, or its authorized representative, prior to award of contract to ensure that a system is in place in accordance with the foregoing requirement.

#### **6.11 Inspection and Test Plan – Solicitation**

1. As part of their technical bid, Bidders must provide the inspection plan and testing procedures that will be used to verify, test and inspect all of the components and systems on the boat from initial construction to completion. The ITP must be in accordance with **Annex G** attached to this RFP.

#### **6.12 Drawings and Other Documentation**

The bidder must submit the following technical drawings and documentation with their technical bid:

##### 6.13.1 Preliminary Data Package

##### 6.13.1.1 Provide the following drawings and documentation:

- a. A general arrangement, plan and profile;
- b. Structural Drawings showing Deck Plan, a Centerline profile;
- c. A detailed Lines Plan;
- d. A drawing of the fuel supply arrangement;
- e. A drawing of bilge pumping system;
- f. Electrical one-line diagram;
- g. The lightship weight;
- h. Draft Stability Calculation of the proposed vessel;
- i. A Project Plan (written description) of how the Bidder will comply with the TSOR. The written description must address each main element of the TSOR and indicate how the Bidder/Contractor will comply with the intent of the TSOR and successfully deliver the vessel(s) to the performance standard(s) identified;

##### 6.13.1.2 Provide ONE of the following:

Either;

- a. An active SOLAS fast rescue boat certificate with a Transport Canada number (example: T.C.089.060.032) meeting the requirements at Annex A.

Or

- b. As identified by Transport Canada, Life Saving Equipment requirements - An active SOLAS fast rescue boat certificate from a Recognized Organization (RO) and meet the requirements of TP 14612 (Approval Procedures for Life Saving Appliances and Fire Safety Systems, Equipment and Products) meeting the requirements at Annex A.

### **6.13 Vessel Construction Experience**

The Bidder must provide objective evidence of experience in the construction of similar vessels of the size, type and complexity which are the subject of this RFP. To demonstrate this experience, the Bidder must provide

- a. detailed list of such similar vessels built pursuant to IMO/SOLAS regulations and TP 1332, Construction Standards for Small Vessels, Non-pleasure craft., within the last 10 years;
- b. photographs of vessels listed;
- c. (for listed IMO/SOLAS and TP 1332, non-pleasure craft sold within the last 10 years only) purchaser's name and contact information, and the date of sale.
- d. Detailed list of such vessels built pursuant to SOLAS.

### **6.14 Marine Drafting and Engineering Capability**

As part of their technical bid, the Bidder must provide objective evidence that it has either in-house capabilities, or has a written commitment for the duration of the Contract from a qualified sub-contractor to provide marine drafting and engineering services. Qualified sub-contractor is defined as having provided these services on similar vessel construction projects (same size, type and complexity).

## **PART 7 - RESULTING CONTRACT CLAUSES**

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

### **7.1 Requirement**

The Contractor must provide the items detailed under the "Statement of Work" at Annex "A".

#### **7.1.1 Optional Goods and/or Services**

The Contractor grants to Canada the irrevocable option to acquire up to eight (8) of the boats with trailers as described at *Annex A* of the Contract under the same conditions and at the prices stated in *Annex C* 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 at any time before the expiry of the Contract by sending a written notice to the Contractor.

### **7.2 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 Manual(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### **7.2.1 General Conditions**

2030 (2014-09-25), General Conditions - Higher Complexity - Goods, and 1031-2 (2012-07-16) Contract Cost Principles, apply to and form part of the Contract.

#### **7.2.2 Supplemental General Conditions**

4006 (2010-08-16), Contractor to Own Intellectual Property Rights in Foreground Information, and 1028 (2010-08-16), Ship Construction – Firm Price, apply to and form part of the Contract.

**Supplemental General Conditions 1028 (2010-08-16), Ship Construction – Firm Price, are hereby amended as follows:**

**Article 02 (2010-08-16) Conduct of Work, Paragraph 1 is deleted in its entirety;**

**Article 12, Warranty, Paragraph 3 is deleted in its entirety.**

**Insert:**

“3. The warranty period for each vessel is :

A) Twelve (12) months for the boat propelling machinery and auxiliaries, fittings and equipment of all kinds (excluding Government Supplied Material), and

B) Twenty four (24) months for the vessel hull, deck and fabricated structures and structural welding,

from the date of its delivery to and acceptance by Canada.”

### **7.3 Security Requirements**

There is no security requirement applicable to this Contract.

### **7.4 Term of Contract**

#### **7.4.1 Delivery Date**

All the deliverables must be received on or before March 31, 2017.

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

Goods must be consigned and delivered to the destinations specified in the contract:



N° de l'invitation - Solicitation No.  
F7047-150003/A  
N° de réf. du client - Client Ref. No.  
F7047-150003

N° de la modif - Amd. No.  
File No. - N° du dossier  
xlv-4-37266

Id de l'acheteur - Buyer ID  
xlv211  
N° CCC / CCC No./ N° VME - FMS

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Incoterms 2000 "DDP Delivered Duty Paid" to the locations stated in Annex B, Delivery Schedule.

### 7.4.3 Failure to Deliver

Delivery is an essential part of this contract. Except for excusable delays notified in accordance with Section 11 of 2030 General Conditions - Higher Complexity - Goods, failure to deliver by the date(s) specified in this Contract will prejudice the Government of Canada and will, at the Government of Canada's discretion, entail either:

- A. Contract Termination in accordance with 2030 General Conditions Sections 10 (Time of the Essence) and 30 (Default by the Contractor); or
- B. Consideration for Contract Amendment. Delivery date(s) will not be extended without consideration being provided by the Contractor in the form of adjustment to the price, warranty, quantity and / or service to be provided.

## 7.5 Authorities

### 7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Torrey Buchan  
Title: Supply Specialist  
Public Works and Government Services Canada  
Acquisitions Branch  
Directorate: Pacific Region – Marine Acquisitions  
Address: Suite 401 – 1230 Government Street  
Victoria, BC Canada V8W 3X4  
Telephone: 250-363-3249  
Facsimile: 250-363-3960  
E-mail address: torrey.buchan2@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.

### 7.5.2 Technical Authority

The Technical Authority for the Contract is provided upon Contract Award.

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_  
Facsimile: \_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_  
E-mail: \_\_\_\_\_.

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.

### 7.5.3 Inspection Authority

The Inspection Authority for the Contract is the Technical Authority.

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.

### 7.5.4 Contractor's Representative

The Bidder is to complete table below and submit with their bid.

Contact for:	Name	Telephone	Email
Contracting issues			
Technical issues			
Invoicing issues			

## 7.6 Payment

### 7.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, as specified in Annex B for a total cost of \$ \_\_\_\_\_. Customs duties are included and Applicable Taxes are extra.

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.

### 7.6.2 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.

### 7.6.3 Warranty Holdback

A warranty holdback of 5% of the contract price for each delivered boat will be applied to the payment of the invoice for that boat. This holdback will be payable by Canada upon the expiry of a 90 day holdback period. Applicable Taxes will be calculated on the warranty holdback amount and paid at the time that the warranty holdback is released.

### 7.6.4 Progress review report

Progress Review Reports shall be provided detailing the Work completed to date, a copy of the updated Master Schedule, problems incurred as well as problems solved and how they were solved for the current reporting period. The report shall be provided monthly to the Contracting Authority and should be provided electronically.

### **7.6.5 SACC Manual Clauses**

C0711C (2008-05-12), Time Verification.

H4500C (2010-01-11), Lien – Section 427 of the Bank Act.

### **7.7 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 (as applicable);

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 for certification and payment.
  
- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

### **7.8 Certifications**

#### **7.8.1 Compliance**

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if 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.

#### **7.8.2 Federal Contractors Program for Employment Equity - Default by the Contractor**

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

### **7.9 Applicable Laws**

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

### **7.10 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 4006 (2010-08-16), Contractor to Own Intellectual Property Rights in Foreground Information;
- (c) the supplemental general conditions 1028 (2010-08-16), Ship Construction – Firm Price;
- (d) the general conditions 2030 (2014-09-25), General Conditions - Higher Complexity - Goods;
- (e) the Contract Cost Principles 1031-2 (2012-07-16);
- (f) Annex A, Statement of Work;
- (g) Annex B, Delivery Schedule;
- (h) Annex C, Basis of Payment;
- (i) Annex D, Insurance Requirements;

- (j) Annex E, Warranty Procedures;
- (k) Annex F, Procedure for Implementing Additional Work;
- (l) Annex G, Inspection / Quality Assurance / Quality Control;
- (m) Annex H, Project Management Services;
- (n) Annex I, Questions and Answers;
- (o) the Contractor's bid dated \_\_\_\_\_.

### **7.11 Foreign Nationals**

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

or

SACC Manual clause A2001C (2006-06-16) Foreign Nationals (Foreign Contractor)

### **7.12 Insurance Requirements**

The Contractor must comply with the insurance requirements specified in Annex D. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) calendar days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. For Canadian-based Contractors, coverage must be placed with an Insurer licensed to carry out business in Canada, however, for Foreign-based Contractors; coverage must be placed with an Insurer with an A.M. Best rating no less than "A-". The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

### **7.13 Contract Financial Security**

The Contractor must provide the following contract financial security within ten (10) calendar days after the date of contract award:

a labour and material payment bond form PWGSC-TPSGC 506 in the amount of fifty (50) percent of the Contract Price.

Any bond must be accepted as security by one of the bonding companies listed in Treasury Board Contracting Policy, Appendix L, Acceptable Bonding Companies.

If Canada does not receive the required financial security within the specified period, Canada may terminate the Contract for default pursuant to the Contract default provision.

#### **7.13.1 Term of Financial Security**

Any bond, bill of exchange, letter of credit or other security provided by the Contractor to Canada in accordance with the terms of the Contract must not expire before 90 days after the completion date indicated in the Contract.

Provided that no risk will accrue to Canada as a result, The Contracting Authority can, at its sole discretion, return the financial security to the Contractor before the expiration date indicated in the Contract.

#### 7.14 Exchange Rate Fluctuation Adjustment (if applicable)

1. The foreign currency component (FCC) is defined as the portion of the price or rate that will be directly affected by exchange rate fluctuation. The FCC should include all related taxes, duties and other costs paid by the Bidder and which are to be included in the adjustment amount.
2. For each line item where a FCC is identified, Canada assumes the risks and benefits for exchange rate fluctuation, as shown in the Basis of Payment. For such items, the exchange rate fluctuation amount is determined in accordance with the provision of this clause.
3. The total price paid by Canada on each invoice will be adjusted at the time of payment, based on the FCC and the exchange rate fluctuation provisions in the contract. The exchange rate adjustment amount will be calculated in accordance with the following formula:  
$$\text{Adjustment} = \text{FCC} \times \text{Qty} \times (i_1 - i_0) / i_0$$
 where formula variables correspond to:

#### FCC

Foreign Currency Component (per unit)  $i_0$

Initial exchange rate (CAN\$ per unit of foreign currency [e.g. US\$1])  $i_1$

exchange rate for adjustments (CAN\$ per unit of foreign currency [e.g. US\$1]) **Qty** quantity of units

4. The initial exchange rate is typically set as the noon rate as published by the Bank of Canada on the solicitation closing date.
5. For goods, the exchange rate for adjustment will be the noon rate as published by the Bank of Canada on the date the goods were delivered. For services, the exchange rate for adjustment will be the noon rate on the last business day of the month for which the services were performed. For advance payments, the exchange rate for adjustment will be the noon rate on the date the payment was due. The most recent noon rate will be used for non-business days.
6. The Contractor must indicate the total exchange rate adjustment amount (either upward, downward or no change) as a separate item on each invoice or claim for payment submitted under the Contract. Where an adjustment applies, the Contractor must submit with their invoice form [PWGSC-TPSGC 450](#), Claim for Exchange Rate Adjustments.
7. The exchange rate adjustment will only be applied where the exchange rate fluctuation is greater than 2% (increase or decrease), calculated in accordance with column 8 of form [PWGSC-TPSGC 450](#) (i.e.  $[i_1 - i_0] / i_0$ ).
8. Canada reserves the right to audit any revision to costs and prices under this clause.

#### 7.15 Trade Qualifications

The Contractor must use qualified, certificated (if applicable) and competent tradespeople and supervision to ensure a uniform high level of workmanship. The Inspection Authority may request to view and record details of the certification and/or qualifications held by the Contractor's tradespeople. This request should not be unduly exercised but only to ensure qualified tradespeople are on the job.

#### 7.16 Welding Certification

1. The Contractor must ensure that welding is performed by a welder certified by the Canadian Welding Bureau (CWB) in accordance with the requirements of the following Canadian Standards Association (CSA) standards:
  - a. CSA W47.1-09, Certification for Companies for Fusion Welding of Steel (Minimum division level 2.1); and
  - b. CSA W47.2-11, Certification for Companies for Fusion Welding of Aluminum (Minimum division level 2.1).
2. In addition, welding must be done in accordance with the requirements of the applicable drawings and specifications.
3. Before the commencement of any fabrication work, and upon request from the Inspection Authority or designate, the Contractor must provide approved welding procedures and/or a list of welding

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personnel he intends to use in the performance of the Work. The list must identify the CWB welding procedure qualifications attained by each of the personnel listed and must be accompanied by a copy of each person's current CWB welding certification.

#### **7.17 Sub-contract and Sub-contractor List**

The Contracting Authority is to be notified, in writing, of any changes to the list of subcontractors before commencing the work.

When the Contractor sub-contracts work, a copy of the sub-contract purchase order is to be passed to the Contracting Authority. In addition, the Contractor must monitor progress of sub-contracted work and inform the Inspection Authority or designate on pertinent stages of work to permit inspection when considered necessary by the Inspector.

#### **7.18 Project Schedule – Contract**

The Contractor must provide a detailed work schedule to the Contracting and Technical Authorities no later than five (5) calendar days after the contract award date showing the commencement and completion dates for the Work in the available work period, including realistic target dates for significant events. During the Work Period the schedule is to be reviewed on an ongoing basis by the Inspection Authority and the Contractor, updated when necessary, and available in the Contractor's office for review by Canada's authorities to determine the progress of the Work.

The schedules must be revised on a pre-defined basis. (The revised schedules must show the effect of progressed work and approved design changes. Any changes to the dates of the Work Period of the contract due to unscheduled work will not be accepted except as negotiated in accordance with Annex F, Procedures for Processing Additional Work.

#### **7.19 Progress Review and Technical Meetings**

**7.19.1** Progress Review Meetings shall be held at the Contractor's facility and chaired by the Contracting Authority. The first meeting shall be held within four (4) weeks of Contract Award and the following Progress Review Meetings shall be held as required or as requested by the Contractor, TA, or CA. Attendees will be the Contractor Representatives, the Contracting Authority, Inspection Authority and Technical Authority.

The draft agenda will be provided by the Contractor to the Contracting Authority with a copy to the Inspection Authority and Technical Authority approximately five (5) working days prior to each meeting for review by attendees and request for additions. The final agenda will be provided at the meeting by the Contractor.

The Contractor shall record the minutes of all meetings, and include as a minimum discussion items, records of decisions, all action items, risk items, and a record of conclusions reached at the Technical Meetings. The Contractor will distribute a draft of all minutes to the Contracting Authority, Inspection Authority and Technical Authority for review and comment of Canada prior to issuing the final version. The Minutes shall be signed as accepted by the Contractor, Contracting Authority, Technical Authority and the Inspection Authority once comments are incorporated to the satisfaction of Contracting Authority.

**7.19.2** Technical Meetings shall be held as required at the Contractor's facility and chaired by the Technical Authority. Attendees will be the Contractor Representatives, Inspection Authority and Technical Authority.

The Minutes shall be signed as accepted by the Contractor and Technical Authority once comments are incorporated to the satisfaction of Technical Authority.

**7.19.3** Wherever possible the Progress Review and Technical Review Meetings will be held together and co-chaired by the Contracting and Technical Authorities. The minutes of these meetings shall be signed as accepted by the Contractor, Contracting Authority and Technical Authority once comments are incorporated to the satisfaction of the Contracting Authority.

#### **7.20 Outstanding Work and Acceptance**

1. The acceptance of the Work must be in accordance with form PWGSC-TPSGC 1105, Acceptance. The Technical Authority or designate, in conjunction with the Contractor, will prepare a list of outstanding work items at the end of the work period. This list will form the annexes to the formal acceptance document for the vessel. A contract completion meeting will be convened by the Inspection Authority on the work completion date to review and sign off the Acceptance Document.
2. The Contractor must complete the above form in three (3) copies, which will be distributed by the Contracting Authority as follows:
  - a. original to the Contracting Authority;
  - b. one copy to the Technical Authority;
  - c. one copy to the Contractor.

#### **7.21 ISO 9001:2008 - Quality Management Systems**

In the performance of the Work described in the Contract, the Contractor must comply with the requirements of:

ISO 9001:2008 - Quality management systems - Requirements, published by the International Organization for Standardization (ISO), current edition at date of submission of the Contractor's bid.

It is not the intended that the Contractor be registered to ISO 9001; however, the Contractor's quality management system must address each requirement appropriate to the scope of Work. Only exclusions in accordance with clause 1.2 of ISO 9001 are acceptable.

##### **7.21.1 Assistance for Government Quality Assurance (GQA)**

The Contractor must provide the Inspection Authority or designate with the accommodation and facilities required for the proper accomplishment of GQA and must provide any assistance required by the Inspection Authority for evaluation, verification, validation, documentation or release of product.

The Inspection Authority or designate must have the right of access to any area of the Contractor's or Subcontractor's facilities where any part of the Work is being performed. The Inspection Authority or designate must be afforded unrestricted opportunity to evaluate and verify Contractor conformity with Quality System procedures and to validate product conformity with contract requirements. The Contractor must make available, for reasonable use by the Inspection Authority or designate, the equipment necessary for all validation purposes. Contractor personnel must be made available for operation of such equipment as required.

When the Inspection Authority or designate determines that GQA is required at a subcontractor's facilities, the Contractor must provide for this in the purchasing document and forward copies to the Inspection Authority or designate, together with relevant technical data as the Inspection Authority or designate may request.

The Contractor must notify the Inspection Authority or designate of non-conforming product received from a subcontractor when the product has been subject to GQA.

#### **7.22 Quality Plan**

No later than ten (10) calendar days after the effective date of the Contract, the Contractor must submit for acceptance to the Technical Authority a Quality Plan prepared according to the latest issue (at contract date) of ISO 10005:2005 "Quality management systems - Guidelines for quality plans". The



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Quality Plan must describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of subcontractors. The Contractor must include a traceability matrix from the elements of the specified quality requirements to the corresponding paragraphs in the Quality Plan.

The documents referenced in the Quality Plan must be made available when requested by the Technical Authority.

If the Quality Plan was submitted as part of the bidding process, the Contractor must review and, where appropriate, revise the submitted plan to reflect any changes in requirements or planning which may have occurred as a result of pre-contract negotiations.

Upon acceptance of the Quality Plan by the Technical Authority, the Contractor must implement the Quality Plan. The Contractor must make appropriate amendments to the Quality Plan throughout the term of the contract to reflect current and planned quality activities. Amendments to the Quality Plan must be acceptable to the Technical Authority.

### **7.23 Inspection and Test Plan**

No later than ten (10) calendar days after contract award, the Contractor must submit for approval to the Technical authority and implement prior to the commencement of the Work, an approved Inspection and Test Plan (ITP) in accordance with the Inspection and Test Plan requirements at Annex G. The Contractor must provide at no additional cost to Canada, all applicable test data, all Contractor technical data, test pieces and samples as may reasonably be required by the Inspection Authority to verify conformance to contract requirements. The Contractor must forward at his expense such technical data, test data, test pieces and samples to such location as the Inspection Authority or designate may direct.

### **7.24 Insulation Materials – Asbestos Free**

All materials used to insulate the Work must meet Transport Canada Marine standards, for commercial marine work, and, for all work, be free from asbestos in any form.

### **7.25 SACC Manual Clauses**

A0285C (2007-05-25), Workers Compensation



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**ANNEX A**  
**STATEMENT OF WORK**

**For the provision of:**

**Nine (9), 7.2 to 7.4 m GRP  
Fast Rescue Rigid Inflatable Boats, Diesel Inboard  
SOLAS/IMO Certified with trailers.**

**TRANSPORT CANADA MARINE SAFETY (TCMS)  
TP1332 APPROVED CONSTRUCTION**

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N° CCC / CCC No. / N° VME - FMS

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### Document Control

#### Record of Amendments

#	Date	Description	Initials
0	March 6, 2015	Original Issue	KA
1	April 13, 2015	Minor modifications	KA
2	April 20, 2015	Minor modifications	KA
3	April 27, 2015	Minor modifications	KA

### **ABBREVIATIONS**

ABYC	American Boat and Yacht Council
AC	Alternating Current
ASTM	American Society for Testing and Materials
CFM	Contractor Furnished Material
<b>CSA</b>	<b>Canada Shipping Act</b>
CSA	Canadian Standards Association
COLREGS	Collision Regulations
DC	Direct Current
GRP	Glass Reinforced Plastic
GPS	Global Positioning System
GSM	Government Supplied Material
IMO	International Maritime Organization
ISO	International Organization for Standardization
LSA	Life-Saving Appliance
PVC	Polyvinylchloride
RIB	Rigid Inflatable Boat
SOLAS	Safety of Life at Sea
TA	Technical Authority (As defined by the Contract)
TCMS	Transport Canada Marine Safety
TSOR	Technical Statement of Requirements
UV	Ultraviolet
VHF	Very High Frequency
WMO	World Meteorological Organization

**LIST OF REFERENCE DOCUMENTS**

REFERENCE	TITLE
SOLAS	The latest edition of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: articles, annexes and certificates, as amended.
IMO Resolution MSC.81(70)	Annex to International Maritime Organization Resolution MSC.81(70), Revised Recommendation on Testing of Life-Saving Appliances.
LSA Code	Annex to International Maritime Organization Resolution MSC.48(66), International Life-Saving Appliance Code.
ASTM F1166	Standard Practice for Human Engineering Design for Marine Systems, Equipment and Facilities.
TP 1332	Construction Standards for Small Boats.
TP 13430	Standard For Tonnage Measurement of Ships .
TP 14070	Small Commercial Vessel Safety Guide.
TP 14612	Procedures for approval of life-saving appliances and fire safety systems, equipment and products.
TP 14475	Canadian Life Saving Appliance Standard.
ISO 12217-3	Small Craft – Stability and Buoyancy Assessment and Categorization.
ISO 6185-3	Inflatable Boats- hull length less than 8 m with a motor rating of 15 kW and greater.
Canada Shipping Act	Small Vessel Regulations
Canada Shipping Act	Collision Regulations (COLREGS)
ABYC	American Boat and Yacht Council Standards
Canadian Standards Association (CSA) CSA W47.2-M1987	Certification of Companies for Fusion Welding of Aluminium
(CSA) C22.2 No. 183.2-M1983 (R1999)	Standards for DC Electrical Installations on Boats

## 1.0 OVERVIEW

- 1.1 Rigid Inflatable Boats (RIBs) are used extensively as SOLAS Rescue Boats for Government Service vessels, as well as operating independently to carry out various program-related activities from shore-based facilities and trailers.
- 1.2 The Missions of the Rescue Craft, and Emergency Boat duties, include:
- 1.2.1 Perform searches and surveillance by visual and electronic means;
  - 1.2.2 Recover able-bodied or incapacitated people from other vessels and from the water;
  - 1.2.3 Tow equipment and other vessels in emergencies;
  - 1.2.4 Conduct helicopter hoisting operations;
  - 1.2.5 Provide a platform for performing first-aid; and
  - 1.2.6 Mustering of life rafts and lifeboats.

## 2.0 REQUIREMENT

- 2.1 **General Information: This vessel is intended to be built based on stock small working or commercial vessel hull forms with a minimum of customization as indicated herein. Prototype hulls will not be considered for this procurement. A number of proven hulls must be shown to have been produced and be in service for 5 years for the Contractor to indicate suitability of the hull for this procurement. Bidders must submit brochures, photographs, references, builder's plates, hull identification numbers confirming multiple builds, etc. as applicable.**
- 2.2 The Contractor must design, fabricate and supply quantity, nine (9) 7.2-7.4m GRP Fast Rescue Rigid Inflatable Boats, SOLAS/IMO Certified based on the requirements as identified by Transport Canada Marine Safety Branch (TCMS) Marine Safety Publications TP 14612 and TP 1332. The boats must be a single inboard diesel motor configuration.
- 2.3 The primary role of this vessel will be ship-borne: launched and recovered by davits (including Miranda gravity davits) or other means of hoisting such as cranes utilizing bridle or single point lifting apparatus; As a secondary role the craft may also be deployed from a dock or launched and recovered by trailer.

### 2.4 TECHNICAL DOCUMENTATION REQUIREMENTS

The Contractor is responsible for all aspects of design and production of the vessel and must prepare their own Project Data Package to define the vessel and control the production process.

#### 2.4.1 Bid Deliverable Data Package

Requirements for Bid Deliverables are given in the Solicitation Document and applicable Annexes.

#### 2.4.2 Preliminary Data Package

The Preliminary Data Package must demonstrate that the vessel will be fully seaworthy, operable and fit in all regards for the purposes intended. The Contractor must submit their Preliminary Data Package for review by the Technical Authority and in accordance with the Contract.

In addition to any requirements given in the Contract and applicable Annexes, the Preliminary Data Package must include, but will not necessarily be limited to, the following technical drawings and information:

- 2.4.2.1 Either; A valid Certificate of Approval issued by Transport Canada in accordance with the approved product catalogue for Life Saving Equipment and as identified in the SOLAS Rescue Boats product category.  
Or; As identified in TP 14612, have received a certificate of approval following the procedures contained therein.
- 2.4.2.2 A general arrangement.
- 2.4.2.3 Structural Drawings showing Deck Plan, a Centerline profile.
- 2.4.2.4 A detailed Lines Plan.
- 2.4.2.5 A drawing of the fuel supply arrangement.
- 2.4.2.6 A drawing of bilge pumping system
- 2.4.2.7 Electrical one-line diagram.
- 2.4.2.8 The lightship weight.
- 2.4.2.9 Draft Stability Calculation of the proposed vessel.
- 2.4.2.10 A Project Plan (written description) of how the Bidder/Contractor will comply with the TSOR. The written description must address each main element of the TSOR and indicate how the Bidder/Contractor will comply with the intent of the TSOR and successfully deliver the vessel(s) to the performance standard(s) identified.
- 2.4.2.11 A Preliminary Production Schedule which must verify the Bidder/Contractor's ability to deliver the vessel(s) in accordance with the requirements of the Solicitation.

### **2.4.3 Construction Data Package**

The Contractor must revise and update their Preliminary Data Package to incorporate comments from the Technical Authority and must complete and submit their Construction Data Package to the Technical Authority. The Contractor must update their Construction Data Package to reflect changes in the requirement and/or changes in materials or equipment as necessary or when requested.

In addition to any requirements given in the Contract and applicable Annexes, the Construction Data Package must include, but will not necessarily be limited to, the following technical drawings and information:

- 2.4.3.1 All technical drawings and information identified within the "Preliminary Data Package", updated as necessary (excepting that the "Project Plan" need not be revised);
- 2.4.3.2 The "Preliminary Production Schedule" must be expanded to a "Production Schedule" which must be regularly updated to demonstrate progress of the work and anticipated completion date;
- 2.4.3.3 Lightship weight and center of gravity calculations must be monitored and the Technical Authority must be advised of changes as they are identified;
- 2.4.3.4 Stability calculations must be revised when necessary or when requested;
- 2.4.3.5 Speed and endurance calculations;
- 2.4.3.6 Additional technical drawings, schedules and information as necessary to fully define the vessel;

- 2.4.3.7 Contractor shop drawings;
- 2.4.3.8 Technical information pertaining to materials and equipment;
- 2.4.3.9 Material certificates; and,
- 2.4.3.10 Other applicable technical information including samples of materials if requested.

#### **2.4.4 Final Data Package**

The Contractor must provide to Canada all documentation required by the Contract, this TSOR and other annexes or attachments to the Contract.

**The minimum acceptable final data package is as attached hereto at Appendix I.**

### **3.0 DESIGN AND CONSTRUCTION REQUIREMENTS**

Unless stated otherwise all components, equipment and material must be Contractor supplied.

#### **3.1 ERGONOMIC DESIGN**

- 3.1.1** Hazardous operating conditions must be prevented by arranging machinery and equipment in a safe manner; providing guards for all electrical, mechanical and thermal hazards to personnel; and providing guards or covers for any controls that might accidentally be activated by contact of personnel.
- 3.1.2** The boats must be designed and constructed to accommodate both male and female crew from approx. 5' 5" to 6' 4" in height, wearing cold weather clothing and equipment in accordance with ASTM F1166-07 Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities.
- 3.1.3** Human engineering factors considered in design must include accessibility, visibility, readability, crew efficiency and comfort. All equipment must be accessible for use, inspection, cleaning and maintenance as per ASTM F1166-07.

#### **3.2 VIBRATION**

- 3.2.1** The boat and all components must be free of local vibration that could endanger boat personnel, damage boat structure, machinery or systems, or interfere with the operation or maintenance of boat machinery or systems.
- 3.2.2** Mounts for movable components, including items moved for stowage, towing or transport must be provided with resilient material as necessary to prevent rattling.
- 3.2.3** Loosening of fasteners under vibration must be prevented by the use of self-locking fasteners.

#### **3.3 EQUIPMENT PROTECTION**

The Contractor is responsible for the care of all equipment. All parts, especially those having working surfaces or passages intended for lubricating oil, must be kept clean and protected during manufacture, storage, assembly and after installation. Equipment must at all times be protected against dust, moisture or foreign matter and must not be subject to rapid temperature changes or extremes in temperature.

#### **3.4 SITE CLEANLINESS**

During construction, all chips, shavings, refuse, dirt and water must be removed at the completion of the work shift or sooner. The Contractor must ensure measures are taken to avoid wear and damage incident to construction, and to prevent corrosion or other deterioration. Equipment

subject to freezing must be kept drained, except during test and trials. Equipment must be kept clean and protected from the environment prior to installation.

### **3.5 MATERIALS**

- 3.5.1** All materials must be corrosion resistant and suitable for use in a salt water environment as detailed in the Operational Requirements. All materials normally subjected to sunlight must resist degradation caused by ultraviolet radiation. Galvanized materials must not be used in the construction of the vessel.
- 3.5.2** Dissimilar Metals: Direct contact of electrolytically dissimilar metals is not allowed. Electrolytic corrosion must be prevented by insulating dissimilar materials from each other with gaskets, washers, sleeves, or bushings of suitable insulating material.
- 3.5.3** Aluminium: Aluminium alloy types 5086-H116 must be used for plate; aluminium alloy 6061-T6 or 6063-T54 for aluminum extrusions. Non-structural items of trim and outfit such as hatch frames, castings, consoles, and hardware items may be of other aluminium alloys suitable for commercial saltwater marine use such as dual rated 5083 / 86 or 5052 or 6063.
- 3.5.4** GRP and Resins - for GRP components;
- 3.5.4.1 Minimum laminating material specification must include gel coats and skin-out of vinylester resins with a barrier coat wash of the skin-out prior to main laminate and coring materials. DCPD and orthophalic resins must not be used.
- 3.5.4.2 Fibre materials to be standard mat / rovings, or "stitch" combined materials, some of which may use Carbon or Kevlar strands. NO "chopper" materials to be used.
- 3.5.4.3 Coring materials to be vacuum bagged in place and to be designed for usage in these specified vessels. Suitable core materials such as 'Airex', 'Klege-cell', and 'Core-cell' are acceptable. Marine plywood core material for the deck and transom are acceptable. Balsa and non-structural foam materials must not be used.
- 3.5.5** Stainless Steel: Stainless steel type 316L or 316 must be used for all stainless steel applications except as noted. Alloy 316L must be used in any welded underwater components.
- 3.5.6** Fittings and clamps must be stainless steel. Bolts used in all fittings must be Type 316 stainless steel.
- 3.5.7** Where flexible connections are required for steering and fuel systems, suitable hose with permanently crimped, detachable reusable type fittings must be used.
- 3.5.8** All materials and equipment must be stored installed and tested in accordance with the manufacturer's guidelines, recommendations and requirements.

### **3.6 FASTENERS**

- 3.6.1** All fasteners must be of corrosion resistant materials.
- 3.6.2** Cadmium plated parts and fasteners, including washers, must not be used on the vessel.
- 3.6.3** Direct attachment of alloys containing copper to aluminium is not permitted except for an electrical bonding strap.
- 3.6.4** No fasteners must be directly threaded into Aluminium. Aluminium or Stainless steel washers or backing plates must be used as appropriate.
- 3.6.5** Where nuts will become inaccessible after assembly of the vessel, nuts must be captured or anchored to allow reassembly and prevent backing off. Unless otherwise specified, self-locking nuts must be installed to prevent loosening of fasteners due to shock and vibration.
- 3.6.6** Fasteners in deck traffic areas must be flush-mounted to eliminate tripping and snagging hazards.

### **3.7 FACILITIES (GRP lamination, Collar and Painting facilities)**



The Contractor must have a shop capable of maintaining temperature and humidity appropriate for temperature and moisture sensitive materials, painting and as applicable. It must be capable, when necessary, of maintaining temperature between 16°C and 25°C and maintaining relative humidity below 70%.

#### **4.0 OPERATIONAL REQUIREMENTS**

##### **4.1 GENERAL**

Unless otherwise stated, performance must be for conditions of zero sea state and no wind, in salt water in normal load condition. The boats must be designed and constructed for ease of maintenance and repair, long life, and are to be easily supportable in the location of the delivery address of the boat, by local commercial facilities and suppliers. The boat must be expected to have a service life of at least 8 years, with an expected usage of between 400 and 500 hours per year. Life cycle costing projections must be supplied by manufacturer with their proposal, particularly for hull, collar, propulsion, steering and other components and systems. All requirements are to be met with propeller guard installed.

**4.1.1** Maximum speed: 25 knots.

**4.1.2** Minimum speed: 20 knots in sea state 6 with 25-knot wind.

**4.1.3** Endurance: 20 knots for 5 hours.

**4.1.4** Range: 80 nautical miles with 10% reserve at 25-knot minimum speed.

**4.1.5** Steering: Capable of steering 15 degrees from heading, Beaufort force 7, with seas from any direction.

**4.1.6** Steer and manoeuvre effectively at 3 knots in Beaufort force 7.

**4.1.7** Maintain course, made good over ground, when proceeding at 3 knots with relative crosswind of 33 knots.

**4.1.8** Capable of turning in its own length in Beaufort force 7.

**4.1.9** Capable of steering effectively in Beaufort force 7 with winds of 30 knots while holding a 15 tonne (displacement) vessel in position.

##### **4.2 BEACHING**

**4.2.1** Capable of beaching on soft (sand, earth or clay) surfaces at a speed of up to 5 knots without damage to the hull.

**4.2.2** Capable of beaching on hard (stone or concrete) surfaces at speeds of up to 3 knots without damage to the hull.

##### **4.3 ENVIRONMENTAL CONDITIONS**

Capable of operating day or night in the following conditions:

**4.3.1** Average ambient air temperature range: -5 ° C to + 30 ° C

**4.3.2** Average water temperature: 0 ° C to +20 ° C.

**4.3.3** Wave heights up to 5.5 meters (Beaufort Force 7).

**4.3.4** Wind speeds of 28-33 knots.

**4.3.5** Operate in freezing spray or freezing rain with accumulations of up to 6.0 mm while maintaining stability to allow for safe transit in Beaufort force 7

**4.3.6** Required to operate safely in ice infested waters, (some minor damage to the craft not affecting stability or buoyancy will be acceptable).

##### **4.4 LAUNCHING, RECOVERY & TRANSPORTATION**

The craft must be readily road transportable on a trailer, must be able to be launched and recovered using the trailer at existing launch ramps.

#### **4.5 MAINTENANCE**

The craft must be designed and constructed for ease of maintenance and repair, long life, and be easily supportable by local commercial facilities and suppliers.

### **5.0 PHYSICAL CHARACTERISTICS**

#### **5.1 VESSEL PARTICULARS**

- 5.1.1 Length overall between 7.2 and 7.4 meters.
- 5.1.2 Breadth overall between 2.6 and 2.75 meters.
- 5.1.3 Maximum draft (outdrive lowered) between 0.80 and 1.00 meters.
- 5.1.4 Maximum draft (outdrive raised) between 0.45 and 0.75 meters.
- 5.1.5 Maximum freeboard (from top of collar AFT, in normal load condition) 0.70 meters.
- 5.1.6 Depth under Keel:
  - 5.1.6.1 Operate carefully in depths of 1.0 meter with outboard motor or outdrive lowered.
  - 5.1.6.2 Basic manoeuvring in depths of 0.80 meters with outboard motor or outdrive in the partially raised position.
- 5.1.7 Maximum height of collar above deck 0.60 meters
- 5.1.8 Displacement (Normal Load Condition) between 2900 kg and 3500 kg.
- 5.1.9 Normal load conditions:
  - 5.1.9.1 Crew of 3 = 300 kg
  - 5.1.9.2 Fuel = 182 liters in one tank (160 kg)
  - 5.1.9.3 Equipment & supplies = 400 kg

### **6.0 CONSTRUCTION STANDARDS**

The Contractor must supply a valid Certificate of approval for a SOLAS Recue Boat meeting the requirements of this TSOR.

Boats constructed under this TSOR must comply with the following:

- 6.1.1 SOLAS Regulations:
  - 6.1.1.1 Part 1, Chapter III, Regulation 4;
  - 6.1.1.2 Part 1, Chapter III, Regulation 26.3;
  - 6.1.1.3 Part 1, Chapter III, Regulation 34.
- 6.1.2 IMO Resolutions:
  - 6.1.2.1 Res. 48(66)LSA Code;
  - 6.1.2.2 Res. MSC.81(70) and;
  - 6.1.2.3 Res. MSC/Circ 809.
- 6.1.3 The current TCMS TP 1332 "Construction Standards for Small Vessels" and where applicable the American Boat & Yacht Council (ABYC)
- 6.1.4 CSA C22.2 No. 183.2-M1983 (R1999) Standards for DC Electrical Installations on Boats and ABYC 'E' Electrical Standards.
- 6.1.5 CWB CSA/ACNOR W47.2; Division 2.1 certification for Aluminum Welding– latest revision."
- 6.1.6 Applicable Certificate from TCMS to accompany the boat upon delivery.

**6.2 Transport Canada Marine Safety Regulation TP 1324 Coated Fabrics** as a minimum however, if the IMO requirements exceed those of TP1324, the more stringent of the two must take precedence.

**6.3 CSA W47.2-MI987:** Certification of Companies for Fusion Welding of Aluminium; Welding to be done by contractor with shop certified to this standard.

**6.4 Stability examination per TP1332** (from ISO standards 12217-1 which for RIBs delegates to ISO 6185-3) will require the Contractor to record all stability calculation and trial results and provide a copy for each boat produced, to be placed in the technical manuals.

## **7.0 VESSEL CONFIGURATION**

Open configuration with stand-up bolster and console operators' position and engine box cushioned seating forward.

### **7.1 HULL**

**7.1.1** Hull shape must not impede water flow to the propulsion units and must direct spray and waves away from onboard personnel.

**7.1.2** Watertight and Tank Bulkheads: The hull design must be such that a sufficient number of watertight compartments, including hull compartments, and/or low smoke and flame spread closed cell flotation foam, or fire retardant flotation, or flotation devices, will allow for adequate stability and positive buoyancy in a flooded condition. See references to vessel certification, re: TP 1332 / ISO testing.

**7.1.3** Self-Righting System: Must be built and installed per the requirements in Section 9.0.

**7.1.4** Each stand-up console must consist of three pieces:

7.1.4.1 A coaming deck plate - bolts to the deck and provides flooding protection for the engine compartment/console opening;

7.1.4.2 Operator console - mounted on a stainless steel hinge to allow access to the aft end of the engine compartment. The console must be secured with stainless steel latches while in the closed position. Space between console and sponson must be sufficient for safe passage of personnel, without necessity to stand or walk on the console or sponson;

7.1.4.3 Forward section engine compartment cover, with integral engine air intake and a damper, must be fitted so that it can be quickly unlatched and slid forward to allow access to the engine and surrounding engine compartment.

**7.1.5** The components mentioned above, identified as being latched, must be secured using Southco adjustable stainless steel latches, either;

7.1.5.1 Southco Stainless Steel Adjustable draw latch model # A1-11-702-40.

7.1.5.2 Southco Stainless Steel Adjustable draw latch model A1-10-501-40 with keeper style "B".

### **7.2 SEATING**

**7.2.1** The operator seating must be of the single person stand-up bolster configuration.

**7.2.2** Removable padded back support for the operator.

**7.2.3** Engine box and aft drive box to have upholstered cushions on top surface for seating.

### **7.3 CONSOLES; GENERAL**

**7.3.1** The consoles must be fabricated to low weight, high strength specifications from GRP or aluminium.

**7.3.2** The consoles must be fitted so as to provide proper access for hoisting arrangements.

**7.3.3** The Operator's console outfit must consist of the steering / throttle controls and related equipment. Engine controls must be situated on the starboard side of the helm, and must be situated in such a manner that the operation of one control, or the steering wheel, must not inadvertently activate or deactivate any of the other controls.

## **7.4 Operator Console:**

### **7.4.1 Regulatory equipment;**

- 7.4.1.1 A 2-<sup>3</sup>/<sub>4</sub> inch dia. damped card magnetic compass, lighted and adjustable for deviation.
- 7.4.1.2 A Deviation Card to be contractor supplied.
- 7.4.1.3 A Regulatory compliant electric horn, Ongaro or equal.

### **7.4.2 Engine equipment;**

- 7.4.2.1 Individual keyed ignition switch with emergency stop clip and lanyard for the engine. Spare key and lanyard to be supplied with each boat.
- 7.4.2.2 Tachometer for the engine, and alarms.
- 7.4.2.3 Cooling water temperature gauge.
- 7.4.2.4 Tilt / trim gauge for propulsion unit.
- 7.4.2.5 An hour meter for engine.
- 7.4.2.6 Fuel level gauge for each fuel tank.
- 7.4.2.7 Battery Condition Indicator for each battery.

### **7.4.3 Other equipment**

- 7.4.3.1 A depth sounder as detailed in the electronics section 8.7.2
- 7.4.3.2 A minimum 10-breaker circuit panel, weather protected, waterproof faced.
- 7.4.3.3 Separate waterproof dimmer switches for the compass and engine instruments.
- 7.4.3.4 All alarms visual indicators to be mounted in plain view of operators position.
- 7.4.3.5 Various labels and notices are required for the vessel as per TP 1332, and IMO regulations.

## **8.0 CONSTRUCTION**

All structures and components (hull, deck, seating, etc.) must be of sufficient strength to withstand when in the Normal Load Condition, the lateral and vertical impact-loading that equates to the conditions of the operational requirements.

## **8.1 MINIMUM LAMINATION REQUIREMENTS**

### **8.1.1 General:**

- 8.1.1.1 Gelcoat - isophthalic NPG (Neo Pentyl Glycol);
- 8.1.1.2 Laminating resin - fire retardant (complies with ASTM E-84 Class I flame spread) epoxy vinylester resin;
- 8.1.1.3 Laminate reinforcement - E-Glass chopped strand mat and woven or knit roving.

### **8.1.2 Hull bottom - foam sandwich cored construction with solid laminate keel/stem and chine:**

- 8.1.2.1 Outside laminate - alternating layers of chopped strand mat (minimum total of 900 gm./sq.m.) and woven or knit E glass (minimum total of 1200 gm./sq.m.) reinforcement.
- 8.1.2.2 Core - minimum 25 mm thick foam core with minimum nominal density of 90 kg/cu.m. and minimum 50% shear elongation to break .
- 8.1.2.3 Inside laminate - alternating layers of chopped strand mat (minimum total of 450 gm./sq.m.) and woven or knit E glass (minimum total of 800 gm./sq.m.) reinforcement.
- 8.1.2.4 Keel/stem - single skin laminate extending 100 mm (+/- 30 mm) each side of centerline. Alternating layers of chopped strand mat (minimum total of 2700 gm./sq.m.) and woven or knit E-glass (minimum total of 4000 gm./sq.m.)
- 8.1.2.5 Chine - single skin laminate extending from hull chine to hull sheer and 100 mm (+/30 mm) inboard from the hull chine. Alternating layers of chopped strand mat (minimum total of 2700 gm./sq.m.) and woven or knit E-glass (minimum total of 4000 gm./sq.m.).

**8.1.3 Transom - plywood sandwich cored construction:**

8.1.3.1 Outside laminate - alternating layers of chopped strand mat (minimum total of 1600 gm./sq.m.) and woven or knit E glass (minimum total of 2400 gm./sq.m.) reinforcement;

8.1.3.2 Core - minimum 38 mm thick pressure treated marine plywood core;

8.1.3.3 Inside laminate - alternating layers of chopped strand mat (minimum total of 1300 gm./sq.m.) and woven or knit E glass (minimum total of 2400 gm./sq.m.) reinforcement.

**8.1.4 Deck - horizontal surfaces sandwich cored construction:**

8.1.4.1 Outside laminate - alternating layers of chopped strand mat (minimum total of 600 gm./sq.m.) and woven or knit E glass (minimum total of 600 gm./sq.m.) reinforcement;

8.1.4.2 Core - minimum 4 mm thick;

8.1.4.3 Inside laminate - alternating layers of chopped strand mat (minimum total of 300 gm./sq.m.) and woven or knit E glass (minimum total of 600 gm./sq.m.) reinforcement.

**8.2 HULL AND DECK**

**8.2.1** Rigid hulls must be constructed of glass-reinforced plastic (GRP) using fire rated Vinylester Resin with a compatible fire-retardant gelcoat.

**8.2.2** The deck and hull must be laid up in female exterior molds, of compatible materials, meeting or exceeding approved laminate schedules, and the deck must have a suitable non-skid finish. The hull basic laminate requirements must be met as identified on the approved SOLAS certified construction drawings for this RIB.

**8.2.3** The gelcoat colour must be international orange to a depth of 20-22 mils.

**8.2.4** The core is to be installed as per the core manufacturer's specifications.

**8.2.5** The deck to have high capacity, 4" dia. minimum, self-draining ports, and must be fitted with mechanical closures for the drains to prevent water ingress while the vessel is stopped, (elephant trunk style)..

**8.2.6** The deck above the watertight compartments must have bolted watertight centerline access plates / hatches for easy removal to allow for repair of tanks or buoyancy compartments beneath, and separate access plates for inspection access to the fuel system components as per TP 1332.

**8.2.7** Inboard Engine spaces to have dampers installed in supply and exhaust ducts to readily close the air supply to the space in the event of fire. Loose plate dampers to be stowed in side sliding guides at the closed damper installation point. The intakes, and exhausts, are to maximize water exclusion into the engine space while permitting adequate air flow.

**8.2.8** Buoyancy Foam- Must be Fire Rated (FR), or Low Smoke and flame spread, closed-cell foam installed to perform the required stability functions and isolated from inboard engine and fuel tank spaces by main girders or bulkheads with any foam accesses through these members closed by cover plates.

**8.2.9** The deck is to have certified (6:1 safety ratio based on the ultimate strength of materials and the IMO Rescue boat load condition) recessed lifting lugs installed.

**8.2.10** Flush mounted deck tie downs must be fitted on the forward deck area for the securing of deck cargo. (Minimum of 4 required, 6 inch oval style)

**8.2.11** The standard colour of the hull, deck, collar, and console of the craft must be international orange, with retro reflective tape affixed as required. Upholstery on the seats must be black. All exposed aluminium surfaces must be matte black.

**8.3 STOWAGE**

**8.3.1** A weather tight bow box for storage must be provided of approximately 7 cu. ft capacity and installed securely using fasteners that allow the box to be easily removed. A hinged weather tight lid must be fitted, to be secured using a Southco Stainless Steel Adjustable

draw latch model A1-10-501-40 with keeper style”B or equal. The lid must be a working deck, be top mounted and covered in non-skid to prevent slipping.

- 8.3.2 Arrangements must be provided for safe, secure and accessible stowage of an anchor and cable, paddles, and other equipment.
- 8.3.3 Weather tight stowage for small items of equipment must be provided in void spaces beneath seats, and where practicable, inside console(s)
- 8.3.4 All exterior stowage compartments must be lockable, secured by positive means and operable by gloved or insensitive hands.

#### 8.4 BEACHING SHOE

General description - Kevlar / glass reinforced molded beaching shoe laminated in a female mold. Exterior gel coat finish is to be the same as the hull molding. Beaching shoe edges to be faired and gelcoated after bonding to the hull.

- 8.4.1 Width from hull centerline - 200 mm
- 8.4.2 Length - full length - from transom to underside of chine flat at bow.
- 8.4.3 Thickness of laminate - 5 mm total (excluding adhesive).
- 8.4.4 Laminate made up with one layer of 1808 biaxial knit glass reinforcement and minimum of 2.4 mm thickness of Kevlar needle punched felt reinforcement.
- 8.4.5 Resin type - Fire retardant vinylester resin with minimum of 50% shear elongation at break.
- 8.4.6 Gelcoat type - NPG isophthalic fire retardant gelcoat
- 8.4.7 Shoe to hull adhesive to be a methacrylate bonding putty, (ITW Plexus or equal)  
<http://www.itwplexus.com/home.html>
- 8.4.8 A non-chafing opening of approximately 5 cm diameter must be provided in the beaching shoe at the stem to accommodate the non-protruding bow eye.

#### 8.5 BOW EYE

- 8.5.1 A system is to be designed and incorporated into the construction of the stem that allows for the bowline and or trawling hook to be attached to the bow and which must not protrude from the line of the stem. The fitting must be a T316 stainless steel and of sufficient strength to allow for towing the vessel at a speed of 20 knots in calm water in the normal loaded condition, on an even keel without damaging the vessel or causing undue chafing of the towline.

#### 8.6 TOW POSTS

The tow posts are to be stamped with the Safe Working Load (SWL) of each post, paint highlighted.

- 8.6.1 One tow post, for EMERGENCY towing, with towing bits must be fitted aft, rated for 3000 lb. (1360 kg.), at the thrust point of the craft.
- 8.6.2 One removable cruciform tow post (tow capacity 2,500 lb. minimum, 1130 kg.) is to be fitted at the bow.

#### 8.7 COLLARS

- 8.7.1 Collar must be an inflatable type with at least 5 separate chambers, (except Miranda fitted collars that require a foam billet tube section to resist tube deformation on-board ship), of approximately equal volume, each fitted with a suitable inflation system and over-pressure relief valves calibrated to 3.5 p.s.i. (The Halkey Roberts model 690BV, and Leaffield model C-7 inflation valves and the Mirada model B51019 3.5 psi. over pressure relief valve, meet this requirement).
- 8.7.2 Inflatable collars fitted must be constructed of material that meets the criteria for strength, elasticity, resistance to wear and longevity as defined in TP 1324 - Material Specification for Coated Fabric Used in Inflatable Life rafts. (1670 decitex polyester, or nylon cored

fabric meets this requirement) and must be International Orange in Colour. Retro-reflective tape must be affixed to the collar in an approved manner as required.

- 8.7.3** All seams are to be hand buffed and glued. Polyurethane sealant should be used on all interior seams and baffle edge.
- 8.7.4** Collars must be interchangeable and have a diameter of between 550 and 610 millimetres so that custom fitting of spare collars is not required.
- 8.7.5** Inflatable collars must be attached to the hull using mechanical fasteners and clamping metal battens in such a manner that the collar can be easily removed for repair or replacement. The use of glue-on type collars is not acceptable.
- 8.7.6** Collar to be supplied with two pair of step treads installed, one forward and one aft of amidships on the port and starboard sides. Step treads must be reinforced neoprene material or equal.
- 8.7.7** Collar must be supplied with a transom tensioning strap.
- 8.7.8** Inflatable collars must be provided with protective rub guards all around. At least five extruded neoprene rubber, or equivalent, rubbing strakes (50 mm - 75 mm wide) must be glued along the entire length of the outboard side of the collar to provide protection against abrasion and puncture. 'Bombard' or equal.
- 8.7.9** Grab lines of braided nylon construction ½" diameter, must be fitted along the collar on both the port and starboard sides to provide access from both within the boat and for persons in the water. Grab lines must be mounted on the centerline of the collar, by means of a lacing cuff (not by D-ring attachment), and must hang down 10 to 12 inches.
- 8.7.10** A repair kit must be provided for inflatable collars.
- 8.7.11** An easily replaceable collar bow protector to prevent scuffing in the bow area must be fitted and constructed from hand glued 1650 Decitex Neoprene/Hypalon coated polyester fabric. It must be fastened to the bow collar section with lacing at the top and bolted flange at bottom. It should wrap the bow (collar only) from collar top centerline to collar/hull joint and extend approximately 4' (1.25M) aft down each side of the collar.

## **9.0 OUTFITTING AND EQUIPMENT**

### **9.1 TOWING**

In addition to the requirements of Tow Post identified in Section 7.5, the contractor must supply and install the following;

- 9.1.1** A hand cranked tow reel is required, with 100m of buoyant ¾ inch diameter towline
- 9.1.2** A removable handle to be stowed in a pocket nearby.
- 9.1.3** A removable, "Sunbrella"® Fabric or equal cover is to be supplied for the towing reel with a fastening system that would allow for quick removal.

### **9.2 LIFTING**

Multi-point Lifting; Certificates to accompany the slings. All vessels must be equipped with a four-leg webbing lifting bridle. The location and arrangement of lifting gear must be such that it does not pose a safety hazard to the operator or crew nor interfere with boat operation.

- 9.2.1** All bridle lifting lugs must be reinforced and proof tested in accordance with CSA Tackle Regulations, and must comply with the IMO regulations for 6:1 safety factors.
- 9.2.2** Lifting lugs may be recessed into the deck, or integral with tube cradle or transom, and may stand proud of deck in low traffic areas. Lifting points must not be located below the deck or within lockers or compartments. Lifting points must be located so that the bridle does not snag on the boat structure, console, outfit or machinery.



**9.2.3** Lifting slings provided must be webbing strap type certified to safely lift the vessel with the Rescue Boat 200% (complement and equipment on a full fuel boat) load condition, with a safety factor of 3 to 1 to the yield point for the lift rings.

### **9.3 MIRANDA DAVIT FRAME**

**9.3.1** The boat must be fitted with a rigid lifting frame suitable for a single point lift from a Miranda Davit – MRT 3900 CCG Style. The rigid frame must be specifically designed to provide a single point lift for the attachment of a Cranston Eagle quick release hook for both Port and Stbd Miranda Davit attachment points. The rigid Miranda Lifting frame must be constructed to allow the lifting of a fully loaded boat including, full fuel, engine, outdrive and 9 persons at 100 Kg each. The frame must be designed to lift this load with a 6:1 safety factor.

### **9.4 ELECTRICAL**

The electrical system design, component selection and installation must at a minimum be in accordance with Canadian Standards Association C22.2 NO. 183.2-M1983 (R1999) "Standards for D.C. Electrical Installations on Boats", and TP1332 and/or ABYC 'E' as referenced by TP1332. All electrical equipment and hardware must be installed in accordance with the manufacturer's specifications. Electrical equipment identified as required to be waterproof (e.g. console switch panel) will be deemed acceptable if it meets with IP66. Incorporating a waterproof breaker panel with a minimum of 10 circuits fitted. The Contractor must ensure that the breaker panel has 10% expansion room or a minimum of 2 spare breakers (whichever option is greater).

**9.4.1** Twelve Volt (12V) DC distribution system must be provided to power the engine starting and boat service loads including:

- 9.4.1.1 Navigation lights;
- 9.4.1.2 Exterior Lighting;
- 9.4.1.3 Navigational equipment;
- 9.4.1.4 Instrumentation;
- 9.4.1.5 Bilge Pumps;
- 9.4.1.6 Electronics; and
- 9.4.1.7 Communications

**9.4.2** All fitted electrical equipment must be capable of operating simultaneously with any other fitted electronics equipment without causing interference to any electronic equipment or to the magnetic compass.

**9.4.3** All electrical equipment must be readily accessible for performing maintenance.

**9.4.4** The electrical system must be completely waterproofed and easily accessible, incorporating a waterproof faced breaker panel with a minimum of 10 circuits fitted.

### **9.5 BATTERIES, CABLES, AND CHARGING SYSTEMS**

The Craft must have a dual-battery system with dual-battery selector switch mounted in a recessed position that conforms to engine manufacturer's specifications. Guest 2300A dual battery / dual battery selector switch is suitable.

**9.5.1** Batteries must be marine grade glass mat or gel type maintenance free to eliminate leakage, and a minimum 750 cold cranking amps.

**9.5.2** A third dedicated emergency VHF radio battery will be required.

**9.5.3** The Contractor must supply and install, on each Inboard Powered boat, a 120 VAC Marine Grade shore power system for charging the batteries; each unit must come with an exterior marine plug, panel and breaker. The Contractor must supply an electronic controlled battery charger such as the Guest 2630 Charge Pro or equivalent.



- 9.5.4 The Charger must have fully automatic operation (float / trickle), has the ability to charge multiple batteries, automatic reset overload protection and must have an indicator of charging function.
- 9.5.5 The shore power receptacle must be a marine-style locking 30 ampere waterproof male receptacle in a location that is accessible with all hatches and covers closed.
- 9.5.6 The Shore power must be connected to an A/C distribution panel. This panel will supply the battery charger, engine heater, plus two spare circuits. Each A/C circuit must have its own breaker. Each breaker must be wired as double pole, single throw to prevent false ground fault indication when the boat is connected onboard a Coast Guard Vessel.

## 9.6 UTILITY LIGHTING

- 9.6.1 Progressive dimmers of marine grade must be fitted wherever practicable, with the capability of dimming engine monitoring gauges and other indicators separately from compass illumination.
- 9.6.2 Craft must be fitted with two (2) LED marine grade floodlights, on their own breaker, one each side on the underside of the capsized reversal pan, suitable for illuminating the forward deck space. (The Hella 6176 meets this requirement).
- 9.6.3 A blue flashing light (strobe type) must be fitted. (The Star Warning Systems, part 23315, or Lopolight strobe lights meet this requirement)
- 9.6.4 Fitted Search Lights: The searchlight should be a deck mounted spot/flood light. The mount must be fitted on the removable bow tow post.
- 9.6.5 Three accessory plugs (with screw on watertight caps) will be installed on the boat, one forward by the removable bow light, one on the forward end of the operator console, one on the aft end of the operator console.
- 9.6.6 Handheld Searchlights: (two required), 35 Watt Xenon HID Lights.

## 9.7 ELECTRONIC EQUIPMENT

- 9.7.1 These vessels must be equipped with the following electronics navigation and communications equipment, with displays located as described for the console, in addition to the regulatory required compass and horn. Arrangement to be approved by the owner's TA.
- 9.7.2 A depth sounder must be installed with the display at the operator position above the engine tachometers and complete with an Airmar P319 transducer mounted as per manufacturers' specifications, (Simrad IS20 Combi Transducer Digital depth sounder meets this requirement). Transducer bracket must be installed using blind inserts.
- 9.7.3 Install Simrad 4G – Radar scanner.
- 9.7.4 One (1) Simrad NSE8 Multifunction Displays complete with radar, and plotter interface at the navigation/communication console, with GPS interface and GS25 Antenna.
- 9.7.5 ICOM IC M604 VHF DSC radio. C/w loud hailer/intercom function plumbed to Radio. Antenna spec. is Comrod AV60P 8 and shakespeare 4187 HD ratchet mount.
- 9.7.6 Coast Guard will install an additional GSM Radio so a spare breaker must be supplied and fitted. Console space must be provided for this radio, a Motorola APEX7000 with W5 control head and encryption module.
- 9.7.7 David Clarke wireless headset system; includes four U9910-BSW Belt Stations & associated "Gecko Helmet" headset inserts, U9800S Master Station, U9921 Universal Gateway, U9810PD Panel Display, and applicable interconnection cabling for intercommunications with onboard VHF radios.

## 9.8 PUMPING AND DRAINAGE

- 9.8.1 An electric bilge pump with 2000 gph capacity must be fitted in the main hull or largest watertight division as well as a fixed manual operated bilge pump of the diaphragm type. The bilge pump(s) must be located so that they take suction from the lowest point of the hull. Piping must be installed which will allow the bilge pump(s) to discharge directly

overboard. Any additional watertight division of the hull will be serviced by a bilge pump of 1500 GPH capacity.

**9.8.2** An automatic level sensor control must be fitted that turns on the electric bilge pump when water is present in the bilge. The electric bilge pump control switch must be located on the operator's console, with settings for 'momentary on', 'off', and 'automatic' operation. An indicator light must be provided at the control that lights when the bilge pump is operating.

**9.8.3** In addition, the engine space as well as any watertight division serviced by a bilge pump must be fitted with a "High Water Level Bilge Alarm" with indicator clearly visible at the helm.

**9.8.4** Hull drainage - a brass threaded plug must be provided in the lowest point to drain the hull when out of the water.

**9.8.5** Valves and handles must be made of non-corroding materials and must be located where they are readily accessible for operation, maintenance or removal.

### **9.9 RADAR ARCH / SELF RIGHTING SYSTEM**

**9.9.1** Radar Arch - must be installed aft, on which to mount antennae, lights and other fittings.

**9.9.2** A SOLAS Rescue Boat approved self-righting system of proven design must be installed.

**9.9.3** The system must employ a re-useable bladder and be a manually activated, self-righting system that will right an inverted RIB in no more than 15 seconds in air temperatures no less than -20° C.

**9.9.4** The bladder must be stowed deflated in a quick release enclosure on the arch.

**9.9.5** The framework must be constructed of materials and in such a manner to allow for a ten year lifespan without failure under normal operating conditions. At a minimum the materials must be made of 2" Schedule 40, type 5086 welded aluminum pipe.

**9.9.6** A recovery line of at least 10M must be fitted to the engine guard, on the port side.

**9.9.7** The activating handle will be located on the port side so that it is above the waterline when the boat is upside down.

**9.9.8** The system must be a compressed air system fitted with suitable over pressure relief valves and an inflation valve c/w a gauge mounted on the valve. (The Mirada series 5000 firing head and gauge meet this requirement.)

**9.9.9** The air bottle should be manufactured out of a rugged material that can withstand severe operating conditions. (The bottles Manufactured by Structural Composites Industries (SCI) and made of high pressure (4500 p.s.i.) GRP wrapped aluminum meet this requirement.) ([http://www.scicomposites.com/custom\\_cylinders.html](http://www.scicomposites.com/custom_cylinders.html)).

**9.9.10** Any ancillary equipment such as navigation lights, radar domes or radio antennas fitted to the self-righting cage must not interfere with the efficient operation of the self-righting system.

### **9.10 LIFESAVING EMERGENCY EQUIPMENT**

The following items must be provided with appropriate stowage / securing arrangements (as appropriate for each item). All CFM fittings must be heavy duty, corrosion resistant fittings. All items must be readily accessible (the foot pump and the repair kits must be stowed in a stowage locker). The Contractor will supply and outfit the boat with the following emergency equipment:

**9.10.1** Fire extinguisher (Class 5BC, marine type);

**9.10.2** Boat hook, 8 feet long (retractable);

**9.10.3** 2 paddles;

**9.10.4** Anchor (Fortress model 7X or equivalent) and line with chain;

**9.10.5** Drogue sea anchor and line;

**9.10.6** Four (4) 25-foot ½" braided nylon mooring lines;

**9.10.7** Collar patch kit (for inflatable collar);

**9.10.8** Hull repair kit;

**9.10.9** Foot pump (bellows type, for floatation collar);

- 9.10.10 Two (2) painters;
- 9.10.11 One (1) water proof LED flashlight w/ spare batteries and bulb;
- 9.10.12 One (1) pealess whistle;
- 9.10.13 TC approved First aid kit in waterproof container;
- 9.10.14 Two (2) buoyant rescue quoits attached to 30m of buoyant line;
- 9.10.15 Three (3) Thermal protective aids;
- 9.10.16 Radar reflector, Mountable on cage, tube style;
- 9.10.17 Six (6) TCMSB approved flares, type A.B.C;
- 9.10.18 Buoyant safety knife with sheath and blunt tip.

## **10.0 PROPULSION – I/O ENGINE AND DRIVE**

### **10.1 ENGINE AND DRIVE, I/O**

The Engine must be installed and operated in accordance with the engine manufacturer's recommendations. The use of engine manufacturer's approved accessories and equipment is required except for motor control cables (which must be manufacturer's best quality cables or heavy duty Morse 33C Supreme Red-Jacket ® cables with mfg. approved cable ends). Equipment and components must not be used, nor trials performed on the engines that would, in any way, void the engine manufacturer's warranties.

- 10.1.1 The Contractor must supply and install a Volvo Penta 4 cylinder 225 Hp D4-225 Diesel Engine and Volvo Penta Duo-Prop Outdrive model DP-H, Solas compliant OR EQUAL.
- 10.1.2 The engine must be installed as a "mid" mounted engine with a Volvo Penta 6 foot long Carden or jackshaft installed between the engine and outdrive unit.
- 10.1.3 The engine must not use salt water for cooling and must be fitted with a closed loop, "Keel Cooled" jacket water cooling system. The keel cooler must be a Fernstrum unit or equal, suitable for mounting on a GRP hull. The Fernstrum Keel Cooler must be recessed into the hull so that the cooler cannot be damaged when the boat is launched or recovered on either a bunk style or roller style boat trailer. The Cooler must also be placed and recessed so that it is not damaged when the boat is in the MRT 3900 Davit Cradle.
- 10.1.4 The Outdrive must be installed as a "dry" unit and must not use any raw water suction.
- 10.1.5 The boat must be fitted with a "dry exhaust". The exhaust must not exit through the Volvo Penta Outdrive leg.
- 10.1.6 The Volvo Penta engine must be able to be started while the boat is out of the water and run at low load for 30 minutes without overheating.
- 10.1.7 The engine must be fitted with an "Arctic Package" including a 120 VAC inline jacket water heater such as the Kim Hotstart TPS Model
- 10.1.8 The contractor must supply and install Volvo Penta aluminium A7 duo props, and a prop guard cage.
- 10.1.9 The engine must be fitted with a dry exhaust, using lagged stainless steel pipe, complete with expansion bellows as per the manufacturer's recommendations.
- 10.1.10 The Exhaust must exit at the transom of the boat and be fitted with a self-closing stainless steel flap on the end of the exhaust for exclusion of aft wake surge.

### **10.2 ENGINE GUARD**

- 10.2.1 A guard made of welded 2" schedule 40, type 6063 aluminium pipe must extend out and around the drive leg to protect it from impact. This guard must be fabricated so as to be easily removed in order to facilitate the removal of the duo-prop leg.

### **10.3 FUEL SYSTEMS**

## ALL FUEL SYSTEM HOSES TO BE USCG "A" RATED

- 10.3.1** Valves and fittings used in the fuel system must be of non-corroding materials, and all fuel valves should be readily accessible and labelled.
- 10.3.2** Each fuel vent must be fitted with a ball check valve.
- 10.3.3** Fuel filling pipes must have a standpipe that stands proud of the deck at least 2 inches to avoid contamination entering.
- 10.3.4** Main Tank minimum Capacity 182 Litres (48 gal US).
- 10.3.5** Fuel tank supply must be fitted with a debris and water separating filter system (transparent bowl) that is accessible for ease of maintenance. Racor 500MA or equivalent.
- 10.3.6** There must be one tank fitted, manufactured from roto-moulded cross-linked polyethylene, or marine grade aluminium, with sufficient strapping to prevent any movement of the tank. There must be inspection hatch(s) in the deck, to allow access to the fuel pick-ups, (with the required shutoff valve at the tank), vent, and fill connections, and tank level indicators.

## 10.4 FIRE SUPPRESSION - INBOARD ENGINE CONFIGURATION

- 10.4.1** The engine space must be fitted with a TCMS approved fire suppression agent designed for the engine space in each inboard/outboard boat as per section 10 of TP1332. Design criteria, & volume calculations must be presented in writing as part of the boats' documentation.
- 10.4.2** All engine space (including tank space) ventilation must be fitted with closures to stop the flow of air to the engine space in the event of a fire in the engine space.
- 10.4.3** The fire suppression system, as required by TP1332, must have two independent manually fired systems, each one capable of extinguishing an engine room fire on its own. Both fire suppression systems must be manually activated and labeled accordingly.
- 10.4.4** A heat rise detector must be installed within the engine compartment in accordance with TP1332. The heat rise detection system must be powered directly from the battery, and supplied with audible and visual alarm on operator's console.

## 11.0 STEERING

- 11.1** Steering system must be remote hydraulic with self-contained oil reservoir, and replaceable seals on the rams, unless propulsion system builder requires alternate steering arrangement.
- 11.2** Hydraulic hoses must be of sufficient size and length to prevent pulsing. Hoses must be suitable for use in an exposed marine environment complete with stainless steel fittings. Steering systems must be hydraulic with a maximum of 4 turns from hard over to hard over, the Uflex steering system meets this requirement.
- 11.3** All hydraulic steering hoses must be routed below deck and all hoses must be routed so that there are no pinch points on the hoses.
- 11.4** The wheel / console connection must be of robust construction, to eliminate fore and aft or lateral movement of wheel / steering shaft fixture.
- 11.5** The Steering wheel must be stiff enough that during rough water operations there is no flexing of the wheel and the wheel should be padded to provide a comfortable non-slip surface for the operator to grip. (Momo Marine steering wheels meet these requirements).

## 12.0 PAINTING AND PRESERVATION

- 12.1** Fibreglass components must have a coloured fire retardant gel-coat finish on all exterior surfaces. Gelcoat to be applied at 20-22 mil thicknesses. Finish colour(s) as per Section 8.1.3.

- 12.2** Aluminium components must have a painted finish on all specified exterior and interior surfaces, comprised of suitable etch, primers, and topcoat per Section 8.1.4. Typical single coat paint systems can be applied in the 5 to 7 mil thickness range per coating set. Typical system components would be: a) etch-primer; b) two coats of primer; and c) minimum double topcoat.
- 12.3** Prior to delivery the Contractor must ensure that all non-painted exposed aluminium is free of cosmetic blemishes, including all construction marks, scratches, gouges and stains.

## **13.0 SYSTEMS GENERAL**

### **13.1 CABLES**

- 13.1.1** Cables for all electrical distribution must be ample in size for the particular service, of marine grade tinned boat cable.
- 13.1.2** Cables must be grouped into wiring harnesses wherever possible. All wiring harnesses must be routed through protective conduit pipe. Where impractical cables and conductors must be supported with clamps or straps at least every 18 inches on horizontal runs and every 14 inches on vertical runs.
- 13.1.3** Cabling / conductors passing through watertight boundaries, decks, bulkheads or other exposed surfaces must be installed to maintain watertight integrity of the structure. Cable entry into watertight enclosures must be through watertight marine glands of suitable size.
- 13.1.4** Cabling / conductors passing through structures without watertight glands, must be protected against chafing by the use of abrasive resistant grommets.
- 13.1.5** Routing cables through foamed spaces must be avoided wherever possible. Cables that must be routed through foamed spaces must be run in PVC conduit pipe. The pipe must be arranged in a manner that prevents water from becoming entrapped in the pipe.

- 13.2 Bilge Blower:** The boat must be fitted with a 12V DC bilge blower system. The bilge blower system must be controlled by a separate watertight switch and fuse located at the operator's console.

### **13.3 Piping Systems**

- 13.3.1.1** Fuel System must be hydrostatically tested, or air tested to 3.0 psi. and be labelled per the requirements of TP1332.
- 13.3.1.2** Fittings and clamps must be stainless steel. Bolts used in all fittings must be Type 316 stainless steel.
- 13.3.1.3** Each watertight Hull compartment is to have its own 12V DC bilge pump, plumbed to discharge overboard from the compartment, as per TP1332.

### **13.4 NAVIGATION EQUIPMENT (COLREGS)**

The following must be Contractor supplied and fitted:

- 13.4.1** Navigation lighting fixtures must be of such a design as to resist the effects of vibration and moisture and must be provided with adequate protection from damage.
- 13.4.2** Particular COLREGS rules to note (vessels under 12 M.); Rules 22, 23, and Annex 1, rules 2, 9, and 10. (NOTE: The lights must be installed parallel to the "Normal Load" waterline that often may not be parallel to the deck.)
- 13.4.3** The navigation lights must be mounted so as not to interfere with vision of the operator.
- 13.4.4** All navigation lights must display the arc and range of visibility as defined in the Canada Shipping Act, Collision Regulations.
- 13.4.5** Navigation lights must be permanently fitted to the self-righting cage with protected wiring and must be waterproofed. The fitting of a combined lantern on the inflatable collar will not be acceptable.

**13.4.6** The navigation light fixtures must be of such a design as to resist the effects of vibration and must be provided with adequate protection from damage, which may occur when lying alongside a vessel or a pier. (The Hella NaviLED meet this requirement.) A single all-round light for Masthead / Stern light is acceptable, mounted on a folding / detachable stanchion 1M above sidelights. LED navigation lights may be used.

**13.4.7** The Contractor must supply and install an electric horn that ensures the requirements of the Collision Regulations, Rule 32 are met, i.e. with a standard small vessel 'horn' audible 0.5 NM. The horn must be installed on the vessel exterior with the 'horn' facing forward. The horn must be operated by a spring-loaded switch located on the operators' console. The "Signaltone", or Ongaro electric horns meet this requirement.

**13.4.8** A Magnetic Compass must be mounted near the centreline of the helm station, in easy view of the operator when facing forward.

#### **14.0 TESTS & TRIALS**

The Contractor must conduct their own inspections, tests and trials to verify successful completion of the Work in accordance with this TSOR and the proper operation of the vessel and all associated equipment. The requirements for inspections, tests and trials and associated deliverable documentation are defined in the Contract and Annexes to the Contract including any test, trials or sample reports attached thereto. All discrepancies identified through the inspection, test and trials processes must be corrected prior to delivery.

**14.1** The Contractor must, as a minimum, inspect and test the following items for adherence to the contract requirements and proper operation (proper operation means that the equipment can be started, operated, connected together and demonstrated to function in a normal fashion, as applicable). The inspections and tests listed herein are minimums and are not intended to supplant any controls, examinations, inspections or tests normally employed by the Contractor to assure the quality of the vessel:

- 14.1.1.1 Weight
- 14.1.1.2 Construction Quality
- 14.1.1.3 Lifting Gear, if applicable
- 14.1.1.4 Propulsion Engines, including starting
- 14.1.1.5 Propulsion Controls
- 14.1.1.6 Steering System
- 14.1.1.7 Fuel System
- 14.1.1.8 Electrical System
- 14.1.1.9 Electronics

#### **14.2 Sea Trials**

The minimum acceptable sea trial and report is as attached hereto, ATTACHMENT I OF APPENDIX II.

**14.3** A copy of the stability calculations and documentation as previously submitted to obtain the current SOLAS Rescue Boat certificate must be provided in the technical manual, an additional copy must be provided for the Technical Authority.

#### **14.4 Trial Records and Reports:**

The requirements for recording and maintaining trials records are given in the Contract and applicable Annexes

#### **14.5 Deliverable Documentation:**

The requirements for deliverable documentation are given in the Contract and applicable Annexes.



## **15.0 BUILDER'S PLATE**

### **15.1 NATIONAL ASSET CODE**

**15.1.1** The National Asset Code for this vessel is as follows:

**VXC62**, The contractor must add this 5 character code to the builder's plate of each vessel with the prefix "National Asset Code".

### **15.2 BUILDER'S PLATE**

**15.2.1** A Builder's Plate must be affixed to each asset in a readily visible location, e.g. for a boat, in way of the helm position, for a trailer on the left side of the tongue.

**15.2.2** The plate must be made of a weather resistant material compatible with that to which it is affixed.

**15.2.3** The dimensions of the plate must be not less than 200mm x 125mm

**15.2.4** The plate must contain the following information, permanently etched:

15.2.4.1 National Asset Code;

15.2.4.2 Naval Architect/Designer;

15.2.4.3 Builder;

15.2.4.4 Hull Number;

15.2.4.5 Year of Construction;

15.2.4.6 Lightship Weight in kilograms.

**15.2.5** The Builder's Plate must be in both official languages.

## **16.0 SHIPPING AND DELIVERY**

Prior to shipping, the boat is to be cleaned, appropriately protected and covered in accordance with the instructions specified in this section.

**16.1** Prior to shipping, the boats must be secured on their respective trailers, cleaned, preserved and covered in accordance with this section. All areas of the boat are to be cleaned prior to covering for shipping. Bilges are to be dry and free of oil and debris and the fuel tanks must be full with fuel stabilizer added.

**16.2** The propulsion system must be preserved in accordance with the manufacturer's recommendations for storage of up to one year in an environment that will be subjected to freezing temperatures.

**16.3** The batteries are to be disconnected. A warning plate is to be tied to the steering wheel with a wire indicating that the boat has been protected for shipping and storage and must not be started until the propulsion machinery has been reactivated.

**16.4** All contact points with the boat are to be padded. A shrink wrap cover is to be provided to protect the boat during shipping and storage.

**16.5** Means of Delivery: For a delivery distance not exceeding 1000 km the Contractor may deliver the vessel/trailer combination on the trailer. Where the delivery distance exceeds 1000 km the trailer may not be utilized as means of delivery

## **17.0 TRAILER**

**17.1** The Contractor must supply a dual axle trailer to fit the boat, welded galvanized construction and be rated at least 20% over the anticipated 'normal load' weight of the boat, minimum load capacity of 8000 lbs. The trailer must be certified commercial requirements in accordance with Department of Transport regulations for towing the vessel, and be constructed and equipped with the following:

**17.1.1** Tandem axle trailer, welded frame with spare tire on rim (mounted to front of trailer), safety chains and stainless steel "Bearing Buddies" and grease nipples.

- 17.1.2** Brake and turn signal submersible style LED lighting, with 7-prong flat wiring connector.  
(Note requirement for other connector if required for the equipment listed for trailer).
  - 17.1.3** Stainless steel calipers, mounting brackets and rotors with the appropriate brake pads.
  - 17.1.4** Electric over Hydraulic, jurisdiction compliant braking system.
  - 17.1.5** Manual, two speed bow winch assembly with winch webbing strap, non-coroding safety hook, bow chock, and swivel tongue jack, (1600 lb.) with wheel and an anti-reverse mechanism.
  - 17.1.6** Heavy-duty 'stand-on' fenders with mud flaps and hitch to accommodate a 2 5/16 inch ball;
  - 17.1.7** Bunks and wheel mounted spare tire and carrier, with lug wrench; and six removable attachment points.
  - 17.1.8** Trailer to be supplied with two (2) ratchet tie down straps with hooks securing boat to trailer aft. Turnbuckle to be provided for securing boat to trailer forward.
  - 17.1.9** The trailer must be fitted with a heavy duty Fulton type 545 Kg (1600 lb.) H.D. trailer jack complete with heavy duty swivel wheel.
  - 17.1.10** Class III weight distributing hitch compliant.
  - 17.1.11** Radial tires approved for trailers, minimum 225 75 R 15" Load range D tires on 6-bolt galvanized rims, with an equivalent sized spare on a high mount bracket. The tires must have a capacity equal or superior to the load capacity of the trailers.
- The contractor must record the trailer sales and registration information and provide the information in each vessel manual.



## Appendix I - Final Deliverable Data Package

The Final Data Package which must be delivered to Canada is as defined in the Contract, but must include, as a minimum the technical publications identified in this appendix.

### 1.0 Comprehensive Owner/Operator Manuals

#### 1.1 Deliverables

- 1.1.1 One (1) complete hard copy and one (1) complete CD electronic copy set of the manuals per vessel delivered for the operator of each vessel, to be delivered with the vessel.
- 1.1.2 One (1) complete hard copy and one (1) complete CD electronic copy set of the manuals per vessel delivered for the Technical Authority, to be delivered to the same address identified for invoices.

#### 1.2 Content

The manuals must provide a physical and functional description of the craft, it's machinery and equipment, as well as delivery testing and sea trial result documentation. The manuals must include as a minimum the following three sections and as detailed below:

- General Information
- Technical Information
- Spare Parts List

#### 1.2.1 GENERAL INFORMATION SECTION

The General Information Section must include a description of the arrangement and function of all structures, systems, fittings and accessories that comprise the boat, with illustrations as appropriate:

- 1.2.1.1 Operating procedures;
- 1.2.1.2 Basic operating characteristics (such as temperatures, pressures, flow rates)
- 1.2.1.3 Installation criteria and drawings, assembly and disassembly instructions with comprehensive illustrations showing each step;
- 1.2.1.4 Recommended planned maintenance; and
- 1.2.1.5 Complete troubleshooting procedures.

#### 1.2.2 TECHNICAL INFORMATION SECTION

The Technical Information Section a complete set of detailed owner / operator instructions, drawings (Section 15), parts lists and supplemental data for all components of the boat (whether acquired from external sources or custom-manufactured).

- 1.2.2.1 "As Fitted", dimensioned drawings must be produced for manuals to record the vessel particulars.
- 1.2.2.2 Plan and Profile, showing the General arrangement; and
- 1.2.2.3 Indication of the Systems arrangement presented with the above drawings covering Bilge, Fuel, Electrical, and propulsion installations.
- 1.2.2.4 Parts list must include the name, part number and serial number if applicable of the parts, items or components and must indicate the supplier (name, address, phone number, email address) of this part, equipment or component and in which part of the specification the item appears.

- 1.2.2.5 Hull Serial Number (HIN), copy of builders plate, TEST and TRIAL results as per completed Attachment 1 of Appendix II, serial or manufacturer's numbers, and equipment warranty cards.
- 1.2.2.6 Engine(s) and equipment: including engine and propulsion serial numbers.
- 1.2.2.7 Acceptance Certificates, and compliance sheets or certificates distributed with equipment i.e. life saving appliances, lifting appliances, engine test reports, calibration certificates, Nav light certificates, Fire suppression material certificates, flotation foam rating sheets
- 1.2.2.8 Pre-trial shop Testing Check Sheet.
- 1.2.2.9 Electronics, (if applicable): including model and serial numbers.
- 1.2.2.10 Regulatory and Stability documentation: as required per TP 1332, which, references ISO12217 or ISO 6185 for RIBs (if applicable).

### **1.2.3 SPARE PARTS LIST SECTION**

The Spare Parts List section must include a list of recommended initial onboard spare parts to be stocked for the vessel. The list must include the name, part number and serial number if applicable of the parts, items or components and must indicate the supplier (name, address, phone number, email address) of this part, equipment or component and in which part of the TSOR the item appears. At a minimum this list must include the following items (as applicable):

- 1.2.3.1 Propulsion: Propellers, filters, water pump impeller, batteries, throttle and shift cables, special engine tools.
- 1.2.3.2 Electrical: panel breakers, fuses, light bulbs;
- 1.2.3.3 Boat Structures and Fittings: Miscellaneous commonly used fasteners.

## **2.0 ADDITIONAL DELIVERABLE DOCUMENTATION**

The following additional documentation must be delivered with each vessel:

- 2.1** Tonnage Registration Certificate in accordance with TP 13430 - <http://www.tc.gc.ca/eng/marinesafety/svcp-qt-3948.htm>
- 2.2** A completed and signed copy of the Small Vessel Compliance Program SVCP for the vessel delivered. All sections applicable to the builder only must be completed. Website: <http://www.tc.gc.ca/eng/marinesafety/svcp-menu-3633.htm>.
- 2.3** Two complete sets (one for the vessel and a second for the trailer) of Bill of Sales per vessel delivered, one for the vessel and a second for the Technical Authority. A valid Motor Vehicle Registration Certificate for the relevant Province of delivery must be delivered with the vessel.

## Appendix II - Sea Trials

- 1.0** Sea trials must be conducted by the Contractor to demonstrate the vessel and its equipment conform to the requirements as stated in the Contract. All expenses incident to the trials must be borne by the Contractor, including fuel unless otherwise specified. A crew provided by the Contractor must operate the vessel during sea trials. Residual fuel, if not drained for shipping, must be delivered in its tank with the vessel.
- 2.0** All Sea Trial instrumentation and equipment must be furnished and operated by the Contractor. Trial instrumentation, where applicable, must not replace the vessel's instruments (e.g., engine tachometer, pressure gauges, and thermometers). The Contractor must furnish all necessary hardware and fittings and must install the measuring devices. After satisfactory completion of the trials, all instrumentation must be removed and all systems restored to their original condition. The Contractor must provide two (2) copies of the calibration data certifying the accuracy of the instrumentation for the tests and include it in the technical publications
- 3.0** The Contractor must submit a Test & Trials Plan, including a description of all of the acceptance trials to be performed. As a minimum, Using Attachment I, modified to suit these vessels, the following trials must be conducted: (the vessel must operate in the Normal Load Condition.)
  - 3.1.1** Speed Trials - The speed trials must be done over a course at least one (1) nautical mile in length. Two (2) runs must be made over the course, one (1) in each direction with the speeds for the two (2) runs averaged. The use of GPS data (averaged) is acceptable.
  - 3.1.2** Endurance Trial - The boat must operate at maximum speed for a minimum of ten (10) minute intervals in the Fully Loaded Condition over one (1) hour period considering the break in procedures of the equipment. During the endurance trials, it must be demonstrated that all parts of the propulsion system are in full operation. All systems must be operated to check for proper lubrication, control and alignment. Fuel consumption must be recorded for the one-hour trial
  - 3.1.3** Astern Propulsion - The vessel must be operated and manoeuvred using astern propulsion to establish the astern performance. During the backing performance tests the throttles must be set to provide 1/3 of the rated engine horsepower. In order to demonstrate astern performance of the engines in an emergency stop and to test the strength of the foundations, the engine must be subjected to two stops from full power ahead at maximum speed to dead in the water using reverse thrust. Time required to perform this trial must be recorded.
  - 3.1.4** Steering Gear - Tests must be conducted on the steering gear to demonstrate the adequacy of the steering system under all operations. Manoeuvring tests must be performed to ensure that the vessel meets the stated requirements. Manoeuvring trials must be conducted in the Normal Load Condition and repeated in the Full Load Condition.
  - 3.1.5** The Contractor must provide a Tests & Trials Sheet, (Attachment 1) for each boat and include this sheet in the technical publications.
  - 3.1.6** Public Works and Government Services Canada Contract Authority and Technical Authority must be notified no less than 2 weeks prior to sea trials. The Technical Authority will witness and attend the sea trials. Sea trial results must be forwarded to the Technical Authority prior to delivery of the vessel.
  - 3.1.7** At the conclusion of sea trials each vessel must be thoroughly cleaned and inspected. Engine cooling systems must be flushed through with fresh water. The Contractor must repair any damage to the vessel or ancillary equipment resulting from sea trials, to the satisfaction of the Technical Authority.
  - 3.1.8** For the purpose of the trials, Normal Loaded Condition must be considered to be the basic vessel, fitted with all normal equipment, full fuel, with complement and loads per Vessel Particulars, (see section 5.1.9).

APPENDIX II, ATTACHMENT 1  
SMALL CRAFT / VESSEL TESTS & TRIALS SHEET  
CONTRACT # F7047-150003

<b>Small Craft / Vessel Builder:</b>			
<b>Small Craft / Vessel Description:</b>			
<b>Hull Identification Number:</b>			
<b>National Asset Code:</b>			
<b>Date of Trials:</b>			
<b>Personnel in Attendance:</b>			
<b>Builder</b>			
<b>PWGSC</b>			
<b>DFO</b>			
<b>DFO</b>			
<b>Time: _____ hrs Departing from _____</b>			
<b>Small Craft / Vessel Weights:</b>	Dry Weight of Hull with cabin:		_____ lbs/ _____ kg
	Furnishings & Fittings:		_____ lbs/ _____ kg
	Engines & Equipment:		_____ lbs/ _____ kg
	Fuel:	Fuel:	_____ lbs/ _____ kg
	_____ Imp gal	_____ Litres	
	<b>Total Weight of Small Craft/Vessel:</b>		_____ lbs/ _____ kg
	Number of Crew _____ and operating equipment:		_____ lbs/ _____ kg
	<b>Test Total Laden Weight:</b>		_____ lbs/ _____ kg
<b>Trailer weight:</b>		_____ lbs/ _____ kg	

	<b>Boat &amp; Trailer weight:</b>	_____ lbs/ _____ kg
<b>Motors: Starting - Operation</b> <b>"IDENTIFY INBOARD/OUTBOARDS"</b>	<b>Port</b>	<input type="radio"/> <b>Immediate, Yes / No</b>
	<b>Starboard</b>	<input type="radio"/> <b>Immediate, Yes / No</b>
<b>Propellers/Impellers</b>	<b>Pitch</b>	_____
	<b>Diameter</b>	_____
	<b>No. of Blades</b>	_____
	<b>Stainless Steel or Aluminum</b>	<input type="radio"/> <b>S/S</b> ___ <b>AL</b>
<b>Static Attitude &amp; Trim:</b>		
<b>Weather Conditions: Refer to attached Beaufort Wind Scale. BWS No. _____</b>		
<b>Speed Trials</b>	<b>Speed Required</b> _____ - _____ <b>knots</b>	
	Cruising Speed: measured mile 1 way	_____ kts @ _____ rpm
	Cruising Speed: measured mile return	_____ kts @ _____ rpm
	<b>Averaged Cruising Speed:</b>	_____ kts @ _____ rpm
	Maximum Speed: measured mile 1 way	_____ kts @ _____ rpm
	Maximum Speed: measured mile return	_____ kts @ _____ rpm
	<b>Average Maximum Speed</b> _____ <b>kts @</b> _____ <b>rpm</b>	
<b>Full Throttle</b>	From dead stop to plane	_____ <b>seconds</b>
	From dead stop to 30 knots	_____ <b>seconds</b>

<b>Astern Propulsion:</b>	Straight line to 2000 rpm	<input type="radio"/> Issues, Yes / No
	Hard a-port	<input type="radio"/> Issues, Yes / No
	Hard a-starboard	<input type="radio"/> Issues, Yes / No
	Emergency stop	_____ seconds
<b>Tubes (if applicable)</b>		
	No. of Chambers	_____
	Semi-auto fill system	<input type="radio"/> Yes / No
	Time to fill all chambers	_____ seconds
<b>Fuel consumption</b>		
<b>Endurance Trials: X = gallons or Litres</b>	Port & Starboard Motor: at cruise:	_____ X/hr @ _____ rpm
	Port & Starboard Motor: at full throttle:	_____ X/hr @ _____ rpm
<b>Steering: Acceptable Y / N</b>	Straight line	<input type="radio"/> Yes / No
	Hard-Port radius of turn. Full Throttle	_____ feet
	Hard-Stbd radius of turn. Full Throttle	_____ feet
	Lock to lock = 35 degrees pt. & stbd	<input type="radio"/> Yes / No
	Effective steering 0-5 knots	<input type="radio"/> Yes / No
	5-10 knots	<input type="radio"/> Yes / No
	20-30 knots	<input type="radio"/> Yes / No
	Full speed	<input type="radio"/> Yes / No
<b>Outboard/Inboard Leg Trim Control:</b>	From fully raised to fully lowered.	<input type="radio"/> Acceptable Yes / No
<b>Trim Tab Operation:</b>	Fully raised, fully lowered.	<input type="radio"/> Acceptable Yes / No

<b>Engine Controls:</b>	Start	<input type="radio"/> Issues, Yes / No
	Shift	<input type="radio"/> Issues, Yes / No
	Throttle	<input type="radio"/> Acceptable Yes / No
<b>Engine Gauges:</b>	Tachometer	<input type="radio"/> Acceptable Yes / No
	Fuel gauges	<input type="radio"/> Acceptable Yes / No
	Trim gauges	<input type="radio"/> Acceptable Yes / No
<b>Engine Gauges:</b>	Oil pressure	<input type="radio"/> Acceptable Yes / No
	Voltmeter	_____ volts
<b>Cabin Sound Levels:</b>	Cruising speed- door & windows closed	_____ dbA @ _____ rpm
	Cruising speed- door & windows open	_____ dbA @ _____ rpm
	Full speed- door & windows closed	_____ dbA @ _____ rpm
	Full speed- door and windows open	_____ dbA @ _____ rpm
<b>Outboard/Inboard engine operation:</b>	Starting	<input type="radio"/> Acceptable Yes / No
	Shifting	<input type="radio"/> Acceptable Yes / No
	Throttle	<input type="radio"/> Acceptable Yes / No
	Raise	<input type="radio"/> Acceptable Yes / No
	Lower	<input type="radio"/> Acceptable Yes / No
<b>Loaded Vessel Drop Test:</b>	<b>If applicable</b>	<input type="radio"/> Acceptable Yes / No

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N° de la modif - Amd. No.  
File No. - N° du dossier  
xlv-4-37266

Id de l'acheteur - Buyer ID  
xlv211  
N° CCC / CCC No./ N° VME - FMS

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<b>Lifting Bridle Certified:</b>	<b>If applicable</b>	<input type="radio"/> <b>Acceptable Yes / No</b>
<b>Rollover test</b>	<b>If applicable</b>	<input type="radio"/> <b>Acceptable Yes / No</b>

<b><u>NOTES</u></b>



**Beaufort Wind Scale Identifier**

Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
0	Less than 1	Less than 1	Calm	Sea surface like a mirror, but not necessarily flat.	Smoke rises vertically.
1	1 - 5	1 - 3	Light air	Ripples with the appearance of scales are formed, but without foam crests.	Direction of wind shown by smoke drift, but not wind vanes.
2	6 - 11	4 - 6	Light breeze	Small wavelets, still short but more pronounced. Crests do not break. When visibility good, horizon line always very clear.	Wind felt on face. Leaves rustle. Ordinary vane moved by wind.
3	12 - 19	7 - 10	Gentle breeze	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered whitecaps.	Leaves and small twigs in constant motion. Wind extends light flag.
4	20 - 28	11 - 16	Moderate breeze	Small waves, becoming longer. Fairly frequent whitecaps.	Raises dust and loose paper. Small branches are moved.
5	29 - 38	17 - 21	Fresh breeze	Moderate waves, taking a more pronounced long form. Many whitecaps are formed. Chance of some spray.	Small trees with leaves begin to sway. Crested wavelets form on inland waters.
6	39 - 49	22 - 27	Strong breeze	Large waves begin to form. The white foam crests are more extensive everywhere. Probably some spray.	Large branches in motion. Whistling heard in telephone wires. Umbrellas used with difficulty.
7	50 - 61	28 - 33	Near gale	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	Whole trees in motion. Inconvenience felt in walking against wind.
8	62 - 74	34 - 40	Gale	Moderately high waves of greater length. Edges of crests begin to break into the spindrift. The foam is blown in well-marked streaks along the direction of the wind.	Breaks twigs off trees. Generally impedes progress. Walking into wind almost impossible.
9	75 - 88	41 - 47	Strong gale	High waves. Dense streaks of foam along the direction of the wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.	Slight structural damage occurs, e.g. roofing shingles may become loose or blow off.
10	89 - 102	48 - 55	Storm	Very high waves with long overhanging crests. Dense white streaks of foam. Surface of the sea takes a white appearance. The tumbling of the sea becomes heavy and shock-like. Visibility affected.	Trees uprooted. Considerable structural damage occurs.
11	103 - 117	56 - 63	Violent storm	Exceptionally high waves. Sea completely covered with long white patches of foam. Visibility affected.	Widespread damage.
12	118 -	64 - 71	Hurricane	Air filled with foam and spray. Sea	Rare. Severe widespread

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File No. - N° du dossier  
xlv-4-37266

Id de l'acheteur - Buyer ID  
xlv211  
N° CCC / CCC No. / N° VME - FMS

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Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
	133			entirely white with foam. Visibility seriously impaired.	damage to vegetation and significant structural damage possible.



**BEAUFORT FORCE 0**  
WIND SPEED: LESS THAN 1 KNOT  
SEA: SEA LIKE A MIRROR



**BEAUFORT FORCE 1**  
WIND SPEED: 1-3 KNOTS  
SEA: WAVE HEIGHT 1M (25FT), RIPPLES WITH THE APPEARANCE OF SCALES, BUT WITHOUT FOAM CRESTS



**BEAUFORT FORCE 2**  
WIND SPEED: 4-6 KNOTS  
SEA: WAVE HEIGHT 2-3M (5-10FT), SMALL WAVELETS, CRESTS HAVE A GLASSY APPEARANCE AND DO NOT BREAK



**BEAUFORT FORCE 4**  
WIND SPEED: 11-16 KNOTS  
SEA: WAVE HEIGHT 1-1.5M (3.5-5FT), SMALL WAVES BECOMING LONGER, FAIRLY FREQUENT WHITE HORSES



**BEAUFORT FORCE 5**  
WIND SPEED: 17-21 KNOTS  
SEA: WAVE HEIGHT 2-3.5M (6.8FT), MODERATE WAVES TAKING MORE PROMINENT LONG FORM, MANY WHITE HORSES, CHANGE OF SOME SPRAY



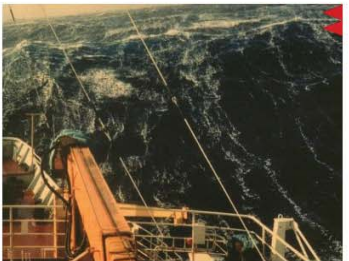
**BEAUFORT FORCE 6**  
WIND SPEED: 22-27 KNOTS  
SEA: WAVE HEIGHT 3-4M (9.5-13 FT), LARGER WAVES BEGIN TO FORM, SPRAY IS PRESENT, WHITE FOAM CRESTS ARE EVERYWHERE



**BEAUFORT FORCE 7**  
WIND SPEED: 28-33 KNOTS  
SEA: WAVE HEIGHT 4-5.5M (13.5-19 FT), SEA HEAPS UP, WHITE FOAM FROM BREAKING WAVES BEGINS TO BE BLOWN IN STREAKS ALONG THE WIND DIRECTION



**BEAUFORT FORCE 8**  
WIND SPEED: 34-40 KNOTS  
SEA: WAVE HEIGHT 5.5-7.5M (18-25FT), MODERATELY HIGH WAVES OF GREATER LENGTH, EDGES OF CREST BEGIN TO BREAK INTO THE SPINDRIFT, FOAM BLOWN IN WELL-MARKED STREAKS ALONG WIND DIRECTION.



**BEAUFORT FORCE 9**  
WIND SPEED: 41-47 KNOTS  
SEA: WAVE HEIGHT 7-10M (23-32FT), HIGH WAVES, DENSE STREAKS OF FOAM ALONG DIRECTION OF THE WIND, WAVE CRESTS BEGIN TO TOPPLE, TUMBLE, AND ROLL OVER, SPRAY MAY AFFECT VISIBILITY.



**BEAUFORT FORCE 10**  
WIND SPEED: 48-55 KNOTS  
SEA: WAVE HEIGHT 9-12.5M (29-41FT), VERY HIGH WAVES WITH LONG OVERHANGING CRESTS, THE RESULTING FOAM, IN GREAT PATCHES, IS BLOWN IN DENSE WHITE STREAKS ALONG WIND DIRECTION. ON THE WHOLE, SEA SURFACE TAKES A WHITE APPEARANCE, TUMBLING OF THE SEA IS HEAVY AND SHOCK-LIKE, VISIBILITY AFFECTED.



**BEAUFORT FORCE 11**  
WIND SPEED: 56-63 KNOTS  
SEA: WAVE HEIGHT 11.5-16M (37-52FT), EXCEPTIONALLY HIGH WAVES, SMALL-MEDIUM SIZED SHIPS MAY BE LOST TO VIEW BEHIND THE WAVES. SEA COMPLETELY COVERED WITH LONG WHITE PATCHES OF FOAM LYING ALONG WIND DIRECTION. EVERYWHERE, THE EDGES OF WAVE CRESTS ARE BLOWN INTO FROTH.



**BEAUFORT FORCE 12**  
WIND SPEED: 64 KNOTS  
SEA: SEA COMPLETELY WHITE WITH DRIVING SPRAY, VISIBILITY VERY SERIOUSLY AFFECTED, THE AIR IS FILLED WITH FOAM AND SPRAY

**ANNEX B**

**DELIVERY SCHEDULE**

<b>REGION</b>	<b>Procurement Year</b>	<b>NATIONAL ASSET CODE</b>	<b>Delivery Address</b>	<b>OVERALL PRIORITY</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXD72</b>	Canadian Coast Guard College 1190 Westmount rd. Sydney, Nova Scotia B1P 6L1	<b>1</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXC71</b>	Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	<b>2</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXC81</b>	Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	<b>3</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXD12</b>	Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	<b>4</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXD22</b>	Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	<b>5</b>

<b>Atlantic</b>	<b>15/16</b>	<b>VXC91</b>	Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	<b>6</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXD01</b>	Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	<b>7</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXD32</b>	Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	<b>8</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXD42</b>	Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	<b>9</b>
<b>OPTIONAL UNITS (IF EXERCISED)</b>				
The following locations and priority rankings are subject to change at the time the option is exercised.				
<b>Atlantic</b>	<b>15/16</b>	<b>VXE42</b>	Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	<b>10 Option</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXE62</b>	Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	<b>11 Option</b>
<b>Atlantic</b>	<b>15/16</b>	<b>VXE72</b>	Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	<b>12 Option</b>

**ANNEX C**

**BASIS OF PAYMENT**

**(CUSTOM)**

<b>Note to Bidders</b>
The Basis of Payment schedule below is provided for sample purposes only and should not be completed by bidders.

<b>C.1 Known Work</b>		
<b>Item</b>	<b>Description</b>	<b>Price (CAD\$)</b>
1	Supply & Delivery of one (1), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.  Delivered Duty Paid (DDP) Location: Canadian Coast Guard College 1190 Westmount rd. Sydney, Nova Scotia B1P 6L1	\$ _____
2	Supply & Delivery of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.  Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	\$ _____
3	Supply & Delivery of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.  Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	\$ _____
4	Supply & Delivery of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.  Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	\$ _____



5	Supply & Delivery of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.  Delivered Duty Paid (DDP) Location:  Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	
Total – Known Work		\$

<b>C.3</b>	<b>Contract Financial Security</b> The price of the Contract Financial Security	\$
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<b>C.4 Optional Units</b> Canada has the option to acquire up to an additional three (3), optional boats with trailers, as stated in article 7.1.1 of the Contract Clauses, and described in Annex A.		
1	The price of supply for an optional boat (with trailer), delivery NOT included, is:	\$ _____ per unit

<b>C.4.1 Price of Delivery</b> The price for the delivery of optional units, to the delivery locations stated below.		
1	Delivery Price The price, Incoterms 2000 delivered duty paid (DDP), to Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	\$ _____ per unit
2	Delivery Price The price, Incoterms 2000 delivered duty paid (DDP), to Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	\$ _____ per unit

**C.5 Unscheduled Work**

A. Price Breakdown:

The Contractor must, upon request, provide a price breakdown for all unscheduled work, by specific activities with trades, person-hours, material, subcontracts and services.

B. Pro-rated Prices:

Hours and prices for unscheduled work will be based on comparable historical data applicable to similar work at the same facility, or will be determined by pro-rating the quoted work costs in the Contract when in similar areas of the vessel.

C. Payment for Unscheduled Work:

C.5.1 The Contractor will be paid for unscheduled work arising, as authorized by Canada. The authorized unscheduled work will be calculated as follows:

Number of hours (to be negotiated) X \$\_\_\_xxxxx\_, being the Contractor's firm hourly charge-out labour rate which includes overhead and profit, plus net laid-down cost of materials to which will be added a mark-up of 10 percent, customs duties are included and applicable taxes are extra.

The firm hourly charge-out labour rate and the material mark-up will remain firm for the term of the Contract and any subsequent amendments.

- C.5.2 Notwithstanding definitions or usage elsewhere in this document, or in the Contractor's Cost Management System, when negotiating Hours for unscheduled work, PWGSC will consider only those hours of labour directly involved in the production of the subject work package. Elements of Related Labour Costs identified in C.5.3, will not be negotiated, but will be compensated for in accordance with C.5.3.
- C.5.3 Allowance for Related Labour Costs such as: Management, Direct Supervision, Purchasing and Material Handling, Quality Assurance and Reporting, First Aid, Gas Free Inspecting and Reporting, and Estimating will be included as Overhead for the purposes of determining the Charge-out Labour Rate set out in clause C.5.1.
- C.5.4 The 10% mark-up rate for materials will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Chargeout Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.



## ANNEX D

### INSURANCE REQUIREMENTS

#### D.1 Commercial General Liability Insurance:

The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$10,000,000 per accident or occurrence and in the annual aggregate.

The Commercial General Liability policy must include the following:

- A. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
- B. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
- C. Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.
- D. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
- E. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
- F. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the contract, extend to assumed liabilities with respect to contractual provisions.
- G. Employees and, if applicable, Volunteers must be included as Additional Insured.
- H. Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)
- I. Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
- J. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
- K. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

For the province of Quebec, send to:  
Director Business Law Directorate,  
Quebec Regional Office (Ottawa),  
Department of Justice,  
284 Wellington Street, Room SAT-6042,  
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:  
Senior General Counsel,  
Civil Litigation Section,  
Department of Justice  
234 Wellington Street, East Tower  
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

## **D.2 Marine Liability Insurance**

- 2.1 The Contractor must obtain Protection & Indemnity (P&I) insurance that must include excess collision liability and pollution liability. The insurance must be placed with a member of the International Group of Protection and Indemnity Associations or with a fixed market in an amount of not less than the limits determined by the *Marine Liability Act*, S.C. 2001, c. 6. Coverage must include crew liability, if it is not covered by Worker's Compensation as detailed in paragraph (2.) below.
- 2.2 The Contractor must obtain Worker's Compensation insurance covering all employees engaged in the Work in accordance with the statutory requirements of the Territory or Province or state of nationality, domicile, employment, having jurisdiction over such employees. If the Contractor is assessed any additional levy, extra assessment or super-assessment by a Worker's Compensation Board, as a result of an accident causing injury or death to an employee of the Contractor or subcontractor, or due to unsafe working conditions, then such levy or assessment must be paid by the Contractor at its sole cost.
- 2.3 The Protection and Indemnity insurance policy must include the following:
  - A. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.
  - B. Waiver of Subrogation Rights: Contractor's Insurer to waive all rights of subrogation against Canada as represented by Canadian Coast Guard and Public Works and Government Services Canada for any and all loss of or damage to the watercraft however caused.
  - C. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of cancellation.
  - D. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
  - E. Litigation Rights: Pursuant to subsection 5(d) of the *Department of Justice Act*, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

### **For the province of Quebec, send to:**

Director Business Law Directorate,  
Quebec Regional Office (Ottawa),  
Department of Justice,  
284 Wellington Street, Room SAT-6042,  
Ottawa, Ontario, K1A 0H8

### **For other provinces and territories, send to:**

Senior General Counsel,  
Civil Litigation Section,  
Department of Justice  
234 Wellington Street, East Tower  
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the

plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

## ANNEX E

### WARRANTY PROCEDURES

#### E.1 Scope

- a. The following are the procedures that suit the particular requirements for warranty considerations for a new vessel.

#### E.2 Reporting Failures with Warranty Potential

- a. The initial purpose of a report of a failure is to facilitate the decision as to whether or not to involve warranty and to generate action to effect repairs. Therefore in addition to identification, location data, etc. the report must contain details of the defect. Warranty decisions as a general rule are to be made locally and the administrative process is to be in accordance with procedures as indicated.
- b. These procedures are necessary as invoking a warranty does not simply mean that the warrantor will automatically proceed with repairs at his expense. A review of the defect may well result in a disclaimer of responsibility, therefore, it is imperative that during such a review the Department is directly represented by competent technical authority qualified to agree or disagree with the warrantor's assertions. Since the TA has the closest and most active involvement of the contracted work completed this agency must assume this role.

#### E.3 Procedures

- a. Immediately once it becomes known to end user that an equipment/system is performing below accepted standards or has become defective, the procedures for the investigation and reporting are as follows:
  - i. The end user advises the Technical Authority when a defect, which is considered to be directly associated the refit work, has occurred.
  - ii. On review of the Specification and the Acceptance Document, the Technical Authority in consort with end user is to complete the Tombstone Data and section 1 of the Warranty Claim Form Appendix 1 of Annex "E" and forward the original to the Contractor for review with a copy to the PWGSC contracting Authority. If the PWGSC Contracting is unable to support warranty action, the Defect Claim Form will be returned to the originator with a brief justification. (It is to be noted that in the latter instance PWGSC will inform the Contractor of its decision and no further action will be required of the Contractor. Warranty defect claims may be forwarded in hard copy, by fax or by e-mail whichever format is the most convenient.
  - iii.. Assuming the Contractor accepts full responsibility for repair, the Contractor completes Section 2 and 3 of the Warranty Claim Form, returns it to the TA who confirms corrective action has been completed, and who then distributes the form to the PWGSC Contracting Authority.
- b. In the event that the Contractor disputes the claim as a warranty defect, or agrees to share, the contractor is to complete Part 2 and 3 of the Warranty Claim Form with the appropriate information and forward it to the Contracting Authority who will distribute copies as necessary.
- c. When a warranty defect claim is disputed by the Contractor, the Technical Authority may arrange to correct the defect by in-house resources or by contracting the work out. All associated costs must be tracked and recorded as a possible charge against the contractor by PWGSC action. Material costs and manhours expended in correcting the defect are to be recorded and entered in Section 5 of the warranty defect claim by the Technical Authority who will forward the warranty defect claim to the PWGSC Contracting Authority for action. Defective parts of equipment are to be retained pending settlement of claim.
- d. Defective equipment associated with potential warranty should not normally be dismantled until the Contractor's representative has had the opportunity to observe the defect. The necessary work is to be undertaken through normal repair methods and costs must be segregated as a possible charge against a contractor by PWGSC action.

#### **E.4 Liability**

- a. Agreement between the Contracting Authority, Technical Authority and the Contractor will result in one of the following conditions:
- i. The Contractor accepts full responsibility for costs to repair or overhaul under the warranty provisions of the contract;
  - ii. The Technical Authority accepts full responsibility for repair and overhaul of item concerned; or The Contractor and the Technical Authority agree to share responsibility for the costs to repair or overhaul the unserviceable item, in such cases the PWGSC Contracting Authority will negotiate the best possible sharing arrangement.
- b. The total cost of processing warranty claims must include accommodation and travel costs of the Contractor's employees as well as equipment/system down time and operational constraints. Accordingly, the cost to remediate the defect, in manhours and material, will be discussed between the Contracting/Inspection Authorities and the Technical Authority to determine the best course of action.

#### **E.5 Alongside Period For Warranty Repairs and Checks**

- a. If at all possible, an alongside period for the vessel is to be arranged just before the expiration of the 12 month and twenty-four month (hull) warranty periods. This alongside period is to provide time for warranty repair and check by the contractor.



Public Works and  
 Government Services  
 Canada

Travaux publics et  
 Services gouvernementaux  
 Canada

PWGSC File No.; F7047-150003

**WARRANTY CLAIM**  
Réclamation De Garantie

Vessel Number – Numero de navire	File No. – No de dossier	Contract No. –No de Contrat
Client Department – Ministere client		Warranty Claim Serial No. Numéro de série de réclamation de Garantie
Contractor – Entrepreneur		Effect on Vessel Operations Effet sur des operations de navire Critical      Degraded      Operational Non-operational Critique      Dégradé      Opérationnel Non-opérationnel
<b>1. Description of Complaint – Description de plainte</b>		
Contact Information – l'information de contact		
Name-Nom	Tel.No – No Tel	Signature/Date
<b>2. Contractor's Investigative Report – Le rapport de l'entrepreneur</b>		



Solicitation No. - N° de l'invitation  
F7047-150003/A  
Client Ref. No. - N° de réf. du client  
F7047-150003

Amd. No. - N° de la modif.  
File No. - N° du dossier  
XLV-4-37266

Buyer ID - Id de l'acheteur  
xlV211  
CCC No./N° CCC - FMS No./N° VME

**WARRANTY CLAIM**  
**Réclamation De**  
**Garantie**

2/2

**2. Contractor's Investigative Report – Le rapport de l'entrepreneur**

**3. Contractor's Corrective Action – La modalite de reprise de l'entrepreneur**

Contractors Name and Signature-Nom et signature de l'entrepreneur  
reprise

Date of Corrective Action-Date de modalite de

Client Name and Signature-Nom et signature de client

Date

**4. PWGSC Review of Warranty Claim Action – Examen d'action de reclamation de garantie par TPSGC**

Contract Authority

Date

**Canada**

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## ANNEX F

### PROCEDURE FOR IMPLEMENTING ADDITIONAL WORK

#### ***(CUSTOM)***

#### ***F.1 Purpose***

The Additional Work Procedure has been instituted for the following purposes:

- (a) To establish a uniform method of dealing with requests for Additional Work;
- (b) To obtain the necessary Technical Authority approval and Contracting Authority authorization before Additional work commences; and
- (c) To provide a means of maintaining a record of Additional Work requirements including Serial Numbers, dates, and accumulated cost.

#### ***F.2 Definitions***

- (a) An Additional Work Procedure is a contractual procedure whereby changes to the scope of Work under the Contract may be defined, priced and contractually agreed to;
- (b) The procedure does not allow for the correction of deficiencies in the Contractor's Proposal.

#### ***F.3 Procedures***

- (a) The procedure involves the form PWGSC-TPSGC 1686 for new construction. This form is to be used when the work has been fully defined, and the final cost has been agreed to and/or negotiated. It will be the form for authorizing all Additional Work to be followed by Contract Amendment.
- (b) Emergency measures required to prevent loss or damage to the Vessel, which would occur if this procedure is followed, shall be taken by the Contractor on its own authority. The responsibility for the cost of such measures shall be determined in accordance with the terms and conditions of the contract.
- (c) The Technical Authority will initiate a work estimate request by defining the Additional Work requirement. It will attach drawings, sketches, additional Specification, other clarifying details as appropriate, and allocate their Serial Number for the request.
- (d) Notwithstanding the foregoing, the Contractor may propose to the Technical Authority in writing, either by letter or a Defect Advice Form (this is the Contractor's own form) that certain Additional Work should be carried out. The Technical Authority will either reject or accept such proposal, and advise the Contractor and Contracting Authority. Acceptance of the proposal is not to be construed as authorization for the work to proceed. If required, the Technical Authority will then define the Additional Work requirement in accordance with subparagraph 3(c).
- (e) After the Additional Work requirement is defined, the original and one (1) copy with all attachments, will be passed by the Technical Authority to the Contracting Authority.
- (f) The Contracting Authority will retain the original with attachments and submit a copy with attachments to the Contractor.
- (g) The Contractor will submit its Proposal (Paragraph 6 - Form Of Proposal and Supporting Documentation) to the Contracting Authority together with any qualifications, remarks or other information requested.
- (h) After discussion between the Contracting Authority and the Contractor and if no negotiation is required, the Contractor will then complete the PWGSC-TPSGC 1686 including the agreed costs, allocate a Serial Number, sign the form and pass it to the Contracting Authority. If the Technical Authority wishes to proceed, the form will be signed then. The Contracting Authority will then sign and Authorize the Additional Work to proceed.



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- (i) In the event negotiation is required, the Contracting Authority will arrange for the negotiations. If negotiations are successful the Contractor will then complete the PWGSC-TPSGC 1686 form including the agreed costs, sign the form and pass it to the Contracting Authority. The Contracting Authority will then pass the form to the Technical Authority. If the Technical Authority wishes to proceed they will sign the form. The Contracting Authority will then sign and authorize the Additional Work to proceed.
- (j) In the event the Technical Authority does not wish to proceed with the work, they will cancel the proposed Additional Work through the Contracting Authority in writing.
- (k) In the event the negotiation involves a Credit, the appropriate PWGSC/TPSGC form 1686 will be noted as "credit" accordingly.
- (l) In the event that Additional Work of an urgent nature is required by the Technical Authority, or an impasse has occurred in negotiations, the commencement of the Additional work should not be unduly delayed and should be processed as follows, in either case. The Contractor will complete the appropriate PWGSC-TPSGC form indicating the offered cost and pass it to the Contracting Authority. If the Technical Authority wishes to proceed, the Technical Authority and the Contracting Authority will sign the completed PWGSC-TPSGC form with the notation, "CEILING PRICE SUBJECT TO DOWNWARD ADJUSTMENT", and allocate a Serial Number having the suffix "A". The work will proceed with the understanding that following an audit of the Contractor's actual costs for completing the described work, the cost will be finalized at the ceiling price or lower, if justified by the audit. A new PWGSC/TPSGC form will then be completed with the finalized costs, signed and issued with the same Serial Number without the suffix "A", and bearing a notation that this form is replacing and canceling the form having the same Serial Number with the suffix "A". PWGSC-TPSGC forms bearing Serial Numbers with a suffix "A" shall not to be included in any contract amendments, and therefore no payment shall be made until final resolution of the price and incorporation into the contract.
- (m) No work may be undertaken by the Contractor without written authorization of the Contracting Authority except under emergency circumstances described in sub-paragraph 3(b). Additional Work undertaken without written Contracting Authority authorization will be considered the Contractor's responsibility and cost.
- (n) The PWGSC-TPSGC 1686 form is the final summary of the definition of the Additional work requirement, and the costs negotiated and agreed to. The Contracting Authority will forward the original to the Contractor and distribute copies as required.

#### ***F.4 Amendment to Contract or Formal Agreement***

The Contract will be amended from time to time in accordance with the Contract terms to incorporate the costs authorized on the appropriate PWGSC-TPSGC 1686 forms.

#### ***F.5 Form of Description of Additional Work***

The Statement of Work for the Additional Work will be limited to a statement of what has to be done. It will state how conformance will be measured or inspected.

#### ***F.6 Form of Proposal and Supporting Documentation***

- (a) The Contractor will be afforded an opportunity, prior to submitting a Proposal, to discuss any technical questions regarding the statement of work for the Additional Work item. If necessary, a meeting will be held, prior to the submission of a Proposal, to review the statement of work in order to ensure that there is a clear understanding of the technical and other requirements, including the effect on Annex "B" to schedules and supply of materials. Requests for such meetings will be made to the Contracting Authority who will also chair the meetings. Any additions or deletions to the

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statement of work agreed to at such meetings will be the subject of a formal amendment to the statement of work and processed by the Technical Authority through the Contracting Authority.

- (b) The Contractor's Proposal for each Additional work item shall be broken down as to person hours by trade and material cost per item. These breakdowns shall accompany each submission by the Contractor to the Contracting Authority prior to any required negotiations.
- (c) Prior to any required negotiation, the Contractor shall provide to the Contracting Authority, for its retention, the following:
  - (i) A work plan and/or any sketches and marked-up drawings as appropriate or requested; and
  - (ii) Copies of subcontractor and/or material suppliers' quotations (including the Contractor's requests for such quotations). In the event telephone quotations are used to finalize the negotiations, these quotations would be subject to later verification by the Crown. The Contractor shall provide copies of purchase orders and paid invoices for subcontracts and/or materials, including stocked items, in either case.
- (d) Subcontracts and materials - The Contractor shall provide a minimum of two quotations for subcontracts or materials. If other than the lowest, or sole source is being recommended for quality and/or delivery considerations, this shall be noted. On request to the Contractor, the Contracting Authority shall be permitted, to meet with any proposed subcontractor or material supplier for discussion of the price. These requests will generally be limited to major sole source situations and always with the Contractor's representative present.
- (e) The selected Contractor shall have a cost accounting system that is capable of assigning job numbers for each Additional Work requirement so that each requirement can be audited individually. Prior to award of Additional Work, the selected Contractor shall provide written statements that a cost accounting system exists. The cost accounting system may be reviewed by the Contracting Authority prior to award of any Additional Work.

#### **7. Supply Of Forms**

On request, the Contracting Authority will supply the appropriate form PWGSC-TPSGC 1686.

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**ANNEX G****INSPECTION / QUALITY ASSURANCE / QUALITY CONTROL****G1 Inspection and Test Plan (ITP):**

1. The Contractor must prepare an Inspection and Test Plan (ITP) for this project. The ITP must be submitted to the Inspection Authority for review and amended by the Contractor to the satisfaction of the Inspection Authority.

**2. NOT USED - Coding:****3. NOT USED - Inspection and Test Plan Criteria:****4. Contractor Imposed Testing:**

Tests and trials in addition to those given in the Specification must be approved by the Inspection Authority.

**G2 Conduct of Inspection**

1. Inspections will be conducted in accordance with the ITP and as detailed in G4.
2. The Contractor must provide its own staff or subcontracted staff to conduct inspections, tests and trials; excepting that Technical Authority or Inspection Authority personnel may be designated in the specifications, in which case the Contractor must ensure that its own staff are provided in support of such inspection/test/trial.
3. As applicable, the Contractor must ensure that the required conditions stated in the specification prevail at the commencement of, and for the duration of, each inspection/test/trial.
4. The Contractor must ensure that personnel required for equipment operation and records taking during the inspection/test/trial are briefed and available at the start and throughout the duration of the inspection/test/trial. Tradesmen or FSRs who may be required to effect minor changes or adjustments in the installation must be available at short notice.
5. The Contractor is to coordinate the activities of all personnel taking part in each inspection/test/trial and ensure that safe conditions prevail throughout the inspection/test/trial.

**G3 Inspection Records and Reports**

1. The Contractor on the inspection record, test or trials sheets as applicable must record the results of each inspection. The Contractor must maintain files of completed inspection records.
2. The Contractor's QC representative (and the FSR when required) must sign as having witnessed the inspection, test or trial on the inspection record. The Contractor must forward originals of completed inspection records, together with completed test(s) and/or trials sheets to the Inspection Authority as they are completed.
3. Unsatisfactory inspection/test/trial results, for which corrective action cannot be completed during the normal course of the inspection/test/trial, will require the Contractor to establish and record the cause of the unsatisfactory condition to the satisfaction of the Inspection Authority. Canada representatives may assist in identification where appropriate.
4. Corrective action to remove cause of unsatisfactory inspections must be submitted to the Inspection Authority in writing by the Contractor, for approval before affecting such repairs and rescheduling of the unsatisfactory inspection/test/trial. Such notices must be included in the final records passed to the Inspection Authority.
5. The Contractor must undertake rectification of defects and deficiencies in the Contractor's installation or repair as soon as practicable. The Contractor is responsible to schedule such repairs at its own risk.
6. The Contractor must reschedule unsatisfactory inspections after any required repairs have been completed.
7. Quality Control, Inspection and Test records that substantiate conformance to the specified requirements, including records of corrective actions, must be retained by the Contractor for

three (3) years from the date of completion or termination of the Contract and must be made available to the Inspection Authority upon request.

#### **G4 Inspection and Trials Process**

##### **1. Drawings and Purchase Orders**

- a. Upon receipt of two (2) copies of each drawing or purchase order, the designated Inspection Authority will review its content against the provisions of the specification. Where discrepancies are noted, the Inspection Authority will formally advise all concerned, in writing. The resolution of any such discrepancy is a matter for consultation between the Contractor and other Government of Canada Authorities. The Inspection Authority is NOT responsible for the resolution of discrepancies.

##### **2. Inspection**

- a. Upon receipt and acceptance of the Contractor's ITP, inspection will consist of a number of Inspection Points supplemented by such other inspections, tests, demonstrations and trials as may be deemed necessary by the Inspection Authority to permit him to certify that the work has been performed in compliance with the provisions of the specification. The Contractor must be responsible for notifying the designated Inspection Authority of when the work will be available for inspection, sufficiently in advance to permit the designated Inspection Authority to arrange for the appropriate inspection.
- b. The Inspection Authority will inspect the materials, equipment and work throughout the project against the provisions of the specification and, where non-conformances are noted, will issue appropriate INSPECTION NON-CONFORMANCE REPORTS.
- c. The Contract requires the implementation of a Quality Assurance/Quality Control system, so the Inspection authority must require that the Contractor provide a copy of its internal inspection report pertaining to a work item before conducting the requested inspection. If third party inspections are required by the Contract (e.g. inspections by a certified CWB 178.2 welding inspector), the reports of these inspections must be required before the Work is inspected by the PWGSC Inspection Authority.
- d. The QA/QC system is a requirement, so if the documentation is presented to the Inspection Authority before an inspection stating that the Work is satisfactory but the Inspection Authority finds that the Work has not been satisfactorily inspected, the Inspection Authority must issue an Inspection Non-conformance Report against the Work and another against the failure of the Contractor's QA/QC system.
- e. Before carrying out any inspection, the Inspection Authority must review the requirements for the Work and the acceptance and/or rejection standards to be applied. Where more than one standard or requirement is called up and they are potentially conflicting, the Inspection Authority must refer to the order of precedence in the Contract to determine the standard or requirement to be applied.

##### **3. Tests, Trials, and Demonstrations**

- a. To enable the Inspection Authority to certify that the Work has been performed satisfactorily, in accordance with the Contract and Specifications, the Contractor must schedule, co-ordinate, perform, and record all specified Tests, Trials and Demonstrations required by the Inspection Authority as required by Annex A, section 14.
- b. Where the Specifications contain a specific performance requirement for any component, equipment, sub-system or system, the Contractor must test such component, equipment, sub-system or system to the satisfaction of the Inspection Authority, to prove that the specified performance has been achieved and that the component, equipment, sub-system or system performs as required by the specifications.
- c. Tests, trials and demonstrations must be conducted in accordance with a logical, systematic schedule which must ensure that all associated components and equipment are proven before sub-systems demonstration or testing, and that sub-systems are proven before system demonstration or testing.
- d. Where the Specifications do not contain specific performance requirements for any component, equipment, sub-system or system, the Contractor must demonstrate such

component, equipment, sub-system or system to the satisfaction of the Inspection Authority.

- e. The Contractor must submit their Inspection and Test Plan as required in G1.
- f. The Contractor must co-ordinate each test, trial and demonstration with all interested parties, including the Inspection Authority; Contracting and Technical Authorities; regulatory authorities; Classification Society; Sub-contractors; etc. The Contractor must provide the Inspection Authority and other Government of Canada Authorities with a minimum of five working days notice of each scheduled test, trial, or demonstration.
- g. The Contractor must keep written records of all tests, trials, and demonstrations conducted required by Annex A, section 14.
- h. The Contractor must in all respects be responsible for the conduct of all tests and trials in accordance with the requirements of the Contract.
- i. The Inspection Authority and the Technical Authority reserve the right to defer starting or continuing with any sea trials for any reasonable cause including but not limited to adverse weather, visibility, equipment failure or degradation, lack of qualified personnel and inadequate compliance with safety standards.

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## ANNEX H

### PROJECT MANAGEMENT SERVICES

#### H.1 Intent

- a. Job titles used in this Annex are for clarity within this document only. The Contractor is free to choose job titles that suit their organization.
- b. The Contractor, through their Project Management Team, is responsible to discharge the duties and supply the deliverables required in the Contract and the Specifications.
- c. Project Management is considered to encompass the direction and control of such functions as engineering, planning, purchasing, manufacturing, assembly, overhauls, installations and test and trials.

#### H.2. Project Manager

- a. The Contractor must supply an experienced Project Manager (PM) dedicated to this project and delegate to him/her full responsibility to manage the project.

#### H.3 Project Management Team

- a. Other than the Project Manager, the Contractor may assign and vary other job descriptions to suit their organization; provided however that the collective resume of their Project Management Team must provide for effective control of the project elements including but not limited to:
  - i. Project Management
  - ii. Quality Assurance
  - iii. Material Management
  - iv. Planning and Scheduling
  - v. Subcontracts Management

#### H.4 Reports

- a. The following Management Reports and Documentation are to be prepared and maintained by the Contractor and submitted to the Crown in accordance with the Contract or upon request by the Contracting Authority:
  - i. Production Work Schedule
  - ii. Inspection Summary Report

#### H.5 Bid Solicitation Deliverables

- a. Names, brief resumes, and a list of duties for each of the team members that ensures that each of the project elements listed in article 3 above have been addressed.

Solicitation No. - N° de l'invitation  
F7047-150003/A  
Client Ref. No. - N° de réf. du client  
F7047-150003

Amd. No. - N° de la modif.  
File No. - N° du dossier  
XLV-4-37266

Buyer ID - Id de l'acheteur  
xl211  
CCC No./N° CCC - FMS No./N° VME

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## ANNEX I

### QUESTIONS AND ANSWERS

This Annex will include a list of any Questions and Answers addressed during the Solicitation period.

Solicitation **F7047-150003/A**

*To be completed as required during the bid solicitation period.*

Item	Spec-RFP description	Questions	Answers

**ANNEX J**

**FINANCIAL BID PRESENTATION SHEET**

For an excel (.xls) version of this spreadsheet, contact the Contracting Authority.

The bidder must complete the pricing schedule herein and submit it with their financial bid submission. Failure to do so will result in the bid being non-responsive. GST/HST is extra to the prices herein.

The unit price included in the schedule below **MUST** match the pricing included in Appendix 1, Detailed Pricing Datasheet. If there is any discrepancy, the unit pricing included in Appendix 1 will take precedent.

<b>J.1 Known Work</b>		
<b>Item</b>	<b>Description</b>	<b>Sub-total (CAD\$)</b>
1	Supply of one (1), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.	\$ _____ for 1 unit
	Delivered Duty Paid (DDP) Location: Canadian Coast Guard College 1190 Westmount rd. Sydney, Nova Scotia B1P 6L1	\$ _____ for LOT delivery
2	Supply of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.	\$ _____ for 2 unit
	Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	\$ _____ for LOT delivery
3	Supply of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.	\$ _____ for 2 unit



	Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	\$ _____ for LOT delivery	\$ _____	
4	Supply of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.	\$ _____ for 2 units	\$ _____	
	Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	\$ _____ for LOT delivery		
5	Supply of two (2), 7.2-7.4 metre, glass-reinforced plastic, fast rescue rigid inflatable boat(s), diesel inboard engine, SOLAS-certified, with trailer(s), as described in Annex A.	\$ _____ for 2 units	\$ _____	
	Delivered Duty Paid (DDP) Location: Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	\$ _____ for LOT delivery		
Total – Known Work			\$ _____	
<b>J.2 Contract Financial Security</b>				
The total cost to Canada for the required Contract Financial Security.				
Total – Contract Financial Security			\$ _____	
<b>J.3 Optional Units</b>				
Canada has the option to acquire up to an additional three (3), optional boats with trailers, as stated in article 7.1.1 of the Contract Clauses, and described in Annex A.				
Item	Description	Unit Price	QTY	Extended Price
1	The price of supply for an optional boat (with trailer), delivery NOT included, is:	\$ _____ per unit	3 units	\$ _____

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<b>J.3.1 Price of Delivery</b>				
The price for the delivery of optional units, to the delivery locations stated below.				
2	Delivery Price The price, Incoterms 2000 delivered duty paid (DDP),to Fisheries & Oceans / Canadian Coast Guard 1 Challenger Drive, Bedford Institute of Oceanography Dartmouth, Nova Scotia B2Y 4A2	\$ _____ per unit	2 units	\$ _____
3	Delivery Price The price, Incoterms 2000 delivered duty paid (DDP),to Fisheries & Oceans / Canadian Coast Guard Southside Base, Southside Road St. John's, Newfoundland A1C 5X1	\$ _____ per unit	1 unit	\$ _____
Total – Optional Units				\$ _____
<b>J.3 Unscheduled Work</b>				
The number of hours used herein is for the purpose of evaluation only and is not a guarantee of work. Actual unscheduled work may vary from the quantity used for evaluation.				
Item	Description	Rate	# of Hours	Total – Unscheduled Work
1	Charge-out Rate, being the Contractor's firm hourly charge-out labour rate which includes overhead and profit.  The firm hourly charge-out labour rate will remain firm for the term of the Contract and any subsequent amendments.	\$ _____ / Hour	600 hours	\$ _____
<b>J.4 EVALUATED PRICE</b>				
1	Total – Known Work			\$ _____
2	Total – Contract Financial Security			\$ _____
3	Total – Optional Units			\$ _____

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4	Total – Unscheduled Work	\$ _____
<b>EVALUATED PRICE</b>		\$ _____

**APPENDIX 1 of ANNEX J - DETAILED PRICING DATASHEET**

The bidder must complete the pricing schedule herein and submit it with their financial bid submission. Failure to do so will result in the bid being declared non-responsive. All applicable taxes are extra to the prices herein. The pricing herein is on a per unit basis (boat with trailer).

For an excel (.xls) version of this spreadsheet, contact the Contracting Authority.

PDS line	Statement of Requirement Reference	SPECIFICATION TITLE & DESCRIPTION	Separate Prices - Labour	Separate Prices - Material
1	1	Overview		
2	2	Requirement		
3	3	Design & Construction Requirements		
4	4	Operational Requirements		
5	5	Physical Characteristics		
6	6	Construction Standards		
7	7	Vessel Configuration		
8	8	Construction		
9		All cost items not covered in the subsections below (if applicable)	\$	\$
10	8.2	Hull and Deck	\$	\$
11	8.3	Stowage	\$	\$
12	8.4	Beaching Shoe	\$	\$
13	8.5	Bow Eye	\$	\$
14	8.6	Tow Posts	\$	\$
15	8.7	Collars	\$	\$
16		<b>Sub-total - Construction</b>	<b>\$</b>	<b>\$</b>

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17	<b>9</b>	<b>Outfitting and Equipment</b>				
18		All items not covered in the subsections below (if applicable)			\$	\$
19	9.1	Towing			\$	\$
20	9.2	Lifting			\$	\$
21	9.3	Miranda Davit Frame			\$	\$
22	9.4	Electrical			\$	\$
23	9.5	Batteries, Cables, and Charging Systems			\$	\$
24	9.6	Utility Lighting			\$	\$
25	9.7	Electronic Equipment			\$	\$
26	9.8	Pumping and Drainage			\$	\$
27	9.9	Radar Arch / Self Righting System			\$	\$
28	9.10	Lifesaving Emergency Equipment			\$	\$
29		<b>Sub-total - Outfitting and Equipment</b>			\$	\$
30	<b>10</b>	<b>Propulsion - I/O ENGINE AND DRIVE</b>				
31		All items not covered in the subsections below. (if applicable)			\$	\$
32	10.1	Engine and Drive I/O.			\$	\$
33	10.2	Engine Guard			\$	\$
34	10.3	Fuel Systems			\$	\$
35	10.4	Fire Suppression - Inboard Engine Configuration			\$	\$
36		<b>Sub-total - Propulsion - Twin Outboards</b>			\$	\$
37	<b>11</b>	<b>Steering</b>			\$	\$
38	<b>12</b>	<b>Painting and Preservation</b>			\$	\$
39	<b>13</b>	<b>Systems General</b>				

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40		All items not covered in the subsections below. (if applicable)	\$	\$
41	13.1	Cables	\$	\$
42	13.2	Bilge Blower	\$	\$
43	13.3	Piping Systems	\$	\$
44	13.4	Navigation Equipment	\$	\$
45		<b>Sub-total - Systems General</b>	\$	\$
46	14	<b>Tests &amp; Trials</b>		
47		All items not covered in the subsections below. (if applicable)	\$	\$
48	14.1	Inspection & Testing	\$	\$
49	14.2	Sea Trials	\$	\$
50	14.3, 14.4, 14.5	Technical Manuals, Trial Records, Reports	\$	\$
51		<b>Sub-total - Tests &amp; Trials</b>	\$	\$
52	15	<b>Builder's Plate</b>	\$	\$
53	16	<b>Shipping and Delivery - Preparation</b> <b>Note:</b> This only includes costs associated with the preparation for shipping/delivery as per the section in Annex A. It does <b>not</b> cover the Cost of Delivery	\$	\$
54	17	<b>Trailer</b>	\$	\$
55	<b>Appendix 1</b>	<b>Final Deliverable Data Package</b>		
56	1.0	Comprehensive Owner/Operator Manuals	\$	\$
57	2.0	Additional Deliverables	\$	\$
58		<b>Sub-total - Final Deliverable Data Package</b>	\$	\$

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**Summary of Costs**

59	8	Construction	\$	\$
60	9	Outfitting and Equipment	\$	\$
61	10	Propulsion - I/O ENGINE AND DRIVE	\$	\$
62	11	Steering	\$	\$
63	12	Painting and Preservation	\$	\$
64	13	Systems General	\$	\$
65	14	Tests & Trials	\$	\$
66	15	Builder's Plate	\$	\$
67	16	Shipping and Delivery	\$	\$
68	17	Trailer	\$	\$
69	Appendix 1	Final Deliverable Data Package	\$	\$
70		<b>Sub-total</b>	\$	\$
			<b>FIRM UNIT PRICE</b>	
			\$	\$

## ANNEX K

### FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\) – Labour's website](#).

Date: \_\_\_\_\_(YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- A1. The Bidder certifies having no work force in Canada.
- A2. The Bidder certifies being a public sector employer.
- A3. The Bidder certifies being a federally regulated employer being subject to the Employment Equity Act.
- A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).
- A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC-Labour.

**OR**

A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

B1. The Bidder is not a Joint Venture.

**OR**

B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)



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**ANNEX L**

**INTEGRITY PROVISIONS – LIST OF NAMES**

Please provide 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;

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

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

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

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

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**ANNEX M**

**BID PACKAGE CHECKLIST**

**M1.1 Mandatory Tender Deliverable Check List**

Notwithstanding deliverable requirements specified anywhere else within this bid solicitation and its associated Statement Of work (Annex A), mandatory deliverables that must be submitted with the Bidder's tender to be deemed responsive, are summarized below.

The Bidder must submit a completed Annex M1 –Deliverable / Certifications

The following are mandatory and the Bidder's submission will be evaluated against the requirement as defined herein. The Bidder must be determined to be compliant on each item to be considered responsive.

No	Reference to Solicitation	Description	Condition	Document provided	Reference to Bid (Section, Page no., etc.)
1	Front page	<u>Request for Proposal</u> document part 1 page 1 completed and signed;	Mandatory with the bid	<input type="checkbox"/>	
2	Article 3.2, Annex A	Technical Bid  <b>Must include a valid fast rescue boat certificate for current production of boat to the specifications stated in Annex A.</b>	Mandatory with the bid	<input type="checkbox"/>	
3	Article 6.2 / Annex C	Either a letter substantiating that the required insurance coverage will be provided, as per article 6.2 <b>OR</b> proof of insurance coverage, as required by Annex C,	Mandatory with the bid	<input type="checkbox"/>	
4	Article 6.5	Proof of welding certification	Mandatory with the bid	<input type="checkbox"/>	
5	Article 6.7	Subcontractor list	Mandatory with the bid	<input type="checkbox"/>	
6	Article 6.8	Preliminary Project Schedule	Mandatory with the bid	<input type="checkbox"/>	
7	Article 6.10	Contractor Quality Management system	Mandatory with the bid	<input type="checkbox"/>	
8	Article 6.11	Draft Inspection and Test Plan	Mandatory with the bid	<input type="checkbox"/>	
9	Article 6.12	Drawings and other documentations	Mandatory with the bid	<input type="checkbox"/>	
10	Article 6.14	Vessel construction experience – examples	Mandatory with the bid	<input type="checkbox"/>	
11	Article 6.15	Marine Drafting and Engineering capability - examples	Mandatory with the bid	<input type="checkbox"/>	
12	Annex H	Project Management Team Details, as per article H.5 of Annex H.	Mandatory with the bid	<input type="checkbox"/>	
13	Annex J	Financial Bid Presentation Sheet,	Mandatory	<input type="checkbox"/>	

		completed;	with the bid		
14	Appendix 1 to Annex J	Detailed Pricing Datasheet, completed;	Mandatory with the bid	<input type="checkbox"/>	
15	Annex M	Annex M – Bid Package Checklist, completed	Mandatory with the bid	<input type="checkbox"/>	

## M1.2 Supporting Deliverable Requirements

If the following information which supports the bid is not submitted with the Bid; it may be requested by the Contracting Authority, and it must be provided within 24 hours of the written request:

No	Reference to Solicitation	Description	Condition	Document provided	Reference to Bid (Section, Page no., etc.)
1	Article 6.1	Financial Statements and information	24 hrs of written request	<input type="checkbox"/>	
2	Article 6.4	Workers' Compensation Certification	24 hrs of written request	<input type="checkbox"/>	
3	Article 6.6	Proof of valid Labour Agreement or similar instrument covering the work period.	24 hrs of written request	<input type="checkbox"/>	
4	Article 6.9	ISO Registration Certificate (if applicable)	24 hrs of written request	<input type="checkbox"/>	
5	Article 7.5.4	Contractor's Representatives, table completed	24 hrs of written request	<input type="checkbox"/>	
6	Annex K, article 5.1.2	Federal Contractors Program for Employment Equity - Certification, completed and signed	24 hrs of written request	<input type="checkbox"/>	
7	Annex L, article 5.1.1	Integrity Provisions – List of Names, completed and signed	24 hrs of written request	<input type="checkbox"/>	

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### **M 1.3 Deliverables after contract award**

The following information, which supports the bid, may be requested by the Contracting Authority, and it must be provided within the conditions stated in the table below of the written request:

<b>No.</b>	<b>Article</b>	<b>Description</b>	<b>Condition</b>
1	7.12	Insurance certificate	10 days after contract award
2	7.13	Contract Financial Security	10 calendar days after contract award
3	7.18	Project Schedule	5 calendar days after contract award
4	7.22	Quality Plan	10 calendar days after contract award
5	7.23	Inspection and Test Plan	10 calendar days after contract award

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**ANNEX N**

**SUBCONTRACTOR LIST**

Specification Item	Description of Goods/Services (Including Make, Model Number as applicable)	Name of Supplier	Address of Supplier

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## ANNEX O

### BID EVALUATION PLAN

#### 01. INTRODUCTION

##### 01.1 Purpose

01.1.1 This document identifies the process by which proposals for the Canadian Coast Guard's (CCG) requirement will be evaluated. This document details, in particular, the process for evaluation of the Contractual and Technical Proposal.

01.1.2 This document forms part of the Request for Proposal (RFP) for the 7.2-7.4 M SOLAS-certified boats.

##### 01.2 Evaluation Process

01.2.1 All Bids received will be initially reviewed by PWGSC to ensure timeliness, completeness and that no financial information is contained in the Technical bids.

01.2.2 PWGSC will then distribute the Bid packages as follows:

- a. The technical bids will be distributed to the CCG Technical Evaluation Team for evaluation; and
- b. All copies of the Contractual and Price Proposal will be retained by PWGSC for evaluation.

01.2.3 The evaluation process will be conducted in the following manner:

- a. Evaluate each Bid to ensure compliance with all the Contractual and Technical mandatory requirements of the Solicitation. Any Bid not meeting any Contractual and Technical mandatory requirement will not be given further consideration and will be declared non-responsive; and
- b. Determine the evaluated price of each Bid.

01.2.4 Of those Bids that comply with all the mandatory requirements, Technically and Contractually, the Bid with the lowest evaluated price will be recommended for award of Contract.

01.2.5 The various steps in this evaluation process may be completed concurrently to ensure that the evaluation process is completed in a timely manner. Notwithstanding any concurrent activity, the CCG Technical Evaluation Team will not have access to the pricing information in any Bid.

#### 02. MANDATORY REQUIREMENTS -TECHNICAL PROPOSAL

The Bidder shall provide, as part of its Technical Proposal, all documents essential to demonstrate compliance with each technical mandatory requirement, including, without limitation, photographs, maps, drawings, calculations, Original Equipment Manufacturer (OEM) specifications, documents, purchase orders (less cost data), job or Quality Control or Quality Assurance record sheets, personnel resumes, current trade certificates and other such evidence.

The Bidder itself must meet the requirements of each evaluation item listed below, except as otherwise expressly provided in the evaluation item. If an evaluation item expressly provides that it or any element of it may be met by a subcontractor to the Bidder, then the Bidder shall provide documented evidence of such compliance by its subcontractor. In that event, the Bidder shall also provide evidence that it has a

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binding commitment with that subcontractor under which the subcontractor will perform services under subcontract with the Bidder under any contract issued pursuant to this RFP, and that such services are of the same type as are specified in the relevant evaluation item.

Reference to Annex A, SoR, Section	Description	Compliant (Yes / No)	Reference to Bid
1	Overview		
2	Requirement		
3	Design & Construction Requirements		
4	Operational Requirements		
5	Physical Characteristics		
6	Construction Standards		
7	Vessel Configuration		
8	Construction		
	8.1 Hull and Deck		
	8.2 Stowage		
	8.3 Bleaching Shoe		
	8.4 Bow Eye		
	8.5 Tow Posts		
	8.6 Collars		
9	Outfitting and Equipment		
	9.1 Towing		
	9.2 Lifting		
	9.3 Miranda Davit Frame		
	9.4 Electrical		
	9.5 Batteries, Cables, and Charging Systems		
	9.6 Utility Lighting		
	9.7 Electronic Equipment		
	9.8 Pumping and Drainage		
	9.9 Radar Arch / Self Righting System		
	9.10 Lifesaving Emergency Equipment		
10	Propulsion – I/O Engines and Drive		
	10.1 Engine and Drive I/O		
	10.2 Engine Guard		
	10.3 Fuel Systems		
	10.4 Fire Suppression – Inboard Engine Configuration		
11	Steering		
12	Painting and Preservation		
13	Systems General		
	13.1 Cables		
	13.2 Bilge Blower		
	13.3 Piping Systems		
	13.4 Navigation Equipment		

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14	Tests & Trials		
14.1	Inspection & Testing		
14.2	Sea Trials		
14.3 -14.5	Technical Manuals, Trial Records, Reports		
15	Builder's Plate		
16	Shipping and Delivery		
17	Trailer		
Appendix 1	Final Deliverable Data Package		
1.0	Comprehensive Owner/Operator Manuals		
2.0	Additional Deliverables		