



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À :**

Bid Receiving/Réception des soumissions

Procurement Hub | Centre  
d'approvisionnement  
Fisheries and Oceans Canada | Pêches et  
Océans Canada  
200 Kent Street | 200 rue Kent  
Ottawa, ON, K1A 0E6

**Email / Courriel :** [DFOtenders-soumissionsMPO@dfo-mpo.gc.ca](mailto:DFOtenders-soumissionsMPO@dfo-mpo.gc.ca) AND [Laurent.Hotte@dfo-mpo.gc.ca](mailto:Laurent.Hotte@dfo-mpo.gc.ca)

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

Proposal to: Fisheries and Oceans 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 and services listed herein and on any attached sheets at the price(s) set out therefor.

Proposition à : Pêches et Océans 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 appendices ci-jointes, les biens et les services énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

<b>Title / Titre</b> Update of Safety Code 6 Guidelines and Technical Bulletins		<b>Date</b> May 04, 2021
<b>Solicitation No. / N° de l'invitation</b> 30000116		
<b>Client Reference No. / No. de référence du client(e)</b> 30000116		
<b>Solicitation Closes / L'invitation prend fin</b> <b>At / à : 2 :00PM/ 1400h</b> EDT (Eastern Daylight Time) / HAE (Heure Avancée de l'Est) <b>On / le :</b> June 16, 2021		
<b>F.O.B. / F.A.B.</b> Destination	<b>Taxes</b> See herein — Voir ci-inclus	<b>Duty / Droits</b> See herein — Voir ci-inclus
<b>Destination of Goods and Services / Destinations des biens et services</b> See herein — Voir ci-inclus		
<b>Instructions</b> See herein — Voir ci-inclus		
<b>Address Inquiries to : / Adresser toute demande de renseignements à :</b> Larry Hotte <b>Email / Courriel:</b> <a href="mailto:DFOtenders-soumissionsMPO@dfo-mpo.gc.ca">DFOtenders-soumissionsMPO@dfo-mpo.gc.ca</a> AND <a href="mailto:Laurent.Hotte@dfo-mpo.gc.ca">Laurent.Hotte@dfo-mpo.gc.ca</a>		
<b>Delivery Required / Livraison exigée</b> See herein — Voir en ceci	<b>Delivery Offered / Livraison proposée</b>	
<b>Vendor Name, Address and Representative / Nom du vendeur, adresse et représentant du fournisseur/de l'entrepreneur</b>		
<b>Telephone No. / No. de téléphone</b>	<b>Facsimile No. / No. de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor (type or print) / Nom et titre de la personne autorisée à signer au nom du fournisseur (taper ou écrire en caractères d'imprimerie)</b>		
<b>Signature</b>	<b>Date</b>	



**TABLE OF CONTENTS**

**PART 1 - GENERAL INFORMATION ..... 3**

1.1 SECURITY REQUIREMENTS ..... 3

1.2 STATEMENT OF WORK ..... 3

1.3 DEBRIEFINGS ..... 3

1.4 TRADE AGREEMENTS ..... 3

**PART 2 - BIDDER INSTRUCTIONS..... 4**

2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS ..... 4

2.2 SUBMISSION OF BIDS ..... 4

2.3 ENQUIRIES - BID SOLICITATION..... 4

2.4 APPLICABLE LAWS ..... 4

2.5 BID CHALLENGE AND RECOURSE MECHANISMS..... 4

**PART 3 - BID PREPARATION INSTRUCTIONS ..... 6**

3.1 BID PREPARATION INSTRUCTIONS ..... 6

**PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION ..... 7**

4.1 EVALUATION PROCEDURES ..... 7

4.2 BASIS OF SELECTION ..... 7

**PART 5 - CERTIFICATIONS..... 9**

5.1 CERTIFICATIONS REQUIRED WITH THE BID ..... 9

5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION..... 9

**PART 6 - RESULTING CONTRACT CLAUSES ..... 13**

6.1 SECURITY REQUIREMENTS ..... 13

6.2 STATEMENT OF WORK ..... 13

6.3 STANDARD CLAUSES AND CONDITIONS ..... 13

6.4 TERM OF CONTRACT ..... 14

6.5 AUTHORITIES ..... 14

6.6 PROACTIVE DISCLOSURE OF CONTRACTS WITH FORMER PUBLIC SERVANTS (IF REQUIRED) ..... 15

6.7 PAYMENT ..... 15

6.8 INVOICING INSTRUCTIONS..... 16

6.9 CERTIFICATIONS AND ADDITIONAL INFORMATION ..... 16

6.10 APPLICABLE LAWS ..... 16

6.11 PRIORITY OF DOCUMENTS..... 16

6.12 FOREIGN NATIONALS (CANADIAN CONTRACTOR) ..... 16

6.13 INSURANCE - G1005C (2016-01-28) ..... 17

6.14 DISPUTE RESOLUTION ..... 17

**APPENDIX "A " STATEMENT OF WORK..... 18**

**APPENDIX "B" BASIS OF PAYMENT ..... 73**

**APPENDIX "C" EVALUATION CRITERIA ..... 75**

**PART 1 - GENERAL INFORMATION****1.1 Security Requirements**

There is no security requirement associated with this bid solicitation.

**1.2 Statement of Work**

The Contractor must perform the Work in accordance with the Statement of Work at Appendix "A".

**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 or by telephone.

**1.4 Trade Agreements**

The requirement is subject to the, Canada-Chile Free Trade Agreement (CCFTA), Canada-Colombia Free Trade Agreement, Canada-Peru Free Trade Agreement (CPFTA), Canada-Panama Free Trade Agreement, Canada-Korea Free Trade Agreement (CKFTA), Canada-Honduras Free Trade Agreement, and the Canadian Free Trade Agreement (CFTA).



## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

**As this solicitation is issued by Fisheries and Oceans Canada (DFO), any reference to Public Works and Government Services Canada or PWGSC or its Minister contained in any term, condition or clause of this solicitation, including any individual SACC clauses incorporated by reference, will be interpreted as reference to DFO or its Minister.**

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 (2020-05-28) 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: 90 days

### 2.2 Submission of Bids

Bids must be submitted 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 DFO will not be accepted.

### 2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the 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 Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

### 2.5 Bid Challenge and Recourse Mechanisms

(a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.



- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
- Office of the Procurement Ombudsman (OPO)
  - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.



## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

Canada requests that the Bidder submit **all** its **email** bid in separately saved sections as follows and **prior to the bid closing date, time and location**:

**Section I: Technical Bid** (one soft copy in PDF format)

**Section II: Financial Bid** (one soft copy in PDF format)

**Section III: Certifications** (one soft copy in PDF format)

**Section IV: Additional Information** (one soft copy in PDF format)

#### **Important Note:**

**The maximum size per email (including attachments) is limited to 10MB.** If the limit is exceeded, your email might not be received by DFO. It is suggested that you compress the email size to ensure delivery. Bidders are responsible to send their proposal and to allow enough time for DFO to receive the proposal by the closing period indicated in the RFP. Emails with links to bid documents will not be accepted.

For bids transmitted by email, DFO will not be responsible for any failure attributable to the transmission or receipt of the email bid. DFO will send a confirmation email to the Bidders when the submission is received.

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

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

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work. *The bid must be provided in a PDF format that has already been converted into text. In other words, it must be possible to search through the document by typing CTRL-F. Therefore, a PDF document made from a scanned copy of a paper document is not acceptable.*

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

Bidders must submit their financial bid in accordance with the Basis of Payment in Appendix "B".

#### **3.1.3 SACC Manual Clauses**

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

Bidders must submit the certifications and additional information required under Part 5.



## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 4.1 Evaluation Procedures

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

#### 4.1.1 Technical Evaluation

##### 4.1.1.1 Mandatory Technical Criteria

Refer to Appendix "C"

##### 4.1.1.2 Point Rated Technical Criteria

Refer to Appendix "C"

#### 4.1.2 Financial Evaluation

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.

### 4.2 Basis of Selection

#### 4.2.1 Highest Combined Rating of Technical Merit and Price - A0027T (2012-07-16)

1. To be declared responsive, a bid must:
  - a. comply with all the requirements of the bid solicitation; and
  - b. meet all mandatory criteria; and
  - c. obtain the required minimum of **5 points** for each point rated criteria; and
  - d. overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of **20 points**.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70 % for the technical merit and 30% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained divided by the maximum number of points available multiplied by the ratio of 70 %.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30 %.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.



The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 70/30 ratio of technical merit and price, respectively. The total available points equal 135 and the lowest evaluated price is \$45,000 (45).

<b>Basis of Selection - Highest Combined Rating Technical Merit (70%) and Price (30%)</b>				
		<b>Bidder 1</b>	<b>Bidder 2</b>	<b>Bidder 3</b>
<b>Overall Technical Score</b>		115/135	89/135	92/135
<b>Bid Evaluated Price</b>		\$55,000.00	\$50,000.00	\$45,000.00
<b>Calculations</b>	<b>Technical Merit Score</b>	$115/135 \times 70 = 59.63$	$89/135 \times 70 = 46.15$	$92/135 \times 70 = 47.70$
	<b>Pricing Score</b>	$45/55 \times 30 = 24.55$	$45/50 \times 30 = 27.00$	$45/45 \times 30 = 30.00$
<b>Combined Rating</b>		84.18	73.15	77.70
<b>Overall Rating</b>		<b>1st</b>	<b>3rd</b>	<b>2nd</b>





## **PART 5 - CERTIFICATIONS**

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

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default 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 will render the bid non-responsive or constitute a default under the Contract.

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

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

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

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, if **applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

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

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

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

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

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

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html>).

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.

#### **5.2.3 Additional Certifications Precedent to Contract Award**

##### **5.2.3.1 Status and Availability of Resources**

*SACC Manual* clause [A3005T](#) (2010-08-16) Status and Availability of Resources applies and forms part of this Request for Proposal



**5.2.3.2 Education and Experience**

SACC Manual clause A3010T (2010-08-16) Education and Experience applies and forms part of this Request for Proposal

**5.2.3.3 List of Names for Integrity Verification Form**

Bidders must complete the List of Names for Integrity Verification form found in Attachment 1 to Part 5.

**5.2.3.4 Contractor's Representative**

The Contractor's Representative for the Contract is:

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

**5.2.3.5 Supplementary Contractor Information**

Pursuant to paragraph 221 (1)(d) of the Income Tax Act, payments made by departments and agencies under applicable services contracts (including contracts involving a mix of goods and services) must be reported on a T4-A supplementary slip.

To enable the Department of Fisheries and Oceans to comply with this requirement, the Contractor hereby agrees to provide the following information which it certifies to be correct, complete, and fully discloses the identification of this Contractor:

- a) The legal name of the entity or individual, as applicable (the name associated with the Social Insurance Number (SIN) or Business Number (BN), as well as the address and the postal code:  
\_\_\_\_\_
- b) The status of the contractor (individual, unincorporated business, corporation or partnership):  
\_\_\_\_\_
- c) For individuals and unincorporated businesses, the contractor's SIN and, if applicable, the BN, or if applicable, the Goods and Services Tax (GST)/Harmonized Sales Tax (HST) number:  
\_\_\_\_\_
- d) For corporations, the BN, or if this is not available, the GST/HST number. If there is no BN or GST/HST number, the T2 Corporation Tax number must be shown:  
\_\_\_\_\_

**The following certification signed by the contractor or an authorized officer:**

"I certify that I have examined the information provided above and that it is correct and complete"

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name of Signatory



### 5.2.4 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

#### Definitions

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

an individual;

an individual who has incorporated;

a partnership made of former public servants; or

a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

**"lump sum payment period"** means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

**"pension"** means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

#### Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes ( ) No ( )**

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

name of former public servant;

date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2019-01](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

#### Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes ( ) No ( )**

If so, the Bidder must provide the following information:

name of former public servant;

conditions of the lump sum payment incentive;

date of termination of employment;

amount of lump sum payment;

rate of pay on which lump sum payment is based;

period of lump sum payment including start date, end date and number of weeks;

number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.



## ATTACHMENT 1 TO PART 5 LIST OF NAMES FOR INTEGRITY VERIFICATION FORM

### Requirements

Section 17 of the [\*Ineligibility and Suspension Policy\*](#) (the Policy) requires suppliers, regardless of their status under the Policy, to submit a list of names with their bid or offer. The required list differs depending on the bidder or offeror's organizational structure:

- Suppliers including those bidding as joint ventures, whether incorporated or not, must provide a complete list of the names of all current directors.
- Privately owned corporations must provide a list of the owners' names.
- Suppliers bidding as sole proprietors, including sole proprietors bidding as joint ventures, whether incorporated or not, must provide a complete list of the names of all owners.
- Suppliers that are a partnership do not need to provide a list of names.

Suppliers may use this form to provide the required list of names with their bid or offer submission. Failure to submit this information with a bid or offer, where required, will render a bid or offer non-responsive, or the supplier otherwise disqualified for award of a contract or real property agreement. Please refer to [Information Bulletin: Required information to submit a bid or offer](#) for additional details.

List of names for [integrity verification form](#)



## PART 6 - RESULTING CONTRACT CLAUSES

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

### 6.1 Security Requirements

6.1.1 There is no security requirement applicable to the Contract.

### 6.2 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Appendix "A".

### 6.3 Standard Clauses and Conditions

**As this contract is issued by Fisheries and Oceans Canada (DFO), any reference to Public Works and Government Services Canada or PWGSC or its Minister contained in any term, condition or clause of this contract, including any individual SACC clauses incorporated by reference, will be interpreted as reference to DFO or its Minister.**

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

#### 6.3.1 General Conditions

6.3.1.1 **2010B** (2020-05-28), General Conditions - Professional Services (Medium Complexity) apply to and form part of the Contract.

6.3.1.2 Subsection 10 of **2010B** (2020-05-28), General Conditions - Professional Services (Medium Complexity) – Invoice submission, is amended as follows:

Delete: 2010B 10 (2020-05-28), Invoice submission  
Insert: **Invoice submission**

1. Invoices must be submitted in the Contractor's name to DFO.invoicing-facturation.MPO@canada.ca. with a copy to **TBD**. The Contractor must submit invoices for each delivery or shipment; invoices must only apply to the Contract. Each invoice must indicate whether it covers partial or final delivery.
2. Invoices must show:
  - a. Contractor's Name and remittance physical address;
  - b. Contractor's CRA Business Number or Procurement Business Number (PBN);
  - c. Invoice Date;
  - d. Invoice Number;
  - e. Invoice Amount (broken down into item and tax amounts);
  - f. Invoice Currency (if not in Canadian dollars);
  - g. DFO Reference Number (PO Number or other valid reference number);
  - h. DFO Contact Name (DFO employee who initiated the order or to whom the goods were sent. **Note:** Invoice will be return to the Contractor if that information is not provided);
  - i. Description of the goods or services supplied (provide details of expenditures (such as item, quantity, unit of issue, fixed time labour rates and level of effort, subcontracts, as applicable) in accordance with the Basis of Payment, exclusive of Applicable Taxes;
  - j. Deduction for holdback, if applicable;
  - k. The extension of the totals, if applicable; and
  - l. If applicable, the method of shipment together with date, case numbers and part or reference numbers, shipment charges and any other additional charges.



- 3. Applicable Taxes must be specified on all invoices as a separate item along with corresponding registration numbers from the tax authorities. All items that are zero-rated, exempt or to which Applicable Taxes do not apply, must be identified as such on all invoices.
- 4. By submitting an invoice, the Contractor certifies that the invoice is consistent with the Work delivered and is in accordance with the Contract.

**6.4 Term of Contract**

**6.4.1 Period of the Contract**

The period of the Contract is from date of Contract to December 31, 2021 inclusive

**6.5 Authorities**

**6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Larry Hotte  
 Title: Procurement Specialist (Consultant)  
 Department: Fisheries and Oceans Canada  
 Directorate: Materiel and Procurement Services  
 Address: 200 Kent St.,  
 Ottawa, ON K1A 0E6  
 Telephone: **TBD**  
 E-mail address: [Laurent.Hotte@dfo-mpo.gc.ca](mailto:Laurent.Hotte@dfo-mpo.gc.ca)

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

**6.5.2 Project Authority (to be inserted at Contract award)**

The Project Authority for the Contract is: **TBD**

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Organization: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 E-mail address: \_\_\_\_\_

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

**6.5.3 Contractor's Representative TBD**

The Contractor's Representative for the Contract is:

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Organization: \_\_\_\_\_  
 Address: \_\_\_\_\_



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

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

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

## 6.6 Proactive Disclosure of Contracts with Former Public Servants (if required)

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](#) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

## 6.7 Payment

### 6.7.1 Basis of Payment

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in article 6.7.3.1 below and the payment provisions of the Appendix B Basis of Payment if:

- a. an accurate and complete claim for payment and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- c. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

### 6.7.2 Limitation of Expenditure

1. Canada's total liability to the Contractor under the Contract must not exceed \$ **TBD**. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
  - a. when it is 75% committed, or
  - b. four months before the contract expiry date, or
  - c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,
 whichever comes first.
3. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

### 6.7.3 Method of Payment

#### 6.7.3.1 Terms of Payment

The schedule of milestones for which payments will be made in accordance with the Contract is as follows:

Milestone No.	Deliverables	Firm Amount	Delivery Date*
1,	Completion of the following in Task #1, 2 and 3 – Draft of English Version of the PowerPoint Presentation and the updated version of TB2008-2 and TB2008-3 as described in the Statement of Work	50% of total bid price	September 03, 2021



2.	Completion of the following in Task #1, 2 and 3 – Final English Version of the PowerPoint Presentation and updated version of TB2008-2 and TB2008-3 as described in the Statement of Work	25% of total bid price	October 29, 2021
3.	Completion of the following in Task #1, 2 and 3 – Final French Version of the PowerPoint Presentation and updated version of TB2008-2 and TB2008-3 as described in the Statement of Work and Acceptance of Final Documents in English and French	25% of total bid price	November 26, 2021

\* **Delivery dates may be adjusted depending on the date of contract award.**

#### 6.7.4 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using Direct Deposit (Domestic and International).

#### 6.8 Invoicing Instructions

The Contractor must submit invoices in accordance with the section 6.3.1.2 entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

#### 6.9 Certifications and Additional Information

##### 6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

##### 6.9.2 SACC Manual Clauses

SACC Manual clause [A3015C](#) (2014-06-26), Certification – Contract applies to and forms part of this Contract

#### 6.10 Applicable Laws

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

#### 6.11 Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the general conditions [2010B](#) (2020-05-28), General Conditions - Professional Services (Medium Complexity);
- (c) Appendix A, Statement of Work;
- (d) Appendix B, Basis of Payment;
- (e) the Contractor's bid dated \_\_\_\_\_ : “, as clarified on \_\_\_\_\_ **or**, as amended on \_\_\_\_\_

#### 6.12 Foreign Nationals (Canadian Contractor)

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





### **6.13 Insurance - G1005C (2016-01-28)**

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

### **6.14 Dispute Resolution**

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".



**APPENDIX "A "**  
**STATEMENT OF WORK**

**Update of Safety Code 6 Guidelines and Technical Bulletins**

1 Scope

1.1 Background Information

1.1.1 Technical Bulletins

1.1.1.1 The table below shows the most recent reference documents about Radiofrequency (RF) exposure:

CODE NAME	OFFICIAL NAME	PUBLISHER	LATEST VERSION	NUMBER OF PAGES
SC6	Safety Code 6: Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3 kHz to 300 GHz <sup>1</sup>	Health Canada	June 2015	24
GL-01	Guidelines for the Measurement of Radio Frequency Fields at Frequencies From 3 kHz to 300 GHz <sup>2</sup>	Industry Canada	19 March 2015	28
GL-08	Guidelines for the Preparation of Radio Frequency (RF) Exposure Compliance Reports for Radio communication and Broadcasting Antenna Systems <sup>3</sup>	Innovation, Science and Economic Development Canada	July 2019	11

1.1.1.2 The Canadian Coast Guard (CCG) has published two Technical Bulletins (TB) based on the 2009 version of Health Canada's Safety Code 6 (SC6):

TB 2008-3, Recommendations and Safe Practices for Working around RF Emitting Antennas on Vessels

TB 2008-2, Recommendations and Safe Practices for Working around RF Emitting Antennas at Shore Based Installations

1.1.1.3 The two CCG TBs state the safe distances, called Minimum Compliant Distances (MCD) for typical electronic communication and radar systems used by the CCG on its vessels and on its shore-based sites. According to these TBs, the MCD is the distance outside which a person can remain continuously, over a regular eight hour workday, and not exceed the limits of SC6.

1.1.1.4 There are 2 types of MCDs and they were based on the 2009 SC6: The MCDs based on the limits for "Controlled Environments" are intended for "CCG RF workers" whereas the MCDs based on the limits for "Uncontrolled Environments" are intended for fence requirements to protect the "general public".

1.1.1.5 Since it is difficult to theoretically calculate the RF levels (electric and/or magnetic fields) in the near-field area, a **Contractor** has visited some typical CCG vessels (between 2006 and 2009) and some typical CCG shore-based sites (in 2009). The **Contractor** then used electronic probes to measure the actual RF levels and determine the MCD and fence requirements for each system. Such RF measurements are referred to as "Non-Ionizing Radiation (NIR) surveys" and are performed using the reference documents in the table above.

1.1.1.6 Following are the CCG vessels that a **Contractor** has visited to undertake SC6 Non-Ionizing Radiation (NIR) surveys and to determine the MCDs in TB 2008-3 (there were 9 typical classes during those years):

VESSEL	TYPE	CLASS	LOCATION	SURVEY DATE
Cap Percé	47' MLB	SAR Lifeboat	Sydney, NS	26 July 2006
Cape Hearne	47' MLB	SAR Lifeboat	Burlington, ON	20 December 2006
A Fast Rescue Craft	FRC	not an official class	Port Lambton, ON	9 August 2007
A Fast Rescue Craft	FRC	not an official class	Maritimes Region	3 April 2008

<sup>1</sup> <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/consultations/limits-human-exposure-radiofrequency-electromagnetic-energy-frequency-range-3-300.html>

<sup>2</sup> <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01451.html>

<sup>3</sup> <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf09945.html>

Fisheries and Oceans  
CanadaPêches et Océans  
Canada

Pierre Radisson	1200	Medium Icebreaker	Quebec Region	3 April 2008
Martha L. Black	1100	High Endurance Multi-Tasked Vessel	Quebec Region	3 April 2008
Sir William Alexander	1100	High Endurance Multi-Tasked Vessel	Maritimes Region	3 April 2008
Earl Grey	1050	Medium Endurance Multi-Tasked Vessel	Maritimes Region	3 April 2008
Sambro	ARUN	SAR Lifeboat	Maritimes Region	3 April 2008
Terry Fox (LF beacon & MF/HF Transmitters only)	1250	Heavy Icebreaker	Maritimes Region	3 April 2008
Gordon Reid	500	Specialty Vessel	Pacific Region	3 April 2008
Leslie J.	18'	Small DFO Pleasure Craft (not a 2017 class)	Burlington, ON	18 March 2009

1.1.1.7 The systems that were surveyed on CCG vessels (between 2006 and 2009) were the following:

All S-Band and X-Band radars;  
 All VHF FM and AM communications systems;  
 All HF/MF SSB Communication systems;  
 All LF Beacon Transmitters;  
 All Satellite Communication Systems (e.g., Inmarsat, Email at Sea);  
 Distance Measuring Equipment (DME);  
 The wheelhouse environment; and  
 Any unique or miscellaneous radiating systems.

1.1.1.8 Following are the typical CCG shore-based sites that a **Contractor** has visited to undertake SC6 Non-Ionizing Radiation (NIR) surveys and to determine the MCD and fence requirements for the systems presented in TB 2008-2:

SITE	SYSTEM SURVEYED	LOCATION	SURVEY DATE
Robin Hood Bay	Navtex and MF	Newfoundland region	October 2009
Cape Race	Loran-C and DGPS	Newfoundland region	October 2009
Lauzon	CMB	Quebec region	October 2009
Lauzon	DGPS	Quebec region	October 2009
	Shore Based Radar	Quebec region	October 2009
Lévis			
Sarnia (Camlachie)	CMB	Central & Arctic region	October 2009
Sarnia	Shore Based Radar	Central & Arctic region	October 2009
Warton	DGPS	Central & Arctic region	October 2009
Ferndale	Navtex	Central & Arctic region	October 2009
Inuvit, NWT	MF / HF Vertical Radiators and Dipoles	Central & Arctic region	October 2009

## 1.1.2 Training Video

1.1.2.1 The CCG has also published two videos (English and French versions) on general SC6 guidelines. These videos, also based on the 2009 SC6, have the following characteristics:

English Version: Radio Frequency (RF) Safety Awareness Course  
 French Version: Sensibilisation à la sécurité en matière de radiofréquence (RF)

For CCG personnel who work on (or near) equipment that emits RF energy, their supervisors and their managers  
 Prepared in October 2010  
 Narrator talking for about 35 minutes  
 58 slides

## 2 Tasks

### 2.1 Summary of Tasks

2.1.1 Taking into account the differences between the 2009 and the 2015 versions of SC6 and the other documents in the first table of **section 1.1.1**, the **Contractor** must provide the following 3 documents as deliverables:



2.1.1.1 Two PowerPoint presentations (English and French versions) on general 2015 SC6 guidelines. Just like the 2010 videos, these presentations will be used as a training documents by CCG personnel who work on (or near) equipment that emits RF energy, their supervisors and their managers;

2.1.1.2 An updated version of CCG Technical Bulletin 2008-3 (English and French side by side) titled "Recommendations and Safe Practices for Working around RF Emitting Antennas on vessels", according to the new rules of the 2015 SC6.

2.1.1.3 An updated version of CCG Technical Bulletin 2008-2 (English and French side by side) titled "Recommendations and Safe Practices for Working around RF Emitting Antennas at Shore Based Installations", according to the new rules of the 2015 SC6; and

2.2 Task #1: Two PowerPoint presentations (English and French) on General SC6 guidelines

2.2.1 The **Contractor** must create a PowerPoint presentation explaining the SC6 guidelines and providing training material to CCG personnel on both shore based and ship based installations. In other words, the presentation will be similar to the 2010 training video described in **section 1.1.2**, however it will be based on the 2015 version of SC6.

2.2.2 A "narrator document" in Microsoft Word format (English and French), which contains pictures of the slides in the video and the written text spoken by the narrator, is attached to this RFP package as follows:

"**Attachment 1** - DVD Narrator Document - RF Awareness 2010 English final Sept 21 2010.doc"

"**Attachment 2** - DVD Narrator Document - RF Awareness 2010 Français final 5 Oct.doc"

2.2.3 Even though the presentation will replace the video, the **Contractor** will not need to include a narrator for task #1. In other words, the presentation will only contain pictures and text (no audio). However the presentation must be produced in English and in French in two separate documents, hence our request for two PowerPoint presentations.

2.3 Task #2: Updated version of the Vessel Based Technical Bulletin (English and French)

2.3.1 The **Contractor** must update the English and French sections of CCG Technical Bulletin 2008-3 titled "Recommendations and Safe Practices for Working around RF Emitting Antennas on vessels" according to the new rules of the 2015 SC6.

2.3.2 The original version of TB 2008-3 (English and French side by side) is attached to this RFP package as "**Attachment 4** - MECTS-#2956388-v2-2008-03\_TB.doc".

2.3.3 **IMPORTANT:** Before updating TB 2008-3, the **Contractor** must first determine which system groups should have a Minimum Compliant Distance (MCD).

**Annex A** to this Statement of Work lists all the known RF-emitting systems that are installed on CCG vessels, and suggests that groups A through M should probably have an MCD, but groups N through S probably do not need an MCD (for the reasons written in the group titles).

**Annex B** to this Statement of Work shows on which CCG vessels the systems of **Annex A** are installed. Furthermore, the second line of systems for most vessels begins with the word "optional" to show the systems that probably do not need an MCD (in agreement with **Annex A**).

2.3.4 TB 2008-3 must be updated as follows:

Replace the systems in **Annex A** of the TB with the systems that are SC6 relevant in **Annex A** to this Statement of Work.

Determine the MCD for "Controlled Environments" for each replaced system.

Determine the MCD for "Uncontrolled Environments" for each replaced system.

2.3.5 The **Contractor** may have to visit some representative CCG vessels to perform NIR surveys (as explained in **section 1.1.1**) to determine the MCDs for some systems. **Annex B** to this Statement of Work considers 17 vessel classes for a total of 117 CCG vessels. The **Contractor** may also have to use theoretical calculations to determine the MCDs for some systems that are not easily measurable.



## 2.4 Task #3: Updated version of the Shore Based Technical Bulletin (English and French)

2.4.1 The **Contractor** must update the English and French sections of CCG Technical Bulletin 2008-2 titled "Recommendations and Safe Practices for Working around RF Emitting Antennas at Shore Based Installations" according to the new rules of the 2015 SC6.

2.4.2 The original version of TB 2008-2 (English and French side by side) is attached to this RFP package as "**Attachment 3** - MECTS-#2956311-v2-2008-02\_TB.doc".

2.4.3 **IMPORTANT:** Before updating B 2008-2, the **Contractor** must first determine which system groups should have a Minimum Compliant Distance (MCD).

**Annex C** to this Statement of Work lists all the known RF-emitting systems that are installed on CCG shore-based sites, and suggests that groups 1 through 9 should probably have an MCD, but groups 10 and 11 probably do not need an MCD (for the reasons written in the group titles).

**Annex D** to this Statement of Work shows on which CCG shore-based sites the systems of **Annex C** are

installed. Furthermore, the second line of systems for some shore-based sites begins with the word "optional" to show the systems that probably do not need an MCD (in agreement with **Annex C**).

2.4.4 TB 2008-2 must be updated as follows:

Replace the systems in **Annex A** of the TB with the systems in **Annex C** to this Statement of Work. Determine the MCD for "Controlled Environments" for each system while also considering nearby foreign systems. Determine the MCD for "Uncontrolled Environments" for each system while also considering nearby foreign systems.

2.4.5 When determining the MCDs for shore based systems located at a CCG site, contributions from foreign systems that may be located nearby must also be considered (cellular and mobile radio systems within 100 m of the site, and broadcast transmitters within 1 km from the site). The **Project Authority** cannot provide information about these foreign systems, but can provide KMZ files that show the locations of the CCG sites.

2.4.6 The **Contractor** may have to visit some representative CCG shore-based sites (see **Annex D**) to perform NIR surveys (as explained in **section 1.1.1**) to determine the MCDs for some systems. The **Contractor** may also have to use theoretical calculations to determine the MCDs for some systems that are not easily measurable.

## 2.5 Deliverables and Milestones

2.5.1 The Work must be completed in full, including delivery and acceptance by Canada of the deliverables, by the end of the Contract Period which is **26 November 2021**.

2.5.2 Deliverables must be provided in Microsoft PowerPoint 2016 and Microsoft Word 2016 formats.

2.5.3 Deliverables will be in English and in French, and will be sent by e-mail to the **Project Authority** on the dates specified in the table below.

DELIVERABLE	MILESTONE*
Task #1 - Draft English Version of the PowerPoint presentation	3 September 2021
Task #2 – Draft English Version of updated TB 2008-2	3 September 2021
Task #3 – Draft English Version of updated TB 2008-3	3 September 2021
Task #1 - Final English Version of the PowerPoint presentation	29 October 2021
Task #2 – Final English Version of updated TB 2008-2	29 October 2021
Task #3 – Final English Version of updated TB 2008-3	29 October 2021
Task #1 - Final French Version of the PowerPoint presentation	19 November 2021



Task #2 – Final French Version of updated TB 2008-2  
Task #3 – Final French Version of updated TB 2008-3  
Acceptance of Final Documents

19 November 2021  
19 November 2021  
26 November 2021

\* **These deliverable dates may be adjusted depending on the date of contract award.**

## **Other Requirements**

### **Reporting Requirements**

3.1.1 Communications will occur by email or by phone between the **Contractor** and the **Project Authority**, as it is deemed necessary.

### **Language of Work**

3.2.1 Communications between the **Contractor** and the **Project Authority** can either be in English or in French, as chosen by the **Contractor**.

### **Specifications and Standards**

3.3.1 The **Project Authority** has provided some basic specifications on CCG systems in **Annex A** and **Annex C**, however the question marks (?) indicate specifications that could not be found or confirmed.

Health Canada has also produced the following documents (English and French) which are attached to this RFP package as follows:

"**Attachment 5** - 2015 vs 2009 SC6 Comparison - Controlled Environment (English).pdf"

"**Attachment 6** - 2015 vs 2009 SC6 Comparison - Controlled Environment (French).pdf"

"**Attachment 7** - 2015 vs 2009 SC6 Comparison - Uncontrolled Environment (English).pdf"

"**Attachment 8** - 2015 vs 2009 SC6 Comparison - Uncontrolled Environment (French).pdf"

## **4 Location of Work**

All work will be performed at the **Contractor's** facilities except where travel is required.

## **5 Travel and Living Expenses**

The Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, with no provision for overhead or profit.

All travel must be authorized in advance by the **Project Authority**.

All payments are subject to government audit.



Annex A  
List of Systems Installed on CCG Vessels

-----  
GROUP A: LF + MF BANDS - SHIPBOARD TRANSMITTERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
A1	Nautel ND500R (helicopter beacon)	RFOP = 125 W	NA30195

-----  
GROUP B: LF + MF + UHF BANDS - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
B1	combined system (NDB & DME)	RFOP = 100 W	NA531281

-----  
GROUP C: MF + HF BANDS - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
C1	Sailor 2000 series GMDSS	RFOP = 250 and 600 W (see note 1)	NA30391
C2	Sailor 6301	RFOP = 150/250/500 W	NA525876
C3	Sailor 6364	RFOP = 500 W	NA525879
C4	Sailor 6363	RFOP = 250 W	NA525878 NA541741
C5	Sailor 6368B	RFOP = 250 W	NA527976
C6	Skanti TRP8253/8255S	RFOP = 10/60/250 W	NA31293
C7	Icom IC-M802	RFOP = 20/60/150 W	NA514633
C8	Sailor 6365B	RFOP = 150 W	NA527975
C9	Name ???	RFOP = 150 W ???	NA525877
C10	Sailor T2130 (with RE2100)	RFOP = 250 W PEP = 62.5 W	NA100061 NA31283
C11	Sailor TU5250 (Sailor 5000 GMDSS System)	RFOP = 150/250 W PEP = 37.5/62.5 W	NA515359 NA515341 NA515352
C12	Icom IC-781	RFOP = 150 W PEP = 37.5 W	NA31278
C13	JRC JSB-196GM	RFOP = 100/150 W PEP = 25/37.5 W	NA511608
C14	Harris Farinon RF-3200 or RF-3200E	RFOP = 125 W PEP = 31.25 W	NA31285 NA31286
C15	Motorola Micom-2	RFOP = 25-125 W PEP = 6.25-31.25 W	NA100550
C16	Motorola Micom-3T	RFOP = 125 Watt PEP = 31.25 W	NA514144
C17	Motorola Micom-S	RFOP = 125 W PEP = 31.25 W ???	NA33132
C18	Motorola Micom-X	RFOP = 125 W PEP = 31.25 W	NA30891
C19	Motorola Micom-XF	RFOP = 125 W PEP = 31.25 W ???	NA31294
C20	Skanti Marinetta TRP1 (cranked generator)	RFOP = 3.5 W	NA30782 NA33061
C21	Spilsbury SBX-11A	RFOP = 5-10 W PEP = 1.25/2.5 W	NA31303
C22	Daniels DE1500	RFOP = ??? W	NA31281
C23	Motorola Triton 40S - Wrong name ???	RFOP = ??? W	NA31292

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
D1 :	Uniden PC122	RFOP = 4/12 W PEP = 1/3 W	NA101334
D2 :	STC Marine SOLAS4 ??? (lifeboat emergency radio)	RFOP = ??? W	NA32949

## GROUP E: HF + VHF BANDS - SHIPBOARD TRANSCEIVERS:

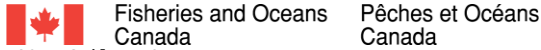
#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
E1 :	Icom IC-7600	RFOP = 1-100 W	NA32589

## GROUP F: VHF BAND - SHIPBOARD TRANSCEIVERS:

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
F1 :	Motorola Quantar T5365A	RFOP = 25/125 W	NA31346
F2 :	TAD M8	RFOP = 30-60 W	NA31338
F3 :	Motorola APX 6500 with 03 hand held control head	RFOP = 10/50 W	NA525779
F4 :	Icom IC-A110	RFOP = 9/36 W	NA500982
F5 :	General Electric GE Phoenix-SX	RFOP = 30 W	NA31306
F6 :	Motorola MCX1000	RFOP = 30 W	NA31342
F7 :	Icom IC-M45	RFOP = 1/25 W	NA32827
F8 :	Icom IC-M56	RFOP = 1/25 W	NA31347
F9 :	Icom IC-M58	RFOP = 1/25 W	NA31315
F10:	Icom IC-M127	RFOP = 1/25 W	NA31312
F11:	Icom IC-M302	RFOP = 1/25 W	NA101626
F12:	Icom IC-M402	RFOP = 1/25 W	NA100525
F13:	Icom IC-M412	RFOP = 1/25 W	NA516566
F14:	Icom IC-M422	RFOP = 1/25 W	NA510507
F15:	Icom IC-M502	RFOP = 1/25 W	NA510718
F16:	Icom IC-M504	RFOP = 1/25 W	NA510923 NA527658
F17:	Icom IC-M506	RFOP = 1/25 W	NA528219
F18:	Icom IC-M601	RFOP = 1/25 W	NA501001
F19:	Icom IC-M604	RFOP = 1/25 W	NA510937 NA514907 NA527660
F20:	McMurdo F1	RFOP = 1/25 W	NA500817
F21:	Motorola Triton II	RFOP = 25 W	NA31359
F22:	Motorola Triton M200	RFOP = 1/25 W	NA31316
F23:	Raytheon RAY52	RFOP = 1/25 W	NA500834
F24:	Raymarine RAY78	RFOP = 1/25 W	NA32512
F25:	Raymarine RAY90	RFOP = 1/25 W	NA31345
F26:	Raymarine RAY201	RFOP = 1/25 W	NA31304
F27:	Raymarine RAY210	RFOP = 1/25 W	NA100748
F28:	Ross 500 PRO	RFOP = 1/25 W	NA100074
F29:	Sailor 6210	RFOP = 1/25 W	NA515345



Solicitation No. 30000116



F30: Sailor 6215	RFOP = 1/25 W	NA529260
F31: Sailor 6216	RFOP = 1/25 W	NA525875
F32: Sailor 6222	RFOP = 1/25 W	NA515676 NA541652
F33: Sailor A1	RFOP = 1/25 W	NA528157
F34: Sailor RT146	RFOP = 25 W	NA31344
F35: Sailor RT2047	RFOP = 1/25 W	NA31360
F36: Sailor RT2048	RFOP = 1/25 W	NA31313
F37: Sailor RT5022	RFOP = 1/25 W	NA511920
F38: Skanti 3000	RFOP = 1/25 W (see note 2)	NA31354
F39: Skanti TRP3024 DE	RFOP = 1/25 W	NA341155 NA32933 NA32959
F40: Standard Horizon Eclipse+ GX1246S	RFOP = 1/25 W	NA33007
F41: Standard Horizon Explorer GX1600	RFOP = 1/25 W	NA532215
F42: Standard Horizon Intrepid GX1260S	RFOP = 1/25 W	NA100975
F43: Standard Horizon Intrepid GX1270S	RFOP = 1/25 W	NA34134
F44: Standard Horizon Maxi	RFOP = 1/25 W	NA32181
F45: Standard Horizon Quantum GX5000S	RFOP = 1/25 W	NA524225
F46: Standard Horizon Quantum GX5500S	RFOP = 1/25 W	NA511573
F47: Standard Horizon Quantum GX6000	RFOP = 1/25 W	NA532071
F48: Standard Horizon Spectrum GX2350S	RFOP = 1/25 W	NA100976
F49: Standard Horizon Titan+ GX2320S	RFOP = 1/25 W	NA31330
F50: Rockwell Collins VHF-22A	RFOP = 16/20 W (see note 3)	NA514213 NA31325
F51: Bendix/King KY92	RFOP = 6/16 W	NA31322
F52: Bendix/King KY196A	RFOP = 16 W	NA31323
F53: Saab R4 (AIS)	RFOP = 1/12.5 W	NA513253 NA503632 NA528881 NA516668
F54: Saab R5 (AIS)	RFOP = 1/12.5 W	NA546139 NA529639 NA541618 NA527819 NA528357 NA530454 NA530082
F55: Jotron TR-810	RFOP = 10 W	NA541835
F56: Northern Airborne Technology (NAT) NTX138-000	RFOP = 1/10 W	NA529127 NA31398
F57: Rockwell Collins VHF251	RFOP = 10 W	NA31319
F58: Icom IC-A120	RFOP = 9 W	NA528159
F59: Icom IC-A200	RFOP = 7 W	NA31079
F60: Stellar ST2500 (VMS)	RFOP = 5 W	NA513082 NA502817
F61: Raymarine AIS650 (AIS)	RFOP = 2 W	NA514482
F62: Exicom 835	RFOP = ??? W	NA31320
F63: Debuc 7500 ???	RFOP = ??? W	NA30785
F64: Optophone ???	RFOP = ??? W	NA100465



-----  
GROUP G: VHF + UHF BANDS - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
G1 :	Motorola APX 7500 multi-band	RFOP = 10-110 W	NA523924
G2 :	Motorola APX 8500 all-band	RFOP = 10-110 W	NA531595
G3 :	Motorola ASTRO XTL5000	RFOP = 10-110 W	NA504918
G4 :	Motorola MTR2000	RFOP = 30/40/100 W	NA31311 NA100614
G5 :	Tait TM8110	RFOP = 1-50 W	NA527175
G6 :	Motorola MOTOTRBO XPR5550	RFOP = 1-45 W	NA526277
G7 :	Motorola Digital Vehicular Repeater System (DVRS)	RFOP = 1-10 W	NA513527

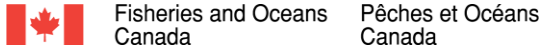
-----  
GROUP H: UHF BAND - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
H1 :	Pelorus 1118 (DME)	RFOP = 100/400 W	NA30381 NA30383
H2 :	Icom IC-RP4520	RFOP = 10/25/50 W	NA31307
H3 :	Icom IC-FR6000	RFOP = 5/50 W	NA541698
H4 :	Motorola SLR 5700	RFOP = 1-50 W	NA542569
H5 :	Icom IC-F221	RFOP = 45 W	NA511577
H6 :	Icom IC-F621	RFOP = 45 W	NA508183
H7 :	Motorola APX 4500	RFOP = 10-40 W	NA531436
H8 :	Motorola CDM1250	RFOP = 1-40 W	NA503168
H9 :	Motorola MOTOTRBO XPR8400	RFOP = 1-40 W	NA526276
H10:	Icom IC-U400	RFOP = 35 W	NA31305
H11:	Motorola Astro Spectra T99DX with W5 control head	RFOP = 15/35 W	NA31402
H12:	Motorola APX 6500 with 07 enhanced control head	RFOP = 10/30 W (see note 4)	NA531591 NA541656
H13:	Motorola APX 6500 with 05 standard control head	RFOP = 10/30 W (see note 4)	NA523244
H14:	Kenwood TK-810 (pager)	RFOP = 5/25 W	NA32919
H15:	Motorola People Finder Plus E34PFP0111AS (pager)	RFOP = 4 W	NA508337

-----  
GROUP I: L BAND - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
I1 :	Sailor 500 FleetBroadband	EIRP = 200 W	NA513766 NA525746 NA525563 NA525505
I2 :	Mitsubishi ST112	EIRP = 12.5 W (omni) or 45 W (dome)	NA32192
I3 :	Sailor 250 FleetBroadband	EIRP = 41 W	NA514422 NA525565
I4 :	Inmarsat Sailor H2095B	EIRP = 25 W	NA33191
I5 :	Inmarsat SkyWave DMR-800L	EIRP = 8 W	NA512372
I6 :	Iridium SkyTrac ISAT-200 (FFS)	RFOP = 7 W	NA514888 NA514889 NA532299
I7 :	Iridium Sailor ST4120	RFOP = 0.6/7 W	NA511335 NA500985 NA514262 NA541715
I8 :	Iridium Sailor 9522B (Beam RemoteSAT RST100B)	RFOP = 0.6/7 W	NA511315

Solicitation No. 30000116



I9 : Iridium Pilot (IMIC3)  
 I10: Inmarsat-C Sailor 3027 (LRIT)  
 I11: Westinghouse Series 1000 (MSAT)  
 I12: Globalstar GSP-2900  
 I13: Iridium EMA BlueTraker LRIT (VMS)  
 I14: Iridium MetOcean iTrac (VMS)  
 I15: Iridium ROMTrax SBD9601R (VMS)

EIRP = 1.1 W/6 W  
 EIRP = 5 W  
 RFOP = 3-5 W  
 RFOP = 2 W  
 RFOP = 2 W  
 RFOP = 1.6 W  
 RFOP = 1.6 W

NA516217 NA516215 NA513765 NA523272 NA523273  
 NA514331 NA541638 NA525885 NA541736  
 NA31421  
 NA500689  
 NA512373  
 NA514051  
 NA515407 NA511217

GROUP J: S BAND - SHIPBOARD RADARS:

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
J1 :	BridgeMaster Series E with 12 ft scanner	RFOP = 30 kW	NA100527 NA31184
J2 :	BridgeMaster Series II with 12 ft scanner	RFOP = 30 kW	NA504057
J3 :	Furuno FAR-3230S with 12 ft scanner	RFOP = 30 kW	NA527417 NA527399
J4 :	Furuno FAR-3330SW with 12 ft scanner	RFOP = 30 kW	NA527401
J5 :	Raytheon NSX-30D (770-004.NG010) with 12 ft scanner	RFOP = 30 kW	NA541559
J6 :	Sperry VisionMaster FT with 12 ft scanner	RFOP = 30 kW (see note 5)	NA514184

GROUP K: X BAND - SHIPBOARD RADARS:

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
K1 :	BridgeMaster Series E with 8 ft scanner	RFOP = 25 kW	NA503985
K2 :	BridgeMaster Series E with 6 ft scanner	RFOP = 25 kW	NA501530 NA511209 NA504786
K3 :	BridgeMaster Series E with 4 ft scanner	RFOP = 25 kW	NA503983
K4 :	BridgeMaster Series II with 6 ft scanner	RFOP = 25 kW	NA504000
K5 :	BridgeMaster Series II with 4 ft scanner	RFOP = 25 kW	NA100956
K6 :	Consilium Selesmar Selux ST-250 with 6 ft scanner	RFOP = 25 kW	NA516832
K7 :	Furuno FAR-3220 or FAR-3320 or FAR-3320W with 8 ft scanner	RFOP = 25 kW	NA527415 NA527405
K8 :	Furuno FAR-3220 or FAR-3320 or FAR-3320W with 6.5 ft scanner	RFOP = 25 kW	NA527404
K9 :	Raytheon NSX-25D (770-002.NG010) with 6 or 8 ft scanner	RFOP = 25 kW	NA541558
K10:	Sperry VisionMaster FT with 6 ft scanner	RFOP = 25 kW (see note 5)	NA514183
K11:	Furuno FAR-3210 or FAR-3310 with 4 ft scanner	RFOP = 12 kW	NA527413 NA527403 NA527396
K12:	Furuno FR-1510	RFOP = 10 kW	NA31182
K13:	Raymarine Pathfinder 9S with 4 ft scanner	RFOP = 10 kW	NA101492 NA504808
K14:	Raymarine Raytheon R80 with 4 ft scanner	RFOP = 10 kW	NA503876
K15:	Sperry VisionMaster FT (ARPA Series) with 4 ft scanner	RFOP = 10 kW (see note 5)	NA504933
K16:	Furuno 1832 Mark2	RFOP = 6 kW	NA31181
K17:	Furuno DRS6AX with 4 ft scanner	RFOP = 6 kW	NA530413
K18:	Garmin GMR-18-HD with 18 in radome	RFOP = 4 kW	NA511617
K19:	Raymarine Pathfinder 5S with 4 ft scanner	RFOP = 4 kW	NA511613
K20:	Raymarine RA1048HD with 4 ft scanner	RFOP = 4 kW	NA513469
K21:	Raymarine R20XX	RFOP = 4 W	NA31209
K22:	Raymarine Raytheon R20/21	RFOP = 4 kW	NA31162
K23:	Raymarine RD418D with 18 in radome	RFOP = 4 kW	NA513995
K24:	Raymarine RD424 with 2 ft scanner	RFOP = 4 kW	NA511320

## Solicitation No. 30000116



Fisheries and Oceans / Pêches et Océans  
Canada / Canada

K25: Furuno 1723C NavNet with 18 in RSB-110 radome	RFOP = 2.2 kW	NA510319
K26: Raymarine Pathfinder SL72 Plus with 18 in radome	RFOP = 2 kW	NA513932
K27: Raymarine RM218 with 18 in radome	RFOP = 2 kW	NA510978
K28: Furuno DRS4D-NXT with 2 ft radome	RFOP = 25 W	NA530421
K29: Navico/Simrad Halo-4 with 4 ft scanner	RFOP = 25 W	NA528379

-----  
GROUP L: KU BAND - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
L1 :	Sea Tel WaveCall 4009 or 4009 MK3 (1 m @ 40.6 dB & 1.42 m radome)	RFOP = 12.5 W avg (25 W BUC) (see note 6)	NA515327
L2 :	Sea Tel WaveCall 4009 or 4009 MK3 (1 m @ 40.6 dB & 1.42 m radome)	RFOP = 4 W avg (8 W BUC)	NA528167
L3 :	Sea Tel WaveCall 4006RZ (1 m @ 41.8 dB & 1.27 m radome)	RFOP = 4 W avg (8 W BUC)	NA510643
L4 :	Sea Tel WaveCall 6012 (1.5 m @ 45.1 dB & 1.93 m radome)	RFOP = 4 W avg (8 W BUC)	NA529203
L5 :	Sea Tel WaveCall 6006RZA (1.5 m @ 43.5 dB & 1.8 m radome)	RFOP = 4 W avg (8 W BUC)	NA510797

-----  
GROUP M: KA BAND - SHIPBOARD TRANSCEIVERS:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
M1 :	Inmarsat Sailor 100 GX Global Xpress system	RFOP = 5 W	NA534978

-----  
GROUP N: VLF + LF + MF BANDS - SONARS - Probably not dangerous because they are at the bottom of the vessel and the RF energy is directed towards the water:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
N1 :	Simrad GPT (38 kHz)	RFOP = 4 kW	NA510549
N2 :	Furuno FCV 295	RFOP = 1/2/3 kW	NA514748
N3 :	Simrad GPT (27 kHz)	RFOP = 3 kW	NA510548
N4 :	WMB-160F-R (160 kHz)	RFOP = 1.5 kW	NA516538
N5 :	CM265LH (42-65 kHz and 130-210 kHz)	RFOP = 1 kW	NA515787
N6 :	Simrad EK80 (250-500 kHz)	RFOP = Four 500 W channels	NA541886
N7 :	Simrad EK80 (25-50 kHz)	RFOP = Four 500 W channels	NA541932
N8 :	HiPAP502 382250	RFOP = ??? kW	NA541792
N9 :	HiPAP MiniS 34-180 396588 (21-31 kHz)	RFOP = ??? kW	NA541968
N10:	Kongsberg EK640 WBT (10-500 kHz)	RFOP = ??? kW	NA541876
N11:	Simrad ES80 (10-30 kHz)	RFOP = ??? kW	NA541882
N12:	Simrad ES80 (45-90 kHz)	RFOP = ??? kW	NA541883
N13:	Simrad ES80 (85-170 kHz)	RFOP = ??? kW	NA541884
N14:	Simrad ES80 (150-300 kHz)	RFOP = ??? kW	NA541885
N15:	Simrad SX90 (20-30 kHz)	RFOP = kW	NA541865

-----  
GROUP O: VHF + UHF BANDS - EMERGENCY POSITION INDICATING RADIO BEACONS (EPIRB) - Probably not dangerous because they are only used in emergency situations:  
-----



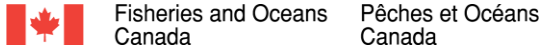
#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
01	ACR GlobalFix PRO RLB-37	RFOP = 6.3 W (406 MHz) & 50 mW (121.5 MHz)	NA523028
02	Kannad 406F/P	RFOP = 5 W (406 MHz) & 100 mW (121.5 & 243 MHz)	NA30463
03	Kannad 406S	RFOP = 5 W (406 MHz) & 100 mW (121.5 & 243 MHz)	NA30465
04	Ocean Signal SafeSea E100G	RFOP = 5 W (406 MHz) & 100 mW (121.5 MHz)	NA514214
05	SafeSea E100 Cat I Auto	RFOP = 5 W (406 MHz) & 100 mW (121.5 MHz)	NA514469 NA541723
06	Tron 40S MKII	RFOP = 5 W (406 MHz) & 100 mW (121.5 MHz)	NA514177
07	ACR Satellite2-406RLB-32	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA504852
08	ACR GlobalFix V4 406 Cat II	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA535481
09	ACR GlobalFix V4 Cat I	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA530043
010	Alden Satfind 406 PRO	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA502836
011	GME MT403FF Cat I	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA514195
012	Jotron Tron 40VDR 87940	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA548727
013	Kannad 406 Auto	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA513615
014	Kannad K82-804-004A Auto	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA514100
015	McMurdo Smartfind/E5	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA514134
016	Sea Marshall CrewGuard CG121 MKII	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA525969
017	Seimac ProFind	RFOP = 5 W (406 MHz) & 50 mW (121.5 MHz)	NA500187
018	ACR RLB-32 Cat II	RFOP = 5 W (406 MHz) & 25 mW PEP (121.5 MHz)	NA549221
019	ACR GlobalFix iPRO RLB-36	RFOP = 5 W (406 MHz) & 25 mW PEP (121.5 MHz)	NA515658
020	ACR GlobalFix PRO RLB-38	RFOP = 5 W (406 MHz) & 25 mW PEP (121.5 MHz)	NA515715
021	Alden Satfind 406-S-1000	RFOP = 5 W (406 MHz) & 25mW (121.5 MHz)	NA500574
022	Alden Satfind 406-S-1005	RFOP = 5 W (406 MHz) & 25 mW (121.5 MHz)	NA30460
023	Jotron Tron 60S	RFOP = 5 W (406 MHz)	NA528358
024	Novatech Designs RF700B	RFOP = 100 mW (154.585-160.785 MHz)	NA501932
025	Novatech Designs RF700C	RFOP = 100 mW (154.585-160.785 MHz)	NA500764
026	Novatech Designs RF700C1	RFOP = 100 mW (154.585-160.785 MHz)	NA30212
027	Jotron X97800	RFOP = ??? W	NA548726
028	Litton 948-11	RFOP = ??? W	NA30461
029	McMurdo Rescue 406	RFOP = ??? W	NA500170
030	Sea Marshall CrewGuard CG121 MKII	RFOP = ??? W	NA513827
031	ACR MINI B2	RFOP = 75 mW (121.5 and 243 MHz)	NA30459
032	Sea Marshall SMRS8-LR	RFOP = 25 mW PEP (121.5 MHz)	NA509833
033	Novatech Designs ST400B Xenon Flasher	RFOP = ??? W	NA30308



GROUP P: VHF + UHF + L BANDS - SHIPBOARD HANDHELD TRANSCEIVERS - Probably not dangerous according to Health Canada (see note 7):

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
P1	Motorola 9555 Iridium L	RFOP = 7 W ???	NA513551 NA515113
P2	Icom IC-M72 VHF	RFOP = 1/3/6 W	NA514941
P3	Icom IC-M73 VHF	RFOP = 1/3/6 W	NA523345
P4	Motorola APX 6000 VHF-UHF	RFOP = 1-6 W	NA523235
P5	Motorola HT1250 VHF-UHF	RFOP = 1-6 W	NA500906
P6	Motorola XTS5000 VHF-UHF	RFOP = 1-6 W	NA509110 NA513945 NA513347
P7	Icom IC-F30LT VHF	RFOP = 5 W	NA31072
P8	Icom IC-F50V VHF	RFOP = 5 W	NA516410
P9	Icom IC-M2 VHF	RFOP = 0.4/5 W	NA31087
P10	Icom IC-M15 VHF	RFOP = 0.7/5 W	NA31088
P11	Icom IC-M93D VHF	RFOP = 1/5 W	NA527967
P12	Motorola APX 4000 VHF	RFOP = 1/5 W	NA527708
P13	Motorola APX 4000 UHF	RFOP = 1/5 W	NA527712
P14	Motorola Astro XTS 3000 (black) VHF/UHF	RFOP = 1-5 W	NA100800
P15	Motorola Astro XTS 3000R (yellow) VHF/UHF	RFOP = 1-5 W	NA300144
P16	Motorola HT440 VHF	RFOP = 5 W	NA31081
P17	Motorola HT750 VHF	RFOP = 1/5 W	NA500907 NA541922
P18	Motorola HT1000 VHF	RFOP = 1-5 W	NA30704
P19	Motorola HT1000 VHF Intrinsically Safe	RFOP = 1-5 W	NA504451
P20	Motorola MT1500 VHF	RFOP = 1/5 W	NA510716
P21	Motorola MT1500 UHF	RFOP = 1/5 W	NA510627
P22	Motorola MTS2000 VHF-UHF	RFOP = 1-5 W	NA31101
P23	Motorola PR1500 UHF	RFOP = 1/5 W	NA505084 NA517336
P24	Motorola XPR7550E	RFOP = 1/4/5 W	NA528951
P25	Motorola XPR7550IS Intrinsically Safe VHF-UHF	RFOP = 1/4/5 W	NA525815
P26	Motorola XTS 1500 UHF	RFOP = 1-5 W	NA512778
P27	Motorola ??? intrinsically safe UHF	RFOP = 1-5 W	NA527079
P28	Radio Systems PR60A VHF handheld ???	RFOP = 1/5 W	NA31074
P29	Standard Horizon HX250S VHF	RFOP = 1/5 W	NA31108
P30	Standard Horizon HX370S VHF	RFOP = 1/2.5/5 W	NA524084
P31	Standard Horizon HX400 VHF	RFOP = 1/5 W	NA525600
P32	Standard Horizon HX400 VHF +WX+LMR	RFOP = 1/5 W	NA524086
P33	Motorola HT440 UHF	RFOP = 4 W ???	NA100827
P34	Motorola HT750 UHF	RFOP = 1/4 W	NA505210 NA541697
P35	Motorola HT1000 UHF	RFOP = 1-4 W	NA33448
P36	Motorola HT1000 UHF Intrinsically Safe	RFOP = 1-4 W	NA504452
P37	Motorola 2950 bag phone	RFOP = 3 W	NA503012
P38	Motorola SCN2555A bag phone	RFOP = 3 W	NA508154
P39	Motorola Startac ST7868W	RFOP = 3 W ???	NA500979
P40	VTech VT9113	RFOP = 3 W ???	NA503017
P41	Icom IC-GM1500 VHF	RFOP = 0.8/2 W	NA32943
P42	Motorola M900 GSM bag phone	RFOP = 2 W	NA513207
P43	Sailor SP3520 VHF (149-174 MHz)	RFOP = 1/2 W	NA514261
P44	Sailor SP3520 VHF (155-161 MHz)	RFOP = 1/2 W	NA541954

## Solicitation No. 30000116



P45: Motorola 9500 Iridium L	EIRP = 0.65 W	NA500963
P46: Peltor PowerCom Plus headset	RFOP = 0.15 W	NA514210
P47: ACR 2726A VHF	RFOP = ??? W	NA31076
P48: CGE HN-56 VHF handheld ???	RFOP = ??? W	NA31075
P49: Icom IC-H19 VHF	RFOP = ??? W	NA31092
P50: Iridium Extreme 9575 L	EIRP = ??? W	NA523571
P51: Motorola 9505A Iridium L	EIRP = ??? W	NA511377 NA511635
P52: SI-TEX PR094 VHF	RFOP = ??? W	NA31390

-----  
 GROUP Q: UHF + L BANDS - SHIPBOARD CELLULAR AMPLIFIERS - Probably not dangerous according to Health Canada (see note 7):  
 -----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
Q1 :	Wilson 811101	RFOP = 3 W	NA511542
Q2 :	Wilson 811201 (20 dB gain)	RFOP = 2/3 W	NA511537
Q3 :	PowerMax Digital Antenna DA4000	RFOP = 2/3 W	NA510761
Q4 :	SureCall CM2020-80	EIRP = 3 W	NA525753
Q5 :	SureCall DualForce Industrial	EIRP = 3 W	NA528160
Q6 :	Telular PhoneCell SX5E	RFOP = 1/2 W	NA513282
Q7 :	Telular SX7T	RFOP = 1/2 W	NA514352
Q8 :	Simado GFX11	RFOP = 0.25/1/2 W	NA542414
Q9 :	Matrix Simado GFX44	RFOP = 0.25/1/2 W	NA517281
Q10:	Wilson 801245 (60 dB)	RFOP = 1 W	NA511375
Q11:	Smoothtalker Stealth X6 (65 dB)	RFOP = 1 W	NA549361
Q12:	Smoothtalker Stealth M2M X6 (15 dB gain)	EIRP = 1 W	NA542442
Q13:	Smoothtalker Stealth X2 (65 dB)	EIRP = 1 W	NA531646
Q14:	Smoothtalker Stealth X2 (70 dB)	EIRP = 1 W	NA542444
Q15:	Wilson AG Pro Quint 461104 (70 dB)	RFOP = 331 mW	NA523315
Q16:	Wilson AG PRO 4G 273471 (77 dB)	RFOP = 309 mW	NA546170
Q17:	Telular PhoneCell SX5T	RFOP = 200 mW	NA509113
Q18:	Sierra AirLink RV50	RFOP = 200 mW	NA530770
Q19:	Sierra AirLink GX400	RFOP = 40 mW	NA541970
Q20:	Netgear MVBR1210C	EIRP > 10 mW	NA515313
Q21:	Sierra Raven XE H2225E-B ???	RFOP = ??? W	NA515062
Q22:	Sierra Raven XE H2225E-CA	RFOP = ??? W	NA515769
Q23:	Rocket Hub 3G27WV-R	RFOP = ??? W	NA514750
Q24:	Telular 1C02A169	RFOP = ??? W	NA515285
Q25:	Bell ZTE MF275R	RFOP = ??? W	NA527702



-----  
GROUP R: S + C BANDS - SHIPBOARD WI-FI TRANSCEIVERS - Probably not dangerous according to Health Canada (see note 8):  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
R1	Proxim Tsunami MP-10100L-SUA-WD	RFOP = 630 mW	NA531056
R2	FortiAP-222B	RFOP = 500 mW	NA515927
R3	Hopper Plus 120-24	RFOP = 71/100 mW	NA505257
R4	Hopper Plus 45-24	RFOP = 71/100 mW ?	NA300110
R5	Hopper Plus 20-24	RFOP = 71/100 mW ?	NA33696
R6	Bluesocket BlueSecure BSC-400	RFOP = 50 mW (5 GHz) and 100 mW (2.4 GHz) ???	NA510648
R7	Bluesocket BlueSecure BSC-600	RFOP = 50 mW (5 GHz) and 100 mW (2.4 GHz) ???	NA511557
R8	HP ProCurve MSM422/J9359	RFOP = 71 mW	NA513953
R9	Colubris MAP-625	RFOP = 63 mW	NA514018
R10	HP Procurve J9368A/MSM320-R	RFOP = 63 mW	NA513785
R11	Linksys WRT54G	RFOP = 63 mW	NA504297
R12	Proxim Tsunami QB-8100-EPA-WD	RFOP = 19 mW or 63 mW ???	NA514055
R13	FortiAP-221B	RFOP = 50 mW	NA524323
R14	D-Link DIR-615	RFOP = 32 mW	NA514527
R15	D-Link P1604 ???	RFOP = ??? W	NA507671
R16	D-Link Fast_Ethernet ???	RFOP = ??? W	NA502746

-----  
GROUP S: X BAND - SEARCH AND RESCUE TRANSPONDERS (SART) - Probably not dangerous because they are only used in emergency situations:  
-----

#	Name	RF Output Power (RFOP) or EIRP	Maximo Item Number(s)
S1	Jotron Tron SART 20	EIRP = 400 mW	NA514047 NA515288 NA31420
S2	SafeSea S100	EIRP = 400 mW	NA527216 NA541724
S3	Serpe Rescuer	EIRP = 400 mW	NA32924
S4	ACR Pathfinder1	RFOP = ??? W	NA31416
S5	McMurdo RT9	RFOP = ??? W	NA33109
S6	Sailor	RFOP = ??? W	NA525976





NOTES ABOUT THE SYSTEMS IN THE GROUPS ABOVE:

Note 1: The 2 versions of the 'Sailor 2000 series GMDSS' (250 and 600 W) are installed on the 'Louis St-Laurent' vessel but only have 1 Maximo Item Number.

Note 2: The 'Skanti 3000' may be the same as the 'Skanti TRP3024 DE' even though they are installed on different vessels.

Note 3: The Rockwell Collins works with Maximo item NA33847 (Amplifier, VHF band, TPL PA3-2AB-SP, 100 W PEP = 25 W).

Note 4: NA531591 and NA523244 have the same specifications (but a different control head) so maybe they should be considered the same for SC6.

Note 5: The 'VisionMaster FT' radars are compatible with the BridgeMaster-E product line by partial hardware and software replacement.

Note 6: Email at Sea (EMAS) systems have the more powerful 25 W BUC only on vessels Caporal Kaeble VC and A LeBlanc (8 W BUC on the other vessels).

Note 7: Here are some excerpts from <https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/cell-phones-towers.html>

Cell phone towers and other antenna installations are usually located on rooftops, towers and utility poles. Cell phone towers operate at a higher power than cell phones but the radiofrequency electromagnetic fields (EMF) they emit is much further away from your body. This means your exposure level from such antennas is usually much lower than your exposure level from using a cell phone.

Based on the available scientific evidence, there are no health risks from exposure to the low levels of radiofrequency EMF which people are exposed to from cell phones, cell phone towers, antennas and 5G devices.

The scientific evidence does not support a link between cancer and exposure to radiofrequency EMF at the levels permitted by Canadian exposure guidelines.

There is no established scientific evidence that those who use cell phones are at increased risk of experiencing adverse health effects with the Canadian limits in place. This includes children and teenagers.

Note 8: Here are some excerpts from <https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/wi-fi.html>

There are no health risks from exposure to radiofrequency electromagnetic fields (EMF) from Wi-Fi devices in your home, in schools or other areas accessible to the public.

Measurements of the radiofrequency EMF level from multiple Wi-Fi sources and Wi-Fi enabled devices operating at the same time in the same room were far below the human exposure limits in Safety Code 6.

Based on the current scientific evidence the level of radiofrequency EMF emitted from Wi-Fi devices is not harmful to health.

You do not need to take precautionary measures since radiofrequency EMF exposure levels from Wi-Fi are well below Canadian safety limits. As with any product, you should operate Wi-Fi devices in accordance with the manufacturer's instructions.



Annex B  
Available CCG Vessels for RF Surveys

Here is a list of 117 CCG vessels in their respective class (17 classes) that the **Contractor** could visit to perform SC6 NIR surveys in order to calculate the MCDs for TB 2008-3.

-----  
CLASS 1: HEAVY ICEBREAKERS (2)  
-----

Louis St-Laurent (Atlantic Region):

A1, C1, C2, C3, C4, C5, C12, C18, C20, F4, F32, F34, F36, F53, F57, F60, G3, G4, H1, H7, H15, I1, I4, I5, I6, I7, I9, I10, I11, I13, J1, L4  
optional: O10, P5, P6, P12, P13, P17, P18, P19, P20, P21, P22, P35, P36, P39, P43, P45, Q2, Q17, Q25, R2, R4, R13, S4, S6

Terry Fox (Atlantic Region):

A1, C2, C3, C4, C7, F4, F32, F53, G3, G6, H1, H9, I1, I7, I9, I10, I11, I15, L4  
optional: O3, O5, P6, P27, P35, P43, Q17, Q25, R2, S1, S6

-----  
CLASS 2: MEDIUM ICEBREAKER (5)  
-----

Captain Molly Kool (Atlantic Region):

G2, I7

Henry Larsen (Atlantic Region):

A1, C2, C3, C4, C7, C17, C18, C19, F4, F32, F34, F53, F57, G3, H1, H9, H14, I1, I7, I9, I10, I11, I15, J1, K2, K3, K5, L5  
optional: O4, O26, O30, O32, P6, P12, P13, P18, P33, P35, P43, P47, Q25, R2, S6

Amundsen (Central and Arctic Region):

A1, C3, C4, F4, F15, F19, F20, F27, F32, F48, F53, F61, G4, H1, H8, I1, I6, I7, I9, I10, J1, K2, K3, K23, K24, K26, L5  
optional: O4, O26, P12, P13, P18, P21, P35, P43, Q3, Q9, Q17, Q22, R13, S1



Des Groseilliers (Central and Arctic Region):

A1, C3, C4, F4, F15, F32, F54, G3, G4, H1, H8, I1, I6, I7, I9, I10, J3, K7, K11, L4, L5  
optional: O16, O26, P6, P12, P13, P20, P21, P35, P43, Q3, Q9, Q18, Q21, R13, S1

Pierre Radisson (Central and Arctic Region):

A1, C3, C4, F4, F15, F32, F53, F54, G3, G4, H1, H8, I1, I6, I7, I9, I10, J1, J3, K7, K11  
optional: O16, O26, P6, P12, P13, P32, P35, P43, Q9, Q21, R13, S1

-----  
CLASS 3: HIGH ENDURANCE MULTI-TASKED VESSELS - LIGHT ICEBREAKERS (7)  
-----

Ann Harvey (Atlantic Region):

A1, C2, C4, C7, C14, C18, F4, F26, F32, F53, F57, G3, H1, I1, I7, I9, I10, I15, J1, K2, K3, K5, L2, L3  
optional: O26, O30, O32, P6, P16, P18, P35, P41, P43, P47, Q1, Q17, Q25, R2, R4, R6, R8, S6

Edward Cornwallis (Atlantic Region):

A1, C2, C4, C7, F4, F32, G3, G4, H1, I1, I6, I7, I9, I10, I15, J4, K8, K11, L2  
optional: O3, O5, O26, P6, P12, P18, P19, P21, P23, P35, P38, P43, Q2, Q25, R2, R12, R13, S6

George R Pearkes (Atlantic Region):

A1, C2, C4, C7, F4, F32, F53, F60, G3, H1, I1, I6, I7, I9, I10, I15, J4, K8, K11  
optional: O26, O30, O32, P6, P18, P20, P21, P35, P41, P43, P48, Q25, R2, R9, S1, S6

Sir William Alexander (Atlantic Region):

A1, C2, C4, C7, F4, F32, F53, G3, G4, H1, I1, I6, I7, I9, I10, I15, J4, K8, L1  
optional: O1, P6, P12, P21, P27, P43, Q2, Q25, R2, R12, R13, S6

Griffon (Central and Arctic Region):

A1, C2, C4, C8, E1, F7, F12, F16, F19, F25, F32, F53, F57, I4, I7, I9, I10, I11, J2, K1, K4, K5, K24, L3  
optional: O11, O26, P12, P13, P16, P17, P18, P34, P52, Q7, Q8, Q17, R6, S1

Martha L Black (Central and Arctic Region):

A1, C3, C4, C20, F31, F32, F53, F54, F58, G3, G4, H1, H8, I1, I6, I7, I9, I10, I11, J1, J3, K2, K7, K11, L4  
optional: O16, P6, P12, P13, P43, Q9, R13, S1



Sir Wilfrid Laurier (Western Region):

A1, C2, C4, F3, F21, F45, F53, F54, F58, G3, H1, I1, I6, I7, I9, J4, K7, L3  
optional: O8, O20, O26, P6, P18, P20, Q16

---

CLASS 4: MEDIUM ENDURANCE MULTI-TASKED VESSELS (3)

---

Earl Grey (Atlantic Region):

A1, C2, C4, C7, F4, F23, F32, F53, G3, I1, I7, I9, I10, I15, J4, K11, L2  
optional: O19, O32, P6, P13, P18, P19, P26, P27, P35, P36, P43, Q2, Q18, Q25, R1, R12, R13, S6

Samuel Risley (Central and Arctic Region):

C2, C5, C7, C8, C10, F4, F16, F19, F22, F32, F39, F53, I4, I7, I9, K1, K24, L2, L3  
optional: O5, O26, P12, P13, P18, P21, P34, P35, P43, Q8, R2, R15, S1

Bartlett (Western Region):

C4, F21, F31, F32, F45, F54, F57, F58, G3, H11, I7, I9, I11, K2, L3  
optional: O19, O20, O21, O26, P6, P10, P13, P19, P20, P36, S1

---

CLASS 5: OFFSHORE PATROL VESSELS (5)

---

Cape Roger (Atlantic Region):

C2, C4, C6, C7, C14, F4, F16, F32, F37, F38, F53, F57, F60, G3, H2, H10, I1, I7, I9, I10, I15, J1, K2, L3  
optional: O26, P6, P12, P18, P35, P41, P43, P47, P51, Q18, Q25, R2, R6, R8, S6

Cygnus (Atlantic Region):

C7, C22, F4, F5, F53, G3, I1, I7, I9, I15, J1, K2  
optional: P6, P18, P21, P27, P35, P51, Q1, Q17, Q25, R2, R9, R10

Leonard J Cowley (Atlantic Region):

A1, C1, C2, C4, C6, C10, D2, F4, F32, F39, F53, F60, G3, H1, H2, H4, H10, I1, I4, I7, I9, I10, J1, K2, L3, L5  
optional: O26, O32, P6, P18, P21, P35, P43, P47, P51, Q25, R2, R6, R8, R11, S3, S5, S6



Sir Wilfred Grenfell (Atlantic Region):

C2, C9, C10, C20, F4, F32, F34, F39, F53, G3, G5, I1, I4, I7, I9, I15, J1, K2, L2, L3  
optional: O3, O4, O26, P6, P12, P13, P21, P35, P43, P47, Q25, R2, R6, R10, R13, S1, S6

Tanu (Western Region):

C2, C5, F32, F33, F37, F45, F57, F58, G3, H6, H11, I7, I9, J3, K8, L3  
optional: O9, P47, Q5, Q20

-----  
CLASS 6: OFFSHORE OCEANOGRAPHIC SCIENCE VESSELS (2)  
-----

Hudson (Atlantic Region):

C2, C4, C7, F4, F32, F49, F53, G4, I1, I7, I9, I10, I15, J1, K2, L2  
optional: O20, P12, P13, P27, P43, Q2, Q25, R12, R13, S6

John P Tully (Western Region):

B1, C2, C4, F3, F9, F17, F32, F34, F54, F57, G3, I1, I7, J1, J4, K8, L3  
optional: O8, O20, O24, O25, P7, P18, Q4, S6

-----  
CLASS 7: OFFSHORE FISHERY SCIENCE VESSELS (3)  
-----

Alfred Needler (Atlantic Region):

C2, C4, C6, F32, F34, F36, F51, I1, I7, I9, I10, I15, J6, K10, L3  
optional: O28, P12, P27, P29, P43, Q2, Q25, R4, R8, R12, R13, S6

Teleost (Atlantic Region):

C2, C4, C6, F32, F35, F38, F53, F60, F62, F63, G3, I1, I7, I8, I9, L3  
optional: N1, N3, O17, O26, P6, P18, P43, Q17, Q25, R2, R3, R6, R9, R10, R13, R16, S6

Sir John Franklin (Western Region):

C4, F32, F54, F55, H3, H7, H12, I7, I10, J5, K9  
optional: N6, N7, N8, N9, N10, N11, N12, N13, N14, N15, O5, O9, O12, P12, P13, P17, P34, P44, Q16, Q19, S2



-----  
CLASS 8: MID-SHORE PATROL VESSELS (10)  
-----

Corporal McLaren MMV (Atlantic Region):

C11, C16, F1, F4, F29, F37, F53, G1, G3, I3, I7, I9, I14, K10, L1

optional: O6, P4, P6, P13, P14, P21, P23, P27, P43, P50, Q25, R2, R12, R13, R14

G Peddle SC (Atlantic Region):

C11, C16, F1, F4, F29, F53, G1, G3, I3, I7, I9, I14, J6, K10, L1

optional: O23, P4, P12, P13, P14, P18, P21, P23, P27, P43, P50, Q18, Q25, R2, R12, R13

A LeBlanc (Central and Arctic Region):

F4, F19, G1, G3, G7, I3, I7, I9, J6, K10, K18

optional: P12, P13, P19, P30, Q13, R2, R13

Caporal Kaeble VC (Central and Arctic Region):

C11, C16, F19, F29, F37, F53, F61, G3, I3, I7, I9, J6, K10, K18, K23, L1

optional: O6, P2, P12, P13, P20, P30, P32, P43, Q13, Q17, Q20, Q21, R2, R7, R13, S1

Constable Carriere (Central and Arctic Region):

C2, C4, C16, F4, F19, F29, F32, F53, G3, I3, I7, I9, I10, J6, K10, K18, L1

optional: O6, P2, P3, P13, P20, P43, Q9, Q12, Q14, R2, S6

Corporal Teather CV (Central and Arctic Region):

C11, C16, F4, F19, F29, F37, F53, G3, I3, I7, I9, J6, K10, K18, L1

optional: O6, P2, P3, P13, P20, P43, Q18, Q22, R2, S6

Private Robertson VC (Central and Arctic Region):

C11, C16, F4, F19, F29, F37, F53, G3, I3, I7, I9, J6, K10, K18, L1

optional: O6, P2, P3, P13, P20, P31, P43, S6

Atlin Post (Western Region):

O1



Captain Goddard MSM (Western Region):

C11, C16, F3, F29, F32, F53, G3, I3, I7, I9, I14, J6, K10, L1, M1  
optional: 06, 020, P21, P43, P50, S1

M Charles MB (Western Region):

C11, C16, F3, F29, F37, F53, F58, G3, I3, I7, I14, J6, K10, L1  
optional: 06, 09, P2, P3, P19, P21, P25, P43, P50, S1

---

CLASS 9: AIR CUSHION VEHICLES (4)

---

Mamilossa (Central and Arctic Region):

F50, F53, F56, H5  
optional: 010, 016, P12, P43, P46, P47, Q20, Q21, S1

Sipu Muin (Central and Arctic Region):

F19, F50, F53, F56, K2  
optional: 016, P12, P18, P43, P46, Q3, S1

Moytel (Western Region):

F30, F50, F53, F56  
optional: 09, 027, P12

Siyay (Western Region):

F31, F50, F56  
optional: 020, 025, P12

---

CLASS 10: SPECIAL NAVAIDS VESSELS (2)

---

Dumit (Western Region):

A1, C19, C21, C23, F2, F24, F34, F57, I3, I8, K8, L3, L5  
optional: 01, 02, 03, 010, P18, R6



Eckaloo (Western Region):

A1, C21, C23, F2, F34, F57, F64, I2, I3, I8, K4, K5, L5  
optional: 01, 02, 03, 010, P18, R6

---

CLASS 11: SAR LIFEBOATS - BAY (5)

---

Pennant Bay (Atlantic Region):

C7, F19, F54, F58, H12, I7, K17, K28  
optional: 023, P11, P25, Q13, S6

Sacred Bay (Atlantic Region):

C7, F19, F54, F58, H12, I7, K17, K28  
optional: 023, P11, P25, Q13, S6

Baie de Plaisance (Central and Arctic Region):

C7, F19, F54, F58, H12, I7, K17, K28  
optional: 023, P11, P25, Q13, S6

Pachena Bay (Western Region):

C7, F19, F54, F58, H12, I7, K17, K28  
optional: 08, 023, P11, P25, Q13, S6

McIntyre Bay (Western Region):

C7, F19, F54, F58, H12, I7, K17, K28  
optional: 09, 023, P11, P25, Q13, S6

---

CLASS 12: SAR LIFEBOATS - ARUN (10)

---

Bickerton (Atlantic Region):

C19, F4, F12, F20, F53  
optional: 01, P12, P15, P33, P35, Q2, Q17





Clark's Harbour (Atlantic Region):

C7, D1, F19, F32, F52, F53, G3, I7

optional: O15, P8, P12, P15, Q2, Q25

Courtenay Bay (Atlantic Region):

C7, F4, F19, F32, F52, F53, G3, K12

optional: O7, O22, O33, P8, P12, P15, Q2, Q17, Q25

Sambro (Atlantic Region):

C16, F20, F44, F52, F53

optional: O1, P15, P18, Q2, Q17

Spindrift (Atlantic Region):

F19, F32, F43, F52, K16

optional: O15, P15, P18, Q2, Q17, Q25

Spray (Atlantic Region):

C19, F19, F32, F52, F53

optional: O15, P12, P15, P18, Q2, Q25

W G George (Atlantic Region):

C19, F6, F26, F28, F34, F52, F53, F60, I7, K5, K25

optional: O17, O26, P18, P28, P41, P47, Q25

W Jackman (Atlantic Region):

C7, F6, F19, F34, F52, F53, F60, I7, I15, K5, K25

optional: O26, P18, P41, Q25

Westport (Atlantic Region):

C7, D1, F19, F32, F52, F53

optional: O4, P8, P12, P18, Q2, Q25

Cap-aux-Meules (Central and Arctic Region):

C15, F4, F19, F37, F42, F53, K23

optional: P12, P51, S1



---

CLASS 13: SAR LIFEBOATS - RBM (1)

---

Laredo Sound (Western Region):

F3, F46, F58

optional: P12

---

CLASS 14: SAR LIFEBOATS - CAPE (36)

---

Cap Breton (Atlantic Region):

C15, F16, F19, F52, F53, H11, I7, K19

optional: O15, Q2, Q25

Cap Nord (Atlantic Region):

C15, F19, F52, F53, H11, K19

optional: O15, P18, Q2, Q25

Cape Edensaw (CCG College):

C15, F11, F19, F52, H11, I7, K19

optional: O15, Q25

Cape Fox (Atlantic Region):

C15, C19, F11, F28, F52, F53, F54, F60, H11, I8, K13, K14

optional: P18

Cape Norman (Atlantic Region):

C15, C19, F11, F28, F52, F53, F54, F60, H11, I8, K13, K14

optional: P18

Cape Spry (Atlantic Region):

C15, F12, F16, F19, F52, F53, H11, K19, K21, K22

optional: O15, O31, P15, Q2, Q25



Cap Aupaluk (Central and Arctic Region):

C16, F19, F52, F53, G3, K20

optional: 013

Cap d'Espoir (Central and Arctic Region):

C15, F19, F41, F52, F53, H11, K20

optional: 05, 010, P1, Q11

Cap de Rabast (Central and Arctic Region):

C15, F11, F19, F41, F52, F53, H11, K20

optional: 04, P1, Q10

Cap Perce (Central and Arctic Region):

C19, F19, F41, F52, F53, H11, K13, K20

optional: 013, P20, Q10

Cap Rozier (Central and Arctic Region):

C15, F19, F41, F52, F53, H11, K20

optional: 04, 026, P1, Q10

Cap Tourmente (Central and Arctic Region):

C15, F11, F19, F52, F53, H11, K20

optional: 04, P1, Q10

Cape Chaillon (Central and Arctic Region):

C15, F11, F52, F53, H11, K19

optional: 05, P18

Cape Commodore (Central and Arctic Region):

C15, F11, F16, F19, F52, F53, H11, K19

optional: 05, P18

Cape Discovery (Central and Arctic Region):

C15, F16, F20, F52, F53, H11, K19

optional: 013, P18



Cape Dundas (Central and Arctic Region):

C15, F16, F19, F52, F53, H11, K19

optional: 01, P12, P18

Cape Hearne (Central and Arctic Region):

C15, F52, F53, H11, K19

optional: 01, P12

Cape Lambton (Central and Arctic Region):

F16, F19, F53, H11, K19

optional: 05, P12, P18

Cape Mercy (Central and Arctic Region):

C15, C19, F11, F28, F52, F53, H11, K19

optional: 01, P18

Cape Providence (Central and Arctic Region):

C15, F11, F19, F52, F53, H11, K19

optional: 05, P12, P18

Cape Rescue (Central and Arctic Region):

C16, C19, F19, F52, F53, G3, K19, K20

optional: 05, P17, P20

Cape Storm (Central and Arctic Region):

C15, C19, F16, F19, F52, F53, H11, K19

optional: 014, 026, P12, P42

Thunder Cape (Central and Arctic Region):

C15, C19, F16, F19, F52, F53, H11, K19

optional: 01, 026, P17, P18

Cape Ann (Western Region):

C15, F11, F52, H11, I7, K19, K29

optional: 09, 021, 022, P12, P18



Cape Calvert (Western Region):

C15, C19, F11, F28, F52, H11, I7, I12, K19  
optional: 08, 022, P18

Cape Caution (Western Region):

C15, F16, F19, F52, F53, G3, I7  
optional: 09, 020, P12

Cape Cockburn (Western Region):

C15, F11, F28, F52, H11, I7, K19  
optional: 09, P12

Cape Dauphin (Western Region):

C16, F19, F52, F53, G3, I7, K19, K20  
optional: 09, 013, P12, P21

Cape Farewell (Western Region):

C15, F11, F52, H11, I7, K19  
optional: 09, P10, P12

Cape Kuper (Western Region):

C15, F20, F52, G3, H11, I7, K19  
optional: 09, P12

Cape McKay (Western Region):

C15, F11, F19, F52, H11, I7  
optional: 09, 021, P12, P19

Cape Mudge (Western Region):

C15, F11, F52, I7  
optional: 09, P12

Cape Naden (Western Region):

C16, F19, F52, F53, G3, I7, K19, K20  
optional: 09, 013, P12, P21



Cape Palmerston (Western Region):

C16, F19, F52, F53, G3, I7, K19, K20  
optional: 09, 013, P12, P21

Cape St James (Western Region):

C19, F11, F52, H11, I7, K19  
optional: 09, 022, P12, P18

Cape Sutil (Western Region):

C19, F16, F19, F52, F53, G3, I7, K19  
optional: 09, 022, P12, P18

-----  
CLASS 15: MID-SHORE SCIENCE VESSELS (4)  
-----

Frederick G Creed (Central and Arctic Region):

C7, F19, F53, F54, I7  
optional: 017, P12, P47, Q20, R13, S2

Limnos (Central and Arctic Region):

F12, F16, F19, F53, I7, I9, K8, K27, L3  
optional: 014, P12, P13, P20, Q6, Q8, R2, S1

Otter Bay (Western Region):

F6, F8, I7, I11  
optional: 019, 022, P9, P49, R1

Vector (Western Region):

C2, C4, F3, F19, F32, F54, F57, G3, I7, I9, L3  
optional: 08, 020, 026, P6, P20, P47, S1



---

CLASS 16: NEAR SHORE FISHERY RESEARCH VESSELS (4)

---

M Perley (Atlantic Region):

C13, F4, F14, I7, I9, K10

optional: O6, P12, P20, Q2, Q25

Vladykov (Atlantic Region):

C13, F4, F14, F37, F53, I7, I9, I15, K3, K10, K15

optional: N4, O5, P20, P21, P47, Q17, Q25, R2, R13, S1

Leim (Central and Arctic Region):

C13, F4, F14, F32, F37, I7, I9, K10

optional: P12, Q20, Q24, S1

Neocaligus (Western Region):

F53, I7, K3

optional: N5, O20, R1

---

CLASS 17: SPECIALTY VESSELS (14)

---

Cape Light (Atlantic Region):

C15, F13, F36, F52, F53, H11, H13, I7, I14, K16

optional: O29, P8, P12, P15, Q2, Q25

Geliget (Atlantic Region):

C7, F19, F36, F52, F53, H11, H13, I7, I14, K16

optional: O4, P12, P15, P18, Q2, Q25

Harp (Atlantic Region):

C14, C18, F6, F20, F34, F53, F57, F60, I7, I8, K4, K5

optional: O26, O30, O32, P16, P18, P28, P41, Q17, Q25, R3, R13



Pointe Caveau (Atlantic Region):

C15, F19, F36, F52, F53, H11, H13, I7, I14, K16  
optional: O29, P18, Q2, Q17, Q25, S1

S Dudka (Atlantic Region):

C7, F4, F19, F32, F53, G1, I14, K6, K23  
optional: O4, P12, Q2, Q25

Sigma T (Atlantic Region):

F18, F40, F53, F59  
optional: P18, Q17

Viola M Davidson (Atlantic Region):

C15, F4, F19, F53, K3  
optional: P12, Q2, Q20, Q25

Caribou Isle (Central and Arctic Region):

F4, F7, F16, F25, F34, F47, F53, I11, K3, K11  
optional: N2, O1, O26, P12, P13, P16, P18, P28, Q8, Q17, Q18

Cove Isle (Central and Arctic Region):

F16, F34, F53, I11, K3  
optional: O5, O26, P12, Q8, Q17, R2, R5

Ile Saint-Ours (Central and Arctic Region):

F31, F32, F54, K11  
optional: O1, P12, Q20, R2

Kelso (Central and Arctic Region):

F4, F19, F53  
optional: O13, P12, Q8, Q23

Traverse (Central and Arctic Region):

F10, F27, K16  
optional: O5, P12, P18





Fisheries and Oceans    Pêches et Océans  
Canada                      Canada

Solicitation No. 30000116

Gordon Reid (Western Region):

C2, C5, C8, F3, F32, F53, F54, F57, G3, I7, I9, L3

optional: 018, 019, 024, 025, 026, P18, P47, Q15, S1

Vakta (Western Region):

F4, F16, F20, F52, K19

optional: 09, 010, P18, P37, P40



Annex C  
List of Systems Installed at CCG Shore-Based Sites

-----  
GROUP 1: LF + MF BANDS - SHORE BASED DGPS TRANSMITTERS (19 sites)  
-----

#	Name	Antenna	RF Power
1A :	Nautel ND2000	100' radiating tower	500 W
1B :	Nautel ND2000	110' radiating tower	500 W
1C :	Nautel ND2000	112' radiating tower	500 W
1D :	Nautel ND2000	148' radiating tower	500 W
1E :	Nautel ND2000	150' radiating tower	500 W
1F :	Nautel ND500II	110' radiating tower	125 W
1G :	Nautel ND500II	115' radiating tower	125 W
1H :	Nautel ND500II	150' radiating tower	125 W

DGPS sites broadcast between 285 kHz and 325 kHz.

-----  
GROUP 2: MF BAND - SHORE BASED NAVTEX TRANSMITTERS (10 sites)  
-----

#	Name	Antenna	RF Power
2A :	See below	110' radiating tower	1000 W
2B :	See below	150' radiating tower	1000 W
2C :	See below	190' radiating tower	1000 W



Navtex sites broadcast at 518 kHz in English and 490 kHz in French.

The nominal transmit power of each NAVTEX site is 1 kW. It is typically reduced to about 400 W at night. Therefore, SC6 measurements should be taken during the day.

The antenna type is vertical (beacon type with or without top loading).

Depending on the site, the transmitter name is one of the following: NEL7604, NEL9301, NX1000T-6.

-----  
GROUP 3: MF + HF BANDS - SHORE BASED TRANSCEIVERS (21 sites)  
-----

#	Name	Frequency	Antenna	RF Power
3A :	Harris RF-1140C	2182.0-2582.0 kHz	60' T antenna (omni)	1000 W
3B :	Harris RF-1140C	2182.0-2558.0 kHz	90' broadband vertical radiator (omni)	1000 W
3C :	Harris RF-1140C	2182.0-2582.0 kHz	105' broadband vertical radiator (omni)	1000 W
3D :	Harris RF-727	Unknown	110' broadband vertical radiator (omni)	1000 W
3E :	Harris RF-798	Unknown	110' broadband vertical radiator (omni)	1000 W
3F :	Harris RF-1140C	2182.0-2582.0 kHz	110' broadband vertical radiator (omni)	1000 W
3G :	Nautel NEL7604	Unknown	110' broadband vertical radiator (omni)	1000 W
3H :	Nautel NXH1000T-6	Unknown	110' broadband vertical radiator (omni)	1000 W
3I :	Skanti 8250S	Unknown	110' broadband vertical radiator (omni)	1000 W
3J :	Harris RF-727	Unknown	125' broadband vertical radiator (omni)	1000 W
3K :	Harris RF-1140C	6218.6-13077.0 kHz	45' dipole	1000 W
3L :	Harris RF-1140C	4363.0-6218.6 kHz	78' dipole	1000 W
3M :	Harris RF-1140C	8752.0 kHz	28' folded dipole (3 wires)	1000 W
3N :	Harris RF-1140C	7708.1 kHz	32' folded dipole (3 wires)	1000 W
3O :	Harris RF-1140C	8794.0 kHz	33' folded dipole (3 wires)	1000 W
3P :	Harris RF-1140C	6507.0 kHz	38.4' folded dipole (3 wires)	1000 W
3Q :	Harris RF-1140C	6501.0-8794.0 kHz	45' folded dipole (3 wires)	1000 W
3R :	Harris RF-1140C	3251.1-4363.0 kHz	60' folded dipole (3 wires)	1000 W



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

3S :	Harris RF-1140C	3251.1-4363.0 kHz	65' folded dipole (3 wires)	1000 W
3T :	Harris RF-1140C	4363.0-5803.0 kHz	75' folded dipole (3 wires)	1000 W
3U :	Harris RF-1140C	4290.1-6501.0 kHz	78' folded dipole (3 wires)	1000 W
3V :	Unknown	4363.0-8794.0 kHz	44' broadband dipole	1000 W
3W :	Harris RF-1140C	6507.0-13077.0 kHz	85' broadband dipole	1000 W
3X :	Harris RF-1140C	4363.0-13077.0 kHz	90' broadband dipole	1000 W
3Y :	Harris RF-1140C	4000.0-16000.0 kHz	40' broadband dipole	5000 W

MF + HF sites broadcast between 2003 kHz and 22633.2 kHz.

All HF RT (voice) sites transmit at 1 kW, except for Iqaluit which has some HF RT at 1 kW and one HF DSC transmitter at 5 kW.

-----  
 GROUP 4: VHF BAND - SHORE BASED TRANSCEIVERS (145 sites)  
 -----

#	Antenna	Antenna Gain	RF Power
4A :	Bluewave BW142E or Comprod 872F-70 or Sinclair SRL210C2 (½ wave)	5 dBd	30 W
4B :	Sinclair SRL210C2 (unknown mast spacing)	5-5.5 dBd	30 W
4C :	Bluewave BW142E or Comprod 872F-70 or Sinclair SRL210C2 (½ wave)	5.5 dBd	30 W
4D :	Sinclair SRL250EB	7 dBd	30 W
4E :	Kathrein CL7-150/URN (log-periodic antenna)	7.15 dBd	30 W
4F :	Sinclair SRL210C4 (½ wave)	8 dBd	30 W
4G :	Sinclair SRL210C4 (unknown mast spacing)	8-8.5 dBd	30 W
4H :	Sinclair SY206 (6-element yagi antenna)	9.5 dBd	30 W
4I :	Sinclair SRL210C (¼ wave)	2.5 dBd	100 W
4J :	Sinclair SD212 or SRL210C2 (½ wave)	5 dBd	100 W
4K :	Comprod 872F-70 or Sinclair SRL210C2 (unknown mast spacing)	5-5.5 dBd	100 W
4L :	Comprod 872F-70 or Sinclair SRL210C2 (¼ wave)	5.5 dBd	100 W
4M :	Sinclair SD224 or SD2352	6 dBd	100 W
4N :	Sinclair SV227 (corner reflector antenna)	7 dBd	100 W
4O :	Kathrein BPHD8-150 (panel antenna)	7.85 dBd	100 W
4P :	Bluewave BW144E or Comprod 874-70 or Sinclair SD214 or SRL210A4 or SRL210C4 (½ wave)	8 dBd	100 W



4Q :	Sinclair SRL210C4	8-8.5	dBd	100 W
4R :	Comprod 874F-70 or Sinclair SRL210C4 (¼ wave)	8.5	dBd	100 W
4S :	Sinclair SV228 (corner reflector antenna)	10	dBd	100 W
4T :	Sinclair SRL210C8 (unknown mast spacing)	11-11.5	dBd	100 W
4U :	Comprod 290-70EBHD/2X (stacked or side-by-side yagi antennas)	12	dBd	100 W

VHF sites broadcast between 156.250 MHz and 162.550 MHz.

Transmitter power is typically 30 W in the Western region and 100 W anywhere else.

EIRP in the Western region varies from 40 to 50 dBm.

Some 100 W VHF sites have some frequencies that broadcast at 60 W or 40 W.

However, it is the frequencies at 100 W that should be measured for SC6 purposes.

Depending on the site and the communication service, the name of the transceiver is one of the following:

Daniels MT-2 (CH 16), Daniels MT-3 (CH 16 and VHF-DSC), Daniels MT-4E (CH 16),  
 MTR2000 (CH 16 and VHF-DSC), Frequentis (CCS), SAAB (VHF AIS).



-----  
GROUP 5: UHF BAND - SHORE BASED SITE TO SITE UHF LINKS (6 sites)  
-----

#	Name	Antenna	Antenna Gain	RF Power
5A :	General Electric MDS LEDR400S	Comprod 426-70 (radome yagi)	10 dBd	1 W
5B :	Daniels MT-2	Sinclair 307 (yagi)	10 dBd	1.20 W
5C :	Daniels MT-2	Sinclair 307 (yagi)	10 dBd	1.35 W
5D :	Daniels MT-2	Quad Yagi Array SY3074-SF1SNM	15 dBd	1 W
5E :	Daniels MT-3	Quad Yagi Array SY3074-SF1SNM	15 dBd	1 W
5F :	Daniels MT-2	Omni Dipole	10 dBd	5 W

UHF sites broadcast at 440 MHz.

-----  
GROUP 6: C BAND - SHORE BASED SATELLITE SITES (9 sites)  
-----

#	Name	Frequency	Antenna	Antenna Gain	RF Power	EIRP
6A :	Terrasat IBUC2	6361.47 MHz	2.4 m dish	41.5 dBi	27.1 dBm	36.5 dBW
6B :	Terrasat IBUC2	6361.47 MHz	3.8 m dish	46.5 dBi	27.1 dBm	Unknown
6C :	Codan 5700	6000.00 MHz	4.5 m dish	Unknown	34.0 dBm	50.2 dBW

-----  
GROUP 7: X BAND - SHORE BASED RADARS (26 sites)  
-----

#	Name	Antenna (gain and length)	RF Power
7A :	Terma Scanter 5202	37 dBi (21')	200 W peak
7B :	Terma Scanter 5102	37 dBi (21')	50 W peak
7C :	Raytheon Pathfinder R50	38 dBi (21')	50 kW peak



7D :	Canadian Marconi CMC CMR-91	43.4 dBi (25')	25 kW peak
7E :	Terma Scanter 2001 F1 + F2	43 dBi (32')	25 kW peak
7F :	Terma Scanter 2001 F1 + F2	42 dBi (25')	25 kW peak
7G :	(Early) Terma Scanter 2001	38 dBi (21')	25 kW peak
7H :	Terma Scanter 2001 F1 + F2	37 dBi (21')	25 kW peak
7I :	Terma Scanter 2001 F1 + F2	35 dBi (18')	25 kW peak
7J :	Sperry Decca BridgeMaster E 65608/A-E6	31 dBi (8')	25 kW peak
7K :	Terma Scanter 2001	31 dBi (7')	4-5 kW peak

All radars operate with horizontal polarization and X-band in the 9.140 GHz to 9.500 GHz range.

-----  
 GROUP 8: C + X + Ku + Ka BANDS - SHORE BASED SITE TO SITE MICROWAVE LINKS (113 sites)  
 -----

#	Name	Antenna	EIRP @ Frequency
8A :	Unknown transceiver	2' dish	Unknown @ 15.0 GHz
8B :	Aviat (mfg) Eclipse INUe	2' dish	49-59 dBm @ 18.6 GHz
8C :	Unknown transceiver	2' dish	Unknown @ 38.0 GHz
8D :	Aviat (mfg) Eclipse INUe	3' dish	63-66 dBm @ 14.8 GHz
8E :	Aviat (mfg) Eclipse INUe	3' dish	62-65 dBm @ 18.6 GHz
8F :	Aviat (mfg) Eclipse INUe	4' dish	69-75 dBm @ 6.1 GHz
8G :	Unknown Bell transceiver	4' dish	62-63 dBm @ 11.0 GHz
8H :	Aviat (mfg) Eclipse INUe	4' dish	43-70 dBm @ 11.0 GHz
8I :	Unknown transceiver	4' dish	Unknown @ 11.0 GHz
8J :	Aviat (mfg) Eclipse INUe	6' dish	61-78 dBm @ 6.1 GHz
8K :	Aviat (mfg) Eclipse INUe	6' dish	55-75 dBm @ 11.0 GHz
8L :	Unknown transceiver	6' dish	Unknown @ 15.0 GHz
8M :	Unknown transceiver	6' dish	54 dBm @ 15.3 GHz
8N :	Aviat (mfg) Eclipse INUe	8' dish	67-78 dBm @ 6.1 GHz
8O :	Aviat (mfg) Eclipse INUe	8' dish	65-75 dBm @ 11.0 GHz
8P :	Aviat (mfg) Eclipse INUe	10' dish	69-78 dBm @ 6.1 GHz
8Q :	Aviat (mfg) Eclipse INUe	12' dish	71-78 dBm @ 6.1 GHz



This equipment owned by Bell and it was not possible to obtain confirmation of the sites where the 8G system is really installed. Therefore, the sites that are listed as having 8G? are just sites that "may" have 8G.

The 8M system installed at the Lévis site has been deemed safe in the SC6 report titled "Analyse de conformité Code 6 pour le site radar Lévis, QC - Octobre 2020".

-----  
 GROUP 9: Ka BAND - SHORE BASED SATELLITE SITES (2 sites)  
 -----

#	Name	Antenna	RF Power
9A :	Paradigm Connect 70/100	69 or 98 cm dish reflector	5 W

There are currently two 9A systems installed at Placentia and Robin Hood Bay for testing.

-----  
 GROUP 10: UHF + L BANDS - SHORE BASED CELLULAR SITES (137 sites)  
 Probably not dangerous according to Health Canada (see note 7 at the end of Annex A)  
 -----

#	Name	Antenna	RF Power
10A :	Unknown transceiver	Omnidirectional	Unknown

These cellular sites broadcast between 0.45 GHz and 2.5 GHz (to be confirmed).

This equipment is owned by cell phone service providers and it was not possible to obtain confirmation of the sites where the 10A system is really installed. Therefore the sites that are listed as having 10A? are just sites that "may" have 10A.





-----  
GROUP 11: S + C BANDS - SHORE BASED SITE TO SITE WI-FI LINKS (2 sites)  
Probably not dangerous according to Health Canada (see note 8 at the end of Annex A)  
-----

#	Name	Antenna	Antenna Gain	EIRP @ Frequency
11A :	Proxim Tsunami modèle QB-8100-LNK	TA-5724R (2' dish)	27 dBi	46.9 dBm @ 5.725 GHz

These Wi-Fi site to site links broadcast between 2 GHz and 6 GHz (S + C bands) and they are used at many other places for ice cameras, anemometers and shore-to-ship links. This site list is therefore incomplete.

The 11A system installed at the Lévis site has been deemed safe in the SC6 report titled "Analyse de conformité Code 6 pour le site radar Lévis, QC - Octobre 2020".



Annex D  
Available Shore-Based Sites for RF Surveys

Here is a list of CCG shore-based sites that the **Contractor** could visit to perform SC6 NIR surveys in order to calculate the MCDs for TB 2008-2.

-----  
BRITISH COLUMBIA (BC) SITES:  
-----

Alert Bay 1E, 4A, 8H optional: 10A?	BC	50°35'12"N	126°55'28"W
Amphitrite Point 1H, 2A, 3H, 8H	BC	48°55'25"N	125°32'27"W
Annacis Island (SFU) 4A, 8D optional: 10A?	BC	49°11'35"N	122°55'09"W
Barry Inlet 4C, 8N	BC	52°34'30"N	131°45'13"W
Berry Point 7I optional: 10A?	BC	49°17'43"N	122°59'13"W
Bowen Island 4A, 7F, 8K optional: 10A?	BC	49°20'41"N	123°23'15"W
Calvert Island (Safety Mountrain) 4C, 8P, 8Q	BC	51°35'21"N	128°00'43"W
Cape Flattery (non CCG radar site) 8J, 8N	BC	48°22'26"N	124°41'27"W
Cape Lazo 4A, 8H, 8J, 8N	BC	49°42'24"N	124°51'41"W
Capilano 100 (KAP-100) 7I, 8B optional: 10A?	BC	49°19'31"N	123°08'01"W
Cottle Hill (non CCG site) 8H, 8J, 8N	BC	49°13'19"N	124°00'14"W
Cumshewa 4C, 8J, 8N, 8P	BC	53°09'33"N	131°59'47"W
Denny Island (Lama Pass) (OPP radar site) 8N optional: 10A?	BC	52°06'13"N	128°04'30"W



Digby Island 2B, 3E, 3H, 8B, 8E optional: 10A?	BC	54°17'51"N	130°25'06"W
Discovery Mountain 4A, 8H, 8J, 8N	BC	50°19'25"N	125°22'16"W
Dundas Island 4C, 5F, 7A, 8H, 8K optional: 10A?	BC	54°31'15"N	130°54'58"W
Eliza Dome 4F, 5E, 8J, 8N	BC	49°52'24"N	127°07'13"W
Esperanza 4E, 5D	BC	49°50'32"N	126°48'22"W
Estevan Point 4H, 8H, 8J, 8N	BC	49°22'59"N	126°32'00"W
Gabriola Island 4B, 8H optional: 10A?	BC	49°09'11"N	123°50'35"W
Holberg 4A, 8P optional: 10A?	BC	50°38'24"N	128°07'34"W
Hunter Point 3I, 8H	BC	53°15'31"N	132°42'53"W
Kitimat 4H	BC	54°03'20"N	128°37'51"W
Klemtu 4C, 8N, 8P, 8Q	BC	52°34'45"N	128°33'45"W
Little Mtn (non CCG site) 8J, 8N	BC	49°17'41"N	124°19'27"W
Maitland Island 4C, 8N	BC	53°44'03"N	128°56'28"W
Masset South (may belong to Telus) 8N, 8P	BC	54°00'08"N	132°07'07"W
Mount Dent 4G, 5B, 5C	BC	55°12'58"N	129°59'18"W
Mount Gil 4A, 8J, 8N	BC	53°15'46"N	129°11'42"W
Mount Hays 4A, 7A, 8E, 8H, 8N, 8P	BC	54°17'07"N	130°18'53"W
Mount Helmcken 4A, 7F, 8K optional: 10A?	BC	48°24'07"N	123°34'20"W



Mount Newton 4A, 7E, 8H, 8K, 8N, 8O, 8P	BC	48°36'48"N	123°26'35"W	
Mount Ozzard 4A, 7F, 8H, 8J, 8N	BC	48°57'34"N	125°29'32"W	
Mount Parke 4A, 7F, 8K optional: 10A?	BC	48°50'23"N	123°17'43"W	
Mount Sicker (non CCG site) 8J, 8K, 8N, 8O	BC	48°51'39"N	123°45'25"W	
Naden Harbour 4C, 8N	BC	53°57'18"N	132°56'30"W	
Newcastle Ridge 8F, 8J, 8N	BC	50°23'07"N	126°01'45"W	
Nootka 4A, 8H	BC	49°35'36"N	126°36'52"W	
Porcher Island 8N, 8P	BC	53°55'03"N	130°21'00"W	
Port Alberni 4H optional: 10A?	BC	49°13'07"N	124°48'43"W	
Port Hardy 4A, 8N optional: 10A?	BC	50°41'35"N	127°41'53"W	
Prince Rupert MCTS 8H optional: 10A?	BC	54°19'50"N	130°16'37"W	
Richmond (Westham Island) 1H	BC	49°05'44"N	123°10'37"W	
Ridley Island (PRGT) Grain Terminal 7B	BC	54°14'03"N	130°19'38"W	*PRGT = Prince Rupert
Rose Inlet 4C, 8N	BC	52°13'18"N	131°12'54"W	
Sandspit 1E	BC	53°14'07"N	131°48'32"W	
Seymour Narrows (OPP radar site) 8H optional: 10A?	BC	50°06'34"N	125°21'25"W	
Telegraph Cove (OPP radar site) 8F, 8H, 8J, 8N, 8P, 8Q	BC	50°32'57"N	126°49'56"W	



Texada Island 4A, 8H optional: 10A?	BC	49°41'47"N	124°26'07"W
Trutch Island 8J, 8N, 8P	BC	53°05'20"N	129°40'01"W
Van Inlet 4C, 8H, 8J	BC	53°15'08"N	132°32'31"W
Victoria MCTS 8H optional: 10A?	BC	48°39'07"N	123°26'52"W
Watts Point (Howe Sound) 4D optional: 10A?	BC	49°38'54"N	123°12'36"W
West Vancouver 4A, 8B, 8D, 8K, 8N, 8P	BC	49°20'42"N	123°10'49"W

-----  
NORTHWEST TERRITORIES (NT) SITES:  
-----

EC Upper Air 6C	NT	68°19'04"N	133°31'59"W
Enterprise 4R	NT	60°36'30"N	116°13'13"W
Hay River 3V, 6C	NT	60°50'27"N	115°46'12"W
Inuvik 3B, 3K, 3L, 3O, 3Q, 3U	NT	68°19'30"N	133°35'47"W
Parson's Lake 4K	NT	68°53'38"N	133°56'31"W
Yellowknife 4P	NT	62°25'45"N	114°24'44"W

-----  
NUNAVUT (NU) SITES:  
-----

Cambridge Bay 3F, 3Q, 3T, 4Q, 5A, 6C	NU	69°06'53"N	105°01'11"W
Coral Harbour 3F, 3X, 5A, 6C	NU	64°09'01"N	083°22'22"W
Iqaluit 2B, 3F, 3N, 3P, 3S, 3W, 3Y, 4P, 5A, 6C optional: 10A?	NU	63°43'51"N	068°32'37"W



Killiniq  
3C, 3X, 6C NU 60°25'27"N 064°50'30"W

Resolute  
3A, 3M, 3N, 3R, 4Q, 5A, 6C NU 74°44'47"N 095°00'11"W

-----  
MANITOBA (MB) SITES:  
-----

Beaver Creek  
4R MB 51°23'21"N 096°54'25"W  
optional: 10A?

Churchill  
4L MB 58°46'29"N 094°11'22"W

Fraserwood  
4M, 4R, 8G? MB 50°34'47"N 097°13'56"W  
optional: 10A?

Jackhead  
4P MB 51°53'20"N 097°19'01"W  
optional: 10A?

Long Point (Lake Winnipeg)  
4M, 8G? MB 52°55'33"N 098°58'10"W  
optional: 10A?

-----  
ONTARIO (ON) SITES:  
-----

Bald Head  
4R, 8G? ON 47°39'37"N 084°47'39"W  
optional: 10A?

Brougham DF  
8G? ON 43°55'12"N 079°06'43"W  
optional: 10A?

Cardinal  
1G, 4P, 8G? ON 44°47'17"N 075°25'18"W  
optional: 10A?

Cobourg  
4R, 8G? ON 44°03'59"N 078°12'41"W  
optional: 10A?

Cornwall  
4I, 8G? ON 45°01'06"N 074°43'47"W  
optional: 10A?

Ferndale  
2C, 8G? ON 44°56'13"N 081°14'00"W  
optional: 10A?



Fonthill 4P, 8G? optional: 10A?	ON 43°03'11"N 079°18'42"W
Gananoque 4P, 8G? optional: 10A?	ON 44°23'59"N 075°58'23"W
Grande Pointe 4N, 4P, 8I optional: 10A?	ON 42°23'26"N 082°24'17"W
Horn 4R, 8G? optional: 10A?	ON 48°49'06"N 087°21'12"W
Killarney 4P, 8C optional: 10A?	ON 45°58'05"N 081°29'22"W
Kincardine 4R, 8A optional: 10A?	ON 44°07'01"N 081°41'24"W
Kingston (Odessa) 4P, 8G? optional: 10A?	ON 44°15'46"N 076°40'39"W
Leamington 4M, 4R, 8G? optional: 10A?	ON 42°04'10"N 082°39'58"W
Meaford 4P, 8A optional: 10A?	ON 44°30'56"N 080°34'00"W
Orillia 4P, 8G? optional: 10A?	ON 44°34'40"N 079°17'40"W
Pass Lake 2C, 8G? optional: 10A?	ON 48°33'48"N 088°39'22"W
Point Edward 7G, 8G? optional: 10A?	ON 43°00'04"N 082°25'06"W
Pointe au Baril 4P, 8G? optional: 10A?	ON 45°33'53"N 080°19'02"W
Port Burwell 4P, 8G? optional: 10A?	ON 42°34'58"N 080°36'13"W



Prescott MCTS 8G? optional: 10A?	ON	44°42'26"N	075°31'04"W
Rondeau 4P, 8G? optional: 10A?	ON	42°25'22"N	081°50'40"W
Sarnia (Camlachie) 4P, 8G? optional: 10A?	ON	43°01'41"N	082°11'09"W
Sarnia (MCTS) 8G?	ON	42°58'14"N	082°24'31"W
Sault Ste Marie (Gros Cap) 4S, 8G? optional: 10A?	ON	46°32'16"N	084°34'54"W
Silver Water (Manitoulin Island) 4M, 4R, 8I	ON	45°54'03"N	082°54'50"W
Thunder Bay (Rabbit Mountain) 4R, 8G? optional: 10A?	ON	48°26'02"N	089°18'06"W
Tobermory 4R, 8L optional: 10A?	ON	45°09'36"N	081°29'45"W
Trafalgar 4R, 8G? optional: 10A?	ON	43°29'41"N	079°43'48"W
Warton 1G, 4I, 4L, 8G? optional: 10A?	ON	44°44'50"N	081°06'43"W
-----			
QUEBEC (QC) SITES:			
-----			
Cap à l'Est 4P, 8G?	QC	48°22'58"N	070°41'13"W
Cap-aux-Meules 40, 4P, 8G?	QC	47°23'14"N	061°51'40"W
Carleton 4J, 8G? optional: 10A?	QC	48°08'28"N	066°06'32"W
Forillon 4P, 8G? optional: 10A?	QC	48°50'01"N	064°15'24"W





Grosses-Roches 4P, 8G? optional: 10A?	QC 48°54'50"N 067°06'37"W
Harrington Harbour 4P, 8G?	QC 50°30'01"N 059°29'17"W
Havre St-Pierre 4P, 8G? optional: 10A?	QC 50°16'18"N 063°40'45"W
Heath Point 4P, 6A, 8G?	QC 49°05'05"N 061°42'09"W
Île-Charron 4Q, 7C, 8G? optional: 10A?	QC 45°35'04"N 073°29'40"W
Lac Daigle 4P, 8G? optional: 10A?	QC 50°17'25"N 066°18'36"W
La Romaine 4P, 8G?	QC 50°12'56"N 060°41'03"W
La Vernière 3H	QC 47°21'28"N 061°55'30"W
La Vernière (Étang du Nord) 8G? optional: 10A?	QC 47°21'26"N 061°55'36"W
Lauzon 1E, 4P, 8G? optional: 10A?	QC 46°48'45"N 071°09'33"W
Les Escoumins 4M, 4P, 7H, 8G? optional: 10A?	QC 48°19'04"N 069°25'14"W
Lévis 7C, 8M optional: 11A	QC 46°49'09"N 071°11'00"W
Moisie 1F, 2B, 8G? optional: 10A?	QC 50°11'35"N 066°06'32"W
Mont Bélair 4P, 8G? optional: 10A?	QC 46°49'21"N 071°29'42"W
Mont Joli (Ste-Flavie) 4P, 6B, 8G? optional: 10A?	QC 48°36'25"N 068°13'33"W



Mont Louis 4P, 8G? optional: 10A?	QC	49°12'48"N	065°46'27"W
Montmagny 4P, 8G? optional: 10A?	QC	46°55'39"N	070°30'42"W
Mont Rigaud 4P, 8G? optional: 10A?	QC	45°27'00"N	074°17'48"W
Mont Saint-Bruno 4P, 8G? optional: 10A?	QC	45°33'22"N	073°19'35"W
Natashquan 3H, 4P, 8G? optional: 10A?	QC	50°09'06"N	061°47'42"W
Newport 4P, 8G? optional: 10A?	QC	48°13'24"N	064°47'33"W
Pont Jacques-Cartier 7K, 8G? optional: 10A?	QC	45°31'16"N	073°32'20"W
Quebec City Laboratory 8G? optional: 10A?	QC	N/A	N/A
Quebec MCTS optional: 11A, 10A?	QC	46°48'38"N	071°12'08"W
Rivière-au-Renard 8G? optional: 10A?	QC	40°00'29"N	064°24'00"W
Rivière-du-Loup (Notre-Dame-du-Portage) 1B, 4P, 8G? optional: 10A?	QC	47°45'36"N	069°36'20"W
Sacré-Coeur 4P, 8G? optional: 10A?	QC	48°12'50"N	069°52'14"W
Sorel 4P, 8G? optional: 10A?	QC	46°02'47"N	073°06'54"W
St-Jean-sur-Richelieu (L'Acadie) 1B, 4U, 8G? optional: 10A?	QC	45°19'16"N	073°18'37"W
Trois-Rivières (Ste-Marthe-du-Cap) 4P, 8G? optional: 10A?	QC	46°23'49"N	072°27'12"W



-----  
NEWFOUNDLAND AND LABRADOR (NL) SITES:  
-----

Argentia (Pearce Peak) optional: 10A?	NL	47°17'28"N	053°58'09"W
Army Hill optional: 10A?	NL	47°34'19"N	059°07'57"W
Arnold's Cove 4K, 7C optional: 10A?	NL	47°46'23"N	053°59'59"W
Bay L'Argent 4K, 4Q optional: 10A?	NL	47°32'00"N	054°51'46"W
Bonne Bay 4K optional: 10A?	NL	49°36'10"N	057°57'28"W
Cape Bonavista 4R optional: 10A?	NL	48°41'48"N	053°05'18"W
Cape Norman (St. Anthony) (Pistolet Bay) 1E, 3H	NL	51°29'58"N	055°49'28"W
Cape Norman II 8H	NL	51°37'05"N	055°53'54"W
Cape Pine 4K, 4Q optional: 10A?	NL	46°37'00"N	053°31'58"W
Cape Race 1E	NL	46°45'42"N	053°10'49"W
Cape Ray 1E	NL	47°38'04"N	059°14'14"W
Cartwright West 2B, 3H	NL	53°42'31"N	057°01'19"W
Cartwright (Blackhead) 4Q	NL	53°43'38"N	056°58'06"W
Comfort Cove 4Q optional: 10A?	NL	49°16'26"N	054°52'32"W
Conche 4Q	NL	50°53'41"N	055°53'03"W
Cuslett 4L, 4R, 7C	NL	46°58'28"N	054°09'15"W



Fortune Head 4Q optional: 10A?	NL 47°04'02"N 055°50'52"W
Fox Harbour 4Q, 4T	NL 52°22'10"N 055°39'42"W
Freshwater 4Q optional: 10A?	NL 47°15'44"N 053°59'03"W
Goose Bay 4Q optional: 10A?	NL 53°18'12"N 060°31'27"W
Hermitage 4K, 4Q optional: 10A?	NL 47°33'34"N 055°56'19"W
Hopedale 3H, 4K	NL 55°27'24"N 060°12'30"W
L'Anse aux Meadows 4Q, 8H optional: 10A?	NL 51°34'20"N 055°29'27"W
Lumsden 4K, 4Q optional: 10A?	NL 49°17'14"N 053°35'05"W
Mount Moriah 4Q optional: 10A?	NL 48°58'07"N 058°02'49"W
Nain 4K	NL 56°32'49"N 061°42'49"W
Pearce Peak 7C	NL 47°17'28"N 053°58'09"W
Pine Tree 4Q optional: 10A?	NL 48°35'20"N 058°39'54"W
Placentia 9A optional: 10A?	NL 47°17'37"N 053°59'40"W
Pointe Riche 4Q optional: 10A?	NL 50°41'59"N 057°24'19"W
Port aux Basques 7J	NL 47°34'19"N 059°07'57"W
Port aux Basques II (New MCTS) 8H optional: 10A?	NL 47°35'27"N 059°11'04"W



Ramea Island 4Q optional: 10A?	NL	47°30'45"N	057°24'31"W
Rigolet 1D	NL	54°10'41"N	058°26'38"W
St. John's (Red Head) optional: 10A?	NL	47°43'01"N	052°42'34"W
St. John's (Robin Hood Bay) 2B, 3D, 4Q, 9A optional: 10A?	NL	47°36'40"N	052°40'06"W
St. John's Harbour optional: 10A?	NL	47°33'37"N	052°42'37"W
St. Lawrence 4Q optional: 10A?	NL	46°55'09"N	055°22'45"W
St. Lawrence (Hares Ears) 3D optional: 10A?	NL	46°55'06"N	055°22'45"W
Stephenville (Aguathuna) (Boswarlos) 3G, 3H optional: 10A?	NL	48°33'17"N	058°45'32"W
Table Mountain 4K, 4Q, 8H optional: 10A?	NL	47°41'14"N	059°16'26"W
Twillingate (Long Point) 4Q optional: 10A?	NL	49°41'10"N	054°48'00"W
Victoria 4Q	NL	47°49'54"N	053°18'05"W
Victoria (Dog Hill) optional: 10A?	NL	47°49'54"N	053°01'05"W

-----  
NEW BRUNSWICK (NB) SITES:  
-----

Grand Manan (Southwest Head) 4P optional: 10A?	NB	44°36'03"N	066°54'22"W
Letite 4K optional: 10A?	NB	45°02'20"N	066°53'33"W
Partridge Island 1C, 7J	NB	45°14'17"N	066°03'14"W



Partridge Island II optional: 10A?	NB	45°23'68"N	066°05'43"W
Point Escuminac 1C, 4P optional: 10A?	NB	47°04'25"N	064°47'53"W
Saint John (Red Head) 4P, 7D optional: 10A?	NB	45°14'01"N	065°59'04"W
Scotch Mountain 4P optional: 10A?	NB	45°45'48"N	065°47'36"W

-----  
PRINCE EDWARD ISLAND (PE) SITES:  
-----

Cape Egmont 4Q optional: 10A?	PE	46°24'08"N	064°08'02"W
Montague 4P optional: 10A?	PE	46°11'40"N	062°39'35"W
North Cape 4Q optional: 10A?	PE	47°03'27"N	063°59'55"W

-----  
NOVA SCOTIA (NS) SITES:  
-----

Canso Canal optional: 10A?	NS	45°20'14"N	060°59'40"W
Cape Blomidon 4P optional: 10A?	NS	45°13'55"N	064°24'05"W
Cape North 4R optional: 10A?	NS	47°00'38"N	060°25'41"W
Chebucto Head (Duncans Cove) 4K, 7J optional: 10A?	NS	44°30'26"N	063°31'23"W
Cheticamp (NAD 27) 4K optional: 10A?	NS	46°34'39"N	060°59'10"W
Ecum Secum 4P optional: 10A?	NS	44°57'53"N	062°08'56"W



Eddy Point (Mulgrave) 4K, 7J optional: 10A?	NS 45°30'48"N 061°15'11"W
Fox Island 1B, 4P optional: 10A?	NS 45°19'47"N 061°04'46"W
Georges Island 7J	NS 44°38'26"N 063°33'31"W
Georges Island II optional: 10A?	NS 44°64'05"N 063°55'87"W
Halifax optional: 10A?	NS 44°41'03"N 063°36'35"W
Hartlen Point 1A	NS 44°35'32"N 063°27'07"W
Lockeport 4P optional: 10A?	NS 43°39'49"N 065°07'47"W
Kilkenny Lake 4Q optional: 10A?	NS 46°13'29"N 060°10'06"W
Kingsburg 4P optional: 10A?	NS 44°16'32"N 064°17'15"W
Pointe Michaud optional: 10A?	NS 45°35'19"N 060°41'25"W
Port Caledonia 2B, 3G, 3H, 4J optional: 10A?	NS 46°11'11"N 059°53'50"W
Sambro 3D, 3J, 4P optional: 10A?	NS 44°28'21"N 063°37'13"W
Shannon Hill 4J, 7J	NS 44°41'03"N 063°36'35"W
St. Columba 4L optional: 10A?	NS 45°59'17"N 060°51'36"W
Sydney MCTS optional: 10A?	NS 46°08'48"N 060°13'55"W
Tiverton 4K, 7D optional: 10A?	NS 44°23'32"N 066°13'29"W



Western Head  
1E

NS 43°59'24"N 064°39'43"W

Yarmouth (Chebogue)  
2B, 3H, 4P  
optional: 10A?

NS 43°44'39"N 066°07'20"W





**APPENDIX “B”  
BASIS of PAYMENT**

1. The Bidder must complete this Appendix and include it in its financial bid.
2. The Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal and private vehicle allowances specified in Appendices B, C and D of the [National Joint Council Travel Directive](#), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Project Authority. All payments are subject to government audit.

Estimated Cost: \$ **TBD**

3. Canada will make milestone payments in accordance with the payment provisions of this Appendix if:
  - a. an accurate and complete claim for payment and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
  - b. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.
4. The Contractor will be paid all-inclusive firm amounts according to the schedule of milestones outlined as follows:

Milestone No.	Deliverables	Firm Amount	Delivery Date*
1,	Completion and acceptance of the following: Draft of English Version of the PowerPoint Presentation and the updated version of TB2008-2 and TB2008-3 as described in the Statement of Work	<i>50 % of total cost in dollars (Bidder to complete)</i>	September 03, 2021
2.	Completion and acceptance of the following: Final English Version of the PowerPoint Presentation and updated version of TB2008-2 and TB2008-3 as described in the Statement of Work	<i>25 % of total cost in dollars</i>	October 29, 2021



		<i>(Bidder to complete)</i>	
3.	Completion and acceptance of the following: Final French Version of the PowerPoint Presentation and updated version of TB2008-2 and TB2008-3 as described in the Statement of Work and Acceptance of Final Documents in English and French	<i>25 % of total cost in dollars (Bidder to complete)</i>	November 26, 2021
	<b>TOTAL COST</b>		<b>\$ <i>(bidder to complete)</i></b>
	<b>APPLICABLE TAXES</b>		<b>\$ <i>(bidder to complete)</i></b>
	<b>TOTAL BID COST</b>		<b>\$ <i>(bidder to complete)</i></b>



## APPENDIX "C" EVALUATION CRITERIA

### Mandatory Criteria

Bids will first be evaluated in accordance with the Mandatory Criteria defined in the table below.

Bids that do not meet the mandatory criteria will be deemed non-compliant and will not be given further consideration.

<b>Mandatory Criteria Table</b>		<b>Cross Reference to Bidder's Proposal</b>
<b>M1</b>	<p>The Bidder <b>MUST</b> identify a Team Lead resource for this project that will be responsible for coordinating efforts and communicating with the Project Authority.</p> <p>The Bidder <b>MUST</b> provide a CV for the proposed Team Lead. The proposed Team Lead <b>MUST</b> have performed this role in at least one (1) safe distance determination project (in relation to Safety Code 6) in the last 48 months (4 years) from the date of bid closing.</p> <p>The project <b>MUST</b> be detailed as follows:            Client name;            Title of project;            Duration with month(s) and year            Start date: MM/YY to end date: MM/YY;            Summary of responsibilities; and            Contact authority* (name, email and/or telephone number).</p> <p><b>*Contact Authority</b> is identified as a person who acted as Project Manager or had direct knowledge of the referenced project.</p>	



**Point-Rated Criteria**

Bids which meet all the mandatory criteria will be evaluated and scored as specified in the tables below.

The Bidder **MUST** achieve a minimum score of five (5) points in both Point-Rated Criteria, otherwise the bid will be deemed non-compliant and will not be given further consideration.

No.	Point-Rated Criterion	Point Breakdown	Evaluated Score	Bid Page Number
R1	<p>The Bidder’s proposed Team Lead should demonstrate, in the last 180 months (15 years) from the date of bid closing, that they have experience as the lead investigator in performing Safety Code 6 Non Ionizing Radiation (NIR) surveys to measure electromagnetic energy levels.</p> <p>Each project <b>MUST</b> be detailed as follows:            Client name;            Title of project;            Duration with month(s) and year            Start date: MM/YY to end date: MM/YY;            Summary of responsibilities; and            Contact authority* (name, email and/or telephone number).</p> <p><b>*Contact Authority</b> is identified as a person who acted as Project Manager or had direct knowledge of the referenced project.</p>	<p>One (1) point will be awarded for every completed project that is a minimum one (1) month in length to a maximum of 10 points.</p>	/10	
R2	<p>The Bidder’s proposed Team Lead should demonstrate, in the last 180 months (15 years) from the date of bid closing, that they have experience in writing Safety Code 6 recommendation reports.</p> <p>Each project <b>MUST</b> be detailed as follows:            Client name;            Title of project;            Duration with month(s) and year            Start date: MM/YY to end date: MM/YY;            Summary of responsibilities; and            Contact authority* (name, email and/or telephone number).</p> <p><b>*Contact Authority</b> is identified as a person who acted as Project Manager or had direct knowledge of the referenced project.</p>	<p>One (1) point will be awarded for every completed project that is a minimum one (1) month in length to a maximum of 10 points.</p>	/10	
		<b>Total Score</b>	<b>/20</b>	