

RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:

Bid Receiving/Réception des sousmissions

Procurement Hub | Centre d'approvisionnement Fisheries and Oceans Canada | Pêches et Océans Canada 301 Bishop Drive | 301 promenade Bishop Fredericton, NB E3C 2M6

Email - courriel: <u>DFOtenders-soumissionsMPO@dfo-</u>

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 aux : 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 ciannexée, au(x) prix indiqué(s).

Comments: - Commentaries:

Title - Sujet

Buoy Maintenance in Basse-Côte-Nord, Côte Nord et Gaspésie

Date

November 7, 2016

Solicitation No. - Nº de l'invitation

F5211-160425

Client Reference No. - No. de référence du client

F3045-160053-1

Solicitation Closes - L'invitation prend fin

At /à: 14:00

AST (Atlantic Standard Time)/ HNA (heure normale de l'Atlantique)

On / le: Insert date December 19, 2016

F.O.B. – F.A.B Destination **GST-TPS**

Duty - Droits

See herein — Voir ciinclus See herein — Voir ci-inclus

Destination of Goods and Services – Destinations des biens et services

See herein — Voir ci-inclus

Instructions

See herein — Voir ci-inclus

Address Inquiries to -

Adresser toute demande de renseignements à

Morgan Marchand

Contracting Officer

Email - courriel:

DFOtenders-soumissionsMPO@dfo-mpo.gc.ca

Delivery Required – Livraison exigée See herein — Voir ci-inclus

alua

Delivery Offered – Livraison proposée

Vendor Name, Address and Representative – Nom du vendeur, adresse et représentant du fournisseur/de l'entrepreneur:

Telephone No. - No. de téléphone

Facsimile No. - No. de télécopieur

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)

Signature

Date





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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There is no security requirement associated with this bid solicitation

1.2 Statement of Work

The Work to be performed is detailed under Article 6.2 of the resulting contract clauses.

1.3 Debriefings

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

1.8 Procurement Ombudsman

The Office of the Procurement Ombudsman (OPO) was established by the Government of Canada to provide an independent avenue for suppliers to raise complaints regarding the award of contracts under \$25,000 for goods and under \$100,000 for services. You have the option of raising issues or concerns regarding the solicitation, or the award resulting from it, with the OPO by contacting them by telephone at 1-866-734-5169 or by e-mail at opo-boa@opo-boa.gc.ca. You can also obtain more information on the OPO services available to you at their website at www.opo-boa.gc.ca.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

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

Revision to Departmental Name: 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.

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 <u>2003</u> (**2015-07-03**) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Section 01 – Integrity Provisions – Bid of 2003 referenced above is amended as follows: **Delete section 01 in its entirety.**

Section 02 – Procurement Business Number – of 2003 referenced above is amended as follows: **Delete section 02 in its entirety.**

2.2 Submission of Bids

Bids must be submitted only to Fisheries and Oceans Canada (DFO) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

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

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than **10 calendar days** before the bid closing date. Enquiries received after that time may not be answered.

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

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

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

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

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)

Please note that DFO prefers receipt of proposals in soft copy to the email address identified on page one of the solicitation. Emails must not exceed 8 MB (if over the limit Bidders are asked to send additional numbered emails)

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

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

- use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

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

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the 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

Please see Annex "C" for additional details.

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 Mandatory Technical Criteria

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

PART 5 - CERTIFICATIONS

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

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

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

5.1 **Certifications Precedent to Contract Award**

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

Federal Contractors Program for Employment Equity - Bid Certification 5.1.1

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

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

5.1.2 **Additional Certifications Precedent to Contract Award**

5.1.2.1 Contractor's Representative

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

The Contractor's Representative for the Contract is:

5.1.2.2 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 (associated with the Social Insurance Number (SIN) or Busines (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 office	following certification signed by the contractor or an authorized				
	ify that I have examined the information provided above and that it is tand complete"				
	Signature				

2.3 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 FPS, 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.

Print Name of Signatory

Definitions

For the purposes of this clause,

"fee abatement formula" means the formula applied in the determination of the maximum fee payable during the one-year fee abatement period when the successful bidder is a former public servant in receipt of a pension paid under the *Public Service Superannuation Act*.

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

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

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

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

Former Public Servant in Receipt of a Pension

As nor the above definitions in the Didder a EDC in require of a nancion?

Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

As per the above definitions, is the bidder a FFS in receipt of a pension?
Yes () No ()
If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:
a. name of former public servant;
b. 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

A contract awarded to a FPS who has been retired for less than one year and who is in receipt of a pension as defined above is subject to the fee abatement formula, as required by Treasury Board Policy.

Work Force Adjustment Directive

ls t	he Bidder a	FPS who	received a	a lump s	um paymen	t pursuant t	o the term	s of the	Work F	Force
Adj	ustment Dir	ective?								

(
	(

If so, the Bidder must provide the following information:

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

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

Signature	
9	
Drint Name of Cignotony	
Print Name of Signatory	

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 this Contract.

6.2 Statement of Work

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

6.3 Standard Clauses and Conditions

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

Revision to Departmental Name: 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.

6.3.1 General Conditions

<u>2010C</u> (**2015-09-03**), General Conditions - Services (Medium Complexity) apply to and form part of the Contract.

Section 27 – Integrity Provisions – Contract referenced above is amended as follows: Delete section 27 in its entirety.

6.4 Term of Contract

6.4.1 Period of the Contract

The period of the contract is from date of contract to March 31, 2017 inclusive.

6.4.2 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to two (2) additional one (1) year period(s) under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

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

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:



6.6

6.7

6.7.1.1

Name: Morgan Marchand **Contracting Officer** Title:

Department: Fisheries and Oceans Canada Directorate: Material and Procurement Services

Address: 301 Bishop Drive, Fredericton, NB, E3C 2M6

Telephone: 506-452-3660

E-mail address: DFOtenders-soumissionsMPO@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

6.5.2	Project Authority
	The Project Authority for the Contract is: (to be provided upon contract award)
	Name:
	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 (to be provided upon contract award)
	Name:
Proacti	ive Disclosure of Contracts with Former Public Servants
a <u>Public</u> informa disclosu	riding information on its status, with respect to being a former public servant in receipt of <u>c Service Superannuation Act</u> (PSSA) pension, the Contractor has agreed that this ution will be reported on departmental websites as part of the published proactive ure reports, in accordance with <u>Contracting Policy Notice: 2012-2</u> of the Treasury Board ariat of Canada.
Payme	nt
6.7.1	Basis of Payment

Customs duties are included and Applicable Taxes are extra.

Annex Bfor a cost of \$ __

In consideration of the Contractor satisfactorily completing all of its obligations

under the Contract, the Contractor will be paid firm unit price(s), as specified in

(insert the amount at contract award).

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

- 6.7.1.2 All prices and amounts of money in the Contract are exclusive of the Goods and Services Tax (GST) or Harmonized Sales Tax (HST), whichever is applicable, unless otherwise indicated. GST or HST, to the extent applicable, will be incorporated into all invoices and progress claims for goods supplied or work performed and will be paid by Her Majesty. The Contractor agrees to remit to Canada Revenue Agency any GST or HST paid or due.
- 6.7.1.3 Any payment by Her Majesty under this contract is subject to there being an appropriation for the fiscal year in which the payment is to be made.

6.7.2 Limitation of Price

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

6.7.3 Multiple Payments

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

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

6.8 Invoicing Instructions

- 6.8.1 Payments will be made provided that:
 - 6.8.1.1 The invoice(s) must be emailed to DFO Accounts Payable, at the email address indicated below:

Email: DFOinvoicing-MPOfacturation@DFO-MPO.GC.CA

And to the project authority: (to be provided upon contract award)

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

6.9 Certifications

6.9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in **the province or territory where the goods and/or services are to be rendered**.

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) 2010C (2015-09-03), General Conditions Services (Medium Complexity)
- (c) Annex A, Statement of Work;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated _____ (insert at the time of contract award)

6.12 Procurement Ombudsman

- 6.12.1 The Contractor confirms that it has read the Code of Conduct for Procurement and agrees to be bound by its terms.
- 6.12.2 The office of the Procurement Ombudsman (OPO) was established by the Government of Canada to provide an independent avenue for suppliers to raise complaints regarding the award of contracts under \$25,000.00 for Goods and under \$100,000.00 for Services. You have the option of raising issues or concerns regarding the solicitation, or the award resulting from it,. With the OPO by contacting them by telephone at 1-866-734-5169 or by e-mail at opo-boa@opo-boa.gc.ca. You can also obtain more information on OPO services available to you on their website at www.opo-boa.gc.ca.
- 6.12.3 For further information, the Contractor may refer to the following PWGSC site:

http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html

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 Dangerous Goods / Hazardous Products - Labelling and Packaging Compliance

SACC Manual clause <u>D3015C</u> (2014-09-25) Dangerous Goods / Hazardous Products - Labelling and Packaging Compliance

ANNEX "A" STATEMENT OF WORK

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1.0 GENERAL

- 1.1 The Canadian Coast Guard seeks to award a contract for the tending and secure storage of summer and winter buoys (a total of up to 71) and their accessories. The buoys in question are located in the area from the sectors of Blanc Sablon to Rivière au Tonnerre, Baie de Sept-Îles, Port Cartier, Godbout, Baie Comeau, Anticosti, Gaspésie et Baie des Chaleurs. Type and number of buoys may vary slightly from year to another.
- 1.2 The buoys will be registered / retrieved by a ship of the Coast Guard at the port housed selected by the Bidder and the representative of the Ministry according to the following order of preference: Gaspé, Sept-Îles or Baie-Comeau. The Contractor shall ensure that it has access to the port selected and that it can host a 1100 class ship safely.
- 1.3 In the fall, when three transport determined by the wetting program, the Canadian Coast Guard will provide the contractor of summer buoys to maintain. In spring, the Canadian Coast Guard will recover the summer buoys (three (3) trips) and deliver 13 winter spar buoys to maintain

2.0 SCHEDULE

- The planned loading/unloading dates will be established by the Canadian Coast Guard's placement/removal program and communicated to the Contractor, and will remain subject to change.
- The contractor will maintain the buoys and their accessories and ensure that the buoys will be operational for placement in the water. All buoys and accessories under this contract will be deliverable to the ports agreed on by the two parties, starting April 1 of each year for summer buoys and October 1 of each year for winter spar buoys.
- The Canadian Coast Guard's acceptance of the contractor's work will take place at the 2.3 contractor's place of business one (1) month before the placement program's start date.
 - Workplace visit and inspection
- If the contractor must redo its work on the buoys and accessories after the Canadian Coast Guard representative's acceptance inspection, the costs of the second inspection will be assumed by the contractor.
 - E.g. travel costs and fixed costs.

3.0 CANADIAN COAST GUARD RESPONSIBILITIES

- Provide the contractor with a list of parts supplied and likely to be replaced on a buoy, including its accessories, and supply and deliver to the contractor all the parts to be replaced that were identified based on that list and the stipulated conditions (See Appendix K).
- Provide the contractor with other spare parts in addition to those set out in 3.2, subject to agreement with the Canadian Coast Guard representative, in order to prepare for any eventuality during the term of the contract.
- 3.3 Provide the contractor with the template for measuring wear on buoy chains and bridles.
- Provide the contractor with any additional information necessary to understand the contract.

- 3.5 Provide the contractor with training on the equipment to be maintained. This training will be provided to the contractor at the beginning of the contract and annually if the Contractor so requests.
 - An itinerary must be prepared for any travel.
- 3.6 Provide the contractor with any hazard and/or safety advisories issued by the Canadian Coast Guard regarding the equipment being maintained.
- 3.7 When the Canadian Coast Guard unloads buoys (If applicable), the vessel will provide a cargo manifest to the contractor.

4.0 CONTRACTOR RESPONSIBILITIES

- 4.1 The contractor must provide appropriate facilities to meet the technical requirements in these specifications (warehouses, hangars and heated and ventilated, area workshops etc.).
- 4.2 The contractor must provide the tools and qualified personnel required to meet the technical and legal requirements in these specifications.
- 4.3 The contractor must provide the Canadian Coast Guard representative with its written work procedure for handling and storing summer and winter buoys. This procedure must meet all the Canadian Coast Guard's workplace health and safety requirements.
- 4.4 The contractor must take into account all hazard and/or safety advisories issued by the Canadian Coast Guard concerning the equipment in its possession. These advisories will be provided by the Canadian Coast Guard when applicable.
- 4.5 Within twenty-one (21) days after unloading the buoys, the contractor is required to have inspected the buoys and equipment and must be able to provide the Canadian Coast Guard with a written list of electrical, electronic or mechanical parts that need to be replaced (see 7.2).
- 4.6 The contractor must ensure that buoy tending sheets (provided by the Canadian Coast Guard) are kept up to date and submit a copy to the Canadian Coast Guard representative when the buoys are inspected after maintenance.
- 4.7 The Canadian Coast Guard reserves the right to visit work and storage sites without prior notice to check on the quality and progress of the work. The contractor will make any adjustments deemed necessary by the Canadian Coast Guard, at its own expense, to meet the requirements in these specifications.
- 4.8 The contractor will keep an up-to-date inventory of the spare parts made available by the Canadian Coast Guard and submit an electronic report in French to the Canadian Coast Guard in April of each year.
- 4.9 The contractor will ensure that its workplace complies with all requirements, acts and regulations concerning health and safety and protection of the environment. It must ensure that it holds any licences required for its operations.
- 4.10 At the end of the contract, the contractor must return to the Canadian Coast Guard the spare parts (inventory) that it has on hand.
- 4.11 The contractor will carry out the work according to the responsibilities outlined in Appendix A

5.0 SCOPE OF WORK

- The contractor will provide the labour, materials and equipment required to handle the buoys and transport them from the chosen transhipment dock to its workplace. The buoys will be moved to the dock as they are placed/removed by the Canadian Coast Guard vessel. The contractor must also provide the labour, materials and equipment necessary to handle buoys and equipment and transport them from its workplace to the transhipment dock. The buoys and equipment must gradually be moved as they are loaded according to the manifest and in the order provided by the vessel.
- The contractor will collaborate in the unloading/loading/scheduling of buoys and equipment. It will then remove them from the unloading/loading area to avoid hindering traffic and other activities on the dock.
- The contractor's equipment must be able to safely maneuver one or more loads of up to 5.3 5,500 kg and allow for loading on a transport platform. Some buoys can reach 10 metres in length and also, 3 metres in diameter.
- Transportation of buoys and equipment to the storage location must take place within 48 hours.
- Transportation must comply with all provincial and municipal acts and regulations (weight, width, height).

6.0 Clean-up

- Before carrying out the inspection, the contractor will clean the buoys and equipment using brushes and/or water pressure to remove any build-up of marine growth, paying special attention to sensors and lanterns to avoid damage.
- 6.2 This step will facilitate the maintenance operations described in this quote.

7.0 Inspection and Reporting

- The contractor must inspect the buoys and equipment within twenty-one (21) days after they are unloaded to assess the work to be done.
- The contractor will complete a written inspection report and submit it to the Canadian Coast Guard representative within five (5) days after inspection, for validation purposes. This report will identify the maintenance and work required for the buoys to meet the requirements in this contract and will also assess any materials and adjustments required that are not included in this contract. The contractor will also provide a schedule for completion of work at the same time.
- The tending sheet for each buoy (Appendix I) must identify all the work performed on the buoys and equipment and be returned each year to the Canadian Coast Guard representative as soon as the work is completed.

8.0 Mechanical Maintenance

- Purging metal buoys is crucial before beginning maintenance, welding and other types of work, since it has been shown that the buoy's hull can contain combustible gases that could endanger the lives of workers. The contractor must carefully follow the instructions found in Appendix A.
- The watertightness of metal buoys must be confirmed by checking for water inside the buoy's hull with a rod. If water is present, pump it out. Then apply air pressure at 5 lb/in². Maintain this pressure (check valve) for 30 minutes to detect any possible leaks. Use a solution of

soap and water to locate any such leaks. Pay close attention to welding joints. Each buoy is built with the openings required to perform these tests. There is no work to be done inside the buoys except the purging described in 8.1. Repair any leaks detected in the buoys. The watertightness of plastic buoys must be confirmed by checking for water inside the buoy's hull.

- The watertightness of plastic buoys must be confirmed by checking for water inside the 8.3 buoy's hull. If water is present, it must be removed. If a major anomaly is detected, the contractor must change the entire buoy.
- Buoy hoisting eyes (approximately 320) must be checked visually for cracks and strain. A strike with a 4 lbs hammer must be applied to their sides to detect any abnormal vibrations or sounds. If needed, remove paint using a blowtorch to better see the metal. Since the paint may contain lead, an appropriate mask is required. Pay close attention to avoid overheating the metal. If repairs are necessary, contact the Canadian Coast Guard representative.
- For buoys with plastic hoisting rings, the contractor must change the entire buoy if he notes anomalies.
- 8.6 The buoy mooring rings (approximately 160) must be checked visually for cracks and deformations. Repair defective rings. Check and replace anodes (provided by CCG) on plastic buoys as needed and check the strength of their fasteners.
- 8.7 For buoys with plastic mooring rings, the contractor must change the entire buoy if he notes anomalies.
- 8.8 The contractor will conduct the audit with the representative of the Maurice Lamontagne Institute (Rémi Desmarais 418-775-0645), anchoring systems Thermographs on summer buoys. If repairs are needed, the representative of the Maurice Lamontagne Institute will determine the repairs. These repairs are not part of this specification and will be subject to a separate contract. See Appendix G for a list of buoys with thermographs.
- 8.9 On plastic buoys, check and replace anodes (provided by CCG) on plastic buoys as needed and check the strength of their fasteners.
- 8.10 Check the counterweights to detect excessive wear or any other mechanical failure affecting its integrity. Check mooring rings. Repair the curved portion of the counterweight mooring rings as needed as per the approved methods. Change the counterweights as needed. The integrity of the counterweight bodies must also be checked; if there is the presence of cracks or risk that parts may detach, the contractor shall replace them.
- The buoy's skeletal structure must not have any deformations or any other defects that could affect its visual and mechanical performance. The bell-clappers (4) and the bell must be present and must not display any deformations or damage. Carry out the necessary repairs and, as needed, repaint the parts of the structure that have been repaired. Since the paint may contain lead, an appropriate mask is required.
- 8.12 Ensure that the counterweight is properly secured by checking the bolts and brackets. Change the bolts and brackets if necessary (materials supplied by the contractor).
- 8.13 For plastic buoys, the contractor shall replace them if he observes anomalies which may affect their visual performance or ability to float.
- 8.14 The buoy's identification plate must be well secured using pop rivets, and the lettering must be in good enough condition to prevent any confusion. If the lettering is damaged, the plate must be removed and submitted to the Canadian Coast Guard for repairs. Install the repaired plate on the buoy using rivets. The retroreflective material covering the

identification plate must be in good condition. If it is damaged and not clearly visible, remove the plate and submit it to the Canadian Coast Guard for repairs. Install the repaired plate on the buoy using rivets.

- 8.14 Chains and bridles must be checked visually and measured using a template and must comply with the table of measurements provided by the Canadian Coast Guard (Appendix
- 8.15 Damaged or overly worn chains and bridles will be replaced by the Canadian Coast Guard, and the contractor will hold them for later inspection and recovery by the Canadian Coast Guard. At no time may chains or bridles be used for any purposes if they do not meet the Canadian Coast Guard's requirements.
- 8.16 Sinker hoisting eyes must be checked against the table of measurements in **Appendix C**. A strike with a hammer can be applied to the side of the eye to check for abnormal vibrations. If repairs are necessary, contact the Canadian Coast Guard representative.
- Shackles and swivels must be free of deformations and their components must work freely and without excessive wear (Appendix D). Defective components will be replaced by the contractor and held by the contractor for later inspection and recovery by the Canadian Coast Guard.
- 8.18 Shackle slit pins must be replaced annually (materials provided by the Canadian Coast Guard).
- 8.19 When the inspection and mechanical maintenance work is completed, attach labels to all equipment using nylon or steel ties (ties for potato sacks) to indicate that it is compliant. Label each sinker, chain and buoy. These labels, provided by the contractor, must be made of weatherproof material. They must indicate the performance date and the inspector's
- 8.20 At no time, chains and crow's feet that no longer meet the requirements of the Canadian Coast Guard will not be used for any other purpose.

9.0 Electrical Maintenance

- 9.1 The lanterns were cleaned, programmed and verified to identify any damage. If one of them is damaged in transport, immediately contact the manager to the GCC (418) 648-4821.
- 9.2 Before you replace the lamp, it must be reactivated by exposing it to sunlight for 2 to 3 minutes. Then you must plunge the lantern in the dark for 3 to 4 minutes to see if it works well.
- 9.3 Check the characteristics of the lamp (color, period and turned off period) and operation. Lantern characters are shown in Appendix E. Reinstall the lantern.
- 9.4 When removing buoys, remove the lantern rid the surface of solar panels from any foreign material.
- 9.5 The lantern should be cleaned with soap and water and checked visually for any damage. If it is damaged, it should be identified.
- 9.6 Series 600 The lanterns must be delivered into the container provided by the Canadian Coast Guard and will be recovered by the GCC before winter.
- 9.7 The lanterns of the 800 series should be as discounts in the container but they must never be opened if the manufacturer's warranty no longer holds. The Coast Guard will look to recover before winter.

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10 PAINTING

- 10.1 All painting materials (paint, solvent, rollers, brushes, paint guns, etc.) will be provided by the contractor. On even-numbered years (e.g. 2008, 2010) all starboard hand lateral buoys (red) are to be completely repainted. On odd-numbered years (e.g. 2011, 2013) all port hand lateral buoys (green) are to be completely repainted. All other non-lateral buoys which have names consisting of alphanumeric characters and are painted in two colours (red, green, yellow, white, black and orange), and winter spar buoys are to be completely repainted every year.
- 10.2 Any breaks in the surface greater than 12 square inches are to be repaired to prevent premature degradation of buoys that are not designated for complete repainting. Prepare the surface to be painted with a brush, mechanical or otherwise, to remove salt and rust. The parts to be repainted must also be washed with a solvent that promotes better paint adhesion.
- 10.3 The paint to be used for summer buoys is a two-part epoxy. The paint to be used for winter buoys is an alkyd resin. Before beginning the painting process, the contractor will inform the Canadian Coast Guard representative as to the paint manufacturer and product types in order to receive authorization from the Canadian Coast Guard representative to use those products.
- 10.4 The colours must comply with Canadian Coast Guard standards and U.S. Federal Standard 595B (FED-STD-595B).

LLO Fadaval Otavaland FOED*

Colour	U.S. Federal Standard 595B*
Red	11350
Green	14193
Yellow	13655
Black	17038
White	17925
Orange	22510

- * U.S. Federal Standard 595B colours are available on the www.colorserver.net Website and from IHS Canada, 1-800-567-1914.
- 10.5 Painting work must comply with, but is not limited to, the manufacturer's standards (data sheet), meaning appropriate ventilation, temperature, humidity level and drying time. Consult the relevant manufacturer data sheets.
- 10.6 As needed, the Canadian Coast Guard will determine whether it is necessary to apply or reapply the high-performance coating to one or more buoys. Such work does not fall under these specifications and will be part of a separate contract.

STORAGE

- 11.1 The storage area must be accessible and permit the use of handling machinery at all times for maintaining and inspecting equipment. Arrange buoys in a way that allows the maximum amount of light to supply their solar collectors, meaning one of the collectors must face south. Store buoys and equipment on a smooth, well-drained surface (concrete, asphalt, gravel) to slow equipment degradation.
- 11.2 The equipment must be placed in a secure location that is dry and easily accessible. Both interior (lanterns, batteries) and exterior (chains, sinkers, shackles) storage spaces must be provided.

11.3 The buoys must be stored in a secure location to reduce the risk of equipment vandalism and theft.

12 CANADIAN COAST GUARD INSPECTION AND ACCEPTANCE

- 12.1 As often as deemed necessary and with prior notice, the Canadian Coast Guard representative will inspect the buoys and equipment to ensure that they are being maintained in compliance with these specifications.
- 12.2 The contractor will accompany the Canadian Coast Guard representative on request.
- 12.3 When the work has been completed, an acceptance is required to confirm that the work was performed according to Canadian Coast Guard requirements.

13 PAYMENT

13.1 Payment dates for the work completed will on the following dates:

March 15, 2017: Summer buoys according to the fee schedule October 15, 2017: Winter buoys according to the fee schedule

Optional extension (first year if accepted)

March 15, 2018: Summer buoys according to the fee schedule October 15, 2018: Winter buoys according to the fee schedule

Optional extension (second year if accepted)

March 15, 2019: Summer buoys according to the fee schedule October 15, 2019: Winter buoys according to the fee schedule

14 QUALIFICATIONS

13.1 Welding work must be performed by qualified personnel who are certified to work with steel and aluminum (CSA standard W47.1 division 2 and W47.2 division 2.1). The contractor shall demonstrate the certification of its employees or its subcontractors with the Canadian Coast Guard.

15 HEALTH AND SAFETY

- 15.3 No welding work is permitted on the buoy's hull without previously checking for combustible gases (Appendix A). To do so, the contractor must use an MSA model 2A explosimeter or equivalent. The Canadian Coast Guard will not provide this device.
- 15.4 Personnel must obtain from the manufacturers the material safety data sheets for the various products used. These products must be used according to the manufacturer's recommendations and disposed of in compliance with environmental legislation.
- 15.5 Personnel assigned to these tasks must be informed on how to handle measuring instruments, how to use equipment and tools, and how to properly wear personal protective equipment.
- 15.6 The contractor must comply with any hazard and/or safety advisories issued by the Canadian Coast Guard concerning the equipment under its care for maintenance or repairs.

16 DESCRIPTION OF BUOYS AND ACCESSORIES

16.3 **Appendix E** describes the procedure for inspecting the electrical system.

- 16.4 **Appendix F** describes the characteristics of buoys and accessories that fall under these tending specifications. This table allows the contractor to assess the scope of the work to be done.
- 16.5 Appendix H presents the different types of buoys that the contractor will have to maintain.
- 16.6 **Appendix I** contains drawings of buoy accessories that the contractor will have to inspect and replace each year and describes the method of replacing shackles and swivels.
- 16.7 Appendix J is a typical buoy tending sheet that the contractor_will have to complete for each buoy.
- 16.8 **Appendix K** contains a list of parts provided by the Canadian Coast Guard.

APPENDIX A

BUOY PURGING

1.0 SCOPE

This directive details the principles, responsibilities and procedures governing the maintenance and repair of buoys that contain or might contain combustible gases.

This directive governs the welding and cutting of buoys with metallic hulls and battery compartments; welding and cutting foam-filled buoys with a blowtorch; and opening battery compartments (e.g. to replace the batteries).

The purpose of this directive is to establish safety standards for personnel from the contractor and its successful tenderers, to be followed when performing buoy maintenance and/or repair work.

2.0 FRAMEWORK

The buoy's enclosed spaces (e.g. the hull and battery compartments) can contain combustible gases. Strong explosions and serious fires can result from the use of welding machines, cutting torches, or other sources of ignition (sparks) or occur when work is performed on these buoys. However, the danger that enclosed spaces represent can be mitigated if the necessary steps and precautions are taken. Toxic vapours can be produced by degrading polystyrene or polyurethane due to the heat produced when using a blowtorch to do welding or cutting work on a foam-filled buoy. The vapours and flammable or explosive gases below may form or be found in buoys:

- a) Alcohols or combustible aliphatic esters may form within buoys with inner painted surfaces;
- b) Combustible vapours may be present in buoys with inner surfaces treated with anti-rust coatings or solvents;
- c) Combustible vapours may be formed during torch welding or cutting operations on buoys with inner surfaces treated with linseed oil or other low-volatility products;
- d) Acetylene may be present or enclosed in buoys previously equipped with gas lanterns;
- e) Hydrogen may be present in buoys because of battery leaks and/or seawater electrolysis.

3.0 PRINCIPLES

3.1 Checking for combustible gases

No buoy should be presumed clean or safe until all enclosed spaces (e.g. hull and battery compartments) are proven so by proper testing. Tests of the buoy's atmosphere must comply with the testing procedures outlined in this directive.

3.2 Buoy purging

Buoys containing flammable/explosive vapours or gases must be purged in compliance with the procedures in this directive. There are several methods of preparing a buoy for safe work. They range from complete decontamination (i.e. water flushing, steaming, chemical cleaning and air purging) to blanketing with inert gases. In general, purging methods that consist of replacing flammable vapours with outside air or blanketing with inert gases are appropriate.

4.0 RESPONSIBILITIES

4.1 Contractor

The contractor must:

- a) carry out the work according to the following regulations and standards:
 - Canada Confined Spaces Regulations;
 - Canada Occupational Health and Safety Regulations
 - CSA standard W117.2-2012
 - Standard ANSI/AWS F4.1
 - Standard NFPA 327
- b) ensure that employees understand and comply with all applicable safety procedures;
- c) ensure that employee health and safety regulations are enforced;
- d) ensure that appropriate safety equipment is available and used properly.

4.2 Canadian Coast Guard

The Canadian Coast Guard representative will provide the contractor with all relevant information on this subject.

5.0 PROCEDURES

5.1 Preliminary activities

Prior to any work on or servicing of buoys, it is necessary to be aware of and to be able to identify any hazards that may exist. Knowledge of the various regulations and standards is necessary to safely mitigate these hazards.

5.2 Controlling sources of ignition

When a buoy might contain hazardous substances, the contractor must ensure that there are no sources of ignition (smoking, welding, grinding, running compressor, etc.) within a radius of at least 6 metres from the buoy. It is easier to remove ignition sources by placing the buoy outdoors.

5.3 Buoy preparation

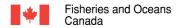
A combustible gas detector must be used to check for explosive gases within the buoy's compartments. If explosive gases are found, these compartments must be ventilated, i.e. the gas must be flushed out using compressed air until the detector indicates that the percentage of explosive gases is zero.

5.4 Welding, cutting and drilling on metal buoys

5.4.1 Preliminary activities and buoy preparation

Before blowtorch welding or cutting and/or drilling on metal buoys, compliance must be ensured with the procedures above in 5.2 Controlling sources of ignition and 5.3 Buoy preparation.

5.4.2 Welding, cutting and/or other hot work on external surfaces



Before welding or cutting with a blowtorch or performing any other hot work on a compartment's external surfaces, check for the presence of explosive gases within the compartments. If the detector indicates the formation of a hazardous amount of combustible gas, cease the activity and purge the compartment until the detector indicates a non-hazardous amount of gas.

If a hazardous quantity of combustible gas forms again after activity resumes, the compartment must be blanketed with inert gas.

5.5 Battery compartments

5.5.1 General

Batteries placed in battery compartments release hydrogen. Although the compartments have ventilation holes, check for the presence of hydrogen before performing any work on such equipment.

5.5.2 Battery removal and replacement

When disconnecting the wire clamps from the battery, it is important to ensure that they do not touch each other or the buoy. Remove the batteries from the opened compartment and ventilate it. Repeat this procedure in the order in which the battery compartments were opened, until all the batteries are removed from the buoy.

6.0 **NEUTRALIZATION**

- Completely purging a container (buoy compartment) is still the most reliable way to prepare for performing hot work. However, some containers are very difficult to completely decontaminate. In these cases, if the hot work is limited to external surfaces, neutralization can make the container safe for work. Neutralization (or inerting) involves replacing the air and hazardous gases in the container with an inert gas and maintaining an inert atmosphere during hot work.
- Steam, nitrogen gas or carbon dioxide can be circulated in the container to neutralize the atmosphere while performing hot work. Solid carbon dioxide in the form of dry ice can also be used. If dry ice is used, a special check valve is required to maintain an inert atmosphere in the container and regulate the increased pressure from the gas's expansion.

7.0 **SAFETY MEASURES**

- Any personnel who use the neutralization procedure must comply with the standards in effect.
- Neutralization requires a well-ventilated location where it is unlikely that there will be a lack of oxygen and worker exposure to the inert gas can be controlled and kept to a minimum. To prevent the generation of static electricity, connect the container to the tubing for the inert gas and ground the container. Dry ice used to create an inert atmosphere can cause burns from the cold, and gloves are required to handle it.

8.0 REFERENCES

- 2.4500 Directive, administrative directive of marine aids / maintenance of buoys Gas Purge hazardous fuels, 31/08/1992
- 8.2 TP1526. Transport Canada. Aids and Waterways policy item. A28, dated December 22, 1982. "Buoy Servicing – Purging of Hazardous Combustible Gases."

APPENDIX B

Minimum acceptable diameters for common links, end links, rings, eyes, collars, bridles and swivels

Nominal diameter for the chain, bridle and swivel	Minimum diameter for common links		ne chain, bridle and links			eter for end links, s and collars
(in.)	(in.)	(mm)	(in.)	(mm)		
1/2	13 / 32	10	1/2	13		
3 / 4	14 / 32	15	23 / 32	18		
1- 1 / 8	15 / 16	24	1	25		
1-1/2	1-7/32	31	1- 17 / 32	39		

APPENDIX C

Minimum acceptable diameters for anchor and sinker hoisting eyes

Nominal mass of anchor or sinker	Minimum diameter of hoisting eye	
(lbs)	(in.)	(mm)
8,000	1- 1 / 16	27
6,500	15 / 16	24
6,000	29 / 32	23
5,000	27 / 32	21
4,500	25 / 32	20
4,000	3 / 4	19
3,500	11 / 16	18
3,000	5/8	16
2,500	19 / 32	15
2,000	17 / 32	14
1,800	1/2	13
1,500	15 / 32	12
1,200	13 / 32	10
1,000	13 / 32	10
800	11 / 32	9
500	9/32	7
300	1 / 4	6

APPENDIX D

Minimum acceptable diameters for shackle pins

Nominal diameter		shackle plicable)	Bow shackle			
(in.)	(in.)	(mm)	(in.)	(mm)		
5/8	5/8	16	9 / 16	14		
3 / 4	21 / 32	17	21 / 32	17		
7 / 8	13 / 16	21	-	-		
1	31 / 32	25	7 / 8	22		
1-1 / 4	1-3 / 16	30	1- 1/16	26		
1-1 / 2	1-3 / 8	35	1- 11 / 32	34		
1-3 / 4	-	-	1- 11 / 16	43		
2	-	-	1-3/4	44		

APPENDIX E

ELECTRICAL SYSTEM INSPECTION PROCEDURE

- 1) Ensure that components, parts and connectors are solid. As needed, tighten the electrical connections and the attachment points for lantern parts.
- 2) Lubricate the O-ring and make sure it is securely placed so that the lantern is watertight. Disconnect the lantern and clean the lens. Ensure that the lantern's power connector is clean and free of corrosion. Clean as needed.
- 3) Check the lantern's character and ensure it matches what is listed below. A good practice is to then attach an identification label to the lantern, with the lantern's character written on it.

Cha	aracters used by t	he CCG:	Code				
•	FL 4S	(0.50sec ON, 3.50sec OFF)	S1 S2 0 A				
•	Q 1S	(0.30sec ON, 0.70sec OFF)	9 9				
•	MO(A) 6S	(0.30sec ON, 0.60sec OFF, 1.0sec ON, 4.10sec OFF)	6 C				
•	MO(A) 10S	(0.50sec ON, 0.50sec OFF, 1.50sec ON, 7.50sec OFF)	6 E				
•	Q(9) 15S 0.70sec	(0.30sec ON, 0.70sec OFF, 0.30sec ON, 0.70sec OFF, 0.30sec O	N,				
	U.705eC	OFF, 0.30sec ON, 0.70sec OFF, 0.30sec ON, 0.70sec OFF, 0.30sec ON,					
	0.20000	0.70sec OFF, 0.30sec ON, 0.70sec OFF, 0.30sec ON, 0.70sec OF	FF,				
	0.30sec	ON, 6.70sec OFF)	B 1				
•	Q(3) 10S 7.70sec	(0.30sec ON, 0.70sec OFF, 0.30sec ON, 0.70sec OFF,0.30sec ON	٧,				
	7.705ec	OFF)	A 5				
•	Q(6) +LFL 15S 0.70sec	(0.30sec ON, 0.70sec OFF, 0.30sec ON, 0.70sec OFF, 0.30sec O	N,				
	0.70360	OFF, 0.30sec ON, 0.70sec OFF, 0.30sec ON, 0.70sec OFF, 0.30 ON,	sec				
		0.70sec OFF, 2.00sec ON, 7.00sec OFF)	B 7				

Lantern : M650:





M860

APPENDIX F

TABLE OF BUOYS AND ACCESSORIES

Note	Code	Buoy color and function (conterweight)	Type of aid	Sinker	Buoy line (chain)	Light	Lantern (type)	Lantern	Batterie s
	BMING	cardinale ouest Y and N	2.9m Bell	Cast Iron 6000 lb	Chain- 1/8 / 120 pi	Night	Solaled	140mm	
	BRA	mi-chenal R and W	2.9m Bell	Cast Iron 6500 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
	C-10	Starboard R	2.9m	Cast Iron 8000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
2)	C-64	Starboard R	2.9m	Cast Iron 5000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
	C-80	Starboard R	2.9m	Cast Iron 6000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
	C-81	Port G	SB-98	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
	C-84	Starboard R	2.9m	Cast Iron 6000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
	CB-2	Starboard R (250lbs)	SB-1500	Cast Iron 4000 lb	Chain - 3/4 / 180 pi	Night	Solaled	140mm	
	CJ-5	Port G (500lbs)	SB-1500	Cast Iron 3000 lb	Chain - 3/4 / 90 pi	Night	Solaled	140mm	
	CK-1	Port G	2.9m Bell	Cast Iron 4000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
	CM-10	Starboard R (500lbs)	SB-1500	Cast Iron 3000 lb	Chain - 3/4 / 180 pi	Night	Solaled	140mm	
	CM-12	Starboard R (250lbs)	SB-1500	Cast Iron 4000 lb	Chain - 3/4 / 180 pi	Night	Solaled	140mm	
	CM-16	Starboard R	2.9m Bell	Cast Iron 6000 lb	Chain - 1 1/8 / 60 pi	Night	Solaled	140mm	
	CM-17	Port G	1.8m Bouée	Cast Iron 4000 lb	Chain - 1 1/8 / 60 pi	Night	Solaled	140mm	
	CM-28	Starboard R	2.9m	Cast Iron 6000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
	CM-5	Port G (250lbs)	SB-1500	Cast Iron 3000 lb	Chain - 3/4 / 150 pi	Night	Solaled	140mm	
	CN-2	Starboard R	1.8m Bouée	Cast Iron 4000 lb	Chain - 1 1/8 / 90 pi	Night	Solaled	140mm	
2)	CN-8	Starboard R (250lbs)	SB-1500	Cast Iron 3000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
	CT-11	Port G	SB-98	Cast Iron 2000 lb	Chain - 3/4 / 90 pi	Night	Solaled	140mm	
2)	CT-7	Port G (250lbs)	SB-1500	Cast Iron 4000 lb	Chain - 3/4 / 180 pi	Night	Solaled	140mm	
	CU-2	Starboard R	SB-98	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Tideland	155mm	1
	CU-27	Port G	SB-98	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Tideland	155mm	1
	CU-35	Port G (250lbs)	SB-1500	Cast Iron 2000 lb	Chain - 3/4 / 150 pi	Night	Tideland	155mm	1
	CY-10	Starboard R	1.2 m MOBILIS	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	

			BC-1241						
	CY-9	Port G	1.2 m MOBILIS BC-1241	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
2)	RAT	mi-chenal R and W	2.9m Bell	Cast Iron 6000 lb	Chain - 1 1/8 / 120 pi	Night	Solaled	140mm	
2)	SABLO	mi-chenal R and W	2.9m Bell	Cast Iron 6000 lb	Chain - 1 1/8 / 150 pi	Night	Solaled	140mm	

			· · · · · · · · · · · · · · · · · · ·		I a.		1		
	STAUG	mi-chenal R and W	2.9m	Cast Iron 8000 lb	Chain - 1 1/8 / 180 pi	Night	Solaled	140mm	
1)	BASQ-E	bifurcation de babord R and G	2.9m	Cast Iron 8000 lb	Chain - 1 1/8 / 180 pi	Night	Tideland	155mm	1
1)	BASQ-O	bifurcation de Starboard R and G	2.9m	Cast Iron 8000 lb	Chain - 1 1/8 / 270 pi	Night	Tideland	155mm	1
2)	D-11	Port G	2.9m	Cast Iron 6000 lb	Chain - 1 1/8 / 180 pi	Night	Tideland	155mm	1
1)	D-15	Port G	2.9m	Cast Iron 6000 lb	Chain - 1 1/8 / 90 pi	Night	Tideland	155mm	2
1)	D-20	Starboard R	1.8m Bouée	Cast Iron 8000 lb	Chain - 1 1/8 / 90 pi	Night	Tideland	155mm	1
	D-4	Starboard R	1.8m Bouée	Cast Iron 4000 lb	Chain - 1 1/8 / 180 pi	Night	Tideland	155mm	1
	D-6	Starboard R	2.9m Bell	Cast Iron 8000 lb	Chain - 1 1/8 / 270 pi	Night	Tideland	155mm	1
1)	D-7	Port G	1.8m Bouée	Cast Iron 8000 lb	Chain - 1 1/8 / 180 pi	Night	Tideland	155mm	1
1)	PTCAR(P)	mi-chenal R and B	2.9m Bell	Cast Iron 8000 lb	Chain - 1 1/8 / 180 pi	Night	Tideland	155mm	1
	K-14	Starboard R	2.9m	Cast Iron 8000 lb	Chain - 1 1/8 / 270 pi	Night	Tideland	155mm	1
1)	KA-12	Starboard R	1.8m Bouée	Cast Iron 8000 lb	Chain - 1 1/8 / 90 pi	Night	Tideland	155mm	1
1)	KA-13	Port G	1.8m Bouée	Cast Iron 8000 lb	Chain - 1 1/8 / 90 pi	Night	Tideland	155mm	1
1)2)	KD-14	Starboard R	2.9m Bell	Cast Iron 8000 lb	Chain - 1 1/8 / 360 pi	Night	Tideland	155mm	1
1)	KD-6	Starboard R	1.8m Bouée New Tube	Cast Iron 8000 lb	Chain - 1 1/8 / 90 pi	Night	Tideland	155mm	1
	KD-7	Port G	1.8m Bouée New Tube	Cast Iron 5000 lb	Chain - 1 1/8 / 90 pi	Night	Tideland	155mm	1
	AA-1	Port G (250lbs)	SB-1500	Cast Iron 3500 lb	Chain - 3/4 / 90 pi	Night	Solaled	140mm	
	AB-1	Port G	1.2 m MOBILIS BC-1241	Cast Iron 1500 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
	AF-1	Port G	1.2 m MOBILIS BC-1241	Cast Iron 2000 lb	Chain - 3/4 / 90 pi	Night	Solaled	140mm	
1)	AN-1	Port G	1.2 m	Cast Iron	Chain - 3/4 / 90 pi	Night	Solaled	140mm	

			MODILIC	0000 II-	1		1		
			MOBILIS BC-1241	2000 lb					
1)	AN-3	Port G	1.2 m MOBILIS BC-1241	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
	AN-4	Starboard R	1.2 m MOBILIS BC-1241	Cast Iron 2000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
	AP-2	Starboard R	Jet 5000 Mobilis	Cast Iron 6000 lb	Chain - 1 1/8 / 120 pi	Night	Solaled	140mm	
	BR2	Starboard R	Jet 2500 Mobilis	Cast Iron 6000 lb	Chain - 1 1/8 / 60 pi	Night	Solaled	140mm	
	CLORI	mi-chenal R and W	2.9m	Cast Iron 5000 lb	Chain - 1 1/8 / 90 pi	Night	Solaled	140mm	
	HD-8	Starboard R	1.8m Bouée	Cast Iron	Chain - 1 1/8 / 90 pi	Night	Solaled	140mm	
1)	HD-9	Port G	1.8m Bouée	Cast Iron	Chain - 1 1/8 / 120 pi Chain - 1 1/8 / 120	Night	Solaled	140mm	
2)	MENIER	mi-chenal R and W	2.9m Bell	Cast Iron	pi Chain - 1 1/8 / 120 Chain - 1 1/8 / 180	Night	Solaled	140mm	
	NEWPO	mi-chenal R and W	2.9m Bell	Cast Iron 6000 lb Cast Iron	pi	Night	Solaled	140mm	
	PM-11	Port G (250lbs)	SB-1500	2000 lb Cast Iron	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
		Port G (250lbs)		2000 lb	Chain - 3/4 / 60 pi	Night	Solaled	140mm	
	Espar	HD-9	V						
	Espar	AN-3 (500lbs)	0.7m courte V						
	Espar	AN-1 (250lbs)	0.7m courte V						
	Espar	KD-6	R						
	Espar	KD-14	R						
	Espar	KA-13	V						
	Espar	KA-12	R						
	Espar	PTCAR	RB						
	Espar	D-7	V						
	Espar	D-20	R						
	Espar	D-17	V						
	Espar	D-15	V						
	Espar	BASQ-O	RVR						
	Espar	BASQ-E	VRV						

Caractéristiques

PL4s=5secobs. 3.5sec / Q is = 5,3s obs. 0,7sec.

APPENDIX G

List of buoys equipped with thermographs

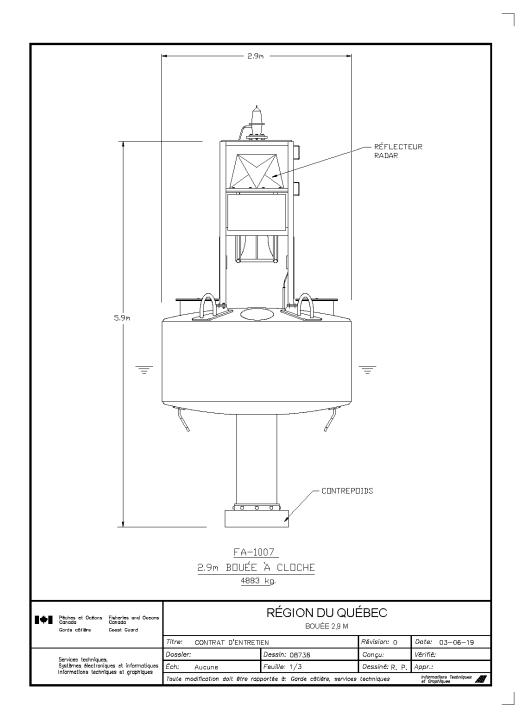
CODE	NOMBRE DE THERMOGRAPHES ET EMPLACEMENT
CT-7	1 THERMOGRAPH
C-64	2 THERMOGRAPHS
CN-8	1 THERMOGRAPH
I ML-1	1 THERMOGRAPH
I ML-2	1 THERMOGRAPH
RAT	1 THERMOGRAPH
SABLO	1 THERMOGRAPH
D-11	2 THERMOGRAPH
KD-14	1 THERMOGRAPH
MENIER	1 THERMOGRAPH

When picking buoys, the Canadian Coast Guard will recover the thermographer to give them to the representative of the Maurice Lamontagne Institute.

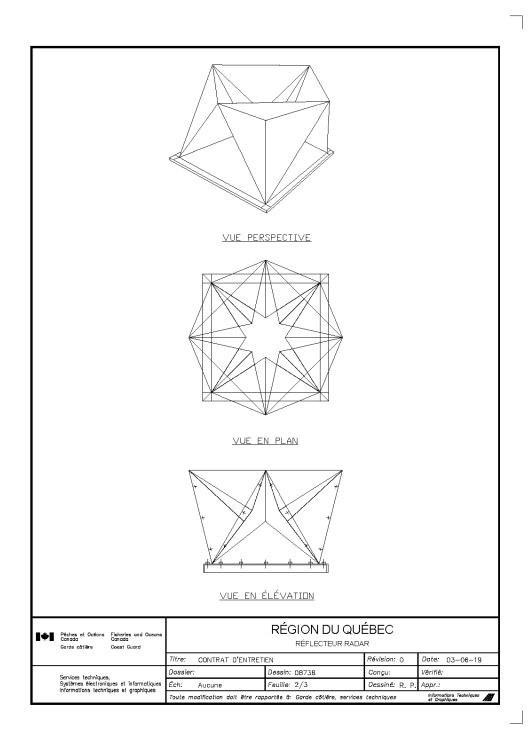
The contractor will repair the anchoring systems of temperature recorders that are damaged due to the request of the responsible for this equipment (Rémi Desmarais 418-775-0645). A separate contract will be done for these repairs.

APPENDIX H

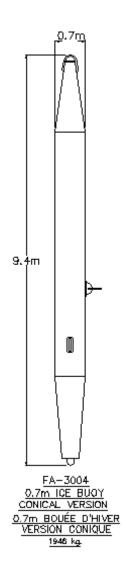
BUOY DRAWINGS TYPES

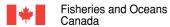


BUOY DRAWINGS TYPES

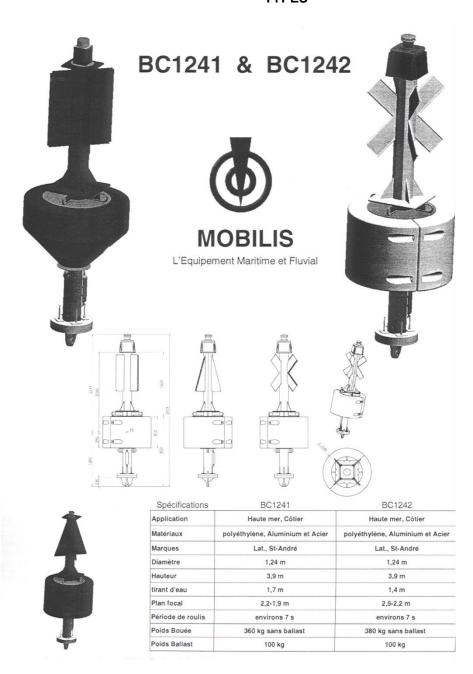


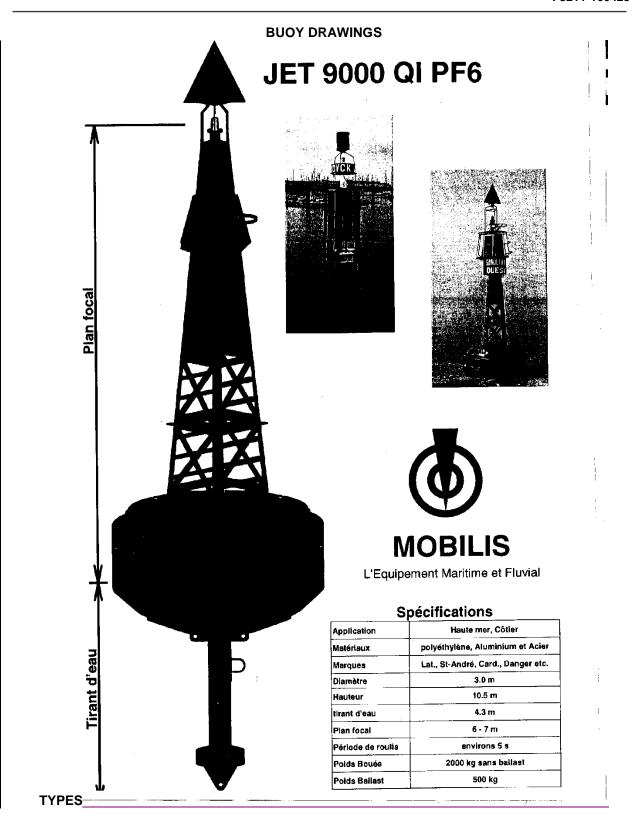
BUOY DRAWINGS TYPES





BUOY DRAWINGS TYPES





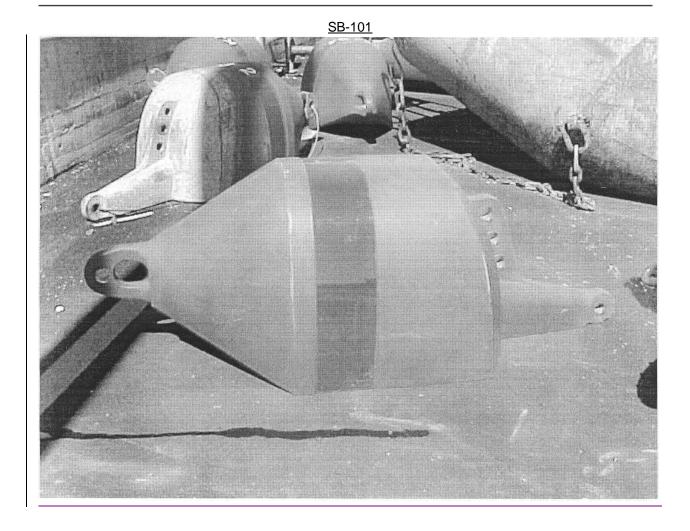
BUOY DRAWINGS TYPES SB-40

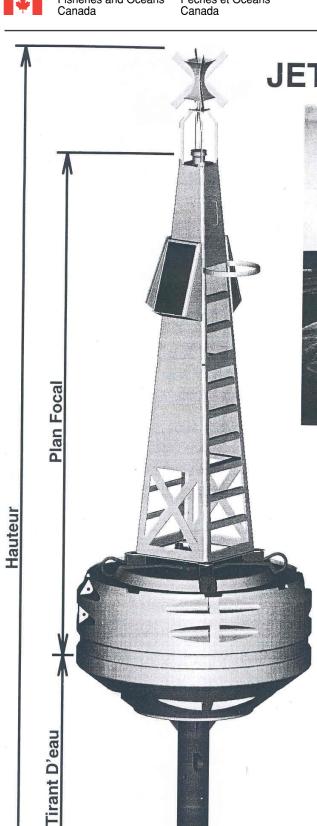
















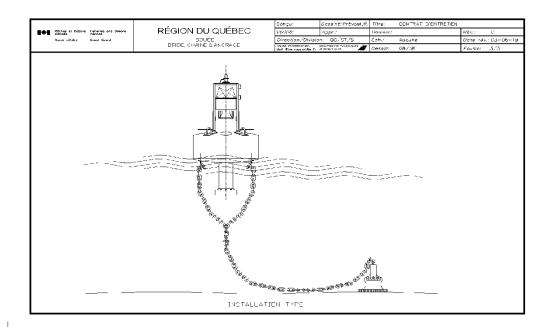




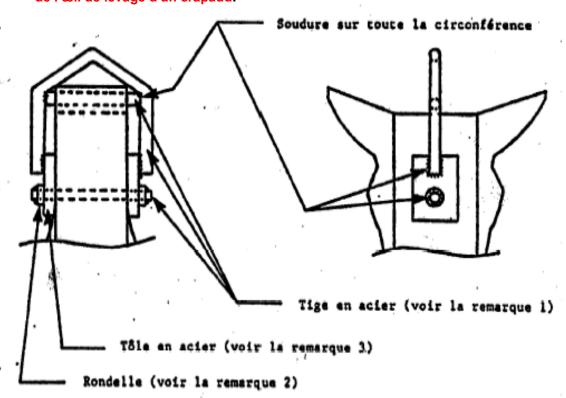
MOBILIS

Equipement Maritime et Fluvial

Spécifications	JET5000 QI PF5	
Application	Haute mer, Côtier	
Matériaux	Polyéthylène, Aluminium et Acie	
Marques	Lat., St-André, Card., Danger etc	
Diamètre	2,4 m	
Hauteur	8,9 m	
Tirant d'eau	2,7 m	
Plan focal	5 m	
Poids Bouée	1500 kg sans ballast	
Poids Ballast	400 kg	
Periode de roulis	environe 4 e	



" Arceau de levage " en remplacement de l'œil de levage d'un crapaud.



Remark 1: The diameter of the steel rod must be at least equal to the initial lifting diameter,

as detailed in APPENDIX C.

Remark 2: The contractor must procure the washers on the market or cut them out of steel

sheets. Their thickness must be of at least three eights (3/8th) that of the steel rod and their diameter must be equal to two (2) times that of that same steel rod.

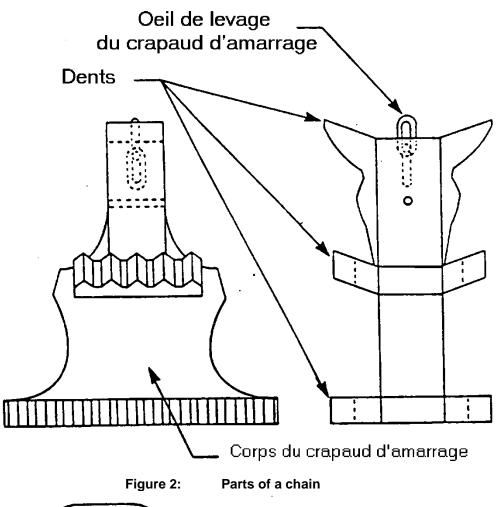
Remark 3: The steel sheets must be cut in a sheet of which the thickness is of at least three

eights (3/8th) the diameter of the steel rod. They must be at least four (4) times

larger and at least six (6) tomes longer than the diameter of the steel rod.

APPENDIX I

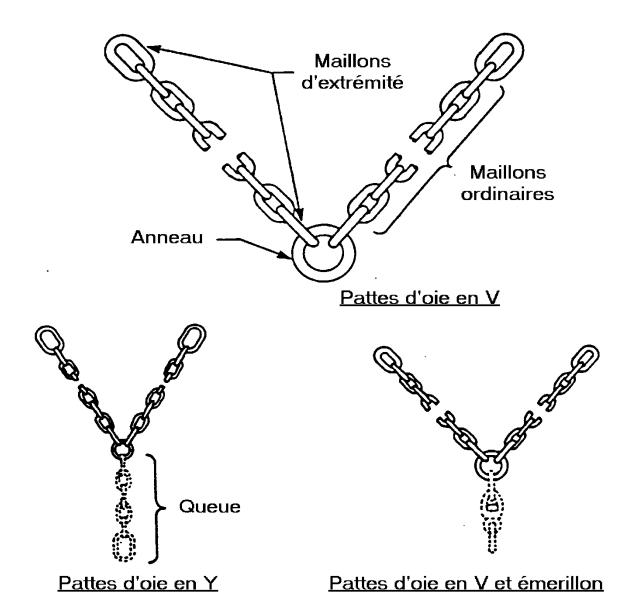
ACCESSORY DRAWINGS



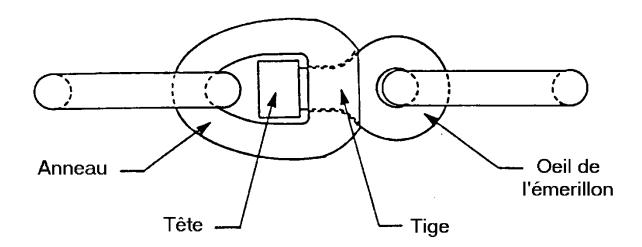
Maillons ordinaires

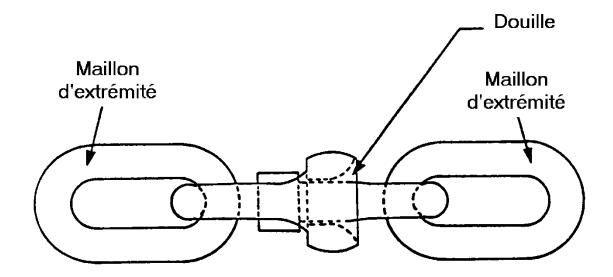
Maillon d'extrémité

ACCESSORY DRAWINGS

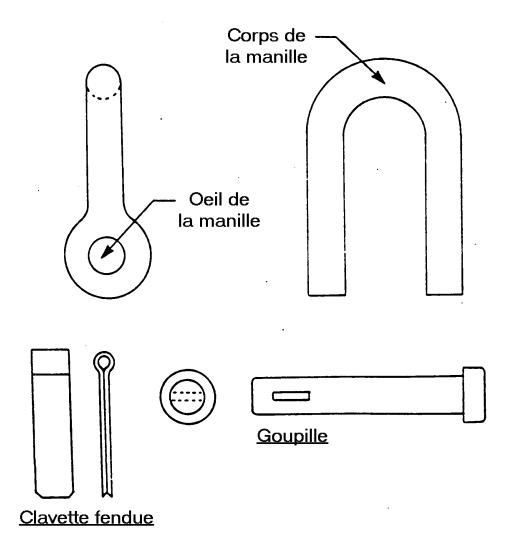


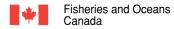
ACCESSORY DRAWINGS





ACCESSORY DRAWINGS





APPENDIX J

BUOY TENDING SHEET

PLANNED MAINTENANCE ☐ UNPLANNED MAINTENANCE ☐

POSITION: SERIAL NO: COLOUR: TYPE:	HULL COUNTERWEIGHT LOWER CYLINDER UPPER HULL HOISTING EYE BRIDLE RING	BRIDLE SWIVEL SHACKLE CHAIN LINK ASSEMBLY LINK END LINK RING	
STRUCTURE	ELECTRICITY	PAINT	
☐ RADAR REFLECTOR ☐ BELL ☐ ANGLE IRON ☐ IDENTIFICATION PLATE ☐ LANTERN PLATE ☐ FOOT	☐ LANTERN ☐ SOLAR COLLECTOR ☐ CONDUIT ☐ WIRING ☐ CONNECTOR ☐ VOLTAGE	☐ SANDING ☐ PRIMER ☐ FINISH ☐ LETTERING	

NOTES	COST			
				PAY /
GAS TEST		LABOUR	MATERIALS	HR
RING TEST	WELDING			
PRESSURE TEST	ELECTRICITY			
	PAINTING			
	OTHERS			
	<u>TOTAL</u>			

SIGNATURE		DATE
WELDING		
ELECTRICI TY		
PAINTING		

APPENDIX K

List of parts provided by the Canadian Coast Guard

List of parts and equipment provided to the Contractor after the equipment inspection mentioned in 3.1 and 4.5 of these specifications.

These parts will be provided when the contract is awarded and on request, and changed parts must be kept and returned to the Canadian Coast Guard if the Canadian Coast Guard representative so requests. The department will transport, at its convenience, the parts required by the contractor

- Entire Carmanah 600/700/800 Lantern series
- Towers
- Bells
- · Radar reflectors
- Shackles
- Swivels
- Latches
- Pins
- Rings
- Chain shackles
- Bridles
- Chains
- Anodes
- Counterweights
- Plate and lettering
- 3M retroreflective tape

Spare parts

The quantity will be determined by the Canadian Coast Guard representative.

NOTE: Equipment provided by the Contractor (as needed and with prior approval from the technical authority) will be paid at the cost of parts + 5%.

ANNEXE « B » PAIEMENT

FEE SCHEDULE FOR SUBMISSION

MAINTENANCE AND STORAGE OF SUMMER AND WINTER BUOYS AND ACCESSORIES ÎLES-DE-LA-MADELEINE SECTOR				
	Unitary Price		Optional year 1	Optional year 2
Types of buoys		Unitary Price Oct 1rst 2017 to Nov 30 2018	Unitary Price Oct 1rst 2018 to Nov 30 2019	
2.9 m	23			
SB-1500	11			
1.8 m	11			
SB-98 Tideland	4			
1.2 m Mobilis	7			
Jet 2500	1			
JET 5000	1			
Summer buoys	58			
Winter buoys	13			
TOTAL:	71			
TC	OTAL ANNÉE 1	, 2 et 3.		

Only the tender with the lowest fixed price for the first year (December 23 2016 to 30 November 2017) will be retained. Costs should include administrative costs and profits, travel, accommodation or any other incidental expenses. The contractor must also meet all other requirements of technical specifications otherwise it could be refused the contract despite the lowest fixed price.

^{*} The number of buoys may vary slightly from year to year.

ANNEXE « C » EVALUATION CRITERIA

PROPOSALS:

The proposal must demonstrate that services similar to those described in the statement of work were provided.

MANDATORY

Proposals will be evaluated according to the detailed mandatory evaluation criteria in this document. The bidder must clearly demonstrate that its proposal meets all the mandatory requirements so that it can move to the next evaluation stage. Proposals that do not meet the mandatory criteria will not be considered.

Submissions will be evaluated based on information provided in the proposal and the statement of the contractor completed.

The tenderer may include the table below and mention in its proposal that it meets the required criteria, while indicating what page or what section of the proposal are the information to ensure that the criteria are met.

No.	Mandatory Criteria	Meets Criteria (√)	Proposition Page Number
M1	Provide a copy of the special permit from the SAAQ (if applicable). The license MUST be provided only if the truck requires.		
M2	Welding work is performed by qualified and certified to steel and aluminum. The contractor must prove certification of its employees or subcontractor selected to the Canadian Coast Guard. (Valid welding certification code W47.1 and CSA W47.2 division 2) Provide copies of certificates		
М3	The bidder must indicate with descriptions of projects that staff are trained on the handling of measuring devices, use of equipment and tools and be able to properly wear the personal protective equipment. Provide the plan and S.S.T. certification cards		

SELECTION METHOD

The selection of the contractor will be based on the lowest bid, provided it meets all the mandatory criteria above.