



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

**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**

**11 Laurier St. / 11, rue Laurier
Place du Portage , Phase III**

Core 0B2 / Noyau 0B2

Gatineau

Québec

K1A 0S5

Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

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

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

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

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

Comments - Commentaires

Title - Sujet Dark Vessel Detection Service Service de détection de vaisseaux obscurs	
Solicitation No. - N° de l'invitation F521A-220646/A	Date 2022-12-12
Client Reference No. - N° de référence du client F521A-220646	
GETS Reference No. - N° de référence de SEAG PW-\$\$QF-120-28881	
File No. - N° de dossier 120qf.F521A-220646	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Standard Time EST on - le 2023-01-25 Heure Normale du l'Est HNE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Johnston, Charlene	Buyer Id - Id de l'acheteur 120qf
Telephone No. - N° de téléphone (873) 469-3859 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

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

Issuing Office - Bureau de distribution

Electronics, Simulators and Defence Systems Div. /Division
des systèmes électroniques et des systèmes de simulation et
de défense

11 Laurier St. / 11, rue Laurier
8C2, Place du Portage

Gatineau

Québec

K1A 0S5

Delivery Required - Livraison exigée See Herein – Voir ci-inclus	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

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F521A-220646
Client Ref. No. - N° de réf. du client
F521A-220646

Amd. No. - N° de la modif.
File No. - N° du dossier
F521A-220646

Buyer ID - Id de l'acheteur
120qf
CCC No./N° CCC - FMS No./N° VME

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PART 1 - GENERAL INFORMATION

1.1 Summary

Fisheries and Oceans Canada (DFO) have a requirement to leverage satellite technology to detect otherwise undetectable "dark" vessels and merge this with other data sources and provide this information to ocean protection authorities to combat IUU activities and protect the ocean ecosystems.

The objective of this RFP is to secure a commercial satellite service to provide a recognized maritime picture of ocean traffic to detect IUU activities. These activities will be shared with DFO, domestic and international partners.

1.2 Security Requirements

There is no security requirement associated with this requirement.

1.3 Statement of Work

The Work to be performed is detailed in Annex "A", Statement of Work.

1.4 Trade Agreements

The Canadian Free Trade Agreement (CFTA) and the World Trade Organization -Agreement on Government Procurement (WTO-GPA) apply to this procurement.

1.5 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, video or in person.

1.6 Canada Post Corporation's (CPC) Connect service

This bid solicitation allows bidders to use the CPC Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information."

1.7 Anticipated migration to an e-Procurement Solution (EPS)

Canada is currently developing an online EPS for faster and more convenient ordering of goods and services. In support of the anticipated transition to this system and how it may impact any resulting Standing Offer that is issued under this solicitation, refer to 7.15 Transition to an e-Procurement Solution (EPS).

The Government of Canada's [press release](#) provides additional information.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<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](#) (2022-03-29) 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:

120 days

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) using epost Connect by the date, time and place indicated in the bid solicitation.

Note: For bids closing at the Bid Receiving Unit in the National Capital Region (NCR) Bidder must contact epost Connect at the email address below to set up an account:

tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open a CPC Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through a CPC Connect message if the bidder is using its own licensing agreement for CPC Connect service.

Offers must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated in the RFP.

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 of British Columbia.

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

- If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The CPC Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

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

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 demonstrate their understanding of the requirements contained in the bid solicitation at Annex "A" Statement of Work and explain how they will meet these requirements.

Bidders should demonstrate their capability in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Financial Evaluation Table, Annex "C".

Pricing must be provided in the Financial Bid Only.

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, Delivered Duty Paid (DDP), Canadian customs duties and excise taxes included.

3.2 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex "D" Electronic Payment Instruments, to identify which ones are accepted.

If Annex "D" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

3.3 Exchange Rate Fluctuation

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.

[C3011T](#) (2013-11-06), Exchange Rate Fluctuation

3.4 SACC Manual Clauses

Section IV: 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 Technical and Financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada and one independent contractor will evaluate the bids.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

Mandatory Technical Criteria are outlined in the Evaluation Plan, Annex "B".

4.1.1.2 Point Rated Technical Criteria

Point Rated Technical Criteria are outlined in the Evaluation Plan, Annex "B"

To be declared responsive, a bid must obtain the required minimum of 60% overall of the points for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 750 total points.

4.1.2 Financial Evaluation

1. The price of the bid will be evaluated as follows:
 - a. Canadian-based bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
 - b. foreign-based bidders must submit firm prices, Canadian customs duties, excise taxes and Applicable Taxes excluded. Canadian customs duties and excise taxes payable by Canada will be added, for evaluation purposes only, to the prices submitted by foreign-based bidders.
2. Unless the bid solicitation specifically requires bids to be submitted in Canadian currency, bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.

3. Although Canada reserves the right to award the Contract either on an FOB plant or FOB destination, Canada requests that bidders provide prices FOB their plant or shipping point and FOB destination. Bids will be assessed on an FOB destination basis.
4. For the purpose of the bid solicitation, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.

4.2 Phased Bid Compliance Process

Canada will use the Phased Bid Compliance Process described below:

4.2.1 Phased Bid Compliance Process

4.2.1.1 General

- (a) Canada is conducting the PBCP described below for this requirement.
- (b) Notwithstanding any review by Canada at Phase I or II of the PBCP, Bidders are and will remain solely responsible for the accuracy, consistency and completeness of their Bids and Canada does not undertake, by reason of this review, any obligations or responsibility for identifying any or all errors or omissions in Bids or in responses by a Bidder to any communication from Canada. THE BIDDER ACKNOWLEDGES THAT THE REVIEWS IN PHASE I AND II OF THIS PBCP ARE PRELIMINARY AND DO NOT PRECLUDE A FINDING IN PHASE III THAT THE BID IS NON-RESPONSIVE, EVEN FOR MANDATORY REQUIREMENTS WHICH WERE SUBJECT TO REVIEW IN PHASE I OR II AND NOTWITHSTANDING THAT THE BID HAD BEEN FOUND RESPONSIVE IN SUCH EARLIER PHASE. CANADA MAY DEEM A BID TO BE NON-RESPONSIVE TO A MANDATORY REQUIREMENT AT ANY PHASE. THE BIDDER ALSO ACKNOWLEDGES THAT ITS RESPONSE TO A NOTICE OR A COMPLIANCE ASSESSMENT REPORT (CAR) (EACH DEFINED BELOW) IN PHASE I OR II MAY NOT BE SUCCESSFUL IN RENDERING ITS BID RESPONSIVE TO THE MANDATORY REQUIREMENTS THAT ARE THE SUBJECT OF THE NOTICE OR CAR, AND MAY RENDER ITS BID NON-RESPONSIVE TO OTHER MANDATORY REQUIREMENTS.

- (c) Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.
- (d) The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2019-03-04) Standard Instructions – Goods or Services – Competitive Requirements nor Canada's right to request or accept any information during the solicitation period or after bid solicitation closing in circumstances where the bid solicitation expressly provides for this right, or in the circumstances described in subsection (c).
- (e) Canada will send any Notice or CAR by any method Canada chooses, in its absolute discretion. The Bidder must submit its response by the method stipulated in the Notice or CAR. Responses are deemed to be received by Canada at the date and time they are delivered to Canada by the method and at the address specified in the Notice or CAR. An email response permitted by the Notice or CAR is deemed received by Canada on the date and time it is received in Canada's email inbox at Canada's email address specified in the Notice or CAR. A Notice or CAR sent by Canada to the Bidder at any address provided by the Bidder in or pursuant to the Bid is deemed received by the Bidder on the date it is sent by Canada. Canada is not responsible for late receipt by Canada of a response, however caused.

4.2.1.2 Phase I: Financial Bid

- (a) After the closing date and time of this bid solicitation, Canada will examine the Bid to determine whether it includes a Financial Bid and whether any Financial Bid includes all information required by the solicitation. Canada's review in Phase I will be limited to identifying whether any information that is required under the bid solicitation to be included in the Financial Bid is missing from the Financial Bid. This review will not assess whether the Financial Bid meets any standard or is responsive to all solicitation requirements.
- (b) Canada's review in Phase I will be performed by officials of the Department of Public Works and Government Services.
- (c) If Canada determines, in its absolute discretion that there is no Financial Bid or that the Financial Bid is missing all of the information required by the bid solicitation to be included in the Financial Bid, then the Bid will be considered non-responsive and will be given no further consideration.
- (d) For Bids other than those described in c), Canada will send a written notice to the Bidder ("Notice") identifying where the Financial Bid is missing information. A Bidder, whose Financial Bid has been found responsive to the requirements that are reviewed at Phase I, will not receive a Notice. Such Bidders shall not be entitled to submit any additional information in respect of their Financial Bid.
- (e) The Bidders who have been sent a Notice shall have the time period specified in the Notice (the "Remedy Period") to remedy the matters identified in the Notice by providing to Canada, in writing, additional information or clarification in response to the Notice. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the Notice.
- (f) In its response to the Notice, the Bidder will be entitled to remedy only that part of its Financial Bid which is identified in the Notice. For instance, where the Notice states that a required line item has been left blank, only the missing information may be added to the Financial Bid, except that, in those instances where the addition of such information will necessarily result in a change to other calculations previously submitted in its Financial Bid, (for example, the calculation to determine a total price), such necessary adjustments shall be

identified by the Bidder and only these adjustments shall be made. All submitted information must comply with the requirements of this solicitation.

- (g) Any other changes to the Financial Bid submitted by the Bidder will be considered to be new information and will be disregarded. There will be no change permitted to any other Section of the Bidder's Bid. Information submitted in accordance with the requirements of this solicitation in response to the Notice will replace, in full, only that part of the original Financial Bid as is permitted above, and will be used for the remainder of the bid evaluation process.
- (h) Canada will determine whether the Financial Bid is responsive to the requirements reviewed at Phase I, considering such additional information or clarification as may have been provided by the Bidder in accordance with this Section. If the Financial Bid is not found responsive for the requirements reviewed at Phase I to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase I to the satisfaction of Canada, will receive a Phase II review.

4.2.1.3 Phase II: Technical Bid

- (a) Canada's review at Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible Criterion. This review will not assess whether the Technical Bid meets any standard or is responsive to all solicitation requirements. Eligible Criteria are all technical criteria that are identified in this solicitation as being subject to the PBCP. Mandatory technical criteria that are not identified in the solicitation as being subject to the PBCP, will not be evaluated until Phase III.
- (b) Canada will send a written notice to the Bidder (Compliance Assessment Report or "CAR") identifying any Eligible Mandatory Criteria that the Bid has failed to meet. A Bidder whose Bid has been found responsive to the requirements that are reviewed at Phase II will receive a CAR that states that its Bid has been found responsive to the requirements reviewed at Phase II. Such Bidder shall not be entitled to submit any response to the CAR.

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- (c) A Bidder shall have the period specified in the CAR (the "Remedy Period") to remedy the failure to meet any Eligible Mandatory Criterion identified in the CAR by providing to Canada in writing additional or different information or clarification in response to the CAR. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the CAR. Solicitation No. - N° de l'invitation Amd. No. - N° de la modif. Buyer ID - Id de l'acheteur F7048-21-0001 120qf Client Ref. No. - N° de réf. du client File No. - N° du dossier CCC No./N° CCC - FMS No./N° VME F7048-21-0001 Page 7 of - de 21
- (d) The Bidder's response must address only the Eligible Mandatory Criteria listed in the CAR as not having been achieved, and must include only such information as is necessary to achieve such compliance. Any additional information provided by the Bidder which is not necessary to achieve such compliance will not be considered by Canada, except that, in those instances where such a response to the Eligible Mandatory Criteria specified in the CAR will necessarily result in a consequential change to other parts of the Bid, the Bidder shall identify such additional changes, provided that its response must not include any change to the Financial Bid.
- (e) The Bidder's response to the CAR should identify in each case the Eligible Mandatory Criterion in the CAR to which it is responding, including identifying in the corresponding section of the original Bid, the wording of the proposed change to that section, and the wording and location in the Bid of any other consequential changes that necessarily result from such change. In respect of any such consequential change, the Bidder must include a rationale explaining why such consequential change is a necessary result of the change proposed to meet the Eligible Mandatory Criterion. It is not up to Canada to revise the Bidder's Bid, and failure of the Bidder to do so in accordance with this subparagraph is at the Bidder's own risk. All submitted information must comply with the requirements of this solicitation.
- (f) Any changes to the Bid submitted by the Bidder other than as permitted in this solicitation, will be considered to be new information and will be disregarded. Information submitted in accordance with the requirements of this solicitation in

response to the CAR will replace, in full, only that part of the original Bid as is permitted in this Section.

- (g) Additional or different information submitted during Phase II permitted by this section will be considered as included in the Bid, but will be considered by Canada in the evaluation of the Bid at Phase II only for the purpose of determining whether the Bid meets the Eligible Mandatory Criteria. It will not be used at any Phase of the evaluation to increase any score that the original Bid would achieve without the benefit of such additional or different information.
- (h) Canada will determine whether the Bid is responsive for the requirements reviewed at Phase II, considering such additional or different information or clarification as may have been provided by the Bidder in accordance with this Section. If the Bid is not found responsive for the requirements reviewed at Phase II to the satisfaction of Canada, then the Bid shall be considered non responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase II to the satisfaction of Canada, will receive a Phase III evaluation.

4.2.1.4 Phase III: Final Evaluation of the Bid

- (a) In Phase III, Canada will complete the evaluation of all Bids found responsive to the requirements reviewed at Phase II. Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) A Bid is non-responsive and will receive no further consideration if it does not meet all mandatory evaluation criteria of the solicitation.

4.3 Basis of Selection

1. To be declared responsive a bid must:
 - a. Comply with all requirements of the bid solicitation and;
 - b. Meet all mandatory technical evaluation criteria and;
 - c. Obtain the required minimum of 50% overall of the points for technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 750 total points.
2. Bids not meeting (a), (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 60 % for the technical merit and 40 % 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/maximum number of points available multiplied by the ratio of 60%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 40 %.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine the 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 contract
8. 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 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).

Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)

		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		115/135	89/135	92/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing Score	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined Rating		83.84	75.56	80.89
Overall Rating		1st	3rd	2nd

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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](#)

website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.1.2 Additional Certifications Required with the Bid

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 property 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 Offeror 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.

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

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

PART 6 - 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

There is no security requirement associated with this requirement.

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 [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

[2010C](#) (2022-01-28), General Conditions - Services (Medium Complexity) apply to and form part of the Contract.

6.4 Period of the Contract

The period of the contract is April 1, 2023 to March 31, 2025.

6.5 Option to Extend the Contract

If the Contract is authorized for use beyond the initial period, the Contractor offers to extend its offer for an additional period, from April 1, 2025 to March 31, 2028 under the same conditions and at the rates or prices specified in the Basis of Payment .

The Contractor will be advised of the decision to extend the Contract for an extended period by the Contracting Authority 60 days before the expiry date of the Contract. An amendment to the contract will be issued by the Contracting Authority.

6.6 Authorities

6.6.1 Contracting Authority

The Contracting Authority for the Contract is:

The Contracting Authority is:

Name:	Charlene Johnston
Title:	Supply Specialist
Branch	Acquisitions Branch Electronics, Munitions and Tactical Systems
Department:	Public Services and Procurement Canada
Address:	11 Laurier Street, PDP, 8C2 Gatineau, Quebec K1A 0S5
Telephone:	873-354-9869
E-mail Address:	Charlene.Johnston@pwgsc.gc.ca

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

6.6.2 Project Authority

The Project Authority for the Contract is:

Name:	
Title:	
Organization:	
Address:	
Telephone:	
Facsimile:	
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.

6.6.3 Contractor's Representative

The Contractor's Representative for the Contract is:

Name:	
Title:	
Organization:	
Address:	
Telephone:	
Facsimile:	

E-mail address:

6.7 Payment

6.7.1 Basis of Payment

6.7.1.1 Baseline Costs

For the Work Described in Annex "A", Statement of Work

In consideration of the Contractor's satisfactory performance of its obligations under this Contract, the Contractor will be paid a firm monthly price in accordance with the Basis of Payment, Annex "B".

For the firm price portion of the Work, 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 Task Authorizations

Canada will purchase pre-paid credits from the service provider and allocating these to the various partner organizations. Prepaid credits will be purchased from the service provider twice (2x) per fiscal year.

6.7.2 Method of Payment

6.7.2.1 Baseline Charges

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

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

6.7.2.2 Prepaid Data Credits

The procurement processes will be front-loaded pre-purchasing credits from the service provider and allocating these to the various partner-organizations. A Mission Manager will be assigned by DFO to manage credits and their distribution. Tasks will be managed thru the use of PWGSC Task Authorization Form # 572 (Annex E).

Canada will pay the Contractor in advance for the Work 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.

6.8 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);

6.9 Invoicing Instructions

The Contractor must submit monthly invoices (Baseline Services) 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 and all maintenance service call reports related to the Work identified in the invoice have been Received by the Technical Authority.

As applicable, each invoice must be supported by:

- a. A copy of the release document and any other documents as specified in the Contract.
- b. A copy of the invoices, receipts, vouchers for all direct expenses, and all travel and living expenses.

Invoices must be distributed as follows:

- a. Invoices must be emailed to the Technical Authority for certification and payment. The Technical Authority is identified under the Section entitled, “Authorities” of the Contract.
- b. One (1) copy of the invoice must be emailed to the Contracting Authority identified under the section entitled “Authorities” of the 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 the Province of British Columbia.

6.11 Call-up Procedures

During active operations the need for tasking satellite resources this data must be provided with the lowest possible latency. This Near-Real Time (NRT) approach allows action to be taken based on the information received.

The procurement processes will be front-loaded pre-purchasing credits from the service provider and allocating these to the various partner-organizations. A Mission Manager will be assigned by DFO to manage credits and their distribution.

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Buyer ID - Id de l'acheteur
120qf
CCC No./N° CCC - FMS No./N° VME

Organizations will work with the Mission Manager and work with the service provider's Order Desk to select the appropriate surveillance resource to meet the desired intelligence outcome. The Order Desk will provide expert advice on the technologies and capabilities available to meet the specific mission.

Overseeing these processes will be a Mission Success Manager. This role will ensure mission success, platform stability, liaise with internal services and sub-contractors and support training and deployment. The Mission Success Manager will also provide support to resolve operational issues including multi-mission collection support; expert advice on mission related questions; maritime domain expertise in remote sensing; training of end users (as required); and participate in joint end-user engagements.

Resources for the Order Desk and Mission Success Manager will be provided by the vendor as part of the DVD Service.

Tasks will be documented on PWGSC Task Authorization form # 572, Annex "E".

6.12 Call-up Instrument

The Work will be authorized or confirmed by the Identified User(s) using the duly completed forms. Callups must be made by the Identified Users' authorized representatives under the Contract and must be for goods or services or combination of goods and services included in the Contract at the prices and in accordance with the terms and conditions specified in the Contract.

See Annex "E", Task Authorization Form PWGSC 572.

6.13 Task Authorized Work

Canada reserve the right to raise additional tasks under this contract.

The Contractor must, upon request, provide a price breakdown for all "Task Work" as described in the Statement of Work, Annex "A".

After receipt of the quotation, the Technical Authority will complete a Task Authorization Form, PWGSC-572 describing the task. The TA will seek financial approval and then forward the signed Task Authorization form to the contractor.

The contractor may not begin any work before receiving the approved Task Authorization form.

Canada shall not be liable for any work performed without a written and approved Task Authorization form.

6.14 Financial Limitation

The total cost to Canada resulting from call-ups against the Contract must not exceed the sum of **\$7,000,000.00 CAD** (Goods and Services Tax or Harmonized Sales Tax included) unless otherwise authorized in writing by the Contracting Authority. The Contractor must not perform any work or services or supply any articles in response to call-ups which would cause the total cost to Canada to exceed the said sum, unless an increase is so authorized.

The Contractor must notify the Contracting Authority as to the adequacy of this sum when 75 percent of this amount has been committed, or 4 months before the expiry date of the Contract, whichever comes first. However, if at any time, the Contractor considers that the said sum may be exceeded, the Contractor must promptly notify the Contracting Authority.

6.15 Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the supplemental general conditions _____ (*insert number, date and title*);
- (c) the general conditions _____ (*insert number, date and title*);
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____.

6.16 Travel and Living Expenses

The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, private vehicle and incidental expenses provided in Appendices B, C and D of the National Joint Council Travel Directive and with the other provisions of the directive referring to "travelers", rather than those referring to "employees".

All travel must have the prior authorization of the Technical Authority.

All payments are subject to government audit.

6.17 Dispute Resolution

The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.

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.

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.

Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

6.18 Insurance – Contractor's Responsibility

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.

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ANNEX "A"
STATEMENT OF WORK
(see attached)

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ANNEX "B"
EVALUATION PLAN and 2 attachments
(See attached)

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ANNEX "C"
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(See attached)

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ANNEX "D"
ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts any of the following Electronic Payment Instrument (s):

- VISA Acquisition Card;
- Master Card Acquisition Card;
- Direct Deposit (Domestic and International)

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File No. - N° du dossier
F521A-220646

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

ANNEX 'E'
TASK AUTHORIZATION FORM PWGSC-572
(See attached)

ANNEX A – STATEMENT OF WORK

Dark Vessel Detection (DVD) Service
Statement of Work
November 2022

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1 Introduction

Illegal, Unreported and Unregulated (IUU) activities can damage ocean ecosystems including the ocean-life within those environments. Overharvesting may impact sustainability: affecting global food security; activities in marine protected areas may reduce biodiversity; and indirectly impact legal fishing activities within Canada where exports are estimated at over \$7B annually¹.

One of the main challenges with IUU activities is the vast territory in which these activities can occur. In the Pacific alone there are 155 million square kilometers of ocean². It is impractical and cost prohibitive to surveille this area without satellite technology.

It is estimated that there are 27 million coastal Indigenous peoples in the world who consume seafood on average 15 times more than non-Indigenous communities due to their cultural ties with the ocean. IUU fishing is adversely affecting the fish stocks of Indigenous peoples around the world and this initiative will aid in combatting the illegal depletion of their stocks and ensuring their continued marine food supply and associated cultural practices.

The Dark Vessel Detection program was established to leverage satellite technology to detect otherwise undetectable “Dark” vessels and correlate with other data sources and provide this information to ocean protection authorities to combat IUU activities and protect the ocean ecosystems we rely on.

This capability will help to support the United Nations Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development³ and will help highlight Canada’s global ocean leadership.

Requirements for the DVD service are listed in sections 5 to 7. Requirements which include the term:

- a. “must” indicates mandatory requirements which must be satisfied; and
- b. “should” are desirable requirements to be performed on a best effort basis and may be considered under change management (see section 8) if the service can be performed reliably but requires additional cost.

In certain instances it is critical for a specific component to satisfy the requirement, requirements are subdivided by necessary components:

- a. “service” – any component of the contractor-provided system or human resources or combination thereof may be used to satisfy the requirement;
- b. “system” – the automated information technology infrastructure which supports the Geospatial Web Application; and
- c. “Order Desk” – the human resources component of the service.

¹ [40732836.pdf \(dfo-mpo.gc.ca\)](#)

² [How big is the Pacific Ocean?: Ocean Exploration Facts: NOAA Office of Ocean Exploration and Research](#)

³ [Goal 14 | Department of Economic and Social Affairs \(un.org\)](#)

2 Glossary and Acronyms

Term	Definition
AIS	Automatic Identification System
AOI	Area of Interest
API	Application Programming Interface
Bunkering	Refueling at sea.
C&P	Conservation and Protection
CCG	Canadian Coast Guard
Credit	A unit of measure that can be purchased at a set rate in Canadian Dollars and exchanged for surge services (such as satellite data or intelligence analysis services).
CSS	Centre for Security Science
DFO	Fisheries and Oceans Canada (Department of Fisheries and Oceans)
DND	Department of National Defence
DRDC	Defence Research and Development Canada
DVD	Dark Vessel Detection
EEZ	Exclusive Economic Zone
Event	When a vessel is identified: in an defined AOI; passing a defined tripwire; its predicted course is headed for an AOI; it becomes a dark vessel; it is exhibiting fishing behaviours; or it is exhibiting transshipment behaviours.
FFA	Forum Fisheries Agency
GAC	Global Affairs Canada
GMT	Greenwich Mean Time
GNSS	Global Navigation Satellite System
GUI	Graphical User Interface
IDEaS	Innovation for Defence Excellence and Security
Instance	A subset of data contextualized by the system to provide relevant and authorized information to a user.
IR	Infrared
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated
JVCFOA	Justice for Victims of Corrupt Foreign Officials Act
MDA	Maritime Domain Awareness
MDA Limited	Company formerly known as MacDonald Dettwiler and Associates.
MPA	Marine Protected Area
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NPAFC	North Pacific Anadromous Fish Commission
NPP	National Polar-orbiting Partnership
NRT	Near-Real Time
RCM	Radarsat Constellation Mission
RF	Radio Frequency
RFMO	Regional Fisheries Management Organization
SAR	Synthetic Aperture RADAR
SEMA	Special Economic Measures Act

Dark Vessel Detection Service – Statement of Work

Spoofing	Spoofing is a tactic in which a cyber criminal disguises malicious communication or activity as something from a trusted source. ⁴
Track	A collection of observations of a vessel representing its movement in space and time.
Transshipment	Loading goods, placing on board or within or upon the same or any other means of transportation. ⁵
Tripwire	A defined geographical line which is triggered when a vessel passes it.
UNA	United Nations Act
VHF	Very High Frequency
VIIRS	Visible Infrared Imaging Radiometer Suite
VMS	Vessel Monitoring System
VOI	Vessel of Interest

⁴ [Spoofing: An introduction - Get Cyber Safe](#)

⁵ [Transshipment Regulations \(justice.gc.ca\)](#)

3 Background

3.1 Origin

At *G7 Charlevoix Blueprint for Healthy Oceans, Seas and Resilient Coastal Communities*, Canada committed to addressing IUU fishing, including building public-private partnerships with technology companies and at-risk countries to deploy innovative platforms, such as DVD, that identify vessels that engage in and support IUU fishing. This commitment was also reinforced in the *2019 G20 Osaka Leaders Declaration*, which further stressed the serious threat that IUU fishing poses to the world's oceans and the importance for countries such as Canada to address and end IUU fishing practices. Canada also contributed to the development of the *2019 APEC Roadmap on Combatting Illegal, Unreported and Unregulated (IUU) Fishing*, which highlights the importance of sharing IUU surveillance tools, implementing cooperative MCS activities between member countries, and enhancing the capacity of developing nations in methodologies and technologies to combat IUU fishing. Most recently, at the June 2021 G7 Summit in Cornwall (UK), Canada further reinforced its international commitment towards addressing IUU fishing in the *G7 2030 Nature Compact*, which recognized the need for member countries such as Canada to support developing countries in combatting IUU fishing activities.

To address these commitments the DVD program was initiated as a joint venture between the DFO, the Department of National Defence (DND), Global Affairs Canada (GAC), and Defence Research and Development Canada's (DRDC) Centre for Security Science (CSS).⁶ The concept was proposed by MDA Limited⁷ under the All-Domain Situational Awareness (ADSA)⁸ program to leverage existing space-based surveillance technologies to detect IUU fishing and assess the capabilities of these technologies.

The program demonstrated operational utility and has strengthened partnerships with other organizations. This contract will transition the DVD program from research and development into an operational capability, extending Canada's capacity to detect and counter illegal, unregulated and unreported activities.

3.1.1 North Pacific Guard

Operation North Pacific Guard is an annual law enforcement operation in the high seas of the North Pacific. Canada collaborates with counterparts from the United States, Korea and Japan to detect prohibited gear (including driftnets), audit records of catch, validate vessel markings and identify the illegal retention of salmon.⁹

3.1.2 Collaboration with FFA

The Pacific Island Forum Fisheries Agency (FFA)¹⁰ is a partnership of nations with a common interest in protecting sustainable tuna fisheries within the South Pacific. Canada contributed the DVD service as a collaboration with the FFA to help combat IUU activities within their region.

⁶ [Government of Canada launches international program to track illegal fishing using satellite technology - Canada.ca](#)

⁷ [MDA](#)

⁸ [All-Domain Situational Awareness \(ADSA\) S&T Program - Canada.ca](#)

⁹ [Canada wraps up Operation North Pacific Guard to combat global illegal fishing - Canada.ca](#)

¹⁰ [Pacific Islands Forum Fisheries Agency \(FFA\) | Strengthening national capacity and regional solidarity for sustainable tuna fisheries](#)

3.1.3 Collaboration with Ecuador

Ecuador has particular international maritime significance given their relationship to the Galápagos islands and the surrounding MPA, which was recently expanded.¹¹ The DVD capability provides identification of VOIs allowing the Ecuadorian Maritime Authority to dispatch planes or ships to investigate and intercept illegal fishers.¹²

3.2 Timeline

The existing service ends on 1 April 2023.

3.3 Lessons Learned

During the initial operations the following lessons were observed:

3.3.1 Dependency on other assets

Developing countries typically have some naval or coast guard capacity but are challenged by large EEZs and a lack of information and intelligence to direct these resources efficiently.

To successfully prosecute IUU activities it is important to have another asset (plane or vessel) available to action the intelligence produced by the system. Coordination between the fisheries authority and the service is key to ensure that the satellites are tasked in a manner consistent with available resources to investigate and / or take action.

The DVD capability will not only allow for more efficient tasking of available aircraft or ships, but will also reduce the environmental impact of deploying these resources.

3.3.2 Social / Environmental Licensing

Approximately 97% of workers in the global fisheries industry live in developing countries, of these people almost 50% are women.¹³ Seafood accounts for approximately 70% of protein intake in coastal countries and is a key factor in global food security.¹⁴ Strengthening sustainable fisheries will improve global food security while reducing global financial and gender inequity.

Development of a monitoring capacity in vulnerable marine regions, including developing countries and the high seas will reduce the likelihood of damaging activities occurring in these sensitive ecological areas, strengthen the rule of law at sea.

Canada would like to explore working with vendors as partners under a social or environmental licensing approach, allowing the sharing of data with less restrictive distribution rights which would support sharing to developing countries, Non-Government Organizations and academia. This approach would enhance the ability for vendor data to promote understanding and protections from illegal fishing.

4 Service Concept of Operations

The DVD capability will be a data and intelligence service that works with developing countries and other organizations to provide MDA. Given the various technological infrastructure of the supported organizations, the DVD Service must provide both a geographical web-Graphical User Interface (GUI)

¹¹ [Galapagos marine reserve: Conservationists hail expansion - BBC News](#)

¹² [Canada launching \\$7M project to track international 'dark vessels' at sea | CBC News](#)

¹³ [Hidden Harvest - The Global Contribution of Capture Fisheries - the World Bank](#)

¹⁴ [ADVANCING GENDER IN THE ENVIRONMENT: GENDER IN FISHERIES—A SEA OF OPPORTUNITIES \(iucn.org\)](#)

and Application Programming Interface (API). The web-GUI provides the ability to leverage the service without additional infrastructure, where the API will provide more sophisticated organizations to fuse the data with their existing information technology infrastructure.



Figure 1 - Marine Security Operations Centre¹⁵

It is anticipated that the baseline service will be provided to DFO, select domestic partners as well as up to five international partners (countries or entities representing a regional authority). These may have broad geographical distribution such as the Indo-Pacific Region, South Pacific Islands, South America or Africa. Some information provided into the service will contain distribution restrictions, for example VMS data which requires data protection due to privacy.¹⁶ The service will only distribute data to the appropriate organization(s).

To successfully identify IUU VOIs there are two methods which the service must provide:

4.1 Historical Evidence

To support investigations and provide evidence for prosecution, data must be provided to investigators in a format that supports the human's ability to identify suspicious behaviour and draw conclusions from the information presented.

4.2 Near-Real Time Tasking

During active operations, such as North Pacific Guard, or when the supported-organization identifies the need for tasking satellite resources this data must be provided with the lowest possible latency. This Near-Real Time (NRT) approach allows action to be taken based on the information received.

¹⁵ [Transport Canada defends Canada's waterways and coastlines](#)

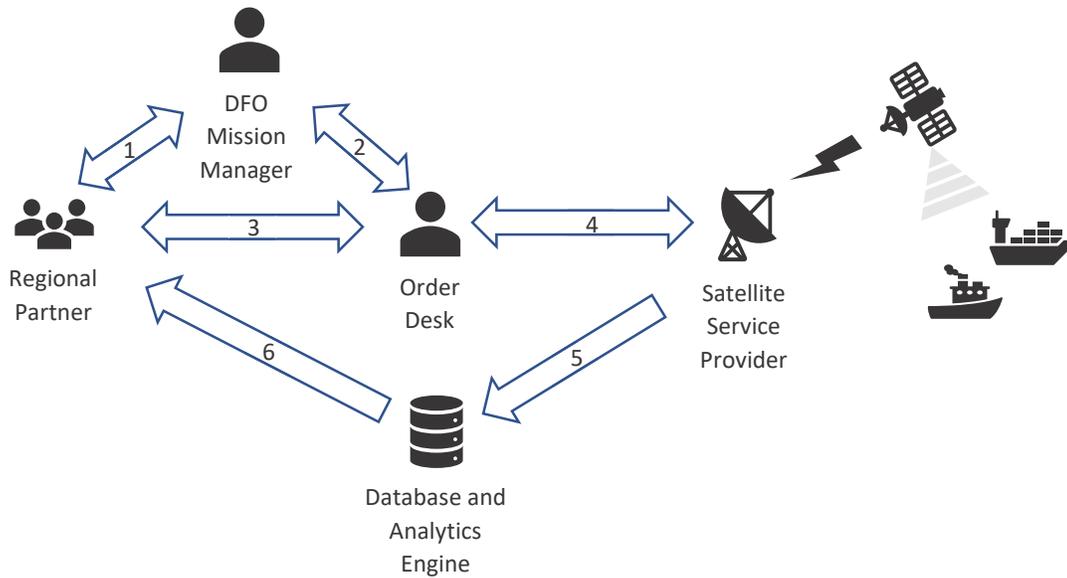
¹⁶ [National Vessel Monitoring Service \(dfo-mpo.gc.ca\)](#)

Dark Vessel Detection Service – Statement of Work

Government procurement controls will inevitably add latency if inserted into the ordering process. To avoid these delays, procurement processes will be front-loaded pre-purchasing credits from the service provider and allocating these to the various partner-organizations.

A Mission Manager will be assigned by DFO to manage credits and their distribution.

Organizations will work with the Mission Manager and work with the service provider’s Order Desk to select the appropriate surveillance resource to meet the desired intelligence outcome. The Order Desk will provide expert advice on the technologies and capabilities available to meet the specific mission.



Interaction	Description
1	The Mission Manager works with the Regional Partner to define tasking approach.
2	The Mission Manager works with the Order Desk to support the Regional Partner and manage the service.
3	Regional Partners coordinate with the Order Desk to plan satellite surveillance resources.
4	The Order Desk works with Satellite Service Providers to task satellite resources.
5	The Satellite Service Provider provides resulting data to the DVD service for analytics and processing.
6	Resulting information is provided to the Regional Partner via web-interface or API.

Figure 2 - DVD Service Interactions

Overseeing these processes will be a Mission Success Manager. This role will ensure mission success, platform stability, liaise with internal services and sub-contractors and support training and deployment. The Mission Success Manager will also provide support to resolve operational issues including multi-mission collection support; expert advice on mission related questions; maritime domain expertise in remote sensing; training of end users (as required); and participate in joint end-user engagements.

Resources for the Order Desk and Mission Success Manager will be provided by the vendor as part of the DVD Service.

4.3 Baseline Service

The baseline service will provide access to historical data collected, analytics on that data as well as new data from the following information sources:

- a. AIS;
- b. Visible Infrared Imaging Radiometer Suite (VIIRS);¹⁷
- c. Weather data; and
- d. VMS (if provided by Canada or international partners).

Baseline service requirements are defined in section 6 as well as all Common service requirements defined in section 5.

4.4 Surge Services

Surge services will provide NRT tasking as described in section 4.2. Credits for data will be pre-purchased, a list of potential satellite services a brief description of the capability and a price list (in credits) will allow decision makers to select best-value for achieving the desired surveillance effect.

Surge Service requirements are defined in section 7; Common Service requirements defined in section 5 also apply to this data.

5 Common Service Requirements

The requirements in this section apply to both the Baseline and Surge Services. These requirements will provide the common service infrastructure to support data management and analytics from baseline and surge data sources.

5.1 Management

This section outlines tasks required to manage the service.

5.1.1 Monthly Management Meetings

The service provider **must** arrange monthly management meetings with the Order Desk, DFO Mission Manager and procurement personnel to discuss service management issues and track service delivery and credit consumption.

5.1.2 Management Reports

At least 2 days prior to the management meeting, the service provider **must** provide a monthly report on the following:

- a. Service Statistics including:
 - i. Time, duration and cause of any overall DVD service disruptions;
 - ii. Time and duration of any service disruptions of the baseline data feeds (see section 6.2);
 - iii. Surge tasks executed during the period, grouped by Satellite Service Provider and product type;

¹⁷ <https://earthdata.nasa.gov/earth-observation-data/near-real-time/download-nrt-data/viirs-nrt>

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- b. Credit consumption:
 - i. Cost of satellite tasks performed during the period;
 - ii. Organizational allocation from which the credits were drawn; and
 - iii. Remaining credits total and grouped by organizational allocation.
- c. Status of any ongoing operations;
- d. Status of any planned or completed service changes (change management for the service is described in section 8).

5.1.3 Ad-Hoc Service Delivery Meetings

The service provider **must** arrange service delivery meetings with the Order Desk, DFO Mission Manager and Regional Partners at the request of the DFO Mission Manager. These meetings will discuss service planning and delivery requirements.

5.2 Data Analytics

This section outlines the types of analysis to be performed on various input data sources.

5.2.1 AIS

Automatic Identification System (AIS) receives self-reported vessel information.

The service **must** support all mandatory requirements listed in this section with data from Spire **or** OrbComm.

The service **should** support requirements listed in this section for Spire, Orbcomm and other space-based and terrestrial AIS sources.

5.2.1.1 AIS Detection

The service **must** detect ships from space-based AIS.

5.2.1.2 AIS Rendezvous

The service **must** detect and provide alerts when vessels meet.

The service **must** limit inadvertent rendezvous reporting in areas with congested traffic.

5.2.1.3 AIS Interruption

The service **should** detect and provide alerts when vessels turn off their AIS transponder and signals are interrupted.

5.2.1.4 AIS Spoofing

The service **must** detect reported AIS position locations that do not match other observed characteristics and report on the suspected spoofing.

5.2.1.5 Zone Alerts

The service **must** detect and provide alerts when vessels enter into a user-provided geographical zone (example MPA or EEZ). The zone can be specified via either kml, shapefile, or manually marking it on the Map User Interface (see section 5.4 for user interface requirements).

5.2.2 Space-based SAR

Space-based Synthetic Aperture RADAR (SAR) actively illuminates VOI targets using on-board transmitters.

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The service **must** support all mandatory requirements listed in this section with data from RADARSAT-2 and RCM.

The service **should** support requirements listed in this section for RADARSAT-2, RCM, Sentinel-1, ICEYE and other space-based SAR sources.

5.2.2.1 *Ship Detection*

The service **must** detect ships from space-based SAR data.

5.2.2.2 *Oil Detection*

The service **should** detect oil spills from space-based SAR data.

5.2.2.3 *Image Chips*

When a vessel is selected in the GUI, the service **must** provide small images (or image chips) of ship detections from space-based SAR data.

5.2.2.4 *Velocity Estimation*

The service **must** estimate vessel velocity from space-based SAR data.¹⁸

5.2.2.5 *Vessel Classification*

The service **must** classify vessels¹⁹ from space-based SAR data into the following classes:

- a. Tanker;
- b. Cargo;
- c. Fishing;
- d. Other; or
- e. Unknown (example: not enough information in cases where resolution is too coarse).

5.2.3 Space-based Optical

Optical imagery uses light from the sun to make earth observations.

The service **must** support all mandatory requirements listed in this section for Maxar Constellation and Blacksky.

The service **should** support requirements listed in this section for Maxar Constellation, Blacksky, Satellogic, Planet Labs, Airbus and other space-based optical sources.

5.2.3.1 *Optical Ship Detection*

The service **must** detect ships from space-based optical imagery.

5.2.3.2 *Optical Images*

The service **must** provide images of ships from space-based optical imagery.

Optical imagery **should** be managed in order to conserve network and system resources.

5.2.4 Infrared

Infrared (IR) satellites leverage infrared light to make earth observations.

¹⁸ Subject to limitations of resolution and beam mode constraints.

¹⁹ Ibid.

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The service **must** support all mandatory requirements in this section for infrared imagery collected by the National Oceanic and Atmospheric Administration (NOAA) Visible Infrared Imaging Radiometric Suite (VIIRS) satellites including NOAA-20 / Joint Polar Satellite System and Suomi National Polar-orbiting Partnership (NPP).

5.2.4.1 *VIIRS Ship Detection*

The service **must** detect ships from VIIRS data.

5.2.5 RF Spectrum Analytics

Spectrum-based RF analytics uses signals from electronic emitters to estimate position and Radio Frequency (RF) signatures to identify specific emitters.

5.2.5.1 *RF Fingerprinting*

The service **should** identify vessels based on RF signatures in the following frequency bands:

- a. Very High Frequency (VHF);
- b. L-Band;
- c. X-Band; and
- d. S-Band.

5.2.5.2 *GNSS Interference*

The service **should** detect and geo-locate signals that may disrupt the use of the Global Navigation Satellite System (GNSS).

5.2.5.3 *Position Estimation*

The service **must** geo-locate vessels based on electronic emissions and provide confidence or expected error information related to the estimate for the following satellite service providers: HawkEye 360; UnseenLabs or KLEOS.²⁰

5.2.6 Other Data Sources

The service **should** ingest other data sources, for example ship-based radar harvesting.

5.2.7 Multi-sensor Data Aggregation

This section outlines requirements for fusing multiple data sources to present a coherent MDA picture.

The system **must** aggregate²¹ self-reported (AIS and/or VMS) data with any other detection source (self-reported or observed) to present an understandable MDA picture.

5.2.7.1 *Reported and Dark Rendezvous*

The system **should** identify when self-reported and dark (detected) vessels meet.²²

5.2.7.2 *Dark Multi-Track Detection Filter*

The system **must** have a toggle which filters to show only dark vessels that have been detected by more than one source (example SAR, IR and/or optical).

²⁰ Subject to mission operational readiness.

²¹ Subject to the confidence parameters defined in the aggregation algorithm.

²² 'meet' is defined as being as stationary in close proximity or travelling in the same direction in close proximity for a prolonged period of time.

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5.2.7.3 *Aggregated Data Confidence Level*

The system **should** aggregate ship detection information and present the level of confidence that the two data points represent the same source vessel.

5.2.8 *Trip Wires*

The system **must** define geographical boundaries which, when crossed by a vessel, will trigger an alert.

5.2.9 *Port Monitoring*

The service **must** provide high resolution imagery of vessels in specified ports on request.²³

5.3 *Intelligence Support*

This section outlines requirements for intelligence support to be provided by the service.

5.3.1 *Anomalous Behaviour*

This section outlines requirements for predicting and tracking anomalous behaviours.

5.3.1.1 *Track History*

The system **must** provide the position history of vessels.

5.3.1.2 *Track Prediction*

The system **must** provide the predicted future position of vessels.

5.3.1.3 *Traffic Patterns*

The service **should** analyze traffic patterns to support determination of anomalous behaviours.

5.3.1.4 *Violation History*

The service **should** track violations associated with an identified vessel of interest.

5.3.1.5 *Behaviour Classification*

The system **should** classify behaviour of vessel movement including predicting the type of fishing the vessel is engaged in.

5.3.1.6 *IUU Lists*

The system **must** ingest lists of IUU vessel lists from the following sources:

- a. Trygg Mat Tracking [IUU vessel list - https://www.tm-tracking.org/combined-iuu-vessel-list](https://www.tm-tracking.org/combined-iuu-vessel-list); and
- b. DFO IUU Vessel Lists – <https://www.dfo-mpo.gc.ca/international/mcs-iuu-vesl-eng.htm>.²⁴

5.3.1.7 *RFMO Licensed Lists*

The system **must** ingest lists of licensed vessels from RFMOs from the following sources:

- a. North Pacific Fisheries Commission – <https://www.npfc.int/compliance/vessels>;
- b. Western and Central Pacific Fisheries Commission - <https://www.wcpfc.int/record-fishing-vessel-database>; and

²³ The capability to deliver high-resolution data does not need to be resident in the Geospatial Web Application.

²⁴ Subject to data availability in common formats (including csv or xlsx).

- c. South Pacific Regional Fisheries Management Organisation - <https://www.sprfmo.org/web/public/vessel>.

5.3.1.8 *RFMO Images*

When a vessel is selected in the GUI, the system **should** display vessel images from RFMO license lists when available.

5.3.1.9 *Maritime Interest (MI) Lists*

The system **must** provide tools for input and management of a list of maritime items of interest (for example VOIs).

5.4 Interfaces

This section outlines requirements for human and machine interfaces for the service.

5.4.1 Web Interface

This section outlines requirements for the web-based interface (the Map User Interface) for the service.

The system **must** be accessible from Google Chrome or Microsoft Edge web browsers.

5.4.1.1 *Mapping AOIs*

The system **must** allow a user to define a Areas of Interest (AOIs) on the map.

5.4.1.2 *Instance Default AOI*

The system **must** allow definition of a default Area of Interest (AOI) for each instance where the default focus of the map interface will zoom to that (“home”) area.

5.4.1.3 *Operations Area*

The system **must** allow definition of multiple operations areas to manage event subscriptions.

5.4.1.4 *Event Subscriptions*

The system **must** alert a user to events based on their associated operations.

5.4.1.5 *Information Layers*

The system **must** be able to turn on and off information layers (not including the basemap layer).

5.4.1.6 *Basemap Layers*

The system **must** allow a user to select a basemap in either vector, raster (optical image) or bathymetry.

5.4.1.7 *Measurement tools*

The system **must** provide tools within the Geospatial Web Application to make measurements of distances between locations and estimate the size of vessels.

5.4.1.8 *Multi-monitor support*

The system **should** allow user to open in two web browsers on different screens and updated map information is provided simultaneously to both screens.

5.4.1.9 *Sources*

The system **must** deliver ship detected data from baseline and surge services via the same interface and allow a user to select which source(s) of data to display. For example, only AIS data; AIS data + RCM + VMS; or all data sources.

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5.4.1.10 Search

The system **must** provide the ability to search for a specific VOI using the name or MMSI of the vessel, when available.

5.4.1.11 Temporal Filtering

The system **must** filter vessels detected from any data source during a configurable date range and display them in the web interface.

5.4.1.12 Vessel Filtering based on Self-Reported Information

The system **must** filter vessels based on the following AIS parameters: Name; IMO; MMSI; Type; Callsign; Length; Heading; Speed; Course and when available display them in the web interface.

5.4.1.13 Vessel Filtering based on Detected Information

The system **must** filter vessels based on the following detected (via SAR, IR, EO or RF) parameters (when available): Provider; Length; Heading; Sensor; Beam Mode (for SAR detections); Speed; Vessel Classification; RF Emission Type (for RF detections); IR Detection Strength (for IR detections); Correlation confidence; Detection confidence and display them in the web interface.

5.4.1.14 Vessel Filtering based on Fishing Behaviour

The system **must** filter vessels based on the probability they are fishing.

5.4.1.15 Display Key Vessel Information

The system **must** provide a pop-out display when a vessel is selected providing key data on a detected vessel. This display has been commonly referred to as 'hockey cards' displaying key statistics related to the vessel detection including (when the data is available):

- a. Corporate registry data;
- b. Vessel photos;
- c. Image chips;
- d. RF parameters (error ellipse parameters and signal band) for RF detected vessels;
- e. Position (latitude and longitude);
- f. Velocity;
- g. Time the position was reported or detected;
- h. Source(s) of the position report or detection;
- i. RFMO license data; and
- j. Fishing probability.

5.4.1.16 Display Detailed Vessel Information

The system **must** provide vessel-specific controls from the hockey card to allow a user to:

- a. toggle the presentation of future track prediction;
- b. toggle the historical track information; and
- c. present a vessel information page with aggregated details from all sources of information on that vessel.

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5.4.1.17 *Vessel Information Page*

The system **must** present a detailed vessel information page²⁵ which provides:

- a. information provided in section 5.4.1.15;
- b. filterable and searchable list of events the vessel has exhibited;
- c. previous detections;
- d. previous self-reports; and
- e. any other available information on the vessel.

5.4.1.18 *Custom Information*

The system **must** receive, store and display user-provided information about a vessel.

5.4.1.19 *Track Relationship Comparison*

The system **must** allow up to 10 VOIs to be selected and display the track of the selected VOIs for comparison.

5.4.1.20 *Track Length Configuration*

The system **must** allow configuration of the length of period defining the track.

5.4.1.21 *History Visualization*

The system **must** provide the user with the ability to visualize the history of a vessel's movements by providing a slider where the time period displayed can be manipulated.

5.4.1.22 *Refresh*

The system **must** update the presented view when new information is available that matches the criteria within the particular view being displayed.

5.4.1.23 *View Sharing*

The system **must** allow a user to share the current view of the map user interface with other users of the same instance, allowing the receiving user to replicate the that view on their web browser.

5.4.1.24 *Accessibility*

The web interface of the system **should** comply with a web accessibility standard such as WCAG 2.0.²⁶

5.4.2 Application Programming Interface

The system **should** provide an Application Programming Interface (API) to provide ship detections to other systems.

5.4.3 Export Tracks

This section outlines requirements for export of data from the service.

5.4.3.1 *Export to .kml*

The system **must** export selected detection / track and polygon information to .kml format.²⁷

²⁵ When data is available.

²⁶ [WCAG 2 Overview | Web Accessibility Initiative \(WAI\) | W3C](#)

²⁷ Subject to related license agreements.

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5.4.3.2 *Export to .csv*

The system **should** export selected detection / track data to .csv format.

5.5 Security

This section outlines security requirements for the service.

5.5.1 Access Control

The system **must** provide a means to limit access to authorized individuals.

5.5.2 Instances

The system **must** allow the designation of instances of the service, where each instance defines what data a user within that instance may access.

5.5.3 Audit and Accountability

The system **must** maintain logs and monitor for unintended information disclosure.

5.5.4 Encryption

Data in transit and at rest **should** be encrypted using Government of Canada approved encryption as per ITSP 40.111.²⁸

5.5.5 Data Residency

The central repository of data stored by the system **must** reside in Canada.²⁹

5.5.6 Privacy

Data within the system **must** be controlled to prevent unintentional release to individuals or groups who should not have access to the data.

5.5.7 Data Destruction

VMS data **must** be deleted from the system on the request of Canada.

5.5.8 API Definition

Should Canada choose to connect systems using the API described in paragraph 5.4.2, the service provider **must** identify the functions, ports, protocols and other services required for the use the service.

6 Baseline Service Requirements

This section outlines the baseline service requirements.

6.1 Consumers

The service **must** provide access to Government of Canada users as well as up to 5 international partner organizations.

6.2 Baseline Data Feeds

The system **must** provide the data from the following sources:

²⁸ [Cryptographic Algorithms for UNCLASSIFIED, PROTECTED A, and PROTECTED B Information \(ITSP.40.111\) - Canadian Centre for Cyber Security](#)

²⁹ Data repositories for specific instances may reside outside of Canada in order to support specific use-cases, subject to the agreement of the Technical Authority and the service provider.

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- a. Space-based AIS (Spire or Orbcomm);
- b. VIIRS;
- c. VMS (if provided by government); and
- d. Weather data.

6.3 Ordering Support

The Order Desk **must** support the DFO Mission Manager in planning operations for surge services and provide updates to the DFO Mission Manager and any DFO Mission Manager-defined stakeholders on:

- a. ordering deadlines;
- b. when orders are placed;
- c. when orders are confirmed; and
- d. issues encountered during the ordering, acquisition or delivery processes.

6.4 Ordering Hours

The Order Desk **must** be staffed and available via a designated phone number and email address 20 hours a day 7 days per week including 9:00 am to 5:00 pm office hours for all Canadian timezones.

6.5 Mission Success Manager

The Mission Success Manager **must** be responsive within 1 business day and have at least 10 years of experience in satellite mission and maritime domain awareness operations.

6.6 System Availability

The system **must** available 24 hours per day 7 days per week. Maximum allowable outages are 4 hours per month.

7 Surge Service Requirements

7.1 Consumers

The service **must** provide access to Government of Canada users as well as up to 5 international partner organizations.

7.2 Distribution

The service **must** return analysis results from surge service requests to the requesting organization and to Canada.

7.3 Ordering Price List

The service **must** provide a price list including the cost in credits per surge service request.

7.4 Ordering Capability Summary

Upon request, the service **must** provide a summary of the capabilities for each of the sources available for ordering including:

- a. Revisit period within a specified AOI;
- b. Available Resolutions and associated costs;
- c. Timelines for ordering;

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- d. Possible downlink locations³⁰;
- e. Timelines for data delivery; and
- f. Availability of ship detection processing.

7.5 Sources

The service **should** provide the data from a variety of sensors:

- a. Space-based SAR;
- b. Space-based Optical;
- c. Space-based RF; and
- d. Other sources (Non-Governmental Organizations (NGOs), RFMOs etc).

7.6 Mandatory Surge Sources

When requested by Canada and available from the Satellite Service Provider, the service **must** provide data³¹ from:

- a. Space-based Optical:
 - i. Maxar Constellation; **and**
 - ii. Blacksky.
- b. Space-based RF:
 - i. HawkEye 360;
 - ii. UnseenLabs; **or**
 - iii. KLEOS.
- c. Space-based SAR:
 - i. RADARSAT-2; **and**
 - ii. RCM.

7.7 Desirable Surge Sources

When requested by Canada and available from the Satellite Service Provider, the service **should** provide data³² from other Satellite Service Providers.

7.8 RCM

Canada owns the SAR / AIS satellite constellation RCM, this section outlines requirements for the service to support leveraging these assets.

7.8.1 RCM Ordering

The Order Desk **must** support the DFO Mission Manager in planning and ordering RCM data.

³⁰ If available.

³¹ Subject to mission operational readiness.

³² Subject to mission operational readiness.

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7.8.2 RCM Data Delivery

The service **must** receive data from RCM. This data may be delivered from the Canadian Space Agency (CSA)³³, Natural Resources Canada (NRCan)³⁴ or DND through the Polar Epsilon 2 system.³⁵

7.8.3 RCM Ship Detection

The service **must** be capable of detecting ships from RCM data.

7.8.4 RCM Ship Detection Timeline

The service **must** be capable of displaying ship detection reports from RCM data within 30 minutes from downlink.

7.9 Intelligence Analysis

This section outlines requirements for intelligence analysis to be provided by the service.

7.9.1 Image Analysis

The service **should** provide unclassified imagery exploitation reports on request³⁶.

7.9.2 Network Analysis

The service **should** provide network analysis³⁷ associated with VOIs.

7.10 Training

Training **must** be available in-person, at the start of an operation and on request thereafter (anticipated quarterly), and through individual computer-based format. This training must include how to operate the service and fundamental principles of space-based surveillance.

7.11 Travel

On request, the service provider **must** travel to provide on-site support and/or training.

8 Change Management

Changes to the service will be managed through a formal change management process conducted at the monthly management meetings. Changes to the service may be proposed by either Canada or the service provider. Depending on the complexity of the proposed change and the cost required to investigate, Canada may elect to conduct an investigation at Canada's cost before making a decision.

For changes to the service proposed by the vendor which do not impact delivery of requirements in sections 5 to 7, the vendor may proceed without Canada's approval.

In all other cases the DFO Mission Manager will be the decision authority over whether a change may proceed.

³³ [Access to RCM data | Canadian Space Agency \(asc-csa.gc.ca\)](https://asc-csa.gc.ca)

³⁴ [NRCan's Role in the RADARSAT Constellation Mission](#)

³⁵ [Space capabilities | Royal Canadian Air Force \(forces.gc.ca\)](https://forces.gc.ca)

³⁶ Intelligence analysis must be performed by a qualified equivalent to [US Army MOS 35G](#) or [Canadian Forces Imagery Analyst](#).

³⁷ [Intelligence Social Network Analysis \(ISNA\) NATO](#)

In cases where a change will impact the contract, the DFO Mission Manager will engage the appropriate procurement / contracting authority to perform the required changes to the contract.

9 Task Authorized Work

Canada reserve the right to raise additional tasks under this contract. The requirements for raising, estimating, approving and executing task authorizations are provided in the contract terms and conditions.

Potential task authorizations may be initiated (but are not limited to):

- a. Additional functionality (including support of additional languages);
- b. Additional data sources;
- c. Additional services (e.g. human intelligence (HUMINT) analysis); and / or
- d. Providing the service to additional partners.

10 Glossary and Acronyms

Term	Definition
AIS	Automatic Identification System
AOI	Area of Interest
API	Application Programming Interface
Bunkering	Refueling at sea.
C&P	Conservation and Protection
CCG	Canadian Coast Guard
Credit	A unit of measure that can be purchased at a set rate in Canadian Dollars and exchanged for surge services (such as satellite data or intelligence analysis services).
CSS	Centre for Security Science
DFO	Fisheries and Oceans Canada (Department of Fisheries and Oceans)
DND	Department of National Defence
DRDC	Defence Research and Development Canada
DVD	Dark Vessel Detection
EEZ	Exclusive Economic Zone
Event	When a vessel is identified: in an defined AOI; passing a defined tripwire; its predicted course is headed for an AOI; it becomes a dark vessel; it is exhibiting fishing behaviours; or it is exhibiting transshipment behaviours.
FFA	Forum Fisheries Agency
GAC	Global Affairs Canada
GMT	Greenwich Mean Time
GNSS	Global Navigation Satellite System
GUI	Graphical User Interface
IDEaS	Innovation for Defence Excellence and Security
Instance	A subset of data contextualized by the system to provide relevant and authorized information to a user.
IR	Infrared
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated
JVCFOA	Justice for Victims of Corrupt Foreign Officials Act
MDA	Maritime Domain Awareness
MDA Limited	Company formerly known as MacDonald Dettwiler and Associates.
MPA	Marine Protected Area
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NPAFC	North Pacific Anadromous Fish Commission
NPP	National Polar-orbiting Partnership
NRT	Near-Real Time
RCM	Radarsat Constellation Mission
RF	Radio Frequency
RFMO	Regional Fisheries Management Organization
SAR	Synthetic Aperture RADAR
SEMA	Special Economic Measures Act

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Spoofing	Spoofing is a tactic in which a cyber criminal disguises malicious communication or activity as something from a trusted source. ³⁸
Track	A collection of observations of a vessel representing its movement in space and time.
Transshipment	Loading goods, placing on board or within or upon the same or any other means of transportation. ³⁹
Tripwire	A defined geographical line which is triggered when a vessel passes it.
UNA	United Nations Act
VHF	Very High Frequency
VIIRS	Visible Infrared Imaging Radiometer Suite
VMS	Vessel Monitoring System
VOI	Vessel of Interest

³⁸ [Spoofing: An introduction - Get Cyber Safe](#)

³⁹ [Transshipment Regulations \(justice.gc.ca\)](#)

ANNEX ‘B’ – EVALUATION PLAN

TECHNICAL EVALUATION

MANDATORY CRITERIA

#	REQUIREMENT	MET	NOT MET	JUSTIFICATION
M1	The vendor must demonstrate a minimum of five (5) years of experience in providing satellite-based maritime domain awareness to a NATO ¹ , G7 ² or Commonwealth ³ government client, including: <ul style="list-style-type: none"> a. contract number; b. name of the organization; and c. contact details for a person at client organization familiar with the contract. 			
M2	The vendor must provide contract details of an existing service agreement for space-based AIS data with either Spire or Orbcomm.			
M3	The vendor must provide details of existing service agreements for space-based optical imagery with the following providers: <ul style="list-style-type: none"> a. Maxar Constellation; and b. Blacksky. 			
M4	The vendor must provide details of existing service agreements with one of the following space-based RF satellite service providers: <ul style="list-style-type: none"> a. HawkEye 360; b. UnseenLabs; or c. KLEOS. 			
M5	The vendor must provide details of existing service agreements for space-based Synthetic Aperture Radar from the following providers: <ul style="list-style-type: none"> a. RADARSAT-2; and b. RCM. 			
M6	The vendor must provide at least four (4) trial accounts to the proposed service.			

¹ [Canada and the North Atlantic Treaty Organization \(international.gc.ca\)](http://international.gc.ca)

² [Canada and the G7 \(international.gc.ca\)](http://international.gc.ca)

³ [Member countries | Commonwealth \(thecommonwealth.org\)](http://thecommonwealth.org)

ANNEX B – EVALUATION PLAN

M7	The vendor must provide a brief description of the ship detection and track aggregation algorithms used.			
M8	The vendor must provide a description of system security which meets the requirements in section 5.5 of the Statement of Work.			
M9	The vendor must certify to meeting the requirements listed in the Statement of Work.			
M10	The vendor must provide the following information and agree to conduct of the Qualification Test (as detailed in Attachment 2 to Annex B): <ul style="list-style-type: none"> a. contact name and street address of the individual responsible for conduct of the test; and b. the web address, user name and credentials to access a secure File Transfer Protocol (FTP) server where Canada can deliver the test datasets. 			

RATED CRITERIA

Instructions for Rated Criteria R1:

See Attachment 1 to Annex B – User Test Protocol for details on how Rated Criteria R1 will be assessed.

Instructions for Rated Criteria R2 to R5:

See Attachment 2 to Annex B – Qualification Test Protocol for details on how Rated Criteria R2 to R5 will be assessed.

#	REQUIREMENT	SCORING GUIDELINES	MAX POINTS	SCORE	JUSTIFICATION
From the trial accounts provided in M4:					
R1	Web interface usability	If any of the procedures cannot be completed, the score will be recorded as zero (0); or If all procedures are completed successfully 200 points will be awarded, less 20 points for each challenge experienced while completing any of the procedures.	200		
Using the Government Furnished Information (GFI) provided:					

ANNEX B – EVALUATION PLAN

R2	SAR Ship Detection	Perform ship detection on the provided SAR Image, points will be awarded per the result (%) of the qualification test multiplied by 100.	100		
R3	Optical Ship Detection	Perform ship detection on the provided Optical Image, points will be awarded per the result (%) of the qualification test multiplied by 100.	100		
R4	VIIRS Ship Detection	Perform ship detection on the provided VIIRS Image, points will be awarded per the result (%) of the qualification test multiplied by 100.	100		
R5	Multi-sensor Data Aggregation	Perform aggregation on two data sets, points will be awarded per the result (%) of the qualification test multiplied by 100.	100		
R6	AIS Spoofing	<p>Detect AIS spoofing:</p> <ul style="list-style-type: none"> - bidder does not describe or demonstrate ability to detect spoofing = 0 points - bidder describes and demonstrates ability to detect spoofing = 25 points - bidder describes and demonstrates ability to detect spoofing including estimated position from AIS data = 50 points 	50		

ANNEX B – EVALUATION PLAN

R7	RF Recognition	<p>Recognize specific vessels using electromagnetic signatures:</p> <ul style="list-style-type: none"> - bidder does not describe or demonstrate ability to identify specific vessels using electromagnetic signatures = 0 points; or - bidder describes and demonstrates ability to identify specific vessels using electromagnetic signatures = 100 points. 	100		
	TOTAL	<p>Maximum points – 750 Minimum points required (60%) – 450</p>			

FINANCIAL EVALUATION

Financial bid

Pricing: Bidders must submit their financial bid in accordance with the Financial Evaluation Table at Annex C. The total amount of Applicable Taxes must be shown separately. Bidders must provide:

- a. a single, firm, all-inclusive annual rate in Canadian dollars for the Baseline services as described in section 6 of the Statement of Work; and
- b. a pricelist in firm, all-inclusive credits (where one (1) credit equals one (1) Canadian Dollar) for any services offered to meet the Surge Service Requirements described in section 7 of the Statement of Work.

Vendors to provide the following information for the Price List:

Product Name	Unit	Sensor Type (Optical / SAR / RF)	Frequency Band / Spectrum	Resolution in cm (if applicable)	Area Covered (in km ²)	Revisit period (hours)	Price (CAD)
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ANNEX B – EVALUATION PLAN

The Price List will be used to assess Bidders against seven (7) pre-defined scenarios. The product which meets the specific measure at the lowest cost for the each scenario which observes the point at Latitude 8°52' South, Longitude 171°55' East between the first (1st) and third (3rd) of April 2023 will be multiplied by the Product Multiplier to create the Surge Scenario Cost for that scenario. The Surge Scenario Cost will be added to the results from the other scenarios to result in the Total Surge Evaluation Cost.

Scenario #	Scenario	Measure	Specific Measure	Product Multiplier
1	Wide Area SAR	Area Covered	500 km ² (or better) area covered	728 (scenes)
2	High Resolution SAR	Resolution	5 m (or better) resolution	104 (scenes)
3	Radio Frequency	Area covered daily	1,000,000 km ² (or better) area covered or better daily	6 (months)
4	High Resolution Optical	Resolution	30 cm (or better) resolution	50 (products)
5	Medium Resolution Optical	Resolution	1 m (or better) resolution	70 (products)
6	Training Services	Day	Days of training	15 (days)
7	Intelligence Analysis Services	Hour	Hour of intelligence analysis	40 (hours)

The Total Surge Evaluation Cost will be added to Average Annual Baseline Cost to create the Total Evaluation Cost.

The Total Evaluation Cost will be used to evaluate the financial bids.

Annex C - Financial Evaluation Table

BASELINE COST	OPTION YEARS					Average Annual Baseline Cost
	Apr 1, 2023 to March 31, 2024	Apr 1, 2024 to March 31, 2025	Apr 1, 2025 to March 31, 2026	Apr 1, 2026 to March 31, 2027	Apr 1, 2027 to March 31, 2028	

Scenario #	Scenario	Measure	Specific Measure	Product (Per Price List)	Product Cost	Unit of Measure	Product Multiplier	Total Cost
1	Wide Area SAR	Area Covered	500 km ² (or better) area covered			Scene	728 (scenes)	
2	High Resolution SAR	Resolution	5 m (or better) resolution			Scene	104 (scenes)	
3	Radio Frequency	Area covered daily	1,000,000 km ² (or better) area covered or better daily			Month	6 (months)	
4	High Resolution Optical	Resolution	30 cm (or better) resolution			Image	70 (images)	
5	Medium Resolution Optical	Resolution	1 m (or better) resolution			Image	50 (images)	
6	Training Services	Day	Days of training			Day	15 (days)	
7	Intelligence Analysis Services	Hour	Hour of intelligence analysis			Hour	40 (hours)	

Total Surge Evaluation Cost (sum of Surge Scenario Costs)	
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PRICES IN CANADIAN FUNDS, APPLICABLE TAXES EXTRA

Total Evaluation Cost (Total Surge Evaluation Cost + Average Annual Baseline Cost)	
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ATTACHMENT 1 to ANNEX B USER TEST PROTOCOL

1. User Test Purpose

1.1 This Test Protocol is designed to allow Canada to measure the useability of the proposed Dark Vessel Detection Service.

2. Test Approach

2.1 This Test Protocol is designed to allow Canada to measure the useability of the proposed Dark Vessel Detection Service.

2.2 A representative designated by the individual identified by the vendor in evaluation criteria M10 may observe and/or guide the conduct of the user test. If the vendor wishes to participate in the user test the test will be coordinated through the Contracting Authority identified on page 1 of this solicitation and will be scheduled within 2 weeks of bid close or the test will be conducted without vendor representation.

2.3 It is recommended that the vendor identify a suitable dataset to prove the test procedures and supporting material and in-person guidance (paragraph 2.2 above) to support the user test. Evaluators provided by Canada are expected to have no experience with the system being tested and will default to 'not observed' if a procedure cannot be executed with reasonable effort.

3 Test Procedure

3.1 Using the provided Trial Accounts and any additional information the vendor may wish to provide, the evaluation team will perform the following actions:

3.1.1 Log in to the service;

3.1.2 Discover a vessel identified using AIS data;

3.1.3 Discover a vessel suspected of spoofing AIS data;

3.1.4 Discover a vessel identified using SAR data;

3.1.5 Select the vessel to inspect:

a. the image chip of the ship detection;

b. velocity; and

c. classification.

3.1.6 Discover a vessel identified using Optical data;

3.1.7 Discover a vessel identified using Infrared data;

3.1.8 Discover a vessel identified using RF data;

3.1.9 Discover a vessel with aggregate data from more than one sensor source;

- 3.1.10 Toggle track history for the vessel;
- 3.1.11 Inspect the 'Hockey Card' to identify corporate registry data and RFMO license data;
- 3.1.12 Inspect the Vessel Information Page to identify previous detections;
- 3.1.13 Export the selected track to .kml format; and
- 3.1.14 Export the selected track to .csv format.

3. Test Result Scoring

- 3.1.** Any issues encountered during the conduct of the test procedures will be logged.
- 3.2.** Results will be scored against the following criteria:
 - a.** If any of the procedures cannot be completed, the score will be recorded as zero (0);
or
 - b.** If all procedures are completed successfully 200 points will be awarded, less 20 points for each challenge experienced while completing any of the procedures.
- 3.3.** Scores will be inserted into ANNEX B - Evaluation Criteria, Rated Criteria R1.

ATTACHMENT 2 to ANNEX B QUALIFICATION TEST PROTOCOL

1. Qualification Test Purpose

- 1.1 This Test Protocol is designed to allow Canada to measure the ability of the Dark Vessel Detection Service provider to detect ships and correlate ship detections.
- 1.2 The purpose of this test is for the Respondent to demonstrate that they presently have capabilities will meet the DVD Operational Requirement.

2. Correspondence and Test Logistics

- 2.1 To ensure the integrity of the competitive response process, all communications regarding **Attachment “1”** – Qualification Test Protocol must be directed only to the Contracting Authority identified on page 1 of this solicitation.
- 2.2 Canada will coordinate the test with the individual named in Mandatory Criteria M10.
- 2.3 The Respondent must confirm with the Contracting Authority that their respective test datasets have been received in their entirety without corruption.
- 2.4 The Respondent will have 48 hours from when test datasets are uploaded to complete the test.
- 2.5 The Respondent shall deliver the test results through the PSPC Bid Receiving Unit.
- 2.6 All results shall clearly indicate their respective Dataset Identifier as described in Section 4.1.
- 2.7 Any test results submitted after the 48 time period described in paragraph 2.4 will be considered a failure to comply with this test.

3. Test Datasets

- 3.1 Canada will provide datasets for each of the tests being performed. Details are related to these datasets can be found in the next section.

4. Qualification Test Protocol

- 4.1 Five (5) distinct and unique datasets shall be provided by Canada to the Respondent.

Test Case	Dataset Identifiers	Evaluation Criteria
R2SAR	DVD-001	R2
R3Optical	DVD-002	R3
R4VIIRS	DVD-003	R4
R5Aggregate	DVD-004 and DVD-005	R5

4.2 Datasets:

- 4.2.1 DVD-001 will include a product from a SAR source;

- 4.2.2 DVD-002 will include a product from an Optical source;
 - 4.2.3 DVD-003 will include a product from an Infrared source; and
 - 4.2.4 DVD-004 and DVD-005 will include two decimated AIS datasets with timestamp and position data.
- 4.3 The Respondent shall process the datasets using their system.
- 4.3.1 Results for Test Cases R2SAR, R3Optical and R4VIIRS (Dataset Identifiers DVD-001 to DVD-003) shall be provided in .csv format with at least:
 - 4.3.1.1 Column 1 - Dataset Identifier;
 - 4.3.1.2 Column 2 - Latitude;
 - 4.3.1.3 Column 3 – Longitude;
 - 4.3.1.4 Column 4 - Calculated confidence (%) that the detection represents an actual vessel; and
 - 4.3.1.5 Column 5 - Respondent's assessment whether the calculated confidence represents a real vessel: 'Yes' when the vendor believes there is sufficient confidence that the detection is legitimate.
 - 4.3.2 For test case R5Aggregate the Respondent will use their correlation algorithm(s) to compare datasets DVD-004 and DVD-005 and create a list of those detections that are likely the same vessel. The Respondent must generate a .csv file of paired rows from the two datasets with the following columns:
 - 4.3.2.1 Column 1 - Dataset Identifier DVD-004 Latitude;
 - 4.3.2.2 Column 2 - Dataset Identifier DVD-004 Longitude;
 - 4.3.2.3 Column 3 - Dataset Identifier DVD-004 Collection Time;
 - 4.3.2.4 Column 4 - Dataset Identifier DVD-005 Latitude;
 - 4.3.2.5 Column 5 - Dataset Identifier DVD-005 Longitude;
 - 4.3.2.6 Column 6 - Dataset Identifier DVD-005 Collection Time;
 - 4.3.2.7 Column 7 - Calculated confidence that the two vessels represent the same vessel; and
 - 4.3.2.8 Column 8 - Respondent's assessment whether the paired rows should be considered the same vessel: 'Yes' when the two collection events represent the same vessel and 'No' for those that do not represent the same vessel.

5. Test Result Validation

5.1 Test Cases R2SAR, R3Optical and R4VIIRS - Upon receipt of the test results from the Respondent, Canada shall compare the results against a pre-defined baseline list of detections (hereafter referred to as '*ground truth*'). During this comparison:

5.1.1. Detections matching the '*ground truth*' will be added to the count of '*valid ship detections*';

5.1.2. Detections not matching the '*ground truth*' will be visually inspected on the corresponding dataset image and will be determined to be:

- a. Unlikely to be a positive detection; or
- b. Possible positive detection;

5.1.3. The 'possible' detections will be added to the count of '*valid ship detections*' and the detection will be added to the '*ground truth*' list. When new detections are added to the '*ground truth*' list the addition will be applied to previously conducted assessments. If a previous assessment included the ship detection the count for that test will be updated to add it to the count of '*valid ship detections*' for the corresponding Respondent; and

5.1.4. Canada shall divide the count of *valid ship detections* by the *total number of ship detections* from the Respondent's submission to determine the '*false alarm rate*' (%). Then the *valid ship detections* from the Respondent's submission will be divided by the count of detections in the *ground truth* to determine the '*detection rate*'. The '*false alarm rate*' will be multiplied by the '*detection rate*' to determine the '*Result*' for that particular test case. *Results* will be rounded to the nearest whole percentage (e.g. 92.499% will reflect 92% whereas 92.5% will reflect 93%).

$\frac{\text{valid ship detections}}{\text{total number of ship detections}} = \text{false alarm rate}$
$\frac{\text{valid ship detections}}{\text{count of detections in ground truth}} = \text{detection rate}$
$\text{false alarm rate} \times \text{detection rate} = \text{result}$

5.2. Test Case R5Aggregate - Upon receipt of the test results from the Respondent, Canada shall compare the results against a pre-defined baseline list of correlations (hereafter referred to as '*correlation ground truth*'). The rows with 'Yes' in Column 8 will be compared against the '*correlation ground truth*'. Each association that matches a known correct correlation will be added to the count of '*correct correlations*'. The number of '*correct correlations*' will be divided by the count of 'Yes' in Column 8 to create '*percentage correct*' (%). The number of '*correct correlations*' will then be divided by the total count of known correct correlations in the '*correlation ground truth*' to create '*percent complete*' (%). Lastly, '*percentage correct*' will be multiplied by '*percent complete*' to establish the R5Aggregate '*Result*'. The R5Aggregate *Result* will be rounded to the nearest whole percentage (e.g. 92.499% will reflect 92% whereas 92.5% will reflect 93%).

$$\frac{\text{correct associations}}{\text{Count of 'Yes' in column 8}} = \text{percentage correct}$$
$$\frac{\text{correct associations}}{\text{count of detections in correlation ground truth}} = \text{percentage complete}$$
$$\text{percentage correct} \times \text{percentage complete} = \text{result}$$

6. Test Result Scoring

- 6.1. Results (%) will be inserted into their ANNEX B - Evaluation Criteria, Rated Criteria R2 to R5 scoring guidelines and multiplied by their corresponding point rating to return the score for the respective rated requirement.

Task Authorization Autorisation de tâche

Instruction for completing the form PWGSC - TPSGC 572 - Task Authorization
(Use form DND 626 for contracts for the Department of National Defence)

Instruction pour compléter le formulaire PWGSC - TPSGC 572 - Autorisation de tâche
(Utiliser le formulaire DND 626 pour les contrats pour le ministère de la Défense)

Contract Number

Enter the PWGSC contract number.

Numéro du contrat

Inscrire le numéro du contrat de TPSGC.

Contractor's Name and Address

Enter the applicable information

Nom et adresse de l'entrepreneur

Inscrire les informations pertinentes

Security Requirements

Enter the applicable requirements

Exigences relatives à la sécurité

Inscrire les exigences pertinentes

Total estimated cost of Task (Applicable taxes extra)

Enter the amount

Coût total estimatif de la tâche (Taxes applicables en sus)

Inscrire le montant

For revision only

Aux fins de révision seulement

TA Revision Number

Enter the revision number to the task, if applicable.

Numéro de la révision de l'AT

Inscrire le numéro de révision de la tâche, s'il y a lieu.

Total Estimated Cost of Task (Applicable taxes extra) before the revision

Enter the amount of the task indicated in the authorized TA or, if the task was previously revised, in the last TA revision.

Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision

Inscrire le montant de la tâche indiquée dans l'AT autorisée ou, si la tâche a été révisée précédemment, dans la dernière révision de l'AT.

Increase or Decrease (Applicable taxes extra), as applicable

As applicable, enter the amount of the increase or decrease to the Total Estimated Cost of Task (Applicable taxes extra) before the revision.

Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu

S'il y a lieu, inscrire le montant de l'augmentation ou de la réduction du Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision.

1. Required Work: Complete sections A, B, C, and D, as required.

1. Travaux requis : Remplir les sections A, B, C et D, au besoin.

A. Task Description of the Work required:

A. Description de tâche des travaux requis :

Complete the following paragraphs, if applicable.
Paragraph (a) applies only if there is a revision to an authorized task.

Remplir les alinéas suivants, s'il y a lieu : L'alinéa (a) s'applique seulement s'il y a révision à une tâche autorisée.

(a) Reason for revision of TA, if applicable:
Include the reason for the revision; i.e. revised activities; delivery/completion dates; revised costs. Revisions to TAs must be in accordance with the conditions of the contract. See Supply Manual 3.35.1.50 or paragraph 6 of the Guide to Preparing and Administering Task Authorizations.

(a) Motif de la révision de l'AT, s'il y a lieu : Inclure le motif de la révision c.-à.-d., les activités révisées, les dates de livraison ou d'achèvement, les coûts révisés. Les révisions apportées aux AT doivent respecter les conditions du contrat. Voir l'article 3.35.1.50 du Guide des approvisionnements ou l'alinéa 6 du Guide sur la préparation et l'administration des autorisations de tâches.

(b) Details of the activities to be performed (include as an attachment, if applicable)

(b) Détails des activités à exécuter (joindre comme annexe, s'il y a lieu).

(c) Description of the deliverables to be submitted (include as an attachment, if applicable).

(c) Description des produits à livrer (joindre comme annexe, s'il y a lieu).

(d) Completion dates for the major activities and/or submission dates for the deliverables (include as an attachment, if applicable).

(d) Les dates d'achèvement des activités principales et (ou) les dates de livraison des produits (joindre comme annexe, s'il y a lieu).

B. Basis of Payment:

Insert the basis of payment or bases of payment that form part of the contract that are applicable to the task description of the work; e.g. firm lot price, limitation of expenditure, firm unit price

C. Cost of Task:**Insert Option 1 or 2:****Option 1:**

Total estimated cost of Task (Applicable taxes extra): Insert the applicable cost elements for the task determined in accordance with the contract basis of payment; e.g. Labour categories and rates, level of effort, Travel and living expenses, and other direct costs.

Option 2:

Total cost of Task (Applicable taxes extra): Insert the firm unit price in accordance with the contract basis of payment and the total estimated cost of the task.

D. Method of Payment

Insert the method(s) of payment determined in accordance with the contract that are applicable to the task; i.e. single payment, multiple payments, progress payments or milestone payments. For milestone payments, include a schedule of milestones.

B. Base de paiement :

Insérer la base ou les bases de paiement qui font partie du contrat qui sont applicables à la description du travail à exécuter : p. ex., prix de lot ferme, limitation des dépenses et prix unitaire ferme.

C. Coût de la tâche :**Insérer l'option 1 ou 2****Option 1 :**

Coût total estimatif de la tâche (Taxes applicables en sus) Insérer les éléments applicables du coût de la tâche établies conformément à la base de paiement du contrat. p. ex., les catégories de main d'œuvre, le niveau d'effort, les frais de déplacement et de séjour et autres coûts directs.

Option 2 :

Coût total de la tâche (Taxes applicables en sus) : Insérer le prix unitaire ferme conformément à la base de paiement du contrat et le coût estimatif de la tâche.

D. Méthode de paiement

Insérer la ou les méthode(s) de paiement établit conformément au contrat et qui sont applicable(s) à la tâche; c.-à.-d., paiement unique, paiements multiples, paiements progressifs ou paiements d'étape. Pour ces derniers, joindre un calendrier des étapes.

2. Authorization(s):

The client and/or PWGSC must authorize the task by signing the Task Authorization in accordance with the conditions of the contract. The applicable signatures and the date of the signatures is subject to the TA limits set in the contract. When the estimate of cost exceeds the client Task Authorization's limits, the task must be referred to PWGSC.

3. Contractor's Signature

The individual authorized to sign on behalf of the Contractor must sign and date the TA authorized by the client and/or PWGSC and provide the signed original and a copy as detailed in the contract.

2. Autorisation(s) :

Le client et (ou) TPSGC doivent autoriser la tâche en signant l'autorisation de tâche conformément aux conditions du contrat. Les signatures et la date des signatures appropriées sont assujetties aux limites d'autorisation de tâche établies dans le contrat . Lorsque l'estimation du coût dépasse les limites d'autorisation de tâches du client, la tâche doit être renvoyée à TPSGC.

3. Signature de l'entrepreneur

La personne autorisée à signer au nom de l'entrepreneur doit signer et dater l'AT, autorisée par le client et (ou) TPSGC et soumettre l'original signé de l'autorisation et une copie tel que décrit au contrat.



Task Authorization Autorisation de tâche

Contract Number - Numéro du contrat

Contractor's Name and Address - Nom et l'adresse de l'entrepreneur	Task Authorization (TA) No. - N° de l'autorisation de tâche (AT)
	Title of the task, if applicable - Titre de la tâche, s'il y a lieu
	Total Estimated Cost of Task (Applicable taxes extra) Coût total estimatif de la tâche (Taxes applicables en sus) \$

Security Requirements: This task includes security requirements
Exigences relatives à la sécurité : Cette tâche comprend des exigences relatives à la sécurité

No - Non Yes - Oui If YES, refer to the Security Requirements Checklist (SRCL) included in the Contract
Si OUI, voir la Liste de vérification des exigences relative à la sécurité (LVERS) dans le contrat

For Revision only - Aux fins de révision seulement

TA Revision Number, if applicable Numéro de révision de l'AT, s'il y a lieu	Total Estimated Cost of Task (Applicable taxes extra) before the revision Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision \$	Increase or Decrease (Applicable taxes extra), as applicable Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu \$
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Start of the Work for a TA : Work cannot commence until a TA has been authorized in accordance with the conditions of the contract.

Début des travaux pour l'AT : Les travaux ne peuvent pas commencer avant que l'AT soit autorisée conformément au contrat.

1. Required Work: - Travaux requis :

A. Task Description of the Work required - Description de tâche des travaux requis	See Attached - Ci-joint <input type="checkbox"/>
B. Basis of Payment - Base de paiement	See Attached - Ci-joint <input type="checkbox"/>
C. Cost of Task - Coût de la tâche	See Attached - Ci-joint <input type="checkbox"/>
D. Method of Payment - Méthode de paiement	See Attached - Ci-joint <input type="checkbox"/>

Contract Number - Numéro du contrat

2. Authorization(s) - Autorisation(s)

By signing this TA, the authorized client and (or) the PWGSC Contracting Authority certify(ies) that the content of this TA is in accordance with the conditions of the contract.

En apposant sa signature sur l'AT, le client autorisé et (ou) l'autorité contractante de TPSGC atteste(nt) que le contenu de cette AT respecte les conditions du contrat.

The client's authorization limit is identified in the contract. When the value of a TA and its revisions is in excess of this limit, the TA must be forwarded to the PWGSC Contracting Authority for authorization.

La limite d'autorisation du client est précisée dans le contrat. Lorsque la valeur de l'AT et ses révisions dépasse cette limite, l'AT doit être transmise à l'autorité contractante de TPSGC pour autorisation.

Name and title of authorized client - Nom et titre du client autorisé à signer

Signature

Date

PWGSC Contracting Authority - Autorité contractante de TPSGC

Signature

Date

3. Contractor's Signature - Signature de l'entrepreneur

Name and title of individual authorized - to sign for the Contractor
Nom et titre de la personne autorisée à signer au nom de l'entrepreneur

Signature

Date