



**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 Maritime Miniature Small Unmanned A	
Solicitation No. - N° de l'invitation W8476-185692/A	Date 2017-11-17
Client Reference No. - N° de référence du client 6000400723	
GETS Reference No. - N° de référence de SEAG PW-\$\$QD-001-26522	
File No. - N° de dossier 001qd.W8476-185692	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2017-12-15	Time Zone Fuseau horaire Eastern Standard Time EST
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: Roman(qd-mgr), Americo	Buyer Id - Id de l'acheteur 001qd
Telephone No. - N° de téléphone (819) 956-0182 ()	FAX No. - N° de FAX (819) 956-0636
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

Defence Communications Division. (QD)
11 Laurier St./11, rue Laurier
Place du Portage, Phase III, 8C2
Gatineau, Québec K1A 0S5

Delivery Required - Livraison exigée See Herein	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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PART 1 - GENERAL INFORMATION

1. Security Requirements

There is no security requirement associated with this requirement.

2. Requirement

- 2.1 This bid solicitation is being issued to satisfy the requirement of the Department of National Defence of Canada for the Maritime Miniature Small Unmanned Aircraft System (MMUAS). It is intended to result in the award of two contracts to one successful bidder. The two contracts will be MMUAS Acquisition Contract (MMUAS-A) and the MMUAS In-Service Support Contract (MMUAS-S).
- 2.2 The MMUAS-A Contract will be for a period of one year plus two (2) one-year option periods. The contract will be for the provision of seven (7) MUAS Systems along with associated preliminary Integrated Logistics Support (ILS) such as technical documentation, training and initial provisioning of spares. There will be an option to purchase up to five additional (5) MUAS Systems, two (2) Ship Integration Kits, Repairable Spare Parts and Training, Training Material and Consumable Spares.
- 2.3 The MMUAS-S Contract will acquire In-Service Support (ISS) services, and system improvement services through a period of one year plus three (3) one-year irrevocable option periods for ISS, and optional spares.
- 2.4 The ISS shall include Program Management Services, Engineering and Technical Support Services, Provision of Materiel, Maintenance Services, Airworthiness Support, and Configuration Management Services.

3. Debriefings

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

4. Trade Agreements

The requirement is subject to the Canadian Free Trade Agreement (CFTA).

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

- 1.1 All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.
- 1.2 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.
- 1.3 The 2003 (2017-04-27) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2. Submission of Bids

- 2.1 Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.
- 2.2 Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.
- 2.3 Bidders must submit bids for both requirements i.e. Acquisition and In-Service Support requirements. Bid not addressing both requirement will be deemed non-responsive.

3. Former Public Servant

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

3.1 Definitions

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

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or

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

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

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

Former Public Servant in Receipt of a Pension

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

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

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

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

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;

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

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

4. Enquiries - Bid Solicitation

- 4.1 All enquiries must be submitted in writing to the Contracting Authority no later than 15 calendar days before the bid closing date. Enquiries received after that time may not be answered.
- 4.2 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.

5. Applicable Laws

- 5.1 Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.
- 5.2 Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

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

Section I: Technical Bid (4 hard copies and 2 soft copies on USB)
Section II: Financial Bid (1 hard copies and 1 soft copies on USB)
Section III: Certifications (1 hard copy)

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

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

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

- a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- b) use a numbering system that corresponds to the bid solicitation.

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

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

1.6 Government Furnished Information

The reference documents identified as Government Furnished Information (GFI) listed at Appendix A2 to Annex A are available upon request to the Contracting Authority. The document versions that will be provided reflect those currently in use.

2. Section I: Technical Bid

2.1 The technical bid must fully demonstrate compliance with Annex A, Annex B, and Annex AA. Bidders must explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

2.2 The definition of mandatory requirements is as follows:

MANDATORY REQUIREMENTS. A mandatory requirement is identified specifically with the word "shall", "must", "will", "mandatory" or the phrase "Canada requires".

- 2.3. The technical bid must include a description of the proposed equipment, complete with necessary information (e.g. technical brochures, part numbers, drawings, specifications, test reports) to demonstrate compliance with the requirements. References to Web sites are not acceptable.

3. Technical Compliance Matrix:

- 3.1 The bidders must submit a technical bid in accordance with Annex F - Technical Evaluation Criteria and Compliance Matrix.
- 3.2 A completed Compliance Matrix attached hereto at Annex F that explicitly addresses all the technical requirements on a paragraph by paragraph basis, using the same numbering system must be submitted. The response to each paragraph will be the following:
- 3.3 A compliance statement ("Compliant" or "Non-compliant"). A "Compliant" statement will be interpreted as meaning full agreement with the requirement, whereas a Non-compliant statement will be interpreted as meaning not in full agreement with the requirement and the offer will be deemed non-responsive and not given any further consideration. For mandatory requirements, statements such as "Read", "Comply with Intent", "Partial Compliance", "Noted" or the like will be considered as non-responsive.
- 3.4 Paragraphs, elements and subparagraphs that convey information rather than a requirement must be marked with "Noted and Understood".

4. Section II: Financial Bid

- 4.1 Bidders must submit their financial bid in accordance with the Basis of Payments tables included in Annex C (Basis of Payment – Acquisition) and Annex BB (Basis of Payment – In Service Support).
- 4.2 Bidders must submit prices for each item in the Basis of Payments as per the instructions provided here in and in Annexes C and BB. Bidders should insert \$0.00 for any item it does not intend to charge because the item is already included in other prices set out in the proposal.
- 4.3 Bidders are requested to provide the entire list of part numbers and their quantities of all equipment, components, tools, spares, hardware and software, etc. that forms part of the item priced in Annexes C and BB.
- 4.4 Bidders must submit labour rates for tasks such as Technical Investigative Engineering Services (TIES), Additional Work Arisings (AWAs), Repair & Overhaul (R&O), and non-R&O work. The labour rates must be fully loaded and must not include travel and living expenses. They must include General & Administration expenses, Overheads, Canadian customs duties, excise taxes, and profit. All applicable taxes shall be extra.

5. SACC Manual Clauses

A9130T (2014-11-27), Controlled Goods Program – Bid
B1000T (2014-06-26), Condition of Material – Bid
B4051T (2014-06-26), Provisioning Parts Breakdown – Bid
D5401T (2007-11-30), Quality Plan - Solicitation

6. Section III: Certifications

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

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

Canada will use the Phased Bid Compliance Process (PBCP) described below:

1. General

- 1.1 Notwithstanding any review by Canada at Phase I or II of the Phased Bid Compliance Process, 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 PHASED BID COMPLIANCE PROCESS 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 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.
- 1.2 Without prejudice to its other rights, Canada shall have the right, in its absolute discretion, but shall not be obliged, to request and accept any time, before or after the solicitation closing date, and consider as part of the Bid, any document and materials from Bidders to clarify the Bid or to correct deficiencies or errors in the Bid that are not significant in Canada's absolute discretion, including all matters of form or error in computation or failure to confirm by signing or similarly verifying acceptance. 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.
- 1.3 The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2017-04-27) 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).
- 1.4 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 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.

2. Phase I: Financial Bid

- 2.1 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.
- 2.2 Canada's review in Phase I will be performed by officials of the Department of Public Works and Government Services.
- 2.3 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.
- 2.4 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.
- 2.5 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.
- 2.6 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.
- 2.7 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.

- 2.8 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.
- 2.9 Only Bids found responsive to the requirements reviewed in Phase I to the satisfaction of Canada, will receive a Phase II review.

3. Phase II: Technical Bid

- 3.1 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 Mandatory Criterion. This review will not assess whether the Technical Bid meets any standard or is responsive to all solicitation requirements. Eligible Mandatory Criteria are all mandatory technical criteria that are identified in this solicitation as being subject to the Phased Bid Compliance Process. All Mandatory technical criteria are identified in the solicitation as being subject to the Phased Bid Compliance Process, will not be evaluated until Phase III.
- 3.2 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.
- 3.3 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.
- 3.4 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.
- 3.5 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 should 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.

- 3.6 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.
- 3.7 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 or decrease any score that the original Bid would achieve without the benefit of such additional or different information. For instance, an Eligible Mandatory Criterion that requires a mandatory minimum number of points to achieve compliance will be assessed at Phase II to determine whether such mandatory minimum score would be achieved with such additional or different information submitted by the Bidder in response to the CAR. If so, the Bid will be considered responsive in respect of such Eligible Mandatory Criterion, and the additional or different information submitted by the Bidder shall bind the Bidder as part of its Bid, but the Bidder's original score, which was less than the mandatory minimum for such Eligible Mandatory Criterion, will not change, and it will be that original score that is used to calculate any score for the Bid.
- 3.8 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.
- 3.9 Only Bids found responsive to the requirements reviewed in Phase II to the satisfaction of Canada, will receive a Phase III evaluation.

4. Phase III: Final Evaluation of the Bid

- 4.1 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.
- 4.2 A Bid is non-responsive and will receive no further consideration if it does not meet all mandatory evaluation criteria of the solicitation. Evaluation Procedures

5. Other Evaluation

- 5.1 Bids will be assessed in accordance with the entire requirement of the bid solicitation including financial evaluation.
- 5.2 In order to be deemed responsive, bidder's proposals must comply with all General Conditions as laid out in the 2030 (2016-04-04), General Conditions – Goods (Higher Complexity) and 2035 (2016-04-04), General Conditions - Services (Higher Complexity) and Supplemental General Conditions associated with this RFP.

6. Technical Bid Evaluation

- 6.1 Compliance with all of the mandatory provisions of the RFP, including all Annexes is mandatory. Non-compliance to any mandatory technical requirements will render the bid non-responsive.
- 6.2 Mandatory technical requirements will be evaluated against the evaluation criteria specified in Annex F - Technical Evaluation Criteria and Compliance Matrix.
- 6.3 Bids satisfying all Mandatory requirements will proceed to be evaluated against the Technical Point Rated Criteria.

7. Financial Bid Evaluation

- 7.1 Where applicable, bidders must submit firm prices DDP Incoterms 2010, Canadian customs duties and excise taxes included, and the applicable taxes excluded.
- 7.2 The financial bids will be evaluated in Canadian currency. Pricing submitted in foreign currency will be converted to Canadian dollars based on the exchange rate provided by the Bank of Canada at 16:30 Hrs. Eastern Time (EST) on the date of RFP closing.
- 7.3 Exchange rate fluctuation protection is not offered for this requirement. Any request for exchange rate fluctuation protection will not be considered and will render the bid non-responsive.
- 7.4 The bid prices will be evaluated using the Financial Bid Evaluation Methodology in Annex G and Annex EE.
- 7.5 Bid Evaluated Price will be sum of the bid prices determined using the Financial Bid Evaluation Methodology in Annex G and EE. Estimated level of effort (LOE) per labour category are used solely for the financial bid evaluation, and is not guaranteed work under the resulting contract.

8. Mandatory and Rated Criteria Evaluation

- 8.1 To be declared responsive, a proposal must:
- (a) comply with all the requirements of the bid solicitation;
 - (b) meet all mandatory criteria.
 - (c) Bids not meeting (a) and (b) will be declared non-responsive.
- 8.2 The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 40% for the technical merit and 60% for the price.
- 8.3 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 (335) then multiplied by 40.
- 8.4 To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price then multiplied by 60.
- 8.5 For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
- 8.6 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 a contract award.
- 8.7 The table below illustrates an example where all three bids are responsive and the selection of the Contractor is determined by a 40/60 ratio of technical merit and price, respectively. The total available points equals 335 and the lowest evaluated price is \$45,000.

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

		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		310	250	285
Bid Evaluated Price		\$55,000	\$45,000	\$65,000
Calculations	Technical Merit Score	$(310/335) * 40 = 36.80$	$(250/335) * 40 = 29.60$	$(285/335) * 40 = 34$
	Pricing Score	$(45/55) * 60 = 48.60$	$(45/45) * 60 = 60$	$(45/65) * 60 = 41.40$
Combined Rating		85.40	89.60	75.40
Ranking		2st	1st	3rd

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

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

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

1. Mandatory Certifications Required with the Bid

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

1.1 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed [Declaration Form](http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

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.

2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

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

2.3 **Certifications, Declarations and Proof Documents**

- 2.3.1 Bidders must provide the documentary evidence in their technical bids as these are mandatory to finalize the bid evaluation process. Should any of these documents are missing in the bid submission, the Contracting Authority will request them from the bidder. The bidder must provide the missing documents within the three calendar days. Failure to provide any of these documents may render the bid non-responsive.

3. **Financial Capability**

SACC A9033T (2012-07-16) Financial Capability

PART 6 – RESULTING ACQUISITION CONTRACT CLAUSES

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

1. Security Requirements

There is no security requirement applicable to the Contract.

2. Statement of Work

The Contractor must perform the Work in accordance with all Statement of Works, Performance Specifications and the technical and management portions of the Contractor's proposal entitled _____, dated _____.

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>) issued by Public Works and Government Services Canada.

2030 (2016-04-04), General Conditions – Goods (Higher Complexity) apply to and form part of the Contract.

The following sections and subsections of 2035 (2016-04-04), General Conditions - Services (Higher Complexity), apply to and form part of the Contract:

1. Section 5 – Conduct of Work:
Subsection 2.d, 2.e and 2.f and subsection 3, 4 and 5
2. Section 20 – Copyright
3. Section 21 – Translation of Documentation
4. Section 35 – No Bribe or Conflict
Subsection 2, 3 and 4
5. Section 42 – Harassment in Workplace
6. Section 44 – Access to Information

3.1 Supplemental General Conditions

4001 (2015-04-01), Hardware Purchase, Lease and Maintenance excluding Lease

4002 (2010-08-16), Software Development or Modification Services

4003 (2010-08-16), Licensed Software

4006 (2010-08-16), Contractor to Own Intellectual Property Rights in Foreground Information

4. Term of Contract

4.1 Period of the Contract

4.1.1 The Contract period of the contract is from date of contract until _____ (date to be filled in at Contract award).

4.2 Delivery Date

4.2.1 The complete delivery of all initial MUASs which includes initial spare parts and training must be delivered on or before _____. (NOTE: Canada to insert, at contract award final delivery in months from contract award date.)

4.3 Option to Extend the Contract

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

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

4.3.3 Canada may purchase optional items through one or multiple orders during the term of the contract on "as and when" requested basis .

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Americo Roman
Public Works and Government Services Canada
Acquisitions Branch
Electronics, Munitions and Tactical Systems Procurement Directorate (EMTSPD)

Place du Portage, Phase III
11 rue Laurier
Gatineau, QC
K1A 0SK

Telephone: 819-420-0917
E-mail address: Americo.roman@tpsgc-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.

5.2 Technical Authority

The Technical Authority for the Contract is:

TBD

The Technical 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 Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

5.3 Procurement Authority

The Procurement Authority for the Contract is:

TBD

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for all matters concerning the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority; however the Procurement 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.

5.4 Contractor's Representative

To be filled in at Contract Award.

6. Limitation of Expenditure

Canada's total liability to the Contractor under the Contract must not exceed \$ _____. *(The amount will be filled in before the contract award)* Customs duties are included and Applicable Taxes are extra.

No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:

- a. when it is 75 percent committed, or
- b. four (4) months before the contract expiry date, or

- c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.

If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7. Additional Work Arisings (AWAs)

Should there be any requirement beyond the established scope of this contract:

1. The Technical Authority through Contracting Authority will provide the Contractor with a description of the task using the Form DND 626 - Task Authorization Form.
2. The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis (bases) and methods of payment as specified in the Contract.
3. The Contractor must provide Procurement and Contracting Authority, within 15 calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.
4. The Contractor must not commence work until a TA authorized by the Contracting Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

7.1 TIES/AWAs Pricing Options

- a. **Firm Price:** For TIES/AWAs, the Contractor must submit a "Firm Price" excluding travel and living expenses to the Procurement Authority when the scope of Work is clearly understood by both parties and no changes are anticipated in the scope of the Work. Where a firm price has been established, the Contractor will be obliged to complete the Work for the specified firm price. Travel and living expenses will be paid based on actual expenditure incurred by the Contractor in accordance with the Basis of Payment.
- b. **Ceiling Price:** TIES/AWAs, the Contractor may submit a "Ceiling Price" quote excluding travel and living expenses to the Procurement Authority when the scope of the Work cannot be clearly defined. The term Ceiling Price is the maximum price that is to be paid to the Contractor and beyond which the Contractor will not receive additional compensation for the defined Work and in return for which the Contractor is obligated to complete the Work. No additional funds will be made available. When the "Ceiling Price" approach is used both parties agree prior to the Work authorization that the price is subject to downward revision on completion of the task, based on the actual cost and verification of the actuals. Travel and living expenses will be paid based on actual expenditure incurred by the contractor IAW the Basis of Payment.

Each Task Authorization for TIES/AWAs must clearly state whether the price is a "Firm Fixed Price" or a "Ceiling Price".

-
- a. **Limitation of Expenditure Price:** When it is not possible for the Contractor to submit a "Firm Price" or a "Ceiling Price" as described above, the Contractor may submit a "Limitation of Expenditure" quote.
- b. The "Firm Price", "Ceiling Price" and/or the "Limitation of Expenditure" quote must be based on the rates in Canadian Funds. All proposed prices and cost estimates must be supported by a detailed cost breakdown.
- e. For a Task which is subject to a "Limitation of Expenditure" as described in Sub-article c. above, the Contractor must notify the proper authority in writing as to the inadequacy of its "Limitation of Expenditure" when:
- the resources required for its timely completion reaches 75% of the authorized Task funding; or
 - if during the execution of the authorized Tasking it appears to the Contractor that the Scope of Work is greater than had been anticipated and that the funds provided for a Task are inadequate.
- f. When providing the notification described in Sub-article e above, the Contractor must, as a minimum, identify;
- estimated labour hours and schedule forecast to complete;
 - work around plan; and
 - risk assessment.
- A revised proposal and proper justification for the requested amendment must be submitted to the proper approval Authority for consideration. Under no circumstance is the authorized level of expenditure to be exceeded. Canada is under no obligation to pay for any Work that exceeds the authorized funding limitation.
- g. All amounts charged on a "Ceiling price" or "Limitation of Expenditure" basis must be subject to Government audit before or after payment of an invoice.

7.2 Task Completion/Closure Procedures:

The Contractor must monitor all Tasks issued under the Contract. If at any time the Contractor believes that a specific Task has been completed or has been inactive for a period of at least one (1) month, the Contractor must proceed as follows to request closure:

- 7.2.1 The Contractor must determine the final costs to Canada, itemized as necessary for each individual Task being considered for closure;
- 7.2.2 The Contractor must submit a letter to the PA (one copy each to RA and CA) requesting closure of the Task with reference to reports or letters concerning the Task as applicable;
- 7.2.3 In cases where authorized funds were not all expended to complete specific Tasks, these funds are considered returned to the Contract funding baseline for re-issuance/re-distribution as necessary.

7.3 Consolidation of Task Authorizations for Administrative Purposes

For administrative purposes, the contract will be amended by the Contracting Authority from time to time to reflect all TAs issued and approved to date under the contract.

7.4 **Canada's Obligation – Portion of the Work – Task Authorizations**

- 7.4.1 Canada's obligation with respect to the portion of the Work under the Contract that is performed through Task Authorizations is limited to the total amount of the actual authorized tasks performed by the Contractor.
- 7.4.2 Canada reserves the right, at any time, to acquire the requested Work by other means including by selecting other suppliers. For example, Canada may decide to acquire the requested Work by other means when the Contractor provides a written proposal that has been rejected by Canada.

8. Payment

8.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under this Contract, the Contractor will be paid in accordance with Annex C – Basis of Payment - Acquisition. The following Basis of Payment terms will apply:

Incoterms 2010	Delivery Duty Paid (DDP)
Transportation/ Shipping charges:	Included
Canadian Customs/Duties:	Included
GST/HST:	Extra

8.1.1 Economic Price Adjustment

The Labour Rates for the optional years will be calculated during the last month of the preceding year for which the Contract had firm prices in accordance with the provisions specified in the Basis of Payment. The adjusted Labour Rates for the coming year shall remain fixed for that period. In the Contract, a "year" is a period from Contract Starting Date Anniversary to next Contract Starting Date Anniversary minus 1 day.

8.2 Limitation of Price

[C6000C](#) (2011-05-16) Limitation of Price

8.3 Multiple Payments – Firm and Optional Goods

[H1001C](#) (2008-05-12), Multiple Payments

8.4 Invoicing Instructions

8.5 Invoices must be distributed as follows:

- (a) The original invoice and one copy to the Consignee;
- (b) One (1) e-Copy to the Contracting Authority; and
- (c) One (1) copy to the Procurement Authority.

9. Delivery, Inspection and Acceptance

9.1 Addressing

Address labeling shall be clearly marked on a minimum of two (2) locations on each package. The following shall be observed:

- (a) Complete name of the consignee
- (b) Complete shipping address
- (c) Clear description of contents
- (d) Complete name of the consignee representative

9.2 Shipping Instructions

The Contractor must ship the goods prepaid DDP - Delivered Duty Paid to 7 CF Supply Depot. Unless otherwise directed, delivery must be made by the most economical means.

9.3 Packaging

The Contractor must prepare all items for delivery in accordance with the latest issue of the Canadian Forces Packaging Specification *D-LM-008-036/SF-000*, DND Minimum Requirements for Manufacturer's Standard Pack.

The Contractor must package all items in quantities of one per package

9.4 Delivery

The Contractor must deliver the goods to 7 Canadian Forces (CF) Supply Depot by appointment only. The Contractor or its carrier must arrange delivery appointments by contacting the Depot Traffic Section at the appropriate location shown below. The consignee may refuse shipments when prior arrangements have not been made.

**W248A – Department of National Defence
7 Canadian Forces Supply Depot Edmonton – Receipt Section
195 Avenue & 82 Street Building 236
Edmonton, Alberta, T5J 4J5, Canada**

9.5 Inspection and Acceptance

The Technical Authority is the Inspection Authority. All reports, deliverable items, documents and goods rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document or good not be in accordance with the Requirements and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

10. Release Document – Distribution

The Contractor must prepare the release documents in a current electronic format and distribute them as follows:

- a. One (1) copy mailed to consignee marked: "Attention: Receipts Officer";
- b. Two (2) copies with shipment (in a waterproof envelope) to the consignee;
- c. One (1) copy to the Contracting Authority;
- d. One (1) copy to:
*National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attention: DLP 5-4-1*
- e. One (1) copy to the Quality Assurance Representative;
- f. One (1) copy to the Contractor; and
- g. For all non-Canadian contractors, one (1) copy to:

*DQA/Contract Administration
National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
E-mail: ContractAdmin.DQA@forces.gc.ca.*

11. Quality Control

D5515C (2010-01-11) Quality Assurance Authority (Department of National Defence) - Foreign-based and United States Contractor

12. Certifications and Additional Information

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

13. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____. (*Insert the name of the province or territory as specified by the Bidder in its bid, if applicable*)

14 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) Annex C, Basis of Payment - Acquisition
- (c) the supplemental general conditions 4001 (2015-04-01) Hardware Purchase, Lease and Maintenance;
- (d) the supplemental general conditions 4002 (2010-08-16), Software Development or Modification Services
- (e) the supplemental general conditions 4003 (2010-08-16) Licensed Software
- (f) the supplemental general conditions 4006 (2010-08-16) Supplemental General Conditions - Contractor to Own Intellectual Property Rights in Foreground Information.
- (g) the general conditions 2030 (2016-04-04), General Conditions - Goods (Higher Complexity)
- (h) Annex A, MMUAS - Statement of Work;
- (i) Annex B, MMUAS - System Performance Specifications
- (j) the Contractor's bid dated _____

15 Defence Contract

SACC Manual clause [A9006C](#) (2012-07-16) Defence Contract

16. SACC Manual Clauses

A2000C	(2006-06-16) Foreign Nationals (Canadian Contractors)
A9131C	(2014-11-27) Controlled Goods Program -Contract
B4060C	2011-05-16) Controlled Goods
B4019C	(2015-02-25) United States Military Specifications and Standards
B4061C	(2008-05-12) North Atlantic Treaty Organization Codification - Data Requirements
B7500C	(2006-06-16) Excess Goods
D2000C	(2007-11-30) Marking
D2001C	(2007-11-30) Labeling
D2025C	(2013-11-06) Wood Packaging Materials
D3010C	(2014-06-26) Delivery of Dangerous Goods/Hazardous Products
D5510C	(2014-06-26) Quality Assurance Authority (Department of National Defence) - Canadian-based Contractor, or
D5545C	(2010-08-16) ISO 9001:2008 - Quality Management Systems - Requirements (Quality Assurance Code C) (2010-08-16) D5545C
D5604C	(2008-12-12) Release Documents (Department of National Defence) - Foreign-based Contractor, or

Solicitation No. - N° de l'invitation
W8476-185692/A
Client Ref. No. - N° de réf. du client
DND

Amd. No. - N° de la modif.
File No. - N° du dossier
W8476-185692

Buyer ID - Id de l'acheteur
001QD

D5605C	(2010-01-11) Release Documents (Department of National Defence) - United States-based Contractor, or
D5606C	(2012-07-16) Release Documents (Department of National Defence) - Canadian-based Contractor
D6010C	(2007-11-30) Palletization
D9002C	(2007-11-30) Incomplete Assemblies
G1005C	(2008-05-12) Insurance
K3030C	(2010-01-11) License to Material Subject to Copyright

6.15 **Electrical Equipment**

All electrical equipment supplied under the Contract must be certified or approved for use in accordance with the Canadian Electrical Code<<http://www.csa.ca/cm/ca/en/normes/produits/electricite>>, Part 1, National<<http://www.csa.ca/cm/ca/en/normes/produits/electricite>> Electrical Code or equivalent, before delivery, by a certification organization accredited by the Standards Council of Canada, American National Standard Institute (ANSI) or equivalent.

PART 7 – RESULTING IN-SERVICE SUPPORT CONTRACT CLAUSES

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

1. Security Requirements

There is no security requirement applicable to the Contract.

2. Statement of Work

The Contractor must perform the Work in accordance with all Statement of Works, Performance Specifications and the technical and management portions of the Contractor's proposal entitled _____, dated _____.

3. Categories of Work

The Work is broken down into two categories:

- a. Category 1 Work: Repair, Overhaul, Restore, Calibrate, Modify, Reduce to Spares, General Engineering and Maintenance Services (GEMS), Provision of Spares, Test and Evaluation, provide Engineering Support as defined in Annex AA – In-Service Support Statement of Work
- b. Category 2 Work: Technical Investigations and Engineering Studies (TIES), Materiel Support, Maintenance Support, Configuration Management, Technical Data Management, Training Support, Storage of spares SUAS parts and consumable supplies, Airworthiness Support and Spares provisioning.

4. Work Authorization Procedures:

Each Task will only be performed by the Contractor when a duly authorized Task Authorization has been issued by the PA or the Contracting Authority, in accordance with the Contract sub-article entitled "Task Authorization Limitations" using a DND 626, entitled "Task Authorization". DND is not bound to issue the Tasks indicated in the Contract and reserves the right to change Task details as well as issue other Tasks. Refinement of the details of each Task assigned will be described in an individual DND 626 provided by DND. All other terms and conditions of the Contract apply to this Task Authorization method and cannot be amended without written authorization by the CA.

Work must be subject to written technical instructions detailed in a DND 626, signed by the TA and approved by PA/CA as required.

The Task SOW is used to:

- a. Request the Contractor to perform the Work defined in the DND 626;

- b. Provide directions to the Contractor to pursue certain lines of inquiry, to shift work emphasis, fill in details or otherwise serve to accomplish the Task(s); and
- c. Provide guidelines to the Contractor which assist in the interpretation of drawings, specifications or technical portions of Work description.

Work defined in a DND 626 must be within the general Scope of Work stated in the Contract.

The Contractor must control all Work by the serial numbers assigned to all DND 626s.

4.1 TASKING PROCEDURES:

The DND 626 "Task Authorization" form is the Task Authorization method that will be used to authorize specific Tasks under this Contract and the following administrative process applies:

- a. Prior to issuing a Task Authorization, the TA will prepare a draft Task SOW fully describing the Scope of Work required for the Task and specifying the details listed in the sub article (b) below.
- b. The TA will submit this draft Task SOW (without the DND 626 form) through the PA to the Contractor specifying the funding limitation for the Task, the Work requirement, the acceptance criteria for the Work, the types of reports required, and the scheduled date of completion. The PA must ensure that the Task is within the Scope of Work for this Contract.
- c. The PA will request that the Contractor review the Task SOW and provide an accurate quote within a specified time limit, using the rates established in the Contract and based on the Contractor's Level of Effort (LOE) needed to complete the Task. The LOE quote must provide an accurate cost estimate and schedule for producing the requested deliverables. The LOE quote must clearly identify all the applicable charges.
- d. The Contractor must, within the time limit specified by the TA or its designated representatives, provide the LOE quote and/or notify the TA of the status of the proposed Task SOW response. Should the time limit specified by the TA not be sufficient, the Contractor must submit the LOE quote within a time period that is mutually acceptable to the TA and the Contractor.
- e. The Contractor must ensure that the requested Task does not exceed the Scope of Work for this Contract and that the Contractor is fully capable of producing the requested deliverables by achieving the essential functions at the lowest cost consistent with the required performance, reliability, quality and safety. Should the Contractor have any doubt with respect to the Work requested in the DND 626, the Contractor must submit DND 626 change recommendations to the PA prior to acceptance of the Task Authorization (DND 626).
- f. The Contractor must submit to the TA through the PA, the following written details:
 - i. The estimated labour hours, the total estimated cost, calculated in accordance with the terms and conditions of the Contract;
 - ii. A list of personnel (including their associated Labour Category and labour Rate) assigned to perform the Task;
 - iii. The schedule for completion of the Work;
 - iv. An activity resource listing; and

-
- v. The Contractor's acceptance or rejection of the proposed Task SOW, subject to receipt of a certified Task Authorization (DND 626).
- g. The Contractor must include, in the cost estimate referred to above, all applicable charges, including direct labour charges, material, subcontracting, travel and living expenses, applicable profit/fees, and applicable taxes - all in accordance with Annex BB - Basis of Payment of the Contract.
- h. Once the TA, PA and the Contractor have understood and agreed with the Task details, the TA will review the LOE quote with the PA and in accordance with the Contract sub-article entitled "Approval Limitations", seek approval to proceed as follows:
- i. If the LOE quote is within the DND Task approval, ceiling listed in the Contract sub-article entitled "Approval Limitations", the PA will sign the DND 626 form (with the Contractor approval Task SOW and LOE attached) and forward a signed copy to both the Contractor and the CA; or
- ii. If the quote exceeds DND's Task approval ceiling, the PWGSC CA must also review and sign the DND 626 (with the Contractor approved Task SOW and LOE attached) prior to DND releasing the Task Authorization to the Contractor.
- j. Work on any Task may not commence prior to the date that the DND 626 is signed by the applicable Canadian Government Authorities. The PA must ensure that the CA is forwarded a copy of all authorized DND 626 Task Authorizations regardless of the dollar value.
- k. If at any time it becomes evident to the Contractor that the following conditions are exceeded:
- i. The authorized level of expenditure for a Task;
- ii. The total value of all the Task Work;
- iii. The approved schedule deadline; or
- iv. The scope of Work.

The Contractor must immediately request an amendment to the Task Authorization. The request must refer to the original Task Authorization serial number (DND 626 #) and include a revised proposal with the appropriate justification for Canada's consideration. Under no circumstance is the authorized level of expenditure to be exceeded. Canada will not pay for any Work that exceeds the authorized funding limitation.

- l. Amendments to the Work, cost or scope of the original DND 626 will require that a formal DND 626 amendment be created. Tasks originally approved by DND and within the amendment ceiling established in the Contract, will be approved by DND PA. All other amendments will be approved by DND and sent to the PWGSC CA for review and signature prior to releasing to the Contractor. DND must ensure that the CA is forwarded a copy of all authorized DND 626 amendments regardless of the dollar value.

The Contractor must complete any Tasks at the original price/scope if the approval authority rejects an amendment request. Additional Work on any Task may not commence prior to the date that the DND 626 Amendment is signed by the applicable Canadian Government Authorities.

4.2 TASK PRICING APPROACH:

The LOE quote for each Task must clearly identify one of the following pricing approaches that the Contractor has selected for the Task:

- a. The Contractor may submit a "Firm Price" quote to the TA when the Scope of Work for a DND 626, referred to herein as "Task", is clearly understood by both parties and no changes are anticipated in the Scope of the Work.
- b. The Contractor may submit a "Ceiling Price" quote to the TA. The terms Ceiling Price is the maximum price that is to be paid to the Contractor and beyond which the Contractor will not receive additional compensation for the defined Work. In such a case, both parties agree prior to the Work authorization that the price may be subject to downward revision, based on the actual price on completion of the Task.
- c. The "Firm Price" or "Ceiling Price" quote must be based on the rates identified in the Basis of Payment, attached as Annex BB – Basis of Payment. All proposed prices and cost estimates must be supported by a detailed cost breakdown.
- d. All amounts charged on a "Ceiling Price" basis must be subject to Government audit before or after payment of an invoice.

4.3 TASK APPROVAL LIMITATIONS:

Work on any Task may not commence prior to the date that the DND 626 is signed by the applicable Canadian Government Authorities.

- a. The Approval Limitations for each Task Authorization are as follows:
 - i. Procurement Authority (PA): For Work, up to \$100,000.00 CDN for a signed DND 626; for amendment(s) to an existing DND 626 authorized by the PA, the aggregate value (Original DND value plus all Amendments) may not exceed \$100,000.00 CDN.
 - ii. PWGSC Contracting Authority (CA): Unlimited for any Task DND 626 costing more than \$100,000.00 CDN. For amendment(s) to any existing Task authorized in aggregate value of more than \$100,000.00 CDN.
- b. In the event that the estimated price to complete a Task is anticipated to exceed \$100,000.00 CDN, the DND 626 must first be authorized in writing by both the PA and CA. The Contractor must verify that both signatures are present prior to commencing Work.

4.4 TASK COMPLETION/CLOSURE PROCEDURES:

The Contractor must monitor all Tasks issued under this Contract. If at any time the Contractor believes that a specific Task has been completed or has been inactive for a period of at least six (6) months, the Contractor must proceed as follows to request closure:

- a. The Contractor must determine the final costs to Canada, itemized as necessary for each individual Task being considered for closure;
- b. The Contractor must submit a letter to the TA (one copy each to PA and CA) requesting closure of the Task with reference to reports or letters concerning the Task as applicable;
- c. Closure will be subject to TA written acceptance of final results of the Tasking. If acceptable, the TA will authorize closure at the detailed funding levels; and

- d. In cases where authorized funds were not all expended to complete specific Tasks, these funds are considered returned to the Contract funding baseline for re-issuance/re-distribution as necessary.

5. Standard Clauses and Conditions

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

5.1 General Conditions

2010C (2016-04-04), General Conditions - Services (Medium Complexity) apply to and form part of the Contract.

5.1.1 Supplemental General Conditions

- 5.1.1.1 Only the following parts of 4001 (2015-04-01), Hardware Purchase, Lease and Maintenance shall apply to and form part of the contract;
- 4001- Part V - Additional Conditions: Maintenance
- The rest of 4001 (2015-04-01), Lease is deleted.
- 5.1.1.2 4004 (2013-04-25) Maintenance and Support Services for Licensed Software, apply to and form part of the contract;
- 5.1.1.3 4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information, apply to and form part of the contract.

6. Term of Contract

6.1 Period of the Contract (ISS)

The period of the Contract is for one year from the date of delivery completion of all firm items in the MMUAS Acquisition contract.

6.2 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to three additional one (1) year period(s) under the same terms and conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment – In Service Support. Canada may exercise this option at any time by sending a written notice to the Contractor at least thirty (30) calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a Contract amendment.

7. Authorities

7.1 Contracting Authority

The Contracting Authority for the Contract is:

Americo Roman
Contracting Authority
Public Works and Government Services Canada
Acquisitions Branch
Electronics, Munitions and Tactical Systems Procurement Directorate (EMTSPD)

Place du Portage, Phase III
11 rue Laurier
Gatineau, QC
K1A 0S8

Telephone: 819-420-0917
E-mail address: Americo.roman@tpsgc-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.

7.2 Technical Authority

The Technical Authority for the Contract is:

TBD

The Technical 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 Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.3 Procurement Authority

The Procurement Authority for the Contract is:

TBD

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for all matters concerning the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority; however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.4 Contractor's Representative

To be filled in at Contract Award.

8. Payment

8.1 Basis of Payment

The Contractor shall be paid in accordance with Annex BB – Basis of Payment - In-Service Support - Basis of Payment.

8.1.1 Economic Price Adjustment

The Labour Rates for the optional years will be calculated during the last month of the preceding year for which the Contract had firm prices in accordance with the provisions specified in the Basis of Payment. The adjusted Labour Rates for the coming year shall remain fixed for that period. In the Contract, a "year" is a period from Contract Starting Date Anniversary to next Contract Starting Date Anniversary minus 1 day.

8.2 Limitation of Expenditure

8.2.1 Limitation of Expenditure – Contract

- 8.2.1.1 Canada's total liability to the Contractor under the Contract must not exceed **XXXXXX**. Customs duties are subject to exemption and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.
- 8.2.1.2 No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - a. when it is 75 percent committed, or
 - b. four (4) months before the contract expiry date, or
 - c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.
- 8.2.1.3 If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

8.2.2 Limitation of Expenditure – Task Authorizations

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- 8.2.2.1 The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work specified in the authorized Task Authorization (TA), as determined in accordance Annex BB – Basis of Payment In-Service Support, to the limitation of expenditure specified in the authorized TA.
- 8.2.2.2 Canada's liability to the Contractor under the authorized TA must not exceed the limitation of expenditure specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.
- 8.2.2.3 No increase in the liability of Canada or in the price of the Work specified in the authorized TA resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Procurement Authority (if under \$100,000.00 CAD) or Contracting Authority (if over \$100,000.00 CAD) before their incorporation into the Work

8.2.3 Limitation of Price:

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

8.2.4 Progress Payment

- 8.2.4.1 The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment.

Each claim must show:

- a. all information required on form PWGSC-TPSGC 1111;
- b. all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
- c. a list of all expenses;
- d. expenditures plus pro-rated profit or fee;
- e. the description and value of the milestone claimed as detailed in the Contract.

Each claim must be supported by:

- a. a copy of time sheets to support the time claimed;
 - b. a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses;
 - c. a copy of the monthly progress report.
- 8.2.4.2 The Goods and Services Tax or Harmonized Sales Tax (GST/HST), as applicable, must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no GST/HST payable as it was claimed and payable under the previous claims for progress payments.
- 8.2.4.3 The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Procurement Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.

8.2.4.4 The Procurement Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

8.2.4.5 The Contractor must not submit claims until all work identified in the claim is completed.

9. SACC Manual Clauses

SACC Reference	Section	Date
C0307C	Cost Submission – Repair and Overhaul	2014-06-26
C0710C	Time and Contract Price Verification	2007-11-30
C2000C	Taxes – Foreign Based Contractor	2007-11-30
C2604C	Customs Duties, Excise Taxes and Applicable Taxes – Non Resident	2013-04-25
C2608C	Canadian Customs Documentation	2015-02-25
C2610C	Customs Duties - DND – Importer	2007-11-30
H1001C	Multiple Payments	2008-05-12
H1008C	Monthly Payment	2008-05-12

10. Delivery, Acceptance and Inspection

10.1 Addressing

Address labeling shall be clearly marked on a minimum of two (2) locations on each package. The following shall be observed:

- (e) Complete name of the consignee
- (f) Complete shipping address
- (g) Clear description of contents
- (h) Complete name of the consignee representative

10.2 Shipping Instructions

The Contractor must ship the goods prepaid DDP - Delivered Duty Paid to 7 CF Supply Depot. Unless otherwise directed, delivery must be made by the most economical means.

10.3 Packaging

The Contractor must prepare all items for delivery in accordance with the latest issue of the Canadian Forces Packaging Specification *D-LM-008-036/SF-000*, DND Minimum Requirements for Manufacturer's Standard Pack.

The Contractor must package all items in quantities of one per package

10.4 Delivery

The Contractor must deliver the goods to 7 Canadian Forces (CF) Supply Depot by appointment only. The Contractor or its carrier must arrange delivery appointments by contacting the Depot Traffic Section at the appropriate location shown below. The consignee may refuse shipments when prior arrangements have not been made.

- a. 7 CF Supply Depot Lancaster Park
Edmonton, Alta
Telephone: 780-973-4011, ext. 4524

10.5 Inspection and Acceptance

The Technical Authority is the Inspection Authority. All reports, deliverable items, documents and goods rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document or good not be in accordance with the Requirements and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

10.6 Quality Control

D5515C (2010-01-11) Quality Assurance Authority (Department of National Defence) - Foreign-based and United States Contractor

11. Invoicing Instructions

11.1 Invoicing Instructions for Repair and Overhaul:

Invoices shall be submitted not more than once a month for R&O Work performed under the Contract as per the following terms and conditions:

The Contractor shall forward the certified invoice as follows:

- (a) One (1) copy of the invoice to:

Contracting Authority
Department of Public Works and Government Services
Defence Communication Division (QD)
Place du Portage, Phase III, 8C2
11 Laurier Street
Gatineau, Québec
K1A 0S5

- (b) The original and One (1) copy to:

National Defence Headquarters
MGen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attention: DLP XXXX

Each invoice/claim will show:

- (a) The date;
- (b) Name and address of the consignee;
- (c) The Contract Serial Number;
- (d) The Financial Coding for Category 1: As per Page 1 of the Contract;
- (e) Details of the items repaired including NSN, Description of Item, Quantity, Labour hours, Materiel costs, Other applicable costs, Work order numbers, Stock holding code change notification, and document number;
- (f) Rate of payment and number of hours applicable to the task (if a ceiling price task);
- (g) Approved travel and living expenses related to the task;
- (h) Receipts and other supporting documents as required in the Contract;
- (i) The totals of all previous claims against the Contract;
- (j) Goods and Services Tax or Harmonized Sales Tax, as appropriate.

11.2 Invoicing Instructions for all other ISS work:

The Contractor shall submit invoices on its own form, and must include the following information:

- (a) The Contract Serial Number;
- (b) The DND Financial Coding as quoted in the DND 626;
- (c) Task authorization requisition number;
- (d) Engineering or technical support classification;
- (e) Rate of payment and number of hours applicable to task (if ceiling price task) or milestone being claimed;
- (f) Cost of materials related to the task; and
- (g) Approved travel and living expenses related to the task;
- (h) Receipts or other supporting documentation as required in the Contract and/or task.

Invoices will be distributed as shown under article 8.1 above.

Canada will only make payment upon receipt of a satisfactory invoice duly supported by specified release documents and any other documents called for under the Contract.

12. Certifications

12.1 Compliance

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

13. Certifications and Additional Information

13.1 Compliance

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

13.2 Federal Contractors Program for Employment Equity - Default by the Contractor

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

14. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____. (*Insert the name of the province or territory as specified by the Bidder in its bid, if applicable*)

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 4001 (2015-04-01), Hardware Purchase, Lease and Maintenance;
- (c) the supplemental general conditions 4004 (2013-04-25) Maintenance and Support Services for Licensed Software;
- (d) the supplemental general conditions 4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground Information;
- (e) the general conditions 2010C (2016-04-04), General Conditions - Services (Medium Complexity);
- (f) Annex AA, ISS - Statement of Work;

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- (g) Annex BB, ISS – Basis of Payment;
(h) the Contractor's bid dated _____

16. Defence Contract

SACC Manual clause [A9006C](#) (2012-07-16) Defence Contract

17. SACC Manual Clauses

A9131C (2014-11-27)	Controlled Goods Program
B4060C (2011-05-16)	Controlled Goods
B4019C (2015-02-25)	United States Military Specifications and Standards
B4061C (2008-05-12)	North Atlantic Treaty Organization Codification - Data Requirements
B7500C (2006-06-16)	Excess Goods
D2000C (2007-11-30)	Marking
D2001C (2007-11-30)	Labeling
D3010C (2014-06-26)	Delivery of Dangerous Goods/Hazardous Products
D3015C (2014-09-25)	Dangerous Goods/Hazardous Products- Labelling and Packaging Compliance
D5540C (2010-08-16)	ISO 9001:2008 Quality Management Systems - Requirements (Quality assurance Code Q)
D5545C (2010-08-16)	ISO 9001:2008 Quality Management Systems - Requirements (Quality Assurance Code C)
D5605C (2010-01-11)	Release Documents (Department of National Defence) - United States-based Contractor
D6010C (2007-11-30)	Palletization
D9002C (2007-11-30)	Incomplete Assemblies
K3030C (2010-01-11)	License to Material Subject to Copyright
G1005C (2008-05-12)	Insurance

18. Electrical Equipment

All electrical equipment supplied under the Contract must be certified or approved for use in accordance with the Canadian Electrical Code <<http://www.csa.ca/cm/ca/en/normes/produits/electricite>>, Part 1, National <<http://www.csa.ca/cm/ca/en/normes/produits/electricite>> Electrical Code or equivalent, before delivery, by a certification organization accredited by the Standards Council of Canada, American National Standard Institute (ANSI) or equivalent.

ANNEX "1" to PART 5 OF THE BID SOLICITATION

FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION

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

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

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

Complete both A and B.

A. Check only one of the following:

- A1. The Bidder certifies having no work force in Canada.
- A2. The Bidder certifies being a public sector employer.
- A3. The Bidder certifies being a federally regulated employer being subject to the Employment Equity Act.
- A4. The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

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

OR

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

B. Check only one of the following:

- B1. The Bidder is not a Joint Venture.

OR

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

ANNEX A

MARITIME MINIATURE
UNMANNED AIRCRAFT SYSTEM

STATEMENT OF WORK

Solicitation No:

1. INTRODUCTION

1.1 Purpose

1.1.1 This Statement of Work (SOW) describes the work required to deliver a Maritime Miniature Unmanned Aircraft System (MMUAS) for Intelligence Surveillance and Reconnaissance (ISR) to support the Royal Canadian Navy (RCN).

1.2 Overview

1.2.1 The MMUAS will be used to provide the RCN a beyond-visual-line-of-sight (BVLOS) ISR capability aboard the *Kingston*-class ships through the acquisition of unmanned aircraft systems (UAS) to support RCN deployments.

1.2.2 Within Canada, the UAS will also be used for currency training, force generation activities and for the development and validation of naval tactics.

1.3 Scope

1.3.1 This requirement will be fulfilled through the acquisition of a number of UAS.

1.3.2 In addition to items and services described in this SOW, Canada may need to improve UAS capabilities by implementing additional payload, sensor and data service capabilities during the service life of the UAS. This would be accomplished under Additional Work Request (AWR) and Technical Investigation and Engineering Services (TIES) work contracted on an “as and when required” basis.

1.4 Mandatory Deliverables

1.4.1 The required corresponding outcomes are:

- a. Delivery of airworthiness supporting documentation;
- b. Delivery of drawings, associated lists, cataloguing information and technical manuals;
- c. Delivery of sevens (7) UAS;
- d. Delivery of two (2) ship integration kits;
- e. Development and delivery of training and a training package; and
- f. Development and delivery of management plans including a Project Management Plan, Integrated Logistic Support Plan, Acceptance Test Plan and a Training Plan.

1.5 Electronic Document Format

1.5.1 The Contractor must deliver electronic copies of documents in a format and quality suitable for extracting text, tables and images to Microsoft Office 2013 for translation and insertion by DND into bilingual Canadian Armed Forces (CAF) manuals. Adobe Portable Document Format files are acceptable for documents that the Technical Authority (TA) has no requirement to insert, modify or extract information.

2. APPLICABLE DOCUMENTS

2.1 Documents which have been referenced in this SOW form a part of the SOW to the extent specified herein. In the event of conflict between the documents referenced herein and the

Solicitation No:

contents of the SOW, the contents of the SOW will take precedence. Documents which have been referenced are listed in Appendix A2.

3. GENERAL REQUIREMENTS

3.1 Airworthiness and Performance

3.1.1 The Contractor must deliver documentation that demonstrates current qualifications, certification and approval for flight operations by an allied military airworthiness authority or a civilian agency or regulatory body, using standards and procedures acceptable to Canada (e.g. Transport Canada, United States Federal Aviation Administration (FAA), European Aviation Safety Agency (EASA), and equivalent organizations in the other NATO countries).

3.1.2 The Contractor must deliver Availability Statistics Data in accordance with (IAW) Contract Data Requirements List (CDRL) B002, Data Item Description (DID) SE-002, based on statistical cumulative data for a minimum of 5,000 recent operational flights to demonstrate the UAS availability is as specified in the SPS.

3.1.3 The Contractor must provide DND airworthiness specialists access to the Contractor's facility after contract award to assess design suitability, engineering and maintenance support of the MMUAS.

3.1.4 The Contractor must provide subject matter experts in the respective disciplines to support the DND assessment of design suitability, engineering and maintenance support of the UAS.

3.1.5 When requested, the Contractor must support CAF flight incident investigations by providing analysis of the event, interpretation of the telemetry data, analysis of components (if recovered), and provision of relevant historical system failure data.

3.2 Technical Performance

3.2.1 The Contractor must deliver the UAS that performs IAW the SPS.

3.3 Markings

3.3.1 The Contractor must generate, assign and install Unique Item Identifiers (UII) to all non-consumable items delivered to DND IAW A-LM-505-702/JS-001 and IAW STANAG 2290. The UII must be in a machine readable form on the outside of the materiel or on the package when not easily accessible.

3.3.2 All aircraft will have appropriate CAF identification and registration markings IAW the SPS. These markings include the Air Force roundels, Canada Wordmarks, Canadian flags and the individual registration numbers assigned to each aircraft (typically referred to as the "tail number"). Canada will maintain the aircraft registration documentation IAW the Aeronautics Act requirements.

3.3.3 The Contractor must provide the aircraft serial number information to Canada as early as is practical during the system delivery planning process.

3.3.4 Canada will assign registration numbers and inform the Contractor which registration number is assigned to each aircraft.

3.3.5 The Contractor must apply the applicable markings and registration numbers assigned by Canada to each aircraft using appropriate vinyl decals prior to delivery of the UAS.

4. PROGRAM MANAGEMENT

4.1 Program Management/Control

4.1.1 Project Management Plan

Solicitation No:

- 4.1.1.1 The Contractor must provide program management, including a Project Manager (PM) and any support staff necessary to manage the work as specified in this SOW.
- 4.1.1.2 The Contractor must deliver and maintain a Project Management Plan (PMP), IAW CDRL A001, DID PM-001, identifying the Contractor's project organizational structure, contact names and information, and a Work Breakdown Structure (WBS) for tasks required to deliver the Work, including a Master Schedule and Milestones. The PMP must include managing the In-Service Support (ISS) work including Repair and Overhaul (R&O) activities.
- 4.1.1.3 The Contractor must manage the project IAW the approved PMP.
- 4.1.2 Meetings
 - 4.1.2.1 The Contractor must provide support and assistance for Progress Review Meetings (PRMs).
 - 4.1.2.2 The PRMs must take place in the National Capital Region of Canada, unless otherwise specified in this SOW or such other reasonable location as Canada requests in writing.
 - 4.1.2.3 The Contractor must provide appropriate representation at PRMs, to be held with Canada at the following designated intervals:
 - a. Project kick-off PRM at the Contractor's facility within 30 days of Contract Award;
 - b. Annual PRMs for the duration of the Contract;
 - c. Additional PRMs if or when required; and
 - d. Weekly teleconferences, if deemed necessary by Canada.
 - 4.1.2.4 When the Contractor has more than 48 hours lead time notice before a meeting, the Contractor must provide a one (1) page meeting agenda to the TA.
 - 4.1.2.5 The Contractor must provide minutes for each meeting, videoconference and teleconference IAW CDRL A002, DID PM-002.
 - 4.1.2.6 The Contractor must deliver copies of any Presentation Packages as presented at the meeting to the TA in electronic format.
 - 4.1.2.7 The Contractor must deliver draft presentations for PRMs at least one week prior to the PRM.
- 4.1.3 Reports
 - 4.1.3.1 The Contractor must deliver:
 - a. Progress Reports IAW CDRL A003, DID PM-003; and
 - b. Special Purpose Task Reports IAW CDRL A003, DID PM-003 for activities undertaken under an AWR or a TIES task.
- 4.1.4 Airworthiness Clearance/Flight Authorization
 - 4.1.4.1 The UAS will operate under CAF airworthiness authorization.
 - 4.1.4.2 The Contractor must deliver Previous Airworthiness Clearance Supporting Documentation IAW CDRL A004, DID PM-004. This documentation will be used by Canada to support the applications for Technical Airworthiness Clearance (TAC), Operational Airworthiness Clearance (OAC), Investigative Airworthiness Clearance (IAC) and Release to Service (RTS).

Solicitation No:

- 4.1.4.3 Submission of a Certificate of Airworthiness or a restricted special purpose flight permit issued to other system operators does not constitute acceptable Previous Airworthiness Clearance Supporting Documentation as specified in paragraph 4.1.4.2.
- 4.1.4.4 The Contractor supplied goods and services provided under this SOW must match the terms and conditions of documentation used to obtain TAC, OAC, IAC and RTS.
- 4.1.4.5 The Contractor must deliver updated documents whenever there are any changes affecting documentation used to obtain the UAS airworthiness approval.
- 4.1.4.6 Airworthiness Supporting Documentation.
 - 4.1.4.6.1 The Contractor must deliver a Summary of Operational History IAW CDRL A005, DID PM-005 using statistics from 5,000 recent operational flights.
 - 4.1.4.6.2 The Contractor must deliver a System Safety Case with Hazard Analysis IAW CDRL A006, DID PM-006.
 - 4.1.4.6.3 The Contractor must deliver Flight Safety Program documentation developed or produced in support of UAS airworthiness evaluations, training and operations.
 - 4.1.4.6.4 The Contractor must deliver an Operations/Maintenance Manual IAW CDRL C006, DID ILS-006.
 - 4.1.4.6.5 The Contractor must deliver Training documentation IAW CDRL T002, DID TRG-002.
 - 4.1.4.6.6 The Contractor must deliver a Product Description Package IAW CDRL B001, DID SE-001.
- 4.1.5 Contractor Qualifications and Standards
 - 4.1.5.1 The Contractor must deliver a Summary of Contractor Operator Qualifications, UAS Specific training and currency requirements IAW CDRL A007, DID PM-007.
- 4.1.6 Risk Management
 - 4.1.6.1 The Contractor must provide details of Risk Management IAW CDRL A001, DID PM-001.
 - 4.1.6.2 The Contractor must continuously monitor for risks and once identified, must be reported to Canada within two (2) business days.
 - 4.1.6.3 The Contractor must deliver and maintain information required by Canada for the completion of CAF Record of Airworthiness Risk Management (CAF-RARM) IAW CDRL A009, DID PM-009.
- 4.1.7 Frequency Management and Supportability
 - 4.1.7.1 The Contractor must deliver an Application for Frequency Supportability IAW CDRL A010, DID PM-010 for each of the following UA and GCS sub-systems:
 - a. Transmitter Equipment Characteristics;
 - b. Receiver Equipment Characteristics; and
 - c. Antenna Equipment Characteristics.
- 4.1.8 Training Plan
 - 4.1.8.1 The Contractor must deliver a Training Plan IAW CDRL T001, DID TRG-001, and the Training Documentation IAW CDRL T002, DID TRG-002. The Training Plan and Training Documentation must identify the resources required to conduct training as discussed in section 6.12 of this SOW.

Solicitation No:

4.2 Recommended Spare Parts List Validation

4.2.1 Canada will conduct a logistics support validation exercise within six (6) months of receipt of delivery of the last UAS. Feedback provided to the Contractor on completion of this exercise will enable the Contractor to correct any RSPL deficiencies.

4.2.2 Canada will use the amended RSPL to make any required correction to the CFSS spare parts scales requirements.

5. SYSTEM ENGINEERING

5.1 General

5.1.1 The Contractor's System Engineering services provided to Canada under this program must focus on obtaining and sustaining Canada's capability of flying UAS off RCN Ships, which includes integration efforts into ships as well as flight authorization requirements. In this context, the Contractor must employ system engineering, testing, and production procedures that fully comply with the SPS and the standards of this SOW.

5.1.2 The Contractor must execute all required system engineering tasks to design, develop, and integrate any UAS changes needed to achieve or maintain the UAS performance IAW the SPS.

5.2 Cataloguing, Drawings, and Associated Lists

5.2.1 The UAS and components, including reusable shipping/storage containers supplied by the Contractor that must be held by Canada in support of UAS operation, training, and maintenance activity, will be appropriately catalogued.

5.2.1.1 Where the item has already been catalogued under a NATO Stock Number (NSN), the Contractor must provide information which identifies the items to Canada's satisfaction and enables Canada to adopt the existing NSN.

5.2.1.2 Where the item has not already been catalogued with a NSN, the Contractor must deliver a Drawing Package and Associated List IAW CDRL B003, DID SE-003.

5.2.2 The cataloguing information for each item must state whether the item is a Controlled Good. If applicable the information must identify if the item is subject to International Traffic in Arms Regulations (ITAR) regulations. If existing Engineering Drawings and Associated Lists do not already include the Controlled Good or ITAR information then the information may be provided separately.

5.2.3 For items that are not proprietary to the Original Equipment Manufacturer (OEM), the Contractor must deliver Level 1 Drawing Packages and Associated Lists IAW CDRL B003, DID SE-003.

5.2.4 For items that are proprietary to the OEM, the Contractor must deliver Level 1 Drawing Packages and Associated Lists IAW CDRL B003, DID SE-003, and documentation certifying that the items are only available from a sole manufacturer.

5.2.5 The Contractor must enable Canada to access the appropriate Level 3 drawings at the Contractor facility with seven (7) calendar days' notice when required for any specific investigation involving safety or airworthiness issues or unresolved technical problems.

5.2.6 The Contractor must deliver Level 3 drawing packages IAW CDRL B003, DID SE-003, for any special purpose items developed at Canada's cost under a TIES or AWR task.

5.3 Technical Issue Resolution

5.3.1 The Contractor must, on an as requested basis, resolve any identified technical or Contractor initiated procedural problem with the UAS capability by providing technical advice

Solicitation No:

and if required, engineering support in the form of any system engineering tasks. These tasks may include work which must be executed to design, develop, integrate, manufacture, install, test, qualify, certify and support the UAS as per the SPS.

5.4 Technical Investigations and Engineering Services

5.4.1 Technical advice requiring drawings or preparation of documented answers not within the scope of the initial required deliverables must be provided as and when required under TIES tasks. The Contractor must provide quotes and process proposed TIES task documentation IAW the applicable contract terms and conditions.

5.4.2 The Contractor must only perform the work and provide the services specified in any approved TIES task on receipt of the approved DND 626 form.

5.5 Interface Control Documents for ship, payload and GCS integration

5.5.1 The Contractor must provide Interface Control Documents (ICD) IAW CDRL B004, DID SE-004 for each describing the specific information requirements from the SPS.

5.6 Request for Deviations/Waivers

5.6.1 The Contractor must observe standard CAF practices for any temporary or permanent change from baseline system specifications for new UAS components developed and placed in service on equipment used for this contract.

5.6.2 The Contractor must submit a Request for Deviation IAW CDRL B005, DID SE-005 when specific replacement or repaired components will not meet the SPS for a specific period of time.

5.6.3 The Contractor must submit a Request for Waiver IAW CDRL B005, DID SE-005 when a proposed permanent change will affect the MMUAS compliance to the SPS.

5.7 Configuration Management

5.7.1 It is Canada's intent that the system OEM will manage the configuration of the UAS, and as a minimum has a configuration plan in place that meets or exceeds the standards of D-01-002-007/SG-001.

5.7.2 The Contractor must deliver and maintain a Configuration Management (CM) Plan IAW CDRL B006, DID SE-006.

5.7.3 The Contractor must manage the configuration of the UAS IAW the approved CM Plan.

5.7.4 Any Contractor initiated changes to the configuration of the UAS as delivered, necessitated by failure to maintain performance IAW the SPS, must be to the account of the Contractor for a period of one (1) year from completion of first system delivery. This includes replacement of delivered repair parts, spares, consumables, modifications to systems, software changes, and any resulting changes required to publications.

5.7.5 The Contractor must submit an Engineering Change Proposal IAW the approved CM Plan and receive approval from the TA prior to introducing configuration changes to UAS.

5.7.6 The Contractor must provide service history, design and test data or other information as appropriate to achieve and maintain airworthiness approval and flight authorization for any configuration changes to the UAS while the UAS is in-service.

5.7.7 The Contractor must recommend for DND approval which items from the UAS Product Description Package are to be designated as configuration items, using criteria presented in the CM Plan.

Solicitation No:

- 5.7.8 The Contractor must assign unique identifiers to hardware and software items and their associated configuration documentation.
- 5.7.9 The Contractor must ensure the unique identifiers are marked on hardware, on software media, embedded in software code and electronically embedded in alterable firmware.
- 5.7.10 The Contractor must identify the configuration baselines that will be used to manage the product configuration, and subsequently use these baselines to maintain configuration control.
- 5.7.11 The Contractor must determine and subsequently prepare, the configuration documentation needed to define each configuration baseline for each type of configuration item. This documentation will progressively define functional requirements, design constraints, interface characteristics, test requirements and other technical data required.
- 5.7.12 The Contractor must establish an engineering release system for configuration documentation, and use that system to issue any required material change notices IAW D-01-100-215/SF-000 Preparation of Materiel Change Notices, and the correct and current configuration documentation for use by functional activities (such as test and evaluation, maintenance planning and production).
- 5.7.13 The Contractor must maintain traceability between product units and their respective manuals, warranties and life cycle support obligations.
- 5.7.14 The Contractor must include two (2) copies of the operating system software and any required individual component software, to enable DND to conduct system software re-installations and for archive purposes into the system software library.

5.8 Acceptance Testing

- 5.8.1 The Contractor must deliver and maintain an Acceptance Test Plan (ATP) IAW CDRL B007, DID SE-007.
- 5.8.2 The Contractor must perform System Acceptance Testing IAW the approved ATP prior to UAS delivery.
- 5.8.3 The Contractor must deliver an Acceptance Test Report IAW CDRL B007, DID SE-007 not more than 14 days after the conclusion of acceptance testing.

6. INTEGRATED LOGISTICS SUPPORT

6.1 General

- 6.1.1 The Contractor must provide all documentation in order for DND to catalogue and inventory the complete UAS including consumables, repairable parts, Special Tools and Test Equipment (STTE) and any applicable materiel necessary to keep the UAS in operation.
- 6.1.2 The UAS Operators will perform maintenance following the Contractor's recommendations and publications.

6.2 ILS Plan

- 6.2.1 The Contractor must deliver an ILS Plan IAW CDRL C001, DID ILS-001.

6.3 Maintenance Concept

- 6.3.1 The DND maintenance concept is comprised of three (3) levels:
 - a. Operator Maintenance;
 - b. Unit Maintenance; and
 - c. Contractor Maintenance.

Solicitation No:

6.3.2 First Line Operator Maintenance

6.3.2.1 The UAS Operators will perform visual inspections and tests, run system self-diagnostics, and perform repairs following Contractor recommended operator maintenance procedures. Operator maintenance will use any required STTE to perform first line operator maintenance unique to the UAS.

6.3.2.2 The Contractor must provide consumable items typically required for first line operator maintenance and any repair parts typically required for the conduct of 100 typical flights.

6.3.2.3 Common items such as commercial off-the-shelf computers (e.g. laptop, notebook, tablet, etc.) will be maintained and supported through other CAF resources, and would not normally be sent to the UAS contractor for any non-warranty repair.

6.3.3 Unit Maintenance

6.3.3.1 If the Contractor's maintenance requires that CAF personnel do more than field repairs, then appropriately trained CAF technicians will complete the inspection and repairs following the Contractor's Unit Maintenance instructions and manuals.

6.3.3.2 CAF Information Systems Technicians will troubleshoot and complete repairs for notebook computers. The technicians will also have administrator rights to the aircraft and GCS for the purpose of loading software or firmware updates.

6.3.3.3 Special Tools and Test Equipment

6.3.3.3.1 The Contractor must identify any STTE required for the conduct of failure analysis and maintenance activities to be performed by CAF personnel following the Contractors recommended maintenance and manuals. STTE includes General Purpose Test Equipment, Special Purpose Test Equipment, General Purpose Tools, and Special Purpose Tools used to inspect, repair, overhaul, disassemble, assemble, test and otherwise maintain the UAS that are not provided with the UAS as operator maintenance tools.

6.3.3.3.2 If any STTE are required for Unit Maintenance, then:

- a. The Contractor must provide a STTE list IAW CDRL C004, DID ILS-004; and
- b. The Contractor must provide a minimum one (1) per UAS of required STTE as Unit Maintenance Support Kits.

6.3.3.3.3 If the Contractors recommended maintenance requires that the CAF hold STTE items, delivery of any required STTE must coincide with the delivery of the UAS.

6.3.4 Contractor Maintenance

6.3.4.1 The Contractor level maintenance which must be performed by the Contractor may include repairs, upgrades, modifications and repair by exchange/replacement, and the work will be as specified in the In-Service Support (ISS) SOW at Annex C.

6.4 Maintenance

6.4.1 The Contractor must deliver and maintain an Operations/Maintenance Manual IAW CDRL C006, DID ILS-006. The Maintenance portion of the Operations/Maintenance Manual must be prepared in the context of the Maintenance Concept described in this SOW, and must be designed to maintain the UAS at the required availability level as specified in the SPS.

6.5 Recommended Spare Parts List

Solicitation No:

6.5.1 The Contractor must deliver a RSPL IAW CDRL C003, DID ILS-003 which identifies items necessary to maintain the UAS at the availability level specified in the SPS for 150 UAS flight hours during a deployed operation away from homeport for 90 days.

6.6 Provisioning Documentation

6.6.1 The Contractor must provide a Provisioning Parts Breakdown IAW CDRL C004, DID ILS-004.

6.7 Initial Provisioning

6.7.1 Within 60 calendar days after Contract Award, the Contractor must provide all necessary documentation required by Canada to catalogue and inventory the system into the CFSS.

6.7.2 The Contractor must provide all consumable and repairable spare parts, all STTE, and any applicable material necessary for the UAS Operators to maintain system availability IAW the SPS.

6.7.3 Complete aircraft with payloads may be shipped and stored in a Contractor supplied shipping container, if that is within the Contractor's normal ILS procedures and support concept.

6.7.4 The Contractor must be prepared to hold DND owned repairable assemblies on an account to be established after Contract award. These repairable items will be selected from the RSPL based on the initial quantities acquired through this Contract.

6.7.5 The Contractor must hold its own consumable items, spare parts and assemblies as required to support the UAS program on its own accounts. Items from this stock will be sold to Canada on an as required basis to replace items consumed, lost or destroyed during system operations.

6.7.6 Together the DND owned assets and the Contractor owned assets form a pool of equipment, spare parts and consumable items ready to fill demands from unit operators. The Contractor must fill demands within 15 calendar days of receipt of approval from the TA and the RA or CA IAW the appropriate funding approval limitation.

6.8 Storage, Transportation and Handling

6.8.1 The Contractor must provide all technical data, publications and materiel required for the safe storage, transportation, handling, and disposal procedures of any items to be handled by CAF personnel during the conduct of the UAS operation and related maintenance work.

6.8.2 The Contractor must provide instructions on the short term and the long term storage and handling of all batteries used in the UAS.

6.8.3 The Contractor must deliver documentation which includes specific instructions for decommissioning and disposing of all UAS equipment that is deemed to be controlled goods or hazardous materials such as batteries.

6.8.4 The Contractor must follow best commercial procedures for the labeling and packaging of equipment, assemblies and spare parts. Requirements on the minimum acceptable standards are available in:

- a. C-02-005-009/AM-000, Inspection And Conditioning Of Materiel Returned To And Held in The Supply System;
- b. D-01-100-207/SF-000, Preparation of Parts Identification List;
- c. D-LM-008-001/SF-001, Methods of Packaging;

Solicitation No:

- d. D-LM-008-002/SF-001, Specification for Marking for Storage and Shipment;
- e. D-LM-008-022/SG-000, Standard For Packaging of Documentation; and
- f. D-LM-008-036/SF-000, Minimum Requirements For Manufacturer's Standard Pack.

6.9 Publication Management

6.9.1 The Contractor must deliver and maintain a Publications Management Plan IAW CDRL C005, DID ILS-005.

6.9.2 The Contractor must manage and maintain its own English language master copy of its own training publications and operations/maintenance manual IAW the Publications Management Plan.

6.9.3 The Contractor must include the Operations/Maintenance Manual with each MMUAS delivery.

6.9.4 For the duration of the Contract the Contractor must provide, at no cost to Canada, all safety and airworthiness related Contractor initiated alerts and notices which have any impact on the Canadian configuration.

6.9.5 For the duration of the Contract the Contractor must provide, at no cost to Canada, draft copies of any Contractor initiated publication amendments which have any impact on the Canadian configuration. These Contractor documents will be used by Canada to initiate any related bilingual publications amendment work under Publication Management Program.

6.10 Reproduction and Translation

6.10.1 Canada reserves the right to amend in consultation with the Contractor, where required, to translate any documentation into both of Canada's official languages, and to produce the bilingual documentation and publications for use within DND.

6.11 Operation and Technical Publications

6.11.1 The Contractor must provide all technical publications and documentation required by UAS Operators to enable safe and effective performance of the applicable maintenance tasks and proper system training and operation. This must include, but not be limited to, the following:

- a. UAS setup and teardown procedures, UAS operating instructions, UAS operational limitations, UAS emergency procedures, UAS maintenance instructions, etc., IAW CDRL C006, DID ILS-006;
- b. Interface Control Documents (ICDs), IAW CDRL B004, DID SE-004, required for ship and payload integration tasks; and
- c. Updates to the above when required due to equipment or procedure changes.

6.12 Training

6.12.1 The Contractor must provide training and a training support package that will serve to direct the initial cadre training for UAS Operators and to provide the source training documentation for Canada to train future UAS Operators.

6.12.2 The Contractor provided equipment and software versions used for training must be of the same equipment and version as the delivered UAS.

6.12.3 The Contractor must deliver a Training Plan IAW CDRL T001, DID TRG-001 which describes how the Contractor will meet the training requirements specified in this SOW.

6.12.4 Training Documentation

Solicitation No:

- 6.12.4.1 The Contractor must deliver Training Documentation IAW CDRL T002, DID TRG-002.
- 6.12.4.2 The Contractor delivered Training Documentation must be in sufficient detail to enable Canada to define the specification of course content, enabling objectives, lesson plans, training resource list and a course timetable IAW A-P9-050-000/PT-004, Design of Instructional Programs, and A-P9-050-000/PT-005, Development of Instructional Programs, and for the development of training evaluation program IAW A-P9-050-000/PT-007, Evaluation of Learners.
- 6.12.5 Conduct of Training
 - 6.12.5.1 The Contractor must provide UAS training to qualify a group of four (4) students as UAS Operators and include up to three (3) additional observers in the training.
 - 6.12.5.2 The Contractor provided training must be completed within six (6) months of Contract award.
 - 6.12.5.3 The Contractor must provide equipment and systems for the training, which will take place at a DND facility located in Gagetown, New Brunswick, Canada. DND will provide classroom facilities and access to range space for the conduct of training flights.
 - 6.12.5.4 The Contractor training must be detailed enough to enable UAS Operators to operate and maintain the UAS without Contractor assistance (other than Contractor maintenance (level 3)).

Appendix A1 To Annex A

MARITIME MINIATURE UNMANNED AIRCRAFT SYSTEM

DATA DELIVERABLES

Appendix A1-1 Contract Data Requirements List (CDRL)
Appendix A1-2 Data Item Description (DID)

1. General

1.1 Each CDRL in appendix 1 identifies a data deliverable. Each CDRL has an associated DID in Appendix 2 which provides details on the format and content of the data deliverable.

Appendix A1-1

MARITIME MINIATURE
UNMANNED AIRCRAFT SYSTEM

CONTRACT DATA REQUIREMENTS LIST

CDRL Number	DID Number	Title	SOW Reference
A001	PM-001	Project Management Plan	4.1.1.2
A002	PM-002	Meeting Minutes	4.1.2.5
A003	PM-003	Progress Reports and Special Purpose Task Reports	4.1.3.1.a, b
A004	PM-004	Previous Airworthiness Clearance Documentation	4.1.4.2
A005	PM-005	Summary of Operational history	4.1.4.6.1
A006	PM-006	System Safety Case with Hazard Analysis	4.1.4.6.2
A007	PM-007	Summary of Contractor Operator Qualifications, MMUAS Specific training and currency requirements	4.1.5.1
A009	PM-009	CF Record of Airworthiness Risk Management	4.1.6.3
A010	PM-010	Application for Frequency Supportability	4.1.7.1
B001	SE-001	Product Description Package	4.1.4.6.6
B002	SE-002	Availability Statistics Data	3.1.3
B003	SE-003	Drawing Package and Associated Lists	5.2.1.2, 5.2.3, 5.2.4, 5.2.6
B004	SE-004	Interface Control Document	5.5.1, 6.11.1.b
B005	SE-005	Request for Deviations / Waivers	5.6.2, 5.6.3
B006	SE-006	Configuration Management Plan	5.7.2
B007	SE-007	Acceptance Test Plan and Report	5.8.1, 5.8.3
C001	ILS-001	Integrated Logistics Support Plan	6.2.1
C003	ILS-003	Recommended Spare Parts List	6.5.1
C004	ILS-004	Provisioning Documentation	6.3.3.3.2, 6.6.1
C005	ILS-005	Publication Management Plan	6.9.1
C006	ILS-006	Operations/Maintenance Manual	4.1.4.6.4, 6.4.1, 6.11.1.a
T001	TRG-001	Training Plan	4.1.8.1, 6.12.3.
T003	TRG-002	Training Documentation	4.1.4.6.5, 4.1.8.1, 6.12.4.1

INTERPRETATION: The Contract Data Requirements List (CDRL) contains the deliverable data requirements for the MMUAS SOW.

PRECEDENCE: The requirements in Blocks 7 through 16 of the CDRL line items take precedence over any such requirements that may be specified in the associated Data Item Description (DID).

INSPECTION AND ACCEPTANCE OF DATA: Receipt of data does not constitute acceptance. The Contract terms and conditions define the data acceptance criteria.

SUBMISSION SCHEDULE: Unless otherwise specified, all numbers of days expressed herein are calendar days. Date of submission means date of receipt of covering letter.

Block 1 – Item Number: An alphanumeric sequence of a letter and three digits to uniquely identify a functional area of responsibility and the individual data item, expressed as follows:

A000	Project Management
B000	System Engineering
C000	Integrated Logistics Support
D000	Configuration Management
T000	Training Requirements

Block 2- Title: The title of the data item referred to in this CDRL.

Block 3 - Subtitle: The subtitle for the DID if required.

Block 4 - Data Item Number: Indicates the Data Item Description (DID) number to which this CDRL refers.

Block 5 – Reference: The article from the SOW which identifies the CDRL or DID.

Block 6 – Requiring Office: The authority responsible for defining the requirement, and ensuring the adequacy of the delivered data item.

Block 7 – Inspection And Acceptance Method: If required, indicates the requirement for Inspection and Acceptance of the data item. The following codes are used:

Block 8 - Approval Code: An “A” in this field identifies data that require approval. Approval of a preliminary draft is required before submission of the final document.

Block 9 - Input: “X” indicates that the data represents the integrated results of inputs from associated contractors.

Block 10 - Frequency: This block indicates the frequency of the delivery of the data. The following frequency codes are used:

ANPLY	Annually;	MNTHY	Monthly;
AS GEN	As generated;	ONE/R	One time with revisions;
ASREQ	As required;	OTIME	One time;
BI-MO	Each 2 months;	QRTLY	Quarterly;
BI-WK	Each 2 weeks;	R/ASR	Revisions as required;
DAILY	Daily;	SEMIA	Semi Annually; and
DFDEL	Deferred delivery;	WKLY	Weekly.
DFREQ	Deferred requisitioning;		

Block 11 - As Of Date: The date that the data item is due, or the constraint if constrained by an event or milestone, if only one submission is required. The following abbreviations are used for constraints:

PROP	Submitted with proposal;	DFDEL	Deferred delivery;
AS GEN	As generated;	DFREQ	Deferred requisitioning;

AS REQ	As required;	EOC	End of contract;
DACA	Days after contract award;	EOM	End of month; and
MACA	Months after contract award;	EOQ	End of quarter.

If there is insufficient space in block 11, the phrase "SEE BLOCK 16" is entered in block 11 and block 16 will have the constraint/milestone entered.

Block 12 - Date Of 1st Submission: The date that the first submission of the data item is due, or the constraint if constrained by an event or milestone. The abbreviations listed above for Block 11 are used for constraints.

If there is insufficient space in block 12, the phrase "SEE BLOCK 16" will be entered in block 12 and block 16 will have the constraint/milestone entered.

Block 13 - Date Of Subsequent Submission / Sub Event ID: The dates that the subsequent submissions of the data item are due, or the constraint if constrained by an event or milestone, if multiple submissions are required. The abbreviations listed above for Block 11 are used for constraints.

If there is insufficient space in block 13 the phrase "SEE BLOCK 16" is entered in block 13 and block 16 will have the constraint/milestone entered.

Block 14 - Distribution And Addresses: The addresses and the respective number of hard copies and soft copies to be provided to each addressee for the first submission and subsequent submissions of the data item is entered in this block. The following addressee abbreviations are used.

- 1P is the number of draft hard copies
- 1E is the number of draft electronic copies
- AP is the number of amended or final hard copies
- AE is the number of amended or final electronic copies

CA	Contract Authority	Public Works and Government Services Canada Attn: XXXXX Place du Portage, Phase III 11 Laurier Street Gatineau QC K1A 0S5
TA	Technical Authority	National Defence Attn: DLCSPM 4-7 101 Colonel By Dr Ottawa ON K1A 0K2

PA Procurement Authority National Defence
Attn: DLP 5-4-1
101 Colonel By Dr
Ottawa ON K1A 0K2

Block 15 - Total: Indicate the total number of copies (hard copies and soft copies separately) for the first submission and subsequent submissions of the data item.

Block 16 - Remarks: Additional or clarifying information for blocks 1 through 15.

Block 17 - Contract File Number/Document Number: Optional: The Contractor's internal filing or document number, if applicable;

Block 18 - Estimated Number Of Pages: The estimated number of pages, drawings, etc., for a single preparation is entered in this block;

Block 19 - Estimated Price: The total estimated price attributable to the production or development of the data item is entered in this block.

1. A001	2. Project Management Plan					3.				
4. PM-001	5. MMUAS SOW Para: 4.1.1.2					6. Technical Authority (TA)				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. PROP: Work breakdown structure, milestones, master schedule and outline PMP submitted with proposal 45 DACA: Completed PMP submitted AS REQ: Subsequent Updates as required						14.	1P	1E	AP	AE
						CA	1	1	1	1
						PA	1	1	1	1
						TA	1	1	1	1
						15. Total	3	3	3	3
17.						18. Pages:		19. \$		

1. A002	2. Meeting Minutes					3.				
4. PM-002	5. MMUAS SOW Para: 4.1.2.5					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. AS GEN: To be submitted for approval no later than five (5) business days following each meeting/teleconference. DND will have the final approval authority for all agendas and minutes of meetings and reviews within ten (10) business days.						14.	1P	1E	AP	AE
						CA		1	1	1
						PA		1	1	1
						TA		1	1	1
						15. Total		3	3	3
17.						18. Pages:		19. \$		

1. A003	2. Progress Reports					3.				
4. PM-003	5. MMUAS SOW Para: 4.1.3.1.a, b					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. MNTHY: To be submitted by the fifth (5th) business day of the following month.						14.	1P	1E	AP	AE
						CA			1	1
						PA			1	1
						TA			1	1
						15. Total			3	3
17.						18. Pages:		19. \$		

1. A004	2. Previous Airworthiness Clearance Supporting Documentation					3.				
4. PM-004	5. MMUAS SOW Para: 4.1.4.2					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. 20 DACA: Previous Airworthiness Clearance and Supporting Documentation						14.	1P	1E	AP	AE
						CA	1	1	1	1
						PA	1	1	1	1
						TA	3	1	1	1
						15. Total	5	3	3	3
17.						18. Pages:		19. \$		

1. A005	2. Summary of Operational History					3.			
4. PM-005	5. MMUAS SOW Para: 4.1.4.6.1					6. TA			

7.	8.	9.	10. PROP	11. PROP	12. PROP	13.					
16.							14.	1P	1E	AP	AE
							CA	1	1		
							PA	1	1		
							TA	3	1		
							15. Total	5	3		
17.					18. Pages:	19. \$					

1. A006	2. System Safety Case with Hazard Analysis				3.						
4. PM-006	5. MMUAS SOW Para: 4.1.4.6.2				6. TA						
7.	8.	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16					
16. PROP: Draft submitted with proposal AS REQ: Amended version submitted to assist with airworthiness approval.							14.	1P	1E	AP	AE
							CA	1	1		
							PA	1	1		
							TA	3	1		
							15. Total	5	3		
17.					18. Pages:	19. \$					

1. A007	2. Summary of Contractor Operator Qualifications, UAS Specific Training and Currency Requirements				3.						
4. PM-007	5. MMUAS SOW Para: 4.1.5.1				6. TA						
7.	8.	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16					
16. PROP: Submitted with proposal AS REQ: Update if standards change							14.	1P	1E	AP	AE
							CA	1	1		1
							PA	1	1		1
							TA	3	1		1
							15. Total	5	3		3
17.					18. Pages:	19. \$					

1. A009	2. CAF Record of Airworthiness Risk Management				3.						
4. PM-009	5. MMUAS SOW Para: 4.1.6.3				6. TA						
7.	8.	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16					
16. PROP: Draft submission with proposal 30 DACA: Final submission							14.	1P	1E	AP	AE
							CA	1		1	1
							PA	1		1	1
							TA	3		3	1
							15. Total	5		3	3
17.					18. Pages:	19. \$					

1. A010	2. Application for Frequency Supportability				3.						
4. PM-010	5. MMUAS SOW Para: 4.1.7.1				6. TA						
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16					
16. PROP: Draft submission using DND 552 form or the US DoD equivalent							14.	1P	1E	AP	AE

AS REQ: Updated submission when any of the frequency capability of the MMUAS equipment provided has changed	CA	1	1		
	PA	1	1		
	TA	2	1		1
	15. Total	4	3		1
17.	18. Pages:		19. \$		

1. B001	2. Product Description Package				3.				
4. SE-001	5. MMUAS SOW Para: 4.1.4.6.6				6. TA				
7.	8.	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16			
16. PROP: Submitted with proposal					14.	1P	1E	AP	AE
AS REQ: Revisions to be incorporated under the terms of the Configuration Management Plan. Revised as required to incorporate approved changes to the system configuration as they occur.					CA	1	1	1	1
					PA	1			1
					TA	3	1	1	1
					15. Total	5	2	2	3
17.	18. Pages:		19. \$						

1. B002	2. Availability Statistics Data				3.				
4. SE-002	5. MMUAS SOW Para: 3.1.3				6. TA				
7.	8. A	9.	10. PROP	11. PROP	12. PROP	13. N/A			
16. PROP: Submitted with proposal					14.	1P	1E	AP	AE
					CA			1	1
					PA			1	1
					TA			3	1
					15. Total			5	3
17.	18. Pages:		19. \$						

1. B003	2. Drawing Package and Associated List				3.				
4. SE-003	5. MMUAS SOW Para: 5.2.1.2, 5.2.3, 5.2.4, 5.2.6				6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16			
16. 60 DACA: Level 1, 2 and 3 drawing packages for applicable existing items					14.	1P	1E	AP	AE
AS REQ: 45 days after receipt of request for additional deliverables					CA	1	1	1	1
					PA				1
					TA	1	1	1	1
					15. Total	2	3	2	3
17.	18. Pages:		19. \$						

1. B004	2. Interface Control Document				3.				
4. SE-004	5. MMUAS SOW Para: 5.5.1, 6.11.1.b				6. TA				
7.	8. A	9.	10. AS REQ	11. 60 DACA	12. See block 16	13. AS REQ			
16.					14.	1P	1E	AP	AE
					CA	1	1	1	1
					PA	1			
					TA	1	1	1	1

													15. Total	3	2	2	2
17.											18. Pages:		19. \$				

1. B005		2. Request for Deviations/Waivers										3.					
4. SE-005		5. MMUAS SOW Para: 5.6.2, 5.6.3										6. TA					
7.		8. A		9.		10. AS REQ			11. AS REQ			12. AS REQ		13. AS REQ			
16. AS REQ: Submit as necessary.											14.	1P	1E	AP	AE		
											CA	1	1	1	1		
											PA	1	1	1	1		
											TA	1	1	1	1		
											15. Total	3	3	3	3		
17.											18. Pages:		19. \$				

1. B006		2. Configuration Management Plan										3.					
4. SE-006		5. MMUAS SOW Para: 5.7.2										6. TA					
7.		8. A		9.		10. See block 16			11. See block 16			12. See block 16		13. See block 16			
16. PROP: Draft submitted with proposal											14.	1P	1E	AP	AE		
60 DACA: Final delivery											CA	1	1	1	1		
AS REQ: Amend as necessary											PA	1	1	1	1		
											TA	3	1	1	1		
											15. Total	5	3	3	3		
17.											18. Pages:		19. \$				

1. B007		2. Acceptance Test Plan and Report										3.					
4. SE-007		5. MMUAS SOW Para: 5.8.1, 5.8.3										6. TA					
7.		8. A		9.		10. See block 16			11. See block 16			12. PROP		13. AS REQ			
16. PROP: Draft submitted with proposal											14.	1P	1E	AP	AE		
AS REQ: An updated Acceptance Test Plan may be requested by Canada											CA	1	1		1		
AS REQ: An Acceptance Test Report must be submitted fourteen (14) days after the conclusion of acceptance testing											PA	1					
											TA	3	1		1		
											15. Total	5	2		2		
17.											18. Pages:		19. \$				

1. C001		2. Integrated Logistics Support Plan										3.					
4. ILS-001		5. MMUAS SOW Para: 6.2.1										6. TA					
7.		8. A		9.		10. See block 16			11. See block 16			12. See block 16		13. See block 16			
16. PROP: Draft submitted with proposal											14.	1P	1E	AP	AE		
60 DACA: Final Submission											CA	1	1	1	1		
											PA		1		1		
											TA	1	1	1	1		
											15. Total	2	3	2	3		
17.											18. Pages:		19. \$				

1. C003	2. Recommended Spare Parts List					3.				
4. ILS-003	5. MMUAS SOW Para: 6.5.1					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. PROP: A Recommended Spare Parts List (RSPL) which was used in support of a previous Customer submitted with the proposal 60 DACA: RSPL incorporating quantities based on operational profile and ILS plan factors						14.	1P	1E	AP	AE
						CA				1
						PA			1	1
						TA		1	2	1
						15. Total		1	3	3
17.						18. Pages:		19. \$		

1. C004	2. Provisioning Parts Breakdown					3.				
4. ILS-004	5. MMUAS SOW Para: 6.3.3.3.2, 6.6.1					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. 40 DACA: Submission AS REQ: When required in support of a TIES task or AWR						14.	1P	1E	AP	AE
						CA				1
						PA			1	1
						TA	1	1	1	1
						15. Total	1	1	2	3
17.						18. Pages:		19. \$		

1. C005	2. Publications Management Plan					3.				
4. ILS-005	5. MMUAS SOW Para: 6.9.1					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. PROP: Existing publication management plan and publication control processes						14.	1P	1E	AP	AE
						CA				1
						PA				1
						TA		1	1	1
						15. Total		1	1	3
17.						18. Pages:		19. \$		

1. C006	2. Operations/Maintenance Manual					3.				
4. ILS-006	5. MMUAS SOW Para: 4.1.4.6.4, 6.4.1, 6.11.1.a					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. 30 DACA: Draft delivery 60 DACA: Final delivery incorporating changes from DND AS REQ: In support of a TIES task or AWR						14.	1P	1E	AP	AE
						CA	1	1		1
						PA	1			
						TA	3	1	1	1
						15. Total	5	2	1	2
17.						18. Pages:		19. \$		

1. T001	2. Training Plan					3.			
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4. TRG-001	5. MMUAS SOW Para: 4.1.8.1, 6.12.3					6. TA				
7.	8. A	9.	10. See block 16	11. See block 16	12. See block 16	13. See block 16				
16. PROP: Sample training course outline, including provisional training dates 30 DACA: Final delivery AS REQ: Amended TP submissions as/if required						14.	1P	1E	AP	AE
						CA	1	1	1	1
						PA	1			1
						TA	1	1	1	1
						15. Total	3	2	2	3
17.					18. Pages:	19. \$				

1. T003	2. Training Documentation					3.				
4. TRG-002	5. MMUAS SOW Para: 4.1.4.6.5, 4.1.8.1, 6.12.4.1					6. TA				
7.	8. A	9.	10. ONE/R	11. 45 DACA	12. 45 DACA	13. AS REQ				
16.						14.	1P	1E	AP	AE
						CA		1	1	1
						PA				1
						TA		1	1	1
						15. Total		2	2	3
17.					18. Pages:	19. \$				

Appendix A1-2

MARITIME MINIATURE UNMANNED AIRCRAFT SYSTEM

DATA ITEM DELIVERABLES

CDRL Number	DID Number	Title	SOW Reference
A001	PM-001	Project Management Plan	4.1.1.2
A002	PM-002	Meeting Minutes	4.1.2.5
A003	PM-003	Progress Reports and Special Purpose Task Reports	4.1.3.1.a, b
A004	PM-004	Previous Airworthiness Clearance Supporting Documentation	4.1.4.2
A005	PM-005	Summary of Operational History	4.1.4.6.1
A006	PM-006	System Safety Case with Hazard Analysis	4.1.4.6.2
A007	PM-007	Summary of Contractor Operator Qualifications, UAS Specific Training and Currency Requirements	4.1.5.1
A009	PM-009	CAF Record of Airworthiness Risk Management	4.1.6.3
A010	PM-010	Application for Frequency Supportability	4.1.7.1
B001	SE-001	Product Description Package	4.1.4.6.6
B002	SE-002	Availability Statistics Data	3.1.3
B003	SE-003	Drawing Package and Associated List	5.2.1.2, 5.2.3, 5.2.4, 5.2.6
B004	SE-004	Interface Control Document	5.5.1, 6.11.1.b
B005	SE-005	Request for Deviations / Waivers	5.6.2, 5.6.3
B006	SE-006	Configuration Management Plan	5.7.2
B007	SE-007	Acceptance Test Plan and Report	5.8.1, 5.8.3
C001	ILS-001	Integrated Logistics Support Plan	6.2.1
C003	ILS-003	Recommended Spare Parts List	6.5.1
C004	ILS-004	Provisioning Documentation	6.3.3.3.2, 6.6.1
C005	ILS-005	Publications Management Plan	6.9.1
C006	ILS-006	Operations/Maintenance Manual	4.1.4.6.4, 6.4.1, 6.11.1.a
T001	TRG-001	Training Plan	4.1.8.1, 6.12.3
T003	TRG-002	Training Documentation	4.1.4.6.5, 4.1.8.1, 6.12.4.1

Solicitation No: W8476-185692

The following defines the various blocks of information found on the Data Item Description (DID) forms:

BLOCK 1 – Title: A short descriptive name that identifies its nature and distinguishes it from any other DID.

BLOCK 2 – Identification Number: An alphanumeric allocation representing a functional area of responsibility that uniquely identifies the DID. They are as follows:

PM-000	Project Management
SE-000	System Engineering
ILS-000	Integrated Logistics Support
TRG-000	Training

BLOCK 3 – Description / Purpose: A concise description of the data content requirements that identifies the purpose for which the DID is required.

BLOCK 4 - Approval Date: Date that the DID was approved by the originator.

BLOCK 5 - Office Of Primary Interest (OPI): The authority responsible for specifying the data requirement.

BLOCK 6 - GIDEP Applicable: “X” indicates that the data must be submitted by a Government organization or the Contractor to the Government/Industry Data Exchange Program (GIDEP).

BLOCK 7 - Application / Interrelationship: Provides the application details and interrelationship of the data item to other DIDs or documents.

BLOCK 8 - Originator: The originator of the DID.

BLOCK 9 - Applicable Forms: Indicates any form needed to prepare the data.

BLOCK 10 - Preparation Instructions: Describes the data content and format that the data item must satisfy.

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Project Management Plan	PM-001	1 of 2
3. Description / Purpose		
<p>The Project Management Plan (PMP) describes the Project Management (PM) activities and ensures they are fully integrated with the Systems Engineering and Integrated Logistics Support (ILS) activities such that the schedule, cost and risk elements associated with the contract are properly managed and controlled.</p>		
4. Approval Date	5. Office of Primary Interest (OPI)	6. GIDEP Applicable
	DND Project Manager (PM)	
7. Application / Interrelationship		8. Originator
UAS: CDRL-A001, SOW Para 4.1.1.2		Technical Authority (TA)
CDRL, DID	CDRL, DID	CDRL, DID
A003, PM-003,	A010 PM-010	C002 ILS-002
A004, PM-004	B007 CM-007	C006 ILS-006
A006 PM-006	C001 ILS-001	T001 TRG-001
A008 PM-008		
		9. Applicable Forms
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The PMP may be prepared in Contractor format.		
10.1.2 The PMP encompasses management of all associated plans and activities required to deliver the scope of work outlined in the SOW. The PMP must contain sufficient detail to describe how the activities will be performed.		
10.2 <u>Content</u>		
10.3 The PMP must include:		
10.3.1 <u>Contractor's Project Organizational Structure</u>		
a. A description of the approach, methods and procedures that will be used to successfully carry out the project management in support of the SOW.		
b. An organizational structure chart with Contractor and sub-Contractor(s) organizational and individual responsibilities including office of prime interest, telephone numbers, e-mail addresses, authorities and reporting channels. The specific UAS Project Organizational Chart(s) must reflect the following:		
a) the Project Manager's position with the responsibility and authority as per the SOW;		
b) a hierarchical breakdown of positions complete with responsibilities, and		
c) the identification of all "key signatory" positions and personnel who will certify work.		
10.3.2 <u>Project Planning and Control</u>		
a. A description of the support functions to be performed during the performance of the work, including explanations of how these functions are delegated to the personnel assigned to the various project teams.		
b. A description of how the relationship and lines of communication between the Contractor's project team members and:		

DATA ITEM DESCRIPTION		PM-001	Page	of
10.	Preparation Instructions (continued)			2
	<ul style="list-style-type: none"> a) The Contract Management; b) The PWGSC Contract Authority; c) The DND Project Manager; and d) The Sub-Contractors. <p>10.3.3 <u>Resource and Cost Control</u></p> <ul style="list-style-type: none"> a. A description of the resource and cost control practices used to measure, track and control the work elements. <p>10.3.4 <u>Work Breakdown Structure</u></p> <ul style="list-style-type: none"> a. A product-oriented Work Breakdown Structure (WBS) encompassing all work elements necessary for the accomplishment of the work. The WBS will include a minimum of the third level work and will be used for co-ordination of technical and management activities. Lower levels must be produced as required to avoid WBS elements spanning multiple product teams. The WBS will include: <ul style="list-style-type: none"> i. WBS element ID; ii. A brief description of the activities scheduled; iii. Identification of the responsible Contractor's department or product team, and iv. The identification and description of milestones. <p>10.3.5 <u>Milestones</u></p> <ul style="list-style-type: none"> a. A milestone list including, but not limited to: Task ID; Task name; Task description; WBS element ID; and baseline completion date. <p>10.3.6 <u>Master Schedule</u></p> <ul style="list-style-type: none"> a. A Critical Path Method (CPM) master schedule reflecting the major activities and milestones for the work. The master schedule must be displayed as a GANTT chart and include, but not limited to: <ul style="list-style-type: none"> a) Task ID; b) Task name; c) WBS element ID; d) Start and stop dates; e) Critical path; f) Slack; g) Performance metrics information; and h) A legend describing any symbols used in the schedule. <p>10.3.7 <u>Risk Management</u></p> <ul style="list-style-type: none"> a. A description of how risks will be identified, assessed and how risk control action will be developed and implemented b. An initial risk assessment with associated risk mitigation plan. 			

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Meeting Minutes	PM-002	1 of 2
3. Description / Purpose		
Meeting Minutes will be used to document the discussions at meetings between representatives of the Government and the Contractor, with particular emphasis on decisions and action items.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship		8. Originator
UAS: CDRL-A002, SOW Para 4.1.2.5		TA
		9. Applicable Forms
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Meeting Minutes may be prepared in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The introductory information must contain:		
a) Contract Number and Contract Title;		
b) Title of meeting (e.g. Progress Review Meeting);		
c) The meeting location, date and start time;		
d) The overall purpose and/or objective of the meeting;		
e) Name and title of the Chairperson;		
f) A list of the names, titles and organizations of persons that attended and those that were invited, but absent; and		
g) Signature blocks for one Contractor approval authority and one Government approval authority.		
10.2.2 The body must contain the following two sections:		
a) Review of Action Items – A review of the action items from previous meetings as follows:		
i. Open – For action items that have not yet been completed, the agenda item and the open action item(s) are to be brought forward from the previous Meeting Minutes to the current Meeting Minutes and annotated with an applicable status indicator such as “On Going” and an appropriate explanation.		

DATA ITEM DESCRIPTION		PM-002	Page	of
10.	Preparation Instructions (continued)			2
<ul style="list-style-type: none"> ii. <u>Recently Closed</u> – For action items that have been completed but not yet recorded as such in any previous Meeting Minutes, the agenda item and recently closed action item(s) are to be brought forward from the previous Meeting Minutes to the current Meeting Minutes and annotated as “Closed” and an appropriate explanation. iii. <u>Previously Closed</u> – Items that were annotated as “Closed” in a previous Meeting Minutes are excluded from subsequent Meeting Minutes. b) New Business – The New Business section must contain the new topics of discussion, organized per the listing provided in the Meeting Agenda. For each item the following must be provided: <ul style="list-style-type: none"> i. <u>ID</u> – The ID from the Meeting Agenda; ii. <u>Item</u> – The topic title from the Meeting Agenda; iii. <u>Discussion</u> – A brief encapsulation of only the discussion points that are pertinent to understanding the context of the Decision. It’s not necessary to document a lengthy record of the entire deliberation; iv. <u>Decision</u> – A concise record of the decision reached to fulfil the stated purpose and/or accomplish the stated objective of the discussion as recorded in the Agenda. v. <u>Action</u> – A listing of the action(s) necessary to execute the decision, and for each action item, the name of the person(s) assigned responsibility for fulfilling them and the key dates. <p>10.2.3 The concluding information must contain the following:</p> <ul style="list-style-type: none"> a) The proposed date, time and location of any follow-up meeting. <p>10.2.4 Copies of all documentation tabled at the meeting must be appended to the minutes including:</p> <ul style="list-style-type: none"> a) an updated copy of the Meeting Agenda reflecting the actual agenda for the meeting as conducted. b) for Progress review Meetings, a copy of the Action Item Registry as at the end of the meeting. 				

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Progress Report	PM-003	1 of 3
3. Description / Purpose		
The Progress Report will summarize the Contractor's progress in relation to the project milestones, schedules, plans and deliverables. It provides the status of project management and manufacturing work achieved versus work that was planned.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-A003, SOW paras 4.1.3.1.a, b	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Progress Report may be provided in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The Progress Report must include the following parts:		
a) A Title Page containing the report name, report date, contract number, the Contractor's name and the signature and signature block including contact information of the individual responsible for the content of the report;		
b) Part 1 – Executive Summary;		
c) Part 2 – System Engineering Report (when there are incomplete new equipment deliveries); and		
d) Part 3 – Warranty Report (when there are completed or ongoing warranty repairs).		
10.2.2 <u>Part 1 – Executive Summary</u>		
a. The Executive Summary must include:		
a) a Project Management Summary;		
b) a summary of the detailed System Engineering Report described in Part 2; and		
c) a summary of the Warranty report described in Part 3.		
b. The Project Management Summary must include:		
a) A description of overall progress against the Master Schedule with explanation of any slippages;		
b) Progress against major milestones, expected date of completion of near major milestones, problem areas and work around plans where required;		

DATA ITEM DESCRIPTION		PM-003	Page	of
10.	Preparation Instructions (continued)			2
<ul style="list-style-type: none"> c) Identification/update of medium and high risks; d) Summarized status of each deliverable item and open task; e) Status of Contract Amendments, Design Changes, Deviations and Waivers (if applicable); f) Status of open Action Items (if applicable); g) New problems/issues and any other areas of concern, interest or importance (if applicable); h) Overall financial review; and i) Planned activities for the following reporting period (if applicable). <ul style="list-style-type: none"> c. The System Engineering Report summary should be no more than 2 pages in length. d. The Warranty Report summary should be no more than 2 pages in length. <p>10.2.3 <u>Part 2 – System Engineering Report</u></p> <ul style="list-style-type: none"> a. The System Engineering Report must include the following sub-reports: <ul style="list-style-type: none"> a) Manufacturing Schedule, Issues, Risks and Work In Progress (WIP) Report; b) Proof of Compliance Reports (when applicable); c) Quality Assurance Report; and d) Shipping Reporting. b. <u>Manufacturing Schedule, Issues, Risks and WIP Report</u> <ul style="list-style-type: none"> 10.2.3.b.1 The Manufacturing Schedule, Issues, Risks and WIP sub Report must include the following sub Reports: <ul style="list-style-type: none"> a) Manufacturing Schedule, Issues, Risks and WIP Summary; b) Manufacturing Schedule; c) Delivery Schedule - Issues and Risk Report; and d) Work in Progress (WIP) Report. 10.2.3.b.2 <u>Manufacturing Schedule</u> <ul style="list-style-type: none"> 10.2.3.b.2.1 Description of progress to the Manufacturing Schedule with explanation of any slippages, in addition to: <ul style="list-style-type: none"> a) Progress against manufacturing milestones, expected date of completion of near milestones, problem areas and workaround plans where required; b) New manufacturing problems/issues and any other areas of concern, interest or importance; and c) Planned manufacturing activities for the following reporting period. 10.2.3.b.3 <u>Delivery Schedule - Issues and Risk Report</u> <ul style="list-style-type: none"> 10.2.3.b.3.1 Outlining the risks or issues impacting the delivery schedule, as well as impacting or potentially impacting the delivery schedule in the future. Risk mitigation strategies to reduce each risk item or issue must also be documented. 10.2.3.b.4 Work in Progress (WIP) Report 				

DATA ITEM DESCRIPTION		PM-003	Page	of
10.	Preparation Instructions (continued)			3
<p>10.2.3.b.4.1 The work performed during the month, including Technical Investigation reports, Equipment Failure reports and follow-up on previous failures (when applicable).</p> <p>c. Quality Assurance (QA) Report</p> <p>10.2.3.c.1 The QA report must contain, at a minimum:</p> <ul style="list-style-type: none"> a) Status and changes to quality measurement systems that involve or impact the assembly and test; b) Issues impacting the control of current builds, configurations, firmware and revisions of the equipment manufactured. Statistical results on non-conforming material identified during assembly, test, configuration and shipment must also be included; <p>d. Shipping Report</p> <p>10.2.3.d.1 The Shipping sub Report must include the following sub sub Reports:</p> <ul style="list-style-type: none"> a) Shipment Summary Report; b) Shipment to/from DND Supply System Report <ul style="list-style-type: none"> i. This report must describe all product shipped to/from the DND Supply System or any other facility external to the manufacturer. Items must be tracked and reported by serial number where applicable; c) Warranty Returns Report <ul style="list-style-type: none"> i. When applicable the Warranty Returns Report must list all products returned under warranty from DND. In most cases these units will be returned via the DND Supply System. This report must list the returns based on their serial number, field tests which caused the return, results of Contractor tests, root cause analysis of failures, trends and modifications made to repair the product; and d) Warranty Period by Serial Number (when applicable) <ul style="list-style-type: none"> i. The Warranty Period by Serial Number report must list the warranty start and end dates for all products delivered. <p>10.2.4 <u>Part 3 – Warranty Report</u></p> <p>a. When there are CAF owned parts under Contractor control for the purpose of warranty, whether the items are at the Contractor facility or in shipment by the Contractor, the Report must include:</p> <ul style="list-style-type: none"> a) Item name; b) Item part number; c) Item serial number (if applicable); d) Repair or overhaul work required; e) Hours of repair or overhaul work required; f) Expected due date for return to Canada; and g) Comments. 				

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Previous Airworthiness Clearance Supporting Documentation	PM-004	1 of 1
3. Description / Purpose		
This documentation from a previous airworthiness application will support the DND Technical and Operational Airworthiness Clearances Processes.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL A004, SOW Para 4.1.4.2	TA	
10. Preparation Instructions		
10.1 The Previous Airworthiness Clearance Supporting Documentation must include:		
<ul style="list-style-type: none"> a. Existing airworthiness clearance approval documents from Australia, UK, US or a comparable civil or military authority. The supporting documentation used to obtain the flight permits and the actual flight permits themselves are required, not just a list of previous flight permits. b. Existing certification, including: <ul style="list-style-type: none"> i. The particulars of the certification/approval authority; ii. Descriptions of system usage limitations and special conditions for the conduct of operations; iii. Approval date(s); iv. A copy of the certification/approval documentation issued; and v. A copy of the special conditions/limitations (data sheets). c. If an existing certification exists, it must be provided as a single page summary accompanied by the supporting documentation. 		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Summary of Operational History	PM-005	1 of 1
3. Description / Purpose		
This document will provide a summary of operational history and suitability assessment for the UAS.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL A005, SOW Para 4.1.4.6.1	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Summary of Operational History may be provided in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The Summary of Operational History must include, but not be limited to:		
<ul style="list-style-type: none"> a) UAS development history; b) Operational history including hours flown/operated, losses including causes, fault arising rates, details of significant airworthiness issues and resolutions; c) Suitability assessment for operation in theatre, based on operational history/experience, including reference to anticipated design or procedural changes, identification of any potential problems related to the nature of the operational environment; d) Description of special conditions including support documentation; and e) Description of exemptions including support documentation. 		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
System Safety Case with Hazard Analysis	PM-006	1 of 1
3. Description / Purpose		
A System Safety Case with Hazard Analysis will assist in obtaining a flight permit while taking into account all the considerations regarding airworthiness and safety related to performing the UAS missions, roles and tasks, under all operational circumstances and environments.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL A006, SOW para 4.1.4.6.2	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The System Safety Case (SSC) with Hazard Analysis may be provided in Contractor format.		
10.2 <u>Content</u>		
10.3 <u>UAS Integration</u>		
10.3.1 An internationally recognized methodology must be used to demonstrate the level of safety and must address the entire UAS, and not just the air vehicle. Any identified risks related to shortfalls in the level of safety are to be recorded with suggested mitigation measures. Risks to persons on the ground and other airspace users are to be identified.		
10.4 <u>Industry Standards</u>		
10.4.1 The data must use generally accepted industry standards or other regulator's processes such as advisory circulars or military standards / specifications to produce the SSC and associated documentation. An appropriate hazard analysis must be included.		
10.5 <u>System Components</u>		
10.5.1 For the purposes of production of the SSC, the data must consider the UAS to consist of the air vehicle, ground control stations, launch & recovery systems, communications links and all other subsystems and components necessary for the safe operation of the air vehicle.		
10.6 <u>Configuration Document</u>		
10.6.1 The data must identify the SSC as a configuration document. If special conditions, exemptions and findings of equivalent safety are used as part of the SSC, the data must include associated documentation to support the airworthiness clearance. The data must include any requests for clarification in the event of any inconsistency between the minimum standard of airworthiness, established by the final UAS SSC, ACP or the SOW.		

DATA ITEM DESCRIPTION			
1. Title	2. Identification Number	Page #	
Summary of Contractor Operator Qualifications, UAS Specific training and currency requirements	PM-007	1	of 1
3. Description / Purpose			
This document provides a validation of training programme and currency standards for crew and instructors			
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable	
	TA		
7. Application / Interrelationship	8. Originator	9. Applicable Forms	
UAS: CDRL A007, SOW para 4.1.5.1	TA		
10. Preparation Instructions			
10.1 <u>Format</u>			
10.1.1 The Summary of Contractor Operator Qualifications, UAS Specific training and currency requirements may be provided in Contractor format.			
10.2 <u>Content</u>			
10.2.1 The Summary of Contractor Operator Qualifications, UAS Specific training and currency requirements must include, but not be limited to:			
<ul style="list-style-type: none"> a) Documentation verifying the UAS specific training the crews have received, their experience levels, qualifications and valid currency; b) Documentation of any recognized standard to which UAS GCS crews have been trained (e.g. private pilots licence, instrument ratings, qualified flight Instructors, etc.); and c) Guidelines or regulations dictating what crews must accomplish to maintain their UAS currency/qualification. 			

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
CAF Record of Airworthiness Risk Management	PM-009	1 of 3
3. Description / Purpose		
The Canadian Armed Forces Record of Airworthiness Risk Management (CAF-RARM) process defines the procedures and methods to be used in identifying, analyzing, evaluating and mitigating operational risk. Contractor input is required to complete the CAF-RARM.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-A009, SOW para 4.1.6.3	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The CAF-RARM may be provided in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The CAF-RARM must address:		
a. What is the total number of UAS accumulated hours of service in support of military operations?		
b. What is the total number of UAS accumulated hours of service in support of military operations for Australia, United Kingdom, United States and/or other NATO countries?		
c. Where has the UAS flown in support of military operations?		
d. What are the characteristics of the MMUAV, including as a minimum;		
a) Wingspan (m);		
b) Length (m);		
c) Empty mass (kg);		
d) Maximum Take-Off Weight: (kg);		
e) Typical minimum safe operating speed at sea level (knots, m/s);		
f) Minimum safe operating speed launching and operating from a site with density altitudes up to 1,524 m/5000ft: (knots, m/s);		
g) Cruise Speed: (knots, m/s); and		
h) Maximum Speed: knots, m/s.		
e. What is the launch safety template when operating from a site situated at 1,524 m/5000ft density altitude? Provide a sketch showing the recommended typical safety template for clearing an obstacle 10 m higher than the launch site, and showing the extended area affected if the aircraft requires additional time to accelerate before achieving a sustained rate of climb.		

DATA ITEM DESCRIPTION		PM-009	Page	of				
10.	Preparation Instructions (continued)			2	3			
<p>f. What is the launch safety template when operating from a ship at sea level with an air temperature of 5°C? Provide a sketch showing the recommended typical safety template for clearing an obstacle 10 m higher than the launch site, and showing the extended area affected if the aircraft requires additional time to accelerate before achieving a sustained rate of climb?</p> <p>g. What warnings are provided to the operator when the aircraft approaches assigned aerospace boundaries (I.E.: What happens when the aircraft reaches a restricted airspace boundary or elevation boundary)?</p> <p>h. What is the lost link protocol? Can an absolute ceiling be programmed beyond which the aircraft will not climb while attempting to re-establish the data link? Will the aircraft retrace its route or does it attempt the shortest path to a pre-determined location? What other procedures are used to re-establish the data link? What ultimately occurs if the data link is not re-established?</p> <p>i. What is the anticipated loss of data link event rate when operating at ranges of 15 km when there are no structures obstructing the Line of Sight? What is the anticipated data link loss rate when operating at 20 km?</p> <p>j. What is the probability that an aircraft will depart from assigned aerospace due to navigation or control system failures?</p> <p>k. What options are available to the operator when the aircraft loses navigational position awareness because of a loss of or a weak GPS signal?</p> <p>l. Typically, what percentage of flights will end with the aircraft failing to return to the pre-planned recovery site due to technical failures such as propulsion unit failures, loss of positioning/navigation data, aircraft component failures, etc?</p> <p>m. What is the failure rate for propulsion units?</p> <p>n. What warnings are provided in the event of a propulsion unit problem or failure?</p> <p>o. Describe the recovery process, including the recovery sequence of events.</p> <p>p. What is the “missed approach” procedure when an aircraft approach is not within the optimal landing envelope? Is a wave-off under such circumstances automatic, or is operator intervention required?</p> <p>q. What is the procedure carried out by the aircraft in the event the battery becomes discharged below system minimum operating requirements?</p> <p>r. What is the anticipated attrition rate due to damages incurred while landing for operations in a hostile environment where off-site recovery is often not practical?</p> <p>s. What is the probability of an aircraft executing an uncommanded recovery? (I.E.: An automated landing conducted off-site during a flight.)</p> <p>t. What is the probability that an aircraft can be launched with components not properly installed, and that the components would subsequently detach from the aircraft, resulting in loss of control of the aircraft?</p> <p>u. What system parameters are automatically tested during pre-flight checks?</p> <p>v. What system parameters are automatically monitored during flight? (Sample parameters are provided below)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Avionics cold</td> <td style="width: 50%;">Avionics hot</td> </tr> <tr> <td>Air temperature above limit</td> <td>Air temperature near freezing</td> </tr> </table>					Avionics cold	Avionics hot	Air temperature above limit	Air temperature near freezing
Avionics cold	Avionics hot							
Air temperature above limit	Air temperature near freezing							

DATA ITEM DESCRIPTION		PM-009	Page	of
10.	Preparation Instructions (continued)			3
	<p>Air temperature below limit</p> <p>Airspeed fast</p> <p>Barometric altitude higher than GPS alt</p> <p>Above mission altitude limit</p> <p>Below commanded altitude</p> <p>Pilot's Console uplink timeout</p> <p>Electrical voltage low</p> <p>GPS error</p> <p>RPM or current draw high</p> <p>Caution: Terrain.</p> <p>w. Are checklists for dealing with operating problems or equipment failures built into the system controls or provided on separate checklist documents? What checklists (if any) are online during operations?</p> <p>x. How does Canada report systematic problems and specific incidents to the Contractor? Does the Contractor maintain a database of failure events, analyse events, and provide feedback to operators on reducing or preventing similar future failures/events?</p>	<p>Aircraft reporting telemetry uplink failure</p> <p>Airspeed slow</p> <p>Barometric altitude lower than GPS alt</p> <p>Above commanded altitude</p> <p>Below min mission altitude</p> <p>Electrical voltage high</p> <p>Battery discharging</p> <p>GPS failure</p> <p>RPM or current draw low</p>		

DATA ITEM DESCRIPTION			
1. Title	2. Identification Number	Page #	
Application for Frequency Supportability	PM-010	1	of 1
3. Description / Purpose			
This document will assist in DND determining the frequency supportability.			
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable	
	TA		
7. Application / Interrelationship	8. Originator	9. Applicable Forms	
UAS: CDRL-A010, SOW Para 4.1.7.1	TA		
10. Preparation Instructions			
10.1 <u>Format</u>			
10.1.1 The Application for Frequency Supportability must be on a DND 552 form, which is available in Appendix 1 to Annex B to B-GT-D35-001/AG-000, Management of the Radio Frequency Spectrum.			
10.2 <u>Content</u>			
10.2.1 Where there are options for operating the system with various RF combinations, each set of spectrum requirements for the transmitter, receiver and antenna equipment characteristics must be individually identified. This description must include; frequency bands, number of channels required, approximate transmitting power, and approximate bandwidth requirements.			

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Product Description Package	SE-001	1 of 1
3. Description / Purpose		
The Product Description Package will provide a description of the final deliverable configuration of the UAS.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-B001, SOW Para 4.1.4.6.6	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Product Description Package (PDP) may be in contractor format.		
10.2 <u>Content</u>		
10.2.1 The PDP must include, but not be limited to:		
a. System Overview, which includes structural block diagrams for the UAS with accompanying theory of operation.		
b. Equipment Delivery List, which lists all UAS items delivered under the SOW.		
c. Hardware Architecture, which is a description of the internal structure of the UAS. The Hardware Components must be identified and their purpose summarized. The relationships among the Hardware Components must be described. Detailed information on the physical and performance characteristics of the component. Identify and state the purpose of each external interface of the system. System architecture diagrams must be used to illustrate the system top-level architecture.		
d. System Software, which is a description of every software component of the UAS.		
e. Interface Descriptions, which describes each internal and external interface of the system. Each interface external to the system must be described in detailed quantitative terms (e.g., input/output voltages, dimensions, tolerances, loads, speeds, etc.).		
f. Operational Scenarios, which is a description the typical operational scenarios where the UAS is used.		
g. An installation description which is a detailed description of the physical installations of the various elements of the UAS. This description must include the following:		
a) Envelope dimensions, state the length, width, and height of equipment, excluding packaging. If equipment folds for storage, list both storage and operating dimensions;		
b) Weight, state the weight of equipment, excluding packaging; and		
c) Safety provisions, including the provisions and equipment necessary to protect personnel and equipment, including sound attenuation and fire detection and suppression requirements.		
h. A description of batteries, including temperature ranges for which the UAS is compliant, and the number of expected battery charge cycles.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Availability Statistics Data	SE-002	1 of 1
3. Description / Purpose		
The Availability Statistics Data will provide evidence that the UAS meets the availability requirements of the SPS, and it is supporting documentation will be used for the airworthiness application.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL B002, SOW para 3.1.3	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Availability Statistics Data may be in contractor format.		
10.2 <u>Content</u>		
10.2.1 The Availability Statistics Data must be divided into different periods of time, showing improvement due to system maturity.		
10.2.2 The Availability Statistics Data must compare downtime due to technical issues with intended available time.		
10.2.3 The Availability Statistics Data must include system performance and availability statistics, including typical reasons for and percentage of ground aborts, flights aborted within a few minutes of launch, flights recalled early, flights failing to return for technical reasons, and flights failing to return for reasons the Contractor assesses to be operational conditions instead of technical failures.		
10.2.4 The Availability Statistics Data must include, but not be limited to:		
a) Previous/current customers' reported conflict/comments on their aircraft's system availability;		
b) Previous/current customers' aircraft system percent availability and summarized reasons for unavailability; and		
c) Contractor's aircraft system percent availability and summarized reasons for unavailability.		

DATA ITEM DESCRIPTION			
1. Title	2. Identification Number	Page #	
Drawing Packages and Associated List	SE-003	1	of 1
3. Description / Purpose			
Engineering Drawings and Associated List are used to support cataloguing, design, development and manufacturing of hardware and for life-cycle support.			
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable	
	TA		
7. Application / Interrelationship		8. Originator	9. Applicable Forms
UAS: CDRL-B003, SOW para 5.2.1.2, 5.2.3, 5.2.4, 5.2.6		TA	
10. Preparation Instructions			
10.1 <u>Engineering Drawings</u> :			
10.1.1 Levels of drawings must be as described in D-01-400-002/SF-000, Levels of Engineering Drawings and Associated List.			
10.1.2 All levels of engineering drawings must be in accordance with (IAW) D-01-400-001/SG-000, Engineering Drawing Practices and MIL-STD-31000A, Technical Data Packages.			
10.1.3 If the Contractor already holds drawing packages and associated lists which meet the requirements as specified in 10.1.2 of this DID, and are equivalent to the required level as specified in 10.1.2, the Contractor may submit them to the TA for consideration. If the TA rejects the Contractor's drawings, then the drawing deficiency must be corrected as required to ensure compliance with the requirements.			
10.2 <u>Parts Lists</u> : Parts lists can be integral or separate from the drawings.			

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Interface Control Document (ICD)	SE-004	1 of 1
3. Description / Purpose		
The ICD will enable Canada to manage future payload integration tasks, future ship integration tasks and potentially control the vehicle from alternate Ground Control Stations.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-B004, SOW Para 5.5.1, 6.11.1.b	TA	
10. Preparation Instructions		
<p>10.1 <u>Format</u></p> <p>10.1.1 The ICD may be provided in Contractor format.</p> <p>10.1.2 If an existing ICD meets the requirements of this DID, then the ICD may be adopted for use as described in C-01-100-100/AG-005 Specification Acceptance Of Commercial And Foreign Government Publications as Adopted Publications.</p> <p>10.1.3 If a new ICD is developed, it must be IAW C-01-100-100/AG-006, Writing, Format and Production of Technical Publications.</p> <p>10.2 <u>Content</u></p> <p>10.2.1 The ICD must include:</p> <ul style="list-style-type: none"> a) Payload to aircraft interface description; b) Aircraft systems/assemblies interfaces; c) Ground Control System assemblies interfaces, including available external connections; and d) Any applicable test equipment interfaces. 		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Request for Deviations/Waivers	SE-005	1 of 1
3. Description / Purpose		
Request for Deviations/Waivers are used to request specific written authorization to depart from a particular performance requirement.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-B005, SOW para 5.6.2, 5.6.3	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Request for Deviations/Waivers must be a DND 675 form.		
10.2 <u>Approval</u>		
10.2.1 The Contractor must not proceed with the production or implementation of changes prior to receipt of properly authorized documentation from the TA and Contract Authority.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Configuration Management Plan	SE-006	1 of 1
3. Description / Purpose		
The Configuration Management (CM) Plan will allow the DND to maintain visibility on the configuration of the UAS while in service with the CAF.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-B006, SOW para 5.7.2	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The CM Plan must be prepared IAW paragraph 5.1 of D-01-002-007/SG-001 Requirements for The Preparation of Configuration Management Plans.		
10.1.2 The CM Plan should follow MIL-HDBK-61A.		
10.2 <u>Content</u>		
10.2.1 The CM Plan must describe how the Contractor will maintain configuration control of the UAS.		
10.2.2 The CM Plan must describe the Contractor's configuration management policies and the methods, procedures and processes that the Contractor will follow to implement the:		
a) Configuration identification, including functional and physical characteristics of configuration items;		
b) Configuration control;		
c) Configuration status accounting; and		
d) Configuration audits.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Acceptance Test Plan and Report	SE-007	1 of 1
3. Description / Purpose		
The Acceptance Test Plan will allow DND to review how the Contractor plans to demonstrate acceptance of the UAS.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-B007, SOW para 5.8.1, 5.8.3	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Acceptance Test Plan/report may be in Contractor format.		
10.2 <u>Acceptance Test Plan Content</u>		
10.2.1 The ATP must contain:		
a) Test procedures, including a description of the overall test plan, test objectives, test requirements, resource requirements, test conditions and step-by-step procedures to obtain the data necessary to determine conformance with the SPS; and		
b) Data sheets/cards for recording data of each test. Provisions for recording the date of the test, signature of tester and signature of DND witness must be included.		
10.2.2 The ATP must:		
a) Demonstrate compliance of integration and proper operation of system software and equipment IAW the terms and conditions of the contract; and		
b) Cover procedures, terms and conditions governing the planning, preparation, and completion of acceptance tests covering the system submitted for acceptance.		
10.3 <u>Acceptance Test Report Content</u>		
10.3.1 The Acceptance Test Report must include:		
a. A description of the System which was tested, including current configuration and waivers;		
b. Test details, including test name and scope of test; and		
c. A summary of the test including success or failure of the test.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Integrated Logistics Support (ILS) Plan	ILS-001	1 of 1
3. Description / Purpose		
The ILS Plan describes the support concept that the Contractor proposes.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-C001, SOW para 6.2.1	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The ILS Plan may be provided in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The ILS plan must include, but not be limited to:		
a. An overview of the ILS elements and further identification as necessary of all support activities as it relates to the life cycle support of the UAS;		
b. A definition of the activities, tasks and procedures necessary for the introduction into service of new equipment into the CAF;		
c. Logistics Support Analysis, which encompasses the engineering and analytical functions necessary to ensure maintenance and supportability are defined and source data is produced for the development of other new or upgraded payloads;		
d. Support Equipment (SE), which includes General Purpose Equipment, Special Purpose Equipment, and all other equipment and special and common tools used to service, store, inspect, repair, overhaul, assemble, disassemble, test and otherwise maintain the system;		
e. Supply Support program, which has a fundamental objective to ensure adequate spares, repair parts, and consumables are available to the CAF to support the UAS. Planning of spares, repair parts, training equipment and SE are based on inputs from both the LSA and Provisioning functions. Factors used to determine sparing must include operational factors, such as usage, environmental harshness, and geographic isolation. Additionally, maintenance factors including reliability and maintainability data, such as Mean Time Between Failure (MTBF) and Mean Time To Repair (MTTR) and Maintenance Induced Failure must also be considered; and		
f. A description of the plan for providing adequate In-Service Support for the maintenance and operation of the UAS.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Recommended Spare Parts List (RSPL)	ILS-003	1 of 1
3. Description / Purpose		
The RSPL will include all consumable and repairable parts in order to maintain the fleet of UAS in service.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-C003, SOW para 6.5.1	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The RSPL may be prepared in Contractor format.		
10.1.2 The RSPL should follow D-01-100-207/SF-000 Preparation of Parts Identification List.		
10.2 <u>Content</u>		
10.2.1 The RSPL should include content as described in D-01-100-207/SF-000 Preparation of Parts Identification List.		
10.2.2 The RSPL must include the content described in D-01-100-214/SF-000 Provisioning Documentation for Canadian Forces Equipment.		
10.2.3 The RSPL must be based on Mean Time Between Failure (MTBF) data arising from a combination of engineering and design data and on actual failure trends and data derived from operational trials and from support provided to operational flights.		
10.2.4 The RSPL must include the complete UAS spares list required to maintain operations as specified in the SPS and SOW.		
10.2.5 The RSPL must include sufficient repair parts and consumable spares in order to maintain UAS availability based on Contractor analysis of the typical operational profile described in the SOW and the operational environment described in the SOW and SPS.		
10.2.6 The RSPL must identify long lead time items.		
10.2.7 The RSPL must identify support equipment.		
10.2.8 As described in D-01-100-214/SF-000 Provisioning Documentation for Canadian Forces Equipment, SPTD must be submitted as an annex to the RSPL to fully describe each item listed in the RSPL.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Provisioning Parts Breakdown	ILS-004	1 of 1
3. Description / Purpose		
The Provisioning Parts Breakdown (PPB) provides a top down breakdown of the equipment in the configuration in which it is being procured. This breakdown is accomplished by listing all parts included in the end item in a lateral and descending family tree/generation breakdown.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-C004, SOW para 6.3.3.3.2, 6.6.1	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The PPB may be prepared in Contractor format, however D-01-100-214/SF-000 Preparation of Provisioning Documentation for Canadian Forces Equipment must be followed.		
10.2 <u>Content</u>		
10.2.1 The PPB must be IAW D-01-100-214/SF-000 Preparation of Provisioning Documentation for Canadian Forces Equipment.		
10.2.2 The PPB must include, but not be limited to the following:		
<ul style="list-style-type: none"> a) A top-down breakdown of each configuration item including any existing NSNs; b) Identification of any special requirements for packaging, handling or storage of components, parts, sub-assembly, or assemblies; c) Identification of any shelf life items; d) Additional information not listed above which could be considered to be an amplification of the contractors capabilities and would provide additional value to the DND, such as Nomenclature, and Data Plates; e) Identification only of proprietary drawings and/or listing of all final part numbers, and/or all available specification sheets and/or final drawings from supplier or Original Equipment Manufacturers (OEM); and f) A Support Equipment (SE) report detailing General and Special Tools and Test Equipment (STTE) required to support and or maintain the UAS while in service with the CAF. This report must include the same provisioning data field and Supplementary Provisioning Technical Documentation (SPTD) as was for the RSPL. 		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Publications Management Plan	ILS-005	1 of 2
3. Description / Purpose		
The Publications Management Plan will assist the DND in maintaining up-to-date and accurate documentation related to the UAS while in service with the Canadian Forces.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL C005, SOW Para 6.9.1	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Publications Management Plan may be prepared in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The Publications Management Plan must describe how the Contractor plans to manage publications, including how the Contractor will provide both electronic and paper publications for all changes, revisions, stock reprint, copy replications, supplements, leaflets, interim inspection instructions and technical bulletins related to the publications. This description must also specifically address how the Contractor plans to manage Airworthiness Directives (Service Bulletins (SB), Alert Service Bulletins (ASB), and Service Information Letters).		
10.2.2 The Publications Management Plan must describe how the Contractor plans to perform a periodic review of the content of each publication to determine its currency, accuracy, and completeness with respect to the current equipment configuration.		
10.2.3 The Publications Management Plan must describe how the Contractor will notify and provide the DND with amended or modified publications, including the case where the changes do not affect the Canadian (DND) product as-delivered		
10.2.4 The Publications Management Plan must describe how the Contractor will maintain a master, a reproducible and a working copy of each publication and how the Contractor will provide safe storage for them.		
10.3 <u>French Language Publications</u>		
10.3.1 The Publications Management Plan must describe how the Contractor will assign Canada the right to have operational/maintenance and training publications translated to French for use within the CAF.		

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Operations/Maintenance Manual	ILS-006	1 of 1
3. Description / Purpose		
The UAS Operations/Maintenance Manual will include aircraft operating instructions, standard manoeuvre manuals, checklists, and maintenance required on the UAS.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL-C006, SOW Para 4.1.4.6.4, 6.4.1, 6.11.1.a	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Operations/Maintenance Manual may be provided in Contractor format.		
10.1.2 The Operations/Maintenance Manual must follow D-01-100-203/SF-000 Preparation of Operating Instructions.		
10.1.3 The Operations/Maintenance Manual maintenance portion should be prepared IAW C-04-010-002/AM-000, Permissive Repair Schedules and Standard Repair Times.		
10.1.4 The Operations/Maintenance Manual maintenance portion should meet the standards described in:		
a. D-01-100-204/SF-000, Preparation of Preventive Maintenance Instructions; and		
b. D-01-100-205/SF-000, Preparation of Corrective Maintenance Instructions		
10.2 <u>Content</u>		
10.2.1 The Operations/Maintenance Manual must include, but not be limited to:		
a. A System Description and Performance section, which describes the expected performance of the aircraft (e.g. operating ranges, service ceiling, airspeeds, endurance, etc.) and descriptions of the components associated with the UAS (e.g. airframe, propulsion system, electrical system, flight control system, avionics, data links and communications, navigation systems, payload, autopilot, mission planning tools, imagery processing system, landing system, etc.);		
b. Limitations of all UAS components (e.g. aircraft, GCS, Data Links, etc.) including, but not limited to altitude restrictions, weather limitations/restrictions, launch and recovery, environmental limitations and Electro-Magnetic Interference (EMI) restrictions;		
c. Critical and non-critical emergency procedures must be clearly detailed so as to be readily accessible for immediate use. These must describe the immediate actions to be taken and remedial procedures to be followed in the event of failures in various aircraft systems. In addition to detailing regular aircraft systems emergency procedures (engine failures, electrical problems, etc.) a detailed description of loss of data or command and control (C2) link procedures and rules of safety must be included. This must describe what actions the crew must take to regain/improve connectivity and what procedures the aircraft will follow on the determination of a loss of C2 link with the GCS;		
d. Operating procedures to include all normal procedures for the entire range of UAS operations. This must include any initial setup/checkout of the system components, and all pre-flight/in-flight/post flight operating procedures and checks. Additionally, any warnings and cautions regarding the systems operation must be provided and clearly depicted; and		
e. The condition and minimum equipment for the UAS to maintain conformity to meet specification and flight authorization, which is sometimes referred to as a Minimum Equipment List.		
f. A Maintenance section which includes:		
a) Maintenance concept;		

- b) Permissive repair schedules (PRSs), including:
 - i. Periodicity of inspections and repairs;
 - ii. Identify Lifer items installed;
 - iii. Establish damage tolerance and wear limits;
 - iv. Troubleshooting for the appropriate level;
 - v. Qualification required for the task(s); and
 - vi. Testing required with the maintenance task.
- c) Standard repair times (SRTs).
- d) Log for periodic maintenance and repairs.

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Training Plan	TRG-001	1 of 2
3. Description / Purpose		
The Training Plan will describe the Contractor's plan and approach for meeting the training requirements.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL T001, SOW para 4.1.8.1, 6.12.3	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Training Plan (TP) may be prepared in Contractor format.		
10.2 <u>Content</u>		
10.2.1 The TP must describe how the Contractor will integrate the efforts of all parties involved in the Training Program and the activities required to meet the requirements of the ILS and/or any other Requirements Specification as it relates to any aspects of training.		
10.2.2 The TP must describe the Contractor's approach and plan for meeting the training requirements.		
10.2.3 The TP must describe the various processes, strategies and tools to be used for training development and management.		
10.2.4 The TP must include a time phased process work flow diagram supported by a narrative explanation describing the activities associated with each block of the Work Flow Diagram, indicating, on a time scale, the programmed work and milestones to be accomplished in providing training;		
10.2.5 The TP must describe how the Contractor will determine the most efficient and effective method of instruction delivery (i.e. media selection criteria).		
10.2.6 The TP must describe the training equipment required to support the proposed training.		
10.2.7 The TP must describe how the rights to reproduce, modify, amend or otherwise change training material are provided to DND. As part of the training course packages the description must address all data, including master drawings, photographic negatives, printing masters, electronic media and other original materials used to produce the elements of each course package, to facilitate any reproduction, modification, or amendment activities.		
10.2.8 The TP must include a training schedule which details the schedule for training development and the conduct of the training by the Contractor.		

DATA ITEM DESCRIPTION	TRG-001	Page	of
10. Preparation Instructions (continued)		2	2
<p>10.2.9 The TP must describe the preliminary course/on-job training information for each phase of training, including currency training (Course Description Sheets). This description must include, but not bel limited to:</p> <ul style="list-style-type: none"> a) a brief description of the training content and training status (e.g. fully developed, requires minor development or requires major development); b) proposed training location and a brief description of the training facilities to be used; c) the type of media proposed for the presentation of course information (training methodology); d) estimated duration of the training in training hours and days and a brief description of a typical training week, to include a train the trainer serial as well as normal operator qualification training; e) recommended class size (minimum, maximum, optimum); f) a list of the training equipment required to support the training; g) a list of the training aids, learning aids and training equipment required to support the training; h) a course syllabus; i) course cost in term of student/instructor ratio and facilities; j) prerequisite training requirements; and k) the language of the course, e.g., bilingual, French only or English only. 			

DATA ITEM DESCRIPTION		
1. Title	2. Identification Number	Page #
Training Documentation	TRG-003	1 of 2
3. Description / Purpose		
The Training Documentation will be the documentation which results from a detailed analysis of the task list resulting from all identified data sources in a scalar format.		
4. Approval Date	5. Office of Primary Interest(OPI)	6. GIDEP Applicable
	TA	
7. Application / Interrelationship	8. Originator	9. Applicable Forms
UAS: CDRL T003, SOW Para 4.1.4.6.5, 4.1.8.1, 6.12.4.1	TA	
10. Preparation Instructions		
10.1 <u>Format</u>		
10.1.1 The Training Documentation may be prepared in Contractor format.		
10.1.2 The Training Documentation must follow A-P9-050-000/PT-003 Analysis of Instructional Requirements and A-P9-050-000/PT-007 Evaluation of Learners.		
10.2 <u>Content</u>		
10.2.1 The Training Documentation must include the documentation required:		
a) to conduct the initial training of UAS instructors;		
b) to conduct the training of the first group of UAS operators; and		
c) to assist the CAF with establishing the CAF training program required to sustain the UAS capability.		
10.2.2 The Training Documentation must include:		
a) Individual Skills Prerequisites, which includes the required and desired attributes of students (e.g. medical limitations, computer skills, etc.);		
b) Training Task Analysis, which includes a comprehensive listing of the different tasks required to deploy, operate, maintain and support the UAS.		
c) Performance Objectives provide detailed guidance to the student. The Performance Objectives describe the tasks the graduate must be able to perform on the job, the conditions under which they must be performed and the minimum acceptable standard of performance. Performance Objectives must be developed and formatted IAW Annex F and G of A-P9-050-000/PT-003.		
d) Performance Verifications, which include tests (written, practical or computer based) that are used to measure the degree to which students have achieved the prescribed performance objectives. Three types of tests may be required: pre-tests, progress tests (Enabling Objective Checks), and post-tests or criterion tests (Performance Checks) and all tests must be IAW A-P9-050-000/PT-007.		

DATA ITEM DESCRIPTION	TRG-	Page	of
10. Preparation Instructions (continued)	003	2	2
<ul style="list-style-type: none"> i. Each test must be identified by course title, performance objective(s) being tested, type of test (pre-test, progress test, or performance check), and time limit (if any). It must contain instructions to the student and a space to record the student's name and score. Computer based tests must be capable of being computer scored, printed in hard copy where appropriate, and provide for the generation of hard-copy scores; and ii. Answer keys must be provided for each test. Accurate checklists will be provided for all performance and enabling checks. <p>e) Training Packages, including Lesson Plans and Course Specifications:</p> <ul style="list-style-type: none"> i. The Training Packages must contain all of the collected materials required by a training agency to conduct the applicable course. These materials include all documentation not identified elsewhere, lesson plans, presentations, handouts, training aids, job aids, forms, instructions, videos, computer software/courseware, etc. In addition, it includes all the administrative, managerial and logistic information. ii. The Training Packages must include Course Title, Performance Objective Number, and Lesson Title. Lesson plans must be presented in modules (i.e. A single lesson plan must not cover a full course). Each lesson plan is a logical breakdown of a section of the course based on how the course was designed. 			

Appendix A2

MARITIME MINIATURE UNMANNED AIRCRAFT SYSTEM

REFERENCES

The references are divided into three sections as follows:

Part 1: Acronyms;

Part 2: Definitions; and

Part 3: References.

ACRONYMS

AC	Alternating Current
ACN	Advanced Change Notice
ACP	Airworthiness Clearance Plan
AEDP	Allied Engineering Documentation Publication
AMA	Allied Military Agency
AMSL	Above Mean Sea Level
ARC	Arc-second Raster Chart/Map
AS GEN	As Generated
ASB	Alert Service Bulletin
ASRP	ARC Standard Raster Product
ATP	Acceptance Test Plan
AWR	Additional Work Request
C	degrees Celsius or degrees Centigrade
C2	Command and Control
CA	Contract Authority
CADRG	Compressed Arc-second Raster Chart/Map (ARC) Digitized Raster Graphic
CBT	Computer Based Training
CDRL	Contract Data Requirements List
CEP	Circular Error Probable
CAF	Canadian Armed Forces
CF-RARM	Canadian Forces Record of Airworthiness and Risk Management
CFB	Canadian Forces Base
CFSS	Canadian Forces Supply System
CIB	Controlled Image Base (Map Format)
CM	Configuration Management
Cm, cm	centimetre
CMP	Configuration Management Plan
DACA	Days after Contract Award
DC	Direct Current
DID	Data Item Description
DIGEST	Digital Geographic Information Exchange Standard
DND	Department of National Defence

DTED	Digital Terrain Elevation Data
DTM	Digital Terrain Model
EO	Electro-Optic
FAA	Federal Aviation Administration
Flight Hour	Time aircraft is in the air
FOC	Full Operational Capability
FOV	Field of View
FRU	Field Replaceable Unit(s)
FSR	Field Services Representative
ft	Foot (Feet)
g	Gravity (acceleration of 9.8 m/s/s)
GCS	Ground Control Station
GeoTIFF	Geographic Tagged Image File Format
GHz	Gigahertz
GIDEP	Government/Industry Data Exchange Program
GPS	Global Positioning System
Handover	The in-flight transfer of AV control between CF detachments
HAZMAT	Hazardous Material
Hz	Hertz
IAW	In Accordance With
ICD	Interface Control Document
I.E.	Id Est (Latin), in example
ILS	Integrated Logistic Support
IR	Infra-red
ISO	International Standards Organization
ISR	Intelligence Surveillance and Reconnaissance
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
IT	Information Technology
ITAR	International Traffic in Arms Regulations (USA)
Kg / kg	Kilogram(s)
KLK	Key Length and Value
Km	Kilometre

Km/h	Kilometres per hour
Kt, kts	Knot, knots or nautical miles per hour
LAN	Local Area Network
lb, lbs	Pound(s)
LOS	Line of Sight
LRU	Line Replaceable Unit
LSA	Logistics Support Analysis
m	Meter
m/s	Meter/Second
MACA	Months After Contract Award
MCN	Material Change Notice(s)
MGRS	Military Grid Reference System
MHz	Megahertz
MIL-STD	Military Standard
MISB	Motion Imagery Standards Board
mm	millimetre
MPEG	Moving Picture Experts Group (International Standards Organisation/ International Electro technical Commission)
MPR	Monthly Progress Report
MRP	Mobile Repair Party
MSDS	Material Safety Data Sheet
MTBF	Mean Time Between Failure
MTTR	Mean Time To Repair
MMUAS	Maritime Miniature Unmanned Aircraft System
NATO	North Atlantic Treaty Organisation
NDHQ	National Defence Headquarters
NIIRS	National Image Interpretability Rating Scale
NITF	National Imagery Transmission Format
No Fly Zone	Areas where the operation of the UAV system is prohibited
NSIF	NATO Secondary Imagery Format
NSILI	NATO Standard Imager Library Interface
NSN	NATO Stock Number(s)
NVG	Night-vision Goggles
OA	Operational Airworthiness

OAA	Operational Airworthiness Authority
OAC	Operational Airworthiness Clearance
OEM	Original Equipment Manufacturer
ONE/R	One Time with Revisions as necessary.
OPI	Office of Primary Interest
PDP	Product Description Package
PDR	Publication Discrepancy Report
PM	Project Manager, Project Management
PMP	Project Management Plan
PO	Performance Objective
PPB	Provisioning Parts Breakdown
PRM	Progress Review Meeting
PWGSC	Public Works and Government Services Canada
QA	Quality Assurance
RA	Requisitioning Authority
RARM	Record of Airworthiness Risk Management
RASTER	bitmap image composed of pixels
RF	Radio Frequency
RFP	Request for Proposal
RMP	Risk Management Plan
RSPL	Recommended Spare Parts List
RTML	Recommended Training Materials List
RVT	Remote Video Terminal
SB	Service Bulletin
SE	Special Equipment
SEP	Spherical Error Probable
SMPTE	Society of Motion Picture and Television Engineers
SOI	Statement of Operating Intent
SOW	Statement of Work
SPS	System Performance Specification
SSC	System Safety Case
STANAG	Standardization Agreement
STTE	Special Tools and Test Equipment

TA	Technical Authority
TAA	Technical Airworthiness Authority
TAC	Technical Airworthiness Clearance
TAM	Technical Airworthiness Manual
TIES	Technical Investigation and Engineering Services
TIFF	Tagged Image File Format
TLE	Target Location Error
TP	Training Plan
TSR	Technical Services Representative
UAS	Unmanned Aircraft System
UAV	Unmanned Air Vehicle
UCR	Unsatisfactory Condition Report
UII	Unique Item Identifier
USB	Universal Serial Bus
USRP	UTM/USP Standard Raster Product
UTM	Universal Transverse Mercator
VAC	Volts Alternating Current
VDC	Volts Direct Current
VLOS	Visual Line-of-Sight
VPF	Vector Product Format
WBS	Work Breakdown Structure
WGS84	World Geodetic System 1984
WSM	Weapon System Manager

DEFINITIONS

CEP	Circular Error Probable - In the military science of ballistics, circular error probability or circular error probable is a simple measure of a weapon system's precision. It is defined as the radius of a circle into which a missile, bomb, or projectile will land at least half the time.
FSR	Field Services Representative: A Contractor representative who provides on-site service and support.
MMUAS	Maritime Miniature Unmanned Aircraft System, consisting of the GCS, multiple aircraft, data link, operational spares, etc. required for the conduct of missions.
On Station	At the intended target area. The UAS provides on station surveillance for a mission period out to the maximum data link range, 95% of the time.
Operational Availability	Operational Availability (OA) is calculated as $OA = (EAH - AUH) / (EAH)$, where EAH = Expected Availability Hours and AUH = Actual Unavailability Hours; OA does not include time when the UAS is not flown due to weather considerations; OA does not include time when the UAS is fully operational but there was no planned or scheduled flight activity because there would be no impact on operations; and OA does not include time when the UAS is non-operational but there was no planned or scheduled flight activity because there would be no impact on operations.
Serviceability	100% serviceability of all air and ground components of the UAS required and used for the scheduled duration of the scheduled mission. The UAS may be deemed serviceable despite degradation of items which did not prevent successful completion of the mission.

REFERENCES

<u>Reference Number</u>	<u>Reference Title</u>	<u>Ref Date</u>	<u>Source</u>
9558964	Kingston-Class General Arrangement Drawing		GFI
ANSI Z136.1-2007	Laser Safety Standards, the American National Standard for safe use of Lasers		http://www.ansi.org/
A-LM-505-702/JS-001	Materiel Management Instruction (MMI 1702) – Unique Identification and Standardized Marking Of Materiel	2012-06-01	Government Furnished Information (GFI)
A-P9-050-000/PT-003	Manual of Individual Training and Education Vol 3 - Analysis of Instructional Requirements	2003-06	GFI
A-P9-050-000/PT-004	Manual of Individual Training and Education Vol 4 - Design of Instructional Programs	1999-11-05	GFI
A-P9-050-000/PT-005	Manual of Individual Training and Education Vol 5 - Development of Instructional Programs	2001-04	GFI
A-P9-050-000/PT-007	Manual of Individual Training and Education Vol-7 Evaluation of Learners	1998-09-21	GFI
B-GT-D35-001/AG-000	Management of the Radio Frequency Spectrum	2006-07-10	GFI
C-01-100-100/AG-006	Writing, Format and Production of Technical Publications	1996-03-01	GFI
C-02-005-009/AM-000	Inspection And Conditioning Of Materiel Returned To And Held in The Supply System	2000-10-31	GFI
C-04-010-002/AM-000	Permissive Repair Schedules and Standard Repair Times	1989-02-07	GFI
	Canadian Transportation of Dangerous Goods Act	1992	http://www.tc.gc.ca/eng/acts-regulations/acts-1992c34.htm
	Controlled Goods Regulations (SOR/2001-32)		http://laws.justice.gc.ca/eng/regulations/SOR-2001-32/
CFIA D-98-08	CANADIAN FOOD INSPECTION AGENCY. Entry Requirements for Wood Packaging Produced in All Areas Other Than the United States		http://www.inspection.gc.ca/english/plaveg/protect/dir/d-98-08e.pdf
CWPCP D-01-05:	The Canadian Wood Packaging Certification Program		http://www.inspection.gc.ca/english/plaveg/protect/dir/d-01-05e.shtml
D-01-002-007/SG-001	Requirements For The Preparation Of Configuration Management Plans	1994-07-29	GFI
D-01-100-203/SF-000	Preparation of Operating Instructions	2000-10-31	GFI

<u>Reference Number</u>	<u>Reference Title</u>	<u>Ref Date</u>	<u>Source</u>
D-01-100-204/SF-000	Preparation of Preventive Maintenance Instructions	2000-10-31	GFI
D-01-100-205/SF-000	Preparation of Corrective Maintenance Instructions	2000-10-31	GFI
D-01-100-207/SF-000	Preparation of Parts Identification List	1991-06-01	GFI
D-01-100-214/SF-000	Preparation of Provisioning Documentation for Canadian Forces Equipment	2002-05-01	GFI
D-01-100-215/SF-000	Preparation of Materiel Change Notices for Canadian Forces Equipment	2002-05-01	GFI
D-01-400-001/SG000	Engineering Drawing Practices	1979-07-05	GFI
D-01-400-002/SF-000	Levels of Engineering Drawings and Associated Lists	2011-03-01	GFI
D-02-006-008/SG-001	Design Change Deviation and Waiver Process	1985-05-16	GFI
D-LM-008-001/SF-001	Methods of Packaging	1986-06-30	GFI
D-LM-008-002/SF-001	Specification for Marking for Storage and Shipment	1991-08-01	GFI
D-LM-008-022/SG-000	Standard For Packaging of Documentation	1981-01-16	GFI
D-LM-008-036/SF-000	Minimum Requirements For Manufacturer's Standard Pack	2013-12-01	GFI
DND 626	Requisition Against a Contract		GFI
	Hazardous Products Act		http://laws-lois.justice.gc.ca/eng/acts/H-3/index.html
	International Traffic in Arms Regulations (ITAR)		http://www.pmdtc.state.gov/regulations_laws/itar_official.html
ISO 9001: 2008	Quality Management Systems Requirements		http://www.iso.org/iso/catalogue_detail.htm?csnumber=46486
ISPM No.15	International Standards for Phytosanitary Measures - Guidelines for Regulating Wood Packaging Material in International Trade		http://www.inspection.gc.ca/english/plaveg/for/ippce.shtml
MIL-HDBK-61A	Military Handbook Configuration Management Guidance	2001-02-07	
MIL-STD-31000A	Technical Data Packages	2013-02-26	
MISB 5.1	Motion Imagery Standard Board Version 5.1		
MPEG2 / ISO/IEC 13818	Generic coding of moving pictures and associated audio information		
NIIRS	National Image Interpretability Rating Scales		http://www.fas.org/irp/imint/niirs.htm
STANAG 2290	NATO Unique Identification Of Items	2010-11-18	

<u>Reference Number</u>	<u>Reference Title</u>	<u>Ref Date</u>	<u>Source</u>
STANAG 3809	NATO Digital Terrain Elevation Data (DTED) Exchange Format		
STANAG 4370	NATO Environmental Testing		
STANAG 4387	NATO ARC Standard Raster Product (ASRP) - AGeoP-5		
STANAG 4545	NATO Secondary Imagery Format	2013-05-06	
STANAG 4609	NATO Digital Motion Imagery Standard	2016-12-19	
STANAG 7074	Digital Geographic Information Exchange Standard (Digest)		
STANAG 7085 / AEDP-10	Interoperable Data Links for Imaging Systems		

ANNEX B

MARITIME MINIATURE UNMANNED AIRCRAFT SYSTEM

SYSTEM PERFORMANCE SPECIFICATION

1. INTRODUCTION

1.1 Purpose

- 1.1.1 This System Performance Specification (SPS) describes the performance requirements for a Maritime Miniature Unmanned Aircraft System (MMUAS) for Intelligence, Surveillance and Reconnaissance (ISR) to support the Royal Canadian Navy (RCN).

1.2 Overview

- 1.2.1 The MMUAS will be used to provide the RCN a beyond-visual-line-of-sight (BVLOS) ISR capability aboard the *Kingston*-class ships through the acquisition of unmanned aircraft systems (UAS) to support RCN deployments
- 1.2.2 Within Canada, the UAS will also be used for currency training, force generation activities and for the development and validation of naval tactics.

2. APPLICABLE DOCUMENTS

- 2.1 Documents which have been referenced in this SPS form a part of the SPS to the extent specified herein. In the event of conflict between the documents referenced herein and the contents of the SPS, the contents of the SPS will take precedence. Documents which have been referenced are listed in Annex A.

3. REQUIREMENTS

3.1 Maturity, Availability and Reliability

3.1.1 Maturity

- 3.1.1.1 The UAS must be qualified, certified or approved for civil, commercial or military flight operations by a North Atlantic Treaty Organization (NATO), Australia, or New Zealand airworthiness authority.
- 3.1.1.2 The UAS must have completed at least 5,000 operational flights.

3.1.2 Availability and Reliability

- 3.1.2.1 The UAS must have at least a 95% Operational Availability for flight activities of at least 12 hours per day for deployed ship operations lasting 90 days.
- 3.1.2.2 The UAS must be designed with built-in tests, which enable the operator to easily detect system and subsystem failures.
- 3.1.2.3 The UA must withstand an average of at least 30 launches and landings on a hard surface such as a ship deck or ground before requiring any corrective maintenance, beyond the normal prescribed routine operator maintenance such as propeller replacement.
- 3.1.2.4 The UA must withstand an average of at least 30 launches and landings on water before requiring any corrective maintenance, beyond the normal prescribed routine operator maintenance such as propeller replacement.

3.2 Range

- 3.2.1 The UAS must operate to a range of not less than 15 km (8 nm). Within this range, the UAS must control the UA and must receive uninterrupted telemetry, control, imagery, and metadata information in accordance with the SPS for as long as the UA is within the range.

3.2.2 The UAS should operate to a range up to 20 km (11 nm). Within this range, the UAS must control the UA and must receive uninterrupted telemetry, control, imagery, and metadata information in accordance with the SPS for as long as the UA is within the range.

3.2.3 The UAS ship antenna must provide 360 degree coverage around the ship out to the range stated in this SPS.

3.3 Endurance

3.3.1 The UA must have a flight endurance of at least 2.5 hours, at all temperature conditions within the range from four (4) degrees Celsius to 30 degrees Celsius using the dual imager payload, and flying at a nominal cruising speed with no significant wind to assist or hinder the UA.

3.3.2 The UA should have a flight endurance up to 4 hours, at all temperature conditions within the range from four (4) degrees Celsius to 30 degrees Celsius using the dual imager payload, and flying at a nominal cruising speed with no significant wind to assist or hinder the UA.

3.4 System Composition

3.4.1 The UAS must, as a minimum, be comprised of all major components necessary for a two (2) person team to prepare for and conduct operational flights and operator level maintenance.

3.4.2 The UAS must consist of, but not be limited to the following:

- a. Quantity two (2) UA;
- b. Quantity two (2) dual imager turret payloads with laser pointer;
- c. Quantity one (1) GCS;
- d. Batteries in a quantity appropriate for the conduct of at least 12 hours of operational surveillance flights, plus an additional one (1) hour of GCS function for flight planning, when the batteries have aged or deteriorated until they can only provide 85% of the new battery capacity;
- e. Quantity one (1) battery charging management system to support each type of battery for both the GCS and the UA. The battery charging management system must operate from a 100-240 Volt Alternating Current (VAC) 50/60 Hertz (Hz) power source;
- f. Quantity one (1) hand-held wind meter which measures wind speed, maximum wind gust, air temperature, barometric pressure and altitude;
- g. All necessary electrical interfaces, cables, hardware and software necessary for UAS launch, operation, control, recovery and analysis of acquired data;
- h. All necessary special tools, test equipment, and software required for maintenance, testing and training;
- i. Rigid storage cases; and
- j. Spare parts to support at least 100 flights.

3.4.3 The ship integration kit must consist of, but not be limited to:

- a. Rigid storage cases;
- b. Launch and Recovery equipment, if required;

- c. Ship antenna; and
- d. 50 metres of cables and appropriate connectors for ship integration of the GCS to the antenna.

3.5 Environmental Conditions

- 3.5.1 The UA must launch, operate in accordance with this SPS, and recover in all climatic/environmental conditions listed in STANAG 4370 with the exception of:
 - a. Operation in conditions encountered in category C4 Extreme Cold, C3 Severe Cold, and C2 Cold; and
 - b. Operation in category C1 Intermediate Cold for ambient conditions and ground level temperatures below -20 degrees Celsius.
- 3.5.2 The UAS must operate in conditions up to and including Sea State 3 as defined in the World Meteorological Organization (WMO), Manual on Codes, International Codes, Vol I.1 table 3700.
- 3.5.3 The UA must be waterproof such that the UA can land in salt water and float for up to 4 hours in sea state 3 without damage to the UA.

3.6 Physical Properties

3.6.1 Rigid storage cases

- 3.6.1.1 Rigid storage cases must be rated for no more than a two person lift.
- 3.6.1.2 Rigid storage cases must fit through a ship door with measurements of 800 millimetres (mm) by 1300 mm.
- 3.6.1.3 Rigid storage cases must be waterproof.
- 3.6.1.4 When placed in rigid storage cases, the UAS must withstand shock and vibration characterized by:
 - a. MIL-STD-810G, Vibration, Method 514.7, Procedure I - General Vibration, Category 24, Minimum Integrity Test; and
 - b. MIL-STD-810G, Shock, Method 516.7, Procedure IV, Transit Drop.

3.6.2 Shipping

- 3.6.2.1 The UAS shipping containers, when packed in accordance with its load list, must have a size and weight of each case within the limits for shipment as accompanying baggage on commercial air carriers (e.g. Air Canada limits for overweight/oversized articles: maximum linear dimension 2920 mm; and maximum weight: 32 kilograms).

3.6.3 Markings

- 3.6.3.1 The UA must not have any external visual markings other than CAF identification markings, component part numbers and visual assistance for assembly and for recovery at night.
- 3.6.3.2 CAF identification markings must be of a size appropriate for the UA, typically 25 mm to 50 mm in height.
- 3.6.3.3 Component part numbers must use characters not more than 10 mm in height.
- 3.6.3.4 The UA paint scheme must reduce its visual signature under typical daylight operating conditions.

3.7 Deployment

3.7.1 Launch and Recovery

- 3.7.1.1 If the UAS includes launch and recovery equipment, the launch and recovery equipment must fit in the rigid storage cases specified in this SPS.
- 3.7.1.2 The UA should be hand-launchable from a Kingston Class ship deck and from the ground.
- 3.7.1.3 Once the UA has been recovered on the Kingston-class sweep deck as depicted in drawing 9558964, General Arrangement, the UA must be ready to launch within 15 minutes, including the battery being changed and self-tests being run.
- 3.7.1.4 When required to change a payload on the UA which is otherwise ready for launch, the payload swap and UA self-test must be completed in less than ten (10) minutes in both day and night conditions.
- 3.7.1.5 The UA must be capable of conducting fully automated landings within an average of 50 metres from a selected recovery point.
- 3.7.1.6 The UA must have an operator controllable infra-red light source to assist with night recoveries.

3.7.2 Flight Operation

- 3.7.2.1 The UAS must have a reliable automated lost link recovery capability.
- 3.7.2.2 The UA must operate at up to and including 2,000 feet above mean sea level.
- 3.7.2.3 The UA must have a maximum take-off weight of less than 20kg.

3.7.3 Target Acquisition and Target Tracking

- 3.7.3.1 The UAS must automatically, in real-time, detect small moving objects on the surface of the ocean and display a visual alert to the operator identifying the detected objects.
- 3.7.3.2 The UAS must be capable of maintaining a stationary target in the camera Field of View (FOV) for more than one (1) minute at image resolution and target ranges that enable operators to identify targets and to determine the apparent intent/actions of personnel being observed (some operator intervention is required to keep the sensor on target, and winds are less than 8 kilometres per hour (km/h)).

3.7.4 UA Operation in Windy Conditions

- 3.7.4.1 The UA must launch, operate in full flight capability, and recover under the following wind speed conditions:
 - a. from calm up to sustained winds of at least 28 km/h (15 knots); and
 - b. wind gusts up to at least 46 km/h (25 knots).

3.8 Image Quality

- 3.8.1 Under clear atmospheric conditions, when the UA is situated at an altitude of at least 152 m (500 feet) above ground and at a slant range of at least 198 metres (650 feet) from the target, the UAS GCS display must have a daylight colour electro-optical (EO) image of at least NATO Imagery Interpretability Rating Scale (NIIRS) Level 7.

- 3.8.2 Under clear atmospheric conditions, when the UA is situated at an altitude of at least 152 m (500 feet) above ground and at a slant range of at least 198 metres (650 feet) from the target, the UAS GCS display must have an infrared (IR) image of at least NIIRS Level 5.

3.9 Payloads

- 3.9.1 The UAS payloads must be swappable such that UAS Operators can interchange payloads as and when required.
- 3.9.2 The UAS dual imager turret payload with laser pointer must have the EO Payload and the IR Payload co-located in a single steerable turret.
- 3.9.3 The UAS dual imager turret payload with laser pointer must be steerable.
- 3.9.4 The UAS dual image turret payload steerable range must be at least 60 degrees from the vertical axis in all directions measured from the nadir point.
- 3.9.5 The UA must have an on-board image stabilization system.
- 3.9.6 The UAS laser pointer portion of the payload should be Night Vision Goggle (NVG) compatible, noting that a typical wavelength of Canadian Armed Forces (CAF) NVG is in the range of 750 to 900 nanometres.
- 3.9.7 The UA should be capable to operate with additional type of payloads.
- 3.9.8 The UA dual imager should be equip with a Laser Designator (LD).

3.10 Ground Control Station

3.10.1 Display Data

- 3.10.1.1 The UAS GCS display must have a mapping exploitation capability. For both aircraft and payload control functions, the mapping exploitation must display:
 - a. the mapping background necessary to conduct the mission;
 - b. a representation of the programmed flight plan;
 - c. a graphic representation of the UA position; and
 - d. a representation of the actual UA direction of travel.
- 3.10.1.2 The UAS GCS display must provide a video exploitation window with uninterrupted near real-time video from the payload while the operator is using UAS, UA and payload control functions.
- 3.10.1.3 The UAS GCS display must display the following parameters for the UAS control function in the mapping exploitation window:
 - a. Surveillance area covered, which shows the areas that have been viewed within the payload footprint during the current mission on the map;
 - b. Search plan, which shows areas that an automated search plan would cover during the current mission;
 - c. Danger zones and no flight zones, such as inputted Air Space restrictions;
 - d. Automatic operating warnings and emergency alerts;
 - e. Symbols representing zones of interest on the map;
 - f. Provision for user defined graphics and standard Military icons and overlays when using a ruggedized notebook computer; and
 - g. Data link range.

- 3.10.1.4 The UAS GCS must display the position and altitude of the UA with an error of less than 50 metres (164 feet) Spherical Error Probable, in alphanumeric format at all times when using the UAS control function.
- 3.10.1.5 The UAS GCS must include data imaging software that enables the operator to back up and install or re-install software as appropriate.
- 3.10.1.6 The UAS GCS should provide the operator with readily accessible electronic checklists for operational guidance during launch, flight, landing and maintenance.
- 3.10.1.7 The UAS GCS must record up to and including 36 hours of full motion video with metadata.
- 3.10.2 Mapping
 - 3.10.2.1 The UAS GCS must allow the operator to load map data.
 - 3.10.2.2 The UAS GCS mapping software must be able to use Compressed Arc-second Raster Chart/Map (ARC) Digitized Raster Graphic (CADRG) and Digital Terrain Elevation Data (DTED) level 1 and 2 Digital Terrain Model (DTM) (STANAG 3809) geographical data, in its native format or without the need for conversion software.
 - 3.10.2.3 The UAS GCS mapping software must display data in:
 - a. Universal Transverse Mercator (UTM) Military Grid Reference System (MGRS) coordinates; and
 - b. UTM military metric or decametric in the geodetic reference frame World Geodetic System (WGS) 84.
 - 3.10.2.4 The UAS GCS should allow the operator to load/reload mapping database files in the following native formats without the need for conversion software:
 - a. DTED for level 1 and 2 DTM (STANAG 3809) type geographical data;
 - b. DIGEST for vector type geographical data (STANAG 7074); and
 - c. Photographs in GeoTIFF or CIB format as the situational awareness/planning map in GeoTIFF or CIB format.
 - 3.10.2.5 The UAS GCS should allow the operator to load/reload mapping database in the DIGEST/USRP and DIGEST/ASRP for Raster type geographical data (STANAG 7074 & 4387) native format without the need for conversion software.
 - 3.10.2.6 The UAS GCS mapping software must be able to scale maps.
- 3.10.3 Mission Planning and Playback
 - 3.10.3.1 The UAS GCS must have operator tools including the capability to program mission flight plans, waypoints, altitude, speed, and related aircraft operating parameters.
 - 3.10.3.2 The UAS GCS must have a mission data playback feature to enable the operator to review and better understand system responses and performance during flights.
- 3.10.4 Embedded Simulator

- 3.10.4.1 The UAS GCS must have an embedded simulator which allows the operator to create scenarios and to inject simulated equipment and data link degradation and failures.
- 3.10.4.2 The UAS GCS embedded simulator must have a simulated environment of selectable operational areas for use in training and pre-mission rehearsals.
- 3.10.4.3 The UAS GCS embedded simulator must have the capability to generate and display video tutorial clips that demonstrate UAS techniques and procedures for initial and refresher training purposes.
- 3.10.5 UA Control
 - 3.10.5.1 The UAS must permit dynamic re-tasking and uploading of new flight plans and/or waypoints through the telemetry data link.
 - 3.10.5.2 The UAS must have an operator selectable automated loiter capability.
 - 3.10.5.3 The UAS must enable the operator to take over control of the UA at any time during the mission, modify its flight plan or waypoints, and if desired, resume the flight plan to the next pre-programmed or re-programmed waypoint.
 - 3.10.5.4 The UAS must, at any time during the flight, enable the operator to:
 - a. interrupt the flight by commanding the UA to immediately travel to the recovery site; and
 - b. interrupt the flight by commanding the UA to immediately carry out the emergency recovery sequence.
 - 3.10.5.5 The UAS GCS must be able to hand-over control of the UA to and from another GCS.
 - 3.10.5.6 The UA should be controlled from the existing CAF CU173 Raven B MUAS GCS.
- 3.10.6 Real-Time Image and Metadata Exploitation
 - 3.10.6.1 The UAS GCS must allow the operator to replay video imagery sequences while still recording the live flight data.
 - 3.10.6.2 The UAS GCS video imagery sequences and metadata must be in accordance with STANAG 4609.
 - 3.10.6.3 The UAS GCS must record and display digital video feeds with embedded Key-Length and Value metadata as described in STANAG 4609.
 - 3.10.6.4 The UAS GCS must produce still images with the relevant metadata in accordance with STANAG 4545.
 - 3.10.6.5 The UAS GCS must have a real-time image exploitation which enables the operator to freeze an image with the coordinates at the centre at any time without stopping the mission recording.
- 3.10.7 Playback Image and Metadata Exploitation
 - 3.10.7.1 The UAS GCS must allow the operator to record and archive video imagery sequences with the associated metadata.
 - 3.10.7.2 The UAS GCS must allow the operator playback recorded and archived video imagery sequences with the associated metadata.
- 3.10.8 System Power

- 3.10.8.1 The UAS GCS must operate from a 100-220 VAC 50/60 Hz power source.
- 3.10.9 GCS Hardware
 - 3.10.9.1 The UAS GCS must either:
 - a. use a small hand held controller;
 - b. use an appropriate rugged notebook or rugged tablet computer; or
 - c. use a combination of a hand held controller and an appropriate rugged notebook or tablet computer.
 - 3.10.9.2 The UAS GCS must have at least one (1) Ethernet local area network (LAN) interface and two (2) Universal Serial Bus (USB) interfaces available.
 - 3.10.9.3 The UAS GCS rugged notebook or tablet computer must have all wireless LAN and Bluetooth capability disabled.
- 3.11 Data Links and Frequencies
 - 3.11.1 The UAS data link must send data to control the UA and receive imagery, metadata and telemetry information in accordance with this SPS.
 - 3.11.2 The UAS data link must use a noise and interference tolerant and interception resistant digital waveform technique for the command and control up-link.
 - 3.11.3 The UAS data link must be compatible with the CAF remote video terminal, the Remote Optical Video Enhanced Receiver (ROVER) family of equipment (L3 Tactical Network Rover (TNR), Rover 5i and Rover 6).
 - 3.11.4 The UAS data link must use Advanced Encryption Standard (AES) 128 or AES 256 encryption.
 - 3.11.5 The UAS must enable the operator to change the frequency of the UAS while preparing for flight without physically changing any components, and without requiring access to STTE.
 - 3.11.6 The UAS radio frequency equipment must comply with the Radio Communications Act and with Canadian Radio-communication Regulations.
 - 3.11.7 The UAS must have a data link frequency in one of the following ranges:
 - a. 225 to 400 MHz (NATO Wide harmonized spectrum);
 - b. 2360 to 2400 MHz;
 - c. 4400 to 4940 MHz (NATO Wide harmonized spectrum); or
 - d. 14.4 to 14.83 and 15.15 to 15.35 GHz (STANAG 7085 Ku band).

ANNEX C

BASIS OF PAYMENT

Acquisition

of

Maritime Miniature Unmanned Aircraft System (MMUAS)

BASIS OF PAYMENT

1. System

The Contractor shall be paid Firm Fixed Prices for the delivery of the MMUAS and all associated documentation and program management as further detailed in Annex A (MMUAS SOW), INCOTERMS 2010 DDP consignee W248A, Canadian Customs duties taxes included:

The Contractor is required to list the part number and quantity of each component that forms part of the system

Description	List of Part # s & Quantity	Firm Fixed Price Per System	Quantity	Firm Fixed Extended Price
MUAS as per Annex "B" – System Performance Specification			7 Systems	
			Total	

2. Ship Integration Kit

The Contractor shall be paid Firm Fixed Prices for the delivery of the Ship Integration Kit in accordance with Annex "B" – System Performance Specification, INCOTERMS 2010 DDP consignee W248A, Canadian Customs duties taxes included:

The Contractor is required to list the part number and quantity of each component that forms part of the Kit

Description	List of Part # & Quantity	Firm Fixed Price per Kit	Quantity	Firm Fixed Extended Price For the Kits
Ship Integration Kit as specified in Annex "B" – System Performance Specification			2 Kits	
			Total	

3. Training of UAS Operators

The Contractor shall be paid Firm Fixed Prices for all training in accordance with Annex A - SOW as follows.

Training	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Training of up to four (4) personnel at CFB Gagetown IAW Annex A - SOW		1	
Total			

4. Individual Technician Training

If the maintenance concept requires the training of Canadian Armed Forces (CAF) Technicians to conduct maintenance at CAF site then the Contractor shall identify a Firm Fixed Price based on a requirement to train and certify four (4) technicians to perform second level equipment tests and repairs. If the maintenance concept does not require the training of CAF Technicians to conduct maintenance at CAF sites the total price to be entered is \$0.00.

Contractor shall be paid Firm Fixed Prices for all training in accordance with Annex A - SOW as follows.

Training	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Course to train and certify 4 technicians at CAF site (if required)		1	
Total			

5. Optional - System

This optional item may be delivered as part of this contract. Should the option be exercised in full or in part, the Contractor shall be paid Firm Fixed Prices for the delivery of the optional MUAS and all associated documentation and program management as further detailed in Annex A (MMUAS SOW), INCOTERMS 2010 DDP consignee W248A, Canadian Customs duties taxes included:

The Contractor is required to list the part number and quantity of each component that forms part of the System.

Description	List of Part # s & Quantity	Firm Fixed Price Per System	Quantity	Firm Fixed Extended Price
MUAS as per Annex "B" – System Performance Specification			Up to 5 Systems	
Total				

6. Optional - Ship Integration Kit

This optional item may be delivered as part of this contract. Should the option be exercised in full or in part, the Contractor shall be paid Firm Fixed Prices for the delivery of the Ship Integration Kit in accordance with Annex "B" – System Performance Specification, INCOTERMS 2010 DDP consignee W248A, Canadian Customs duties taxes included:

The Contractor is required to list the part number and quantity of each component that forms part of the Kit

Description	List of Part # & Quantity	Firm Fixed Price per Kit	Quantity	Firm Fixed Extended Price For the Kits
Ship Integration Kit as specified in Annex "B" – System Performance Specification			2 Kits	
			Total	

7. Optional - Repairable Spare Parts

This optional item may be delivered as part of this contract. Should the option be exercised in full or in part, the Contractor shall be paid Firm Fixed Prices for the Repairable* Spare Parts. The Repairable Spare Parts List shall be for the quantities required to conduct 1,000 flights. FFP shall be INCOTERMS 2010 EXW Contractor's Plant,

Repairable Spare Parts List	Part #	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Fuselage				

Repairable Spare Parts List	Part #	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Payload				
Etc..				
Total Price of Repairable Spares for 1,000 Flights				

8. Optional - Training for UAS Operators

This optional item may be delivered as part of this contract. Should the option be exercised, the Contractor shall be paid Firm Fixed Prices for all training in accordance with Annex A - SOW as follows.

Training	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Training of up to four (4) personnel at CFB Gagetown IAW Annex A – SOW		Up to 2	
Total			

9. Additional Work Arisings (AWA)

For all tasks such as Technical Investigation and Engineering Support (TIES) and Additional Work Arisings (AWA), as described in the Acquisition SOW, the Contractor shall be paid firm hourly rates by labour category in accordance with the table below:

Item	Labour Category	Firm Fixed Hourly Rates
1	Field Services Representative (Operator)	\$
2	Field Services Representative (Maintenance)	\$

3	Senior Engineer	\$
4	Junior Engineer	\$
5	Software Engineer	\$
6	Technician	\$
7	Program Manager	\$
8	Technical Writer	\$
9	Instructor	\$

10. Optional - Recommended Training Materials List (RTML) Firm Fixed Price:

Description of Training Materials	Firm Fixed Price
TOTAL PRICE	

11. Optional - Consumable Spares Price List:

Description of the Consumable Spares	Firm Fixed Price

TOTAL PRICE	
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12. Travel and Living

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](http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php), (<http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php>), and with the other provisions of the directive referring to "travelers", rather than those referring to "employees".

All travel shall be authorized in advance and in writing by the DND Procurement Authority (PA) prior to making any travel arrangements. The Contractor shall provide the details of the travel and living expenses with each claim including copies of invoices, and remit original receipts to the PA for reimbursement. All travel and living expenses are subject to Government Audit before or after the claim is paid.

- (a) All prices are exclusive of Harmonized Sales Tax (HST) unless otherwise indicated.
- (b) All applicable taxes shall be incorporated into all invoices and shown as a separate item on invoices. All items that are exempt or to which the HST does not apply, must be identified on all invoices.

13. Prices for Optional Items

The prices provided for the Optional Items shall be valid for the duration of contract including the Option Years 1 and 2.

14. LABOUR RATES FOR THE OPTION YEARS

Labour Rates for the option years will be incorporated in this document prior to exercising the options.

The Labour Rates in the contract shall provide the baseline for the Labour Rates for Option Year 1 and 2. The Labour Rates for Option Year 1 shall be the Labour Rates in the contract escalated by no more than a percentage equal to Canada's Consumer Price Index (CPI) increase for the one-year option ending two months prior to the end of the contract. The Labour Rates for Option Year 2 shall be the Labour Rates for Option Year 1 escalated by no more than a percentage equal to the CPI increase for the one-year period ending two months prior to the end of Option Year 1. The Canadian Consumer Price Index shall be used for the labour rates calculations and the calculation will be based on the CPI for "All items, no seasonally adjusted."

TASK AUTHORIZATION AUTORISATION DES TÂCHES

<p>All invoices/progress claims must show the reference Contract and Task numbers. Toutes les factures doivent indiquer les numéros du contrat et de la tâche.</p>		Contract no. – N° du contrat
		Task no. – N° de la tâche
Amendment no. – N° de la modification	Increase/Decrease – Augmentation/Réduction	Previous value – Valeur précédente
To – À	<p>TO THE CONTRACTOR</p> <p>You are requested to supply the following services in accordance with the terms of the above reference contract. Only services included in the contract shall be supplied against this task.</p> <p>Please advise the undersigned if the completion date cannot be met. Invoices/progress claims shall be prepared in accordance with the instructions set out in the contract.</p> <p>À L'ENTREPRENEUR</p> <p>Vous êtes prié de fournir les services suivants en conformité des termes du contrat mentionné ci-dessus. Seuls les services mentionnés dans le contrat doivent être fournis à l'appui de cette demande.</p> <p>Prière d'aviser le signataire si la livraison ne peut se faire dans les délais prescrits. Les factures doivent être établies selon les instructions énoncées dans le contrat.</p>	
Delivery location – Expédiez à		
Delivery/Completion date – Date de livraison/d'achèvement		
<p>_____</p> <p style="font-size: x-small;">Date</p>		<p>_____</p> <p style="font-size: x-small;">for the Department of National Defence pour le ministère de la Défense nationale</p>
Contract item no. N° d'article du contrat	Services	Cost Prix
	GST/HST TPS/TVH	
	Total	
<p>APPLICABLE ONLY TO PWGSC CONTRACTS: The Contract Authority signature is required when the total value of the DND 626 exceeds the threshold specified in the contract.</p> <p>NE S'APPLIQUE QU' AUX CONTRATS DE TPSGC : La signature de l'autorité contractante est requise lorsque la valeur totale du formulaire DND 626 est supérieure au seuil précisé dans le contrat.</p>		
<p>_____</p> <p style="font-size: x-small;">for the Department of Public Works and Government Services pour le ministère des Travaux publics et services gouvernementaux</p>		

**Instructions for completing
DND 626 - Task Authorization**

Contract no.

Enter the PWGSC contract number in full.

Task no.

Enter the sequential Task number.

Amendment no.

Enter the amendment number when the original Task is amended to change the scope or the value.

Increase/Decrease

Enter the increase or decrease total dollar amount including taxes.

Previous value

Enter the previous total dollar amount including taxes.

To

Name of the contractor.

Delivery location

Location where the work will be completed, if other than the contractor's location.

Delivery/Completion date

Completion date for the task.

for the Department of National Defence

Signature of the DND person who has delegated **Authority** for signing DND 626 (level of authority based on the dollar value of the task and the equivalent signing authority in the PAM 1.4). **Note:** the person signing in this block ensures that the work is within the scope of the contract, that sufficient funds remain in the contract to cover this task and that the task is affordable within the Project/Unit budget.

Services

Define the requirement briefly (attach the SOW) and identify the cost of the task using the contractor's quote on the level of effort. The Task must use the basis of payment stipulated in the contract. If there are several basis of payment then list here the one(s) that will apply to the task quote (e.g. milestone payments; per diem rates/labour category hourly rates; travel and living rates; firm price/ceiling price, etc.). All the terms and conditions of the contract apply to this Task Authorization and cannot be ignored or amended for this task. Therefore it is not necessary to restate these general contract terms and conditions on the DND 626 Task form.

Cost

The cost of the Task broken out into the individual costed items in **Services**.

GST/HST

The GST/HST cost as appropriate.

Total

The total cost of the task. The contractor may not exceed this amount without the approval of DND indicated on an amended DND 626. The amendment value may not exceed 50% (or the percentage for amendments established in the contract) of the original value of the task authorization. The total cost of a DND 626, including all amendments, may not exceed the funding limit identified in the contract.

Applicable only to PWGSC contracts

This block only applies to those Task Authorization contracts awarded by PWGSC. The contract will include a specified threshold for DND sole approval of the DND 626 and a percentage for DND to approve amendments to the original DND 626. Tasks that will exceed these thresholds must be passed to the PWGSC Contracting Authority for review and signature prior to authorizing the contractor to begin work.

Note:

Work on the task may not commence prior to the date this form is signed by the DA Authority - for tasks within the DND threshold; and by both DND and PWGSC for those tasks over the DND threshold.

**Instructions pour compléter le formulaire
DND 626 - Autorisation des tâches**

N° du contrat

Inscrivez le numéro du contrat de TPSGC en entier.

N° de la tâche

Inscrivez le numéro de tâche séquentiel.

N° de la modification

Inscrivez le numéro de modification lorsque la tâche originale est modifiée pour en changer la portée.

Augmentation/Réduction

Inscrivez le montant total de l'augmentation ou de la diminution, y compris les taxes.

Valeur précédente

Inscrivez le montant total précédent, y compris les taxes.

À

Nom de l'entrepreneur.

Expédiez à

Endroit où le travail sera effectué, si celui-ci diffère du lieu d'affaires de l'entrepreneur.

Date de livraison/d'achèvement

Date d'achèvement de la tâche.

pour le ministère de la Défense nationale

Signature du représentant du MDN auquel on a délégué le **pouvoir d'approbation** en ce qui a trait à la signature du formulaire DND 626 (niveau d'autorité basé sur la valeur de la tâche et le signataire autorisé équivalent mentionné dans le MAA 1.4). **Nota :** la personne qui signe cette attache de signature confirme que les travaux respectent la portée du contrat, que suffisamment de fonds sont prévus au contrat pour couvrir cette tâche et que le budget alloué à l'unité ou pour le projet le permet.

Services

Définissez brièvement le besoin (joignez l'ET) et établissez le coût de la tâche à l'aide de la soumission de l'entrepreneur selon le niveau de difficulté de celle-ci. Les modalités de paiement stipulées dans le contrat s'appliquent à la tâche. Si plusieurs d'entre elles sont prévues, énumérez ici celle/celles qui s'appliquera/ront à la soumission pour la tâche à accomplir (p.ex. acompte fondé sur les étapes franchies; taux quotidien ou taux horaire établi selon la catégorie de main-d'œuvre; frais de déplacement et de séjour; prix fixe ou prix plafond; etc.). Toutes les modalités du contrat s'appliquent à cette autorisation de tâche et ne peuvent être négligées ou modifiées quant à la tâche en question. Il n'est donc pas nécessaire de répéter ces modalités générales afférentes au contrat sur le formulaire DND 626.

Prix

Mentionnez le coût de la tâche en le répartissant selon les frais afférents à chaque item mentionné dans la rubrique **Services**.

TPS/TVH

Mentionnez le montant de la TPS/TVH, s'il y a lieu.

Total

Mentionnez le coût total de la tâche. L'entrepreneur ne peut dépasser ce montant sans l'approbation du MDN, formulaire DND 626 modifié à l'appui. Le coût de la modification ne peut pas être supérieur à 50 p. 100 du montant initial prévu dans l'autorisation de tâche (ou au pourcentage prévu dans le contrat pour les modifications). Le coût total spécifié dans le formulaire DND 626, y compris toutes les modifications, ne peut dépasser le plafond de financement mentionné dans le contrat.

Ne s'applique qu'aux contrats de TPSGC

Le présent paragraphe s'applique uniquement aux autorisations de tâche accordées par TPSGC. On inscrira dans le formulaire DND 626 un plafond précis qui ne pourra être approuvé que par le MDN et un pourcentage selon lequel le MDN pourra approuver des modifications au formulaire DND 626 original. Les tâches dont le coût dépasse ces plafonds doivent être soumises à l'autorité contractante de TPSGC pour examen et signature avant qu'on autorise l'entrepreneur à débiter les travaux.

Nota :

Les travaux ne peuvent commencer avant la date de signature de ce formulaire par le responsable du MDN, pour les tâches dont le coût est inférieur au plafond établi par le MDN, et par le MDN et TPSGC pour les tâches dont le coût dépasse le plafond établi par le MDN.

Claim No.
N° de la demande

Contract Serial No.
N° de série du contrat

CERTIFICATE OF CONTRACTOR

ATTESTATION DE L'ENTREPRENEUR

I certify that:

- All authorizations required under the contract have been obtained. The claim is consistent with the progress of the work and is in accordance with the contract.
- Indirect costs have been paid for or accrued in the accounts.
- Direct materials and the subcontracted work have been received, accepted and either paid for or accrued in the accounts following receipt of invoice from supplier/subcontractor, and have been or will be used exclusively for the purpose of the contract.
- All direct labour costs have been paid for or accrued in the accounts and all such costs were incurred exclusively for the purpose of the contract;
- All other direct costs have been paid for or accrued in the accounts following receipt of applicable invoice or expense voucher and all such costs were incurred exclusively for the purpose of the contract; and
- No liens, encumbrances, charges or other claims exist against the work except those which may arise by operation of law such as a lien in the nature of an unpaid contractor's lien and in respect of which a progress payment and/or advance payment has been or will be made by Canada.

J'atteste que :

- Toutes les autorisations exigées en vertu du contrat ont été obtenues. La demande correspond à l'avancement des travaux et est conforme au contrat.
- Les coûts indirects ont été réglés ou portés aux livres.
- Les matières directes et les travaux de sous-traitance ont été reçus, et le tout a été accepté et payé, ou encore porté aux livres après réception de factures envoyées par le fournisseur ou le sous-traitant; ces matières et ces travaux ont été ou seront utilisés exclusivement aux fins du contrat.
- Tous les coûts de la main-d'oeuvre directe ont été réglés ou portés aux livres et tous ces coûts ont été engagés exclusivement aux fins du contrat.
- Tous les autres coûts indirects ont été réglés ou portés aux livres après réception des factures ou pièces justificatives pertinentes et tous ces coûts ont été engagés exclusivement aux fins du contrat.
- Il n'existe aucun privilège ni demande ou imputation à l'égard de ces travaux sauf ceux qui pourraient survenir par effet de la loi, notamment le privilège d'un entrepreneur non payé à l'égard duquel un paiement progressif et(ou) un paiement anticipé a été ou sera effectué par le Canada.

Contractor 's Signature - Signature de l'entrepreneur

Title - Titre

Date

Check the box if the claim is being made with respect to advance payment provisions included in the basis of payment of the contract.

Cocher la case si la demande est faite en rapport avec les dispositions relatives aux paiements anticipés qui se trouvent dans la base de paiement du contrat.

This claim, or a portion of this claim, is for an advance payment.

Cette demande, ou une partie de cette demande, est pour un paiement anticipé.

I certify that:

- The funds received will be used solely for the purpose of the contract and attached is a complete description of the purpose to which the advance payment will be applied.
- The amount of the payment is established in accordance with the conditions of the contract.
- The contractor is not in default of its obligations under the contract.
- The payment is related to an identifiable part of the contractual work.

J'atteste que :

- Les fonds reçus ne serviront uniquement qu'aux fins du contrat; ci-joint est une description complète des fins auxquelles le paiement anticipé sera utilisé.
- Le montant du paiement est établi conformément aux conditions du contrat.
- L'entrepreneur n'a pas manqué à ses obligations en vertu du contrat.
- Le paiement porte sur une partie identifiable des travaux précisés dans le contrat.

Contractor 's Signature - Signature de l'entrepreneur

Title - Titre

Date

CERTIFICATES OF DEPARTMENTAL REPRESENTATIVES

Scientific/Project/Inspection Authority: I certify that the work meets the quality standards required under the contract, and its progress is in accordance with the conditions of the contract.

Inspection Authority (all other contracts): I certify that the quality of the work performed is in accordance with the standards required under the contract.

ATTESTATIONS DES REPRÉSENTANTS DU MINISTÈRE

Autorité scientifique ou responsable du projet / de l'inspection : J'atteste que les travaux sont conformes aux normes de qualité exigées en vertu du contrat et que leur avancement est conforme aux conditions du contrat.

Responsable de l'inspection (tous les autres contrats) : J'atteste que la qualité des travaux exécutés est conforme aux normes exigées en vertu du contrat.

Signature of Scientific / Project / Inspection Authority
Signature de l'autorité scientifique ou responsable du projet / de l'inspection

Date

PWGSC Contracting Authority: I certify that, to the best of my knowledge, the claim is consistent with the progress of the work and is in accordance with the contract. This claim, however, may be subject to further verification and any necessary adjustment before final settlement.

Autorité contractante de TPSGC : J'atteste, au meilleur de ma connaissance, que la demande correspond à l'avancement des travaux et est conforme au contrat. Toutefois, cette demande pourrait faire l'objet d'une autre vérification et de tout rajustement nécessaire avant le règlement final.

Contracting Authority Signature de l'autorité contractante

Title - Titre

Date

Client's Authorized Signing Officer - (must sign the interim claim): I certify that the claim is in accordance with the contract.

Signataire autorisé du client - (doit signer la demande provisoire) : J'atteste que la demande est conforme au contrat.

Client Signature du client

Title - Titre

Date

Client's Authorized Signing Officer - (must sign the final claim): I certify that all goods have been received and all services have been rendered, that the work has been properly performed and that the claim is in accordance with the contract.

Signataire autorisé du client - (doit signer la demande finale) : J'atteste que tous les biens ont été reçus, que tous les services ont été rendus, que tous les travaux ont été exécutés convenablement, et que la demande est conforme au contrat.

Client Signature du client

Title - Titre

Date

ANNEX F

MARITIME MINIATURE
UNMANNED AIRCRAFT SYSTEM

TECHNICAL EVALUATION CRITERIA
AND
COMPLIANCE MATRIX

- Appendix F1 Instructions to Bidders
- Appendix F2 Statement Of Work Compliance Matrix
- Appendix F3 System Performance Specification Compliance Matrix
- Appendix F44 Bidders Checklist

1. INTRODUCTION

1.1 Purpose

1.1.1 The purpose of this Technical Evaluation Plan is to provide Bidders with the technical evaluation methodology and procedures that will be followed by evaluators for the evaluation of the Bidder's Proposals, submitted in response to the Request For Proposals (RFP) for provision of Maritime Miniature Unmanned Aircraft System (MMUAS).

2. TECHNICAL PROPOSAL EVALUATION

2.1 The Bidder's proposal will be evaluated to verify if the technical proposal mandatory requirements, plans and the rated requirement capability claimed by the bidder have been met as evaluated in accordance with the following appendices:

2.1.1 Evaluation of the Mandatory Requirements:

2.1.1.1 Appendix F2 to Annex F, the Statement Of Work Compliance Matrix will be verified by DND to confirm compliance.

2.1.1.2 Appendix F3 to Annex F, the System Performance Specification Compliance Matrix will be verified to confirm compliance and will be scored by DND.

2.1.2 The Bidder's proposal will be evaluated to verify how each mandatory requirement is met. This is captured in the Bidder's submission of required documentation.

2.2 The Technical Score for each proposal will be determined using the Appendix F3 (System Performance Specifications Compliance Matrix) to Annex F. The Technical score in Appendix F3 will be based on a maximum potential technical score of 335 points.

2.3 Bidder's Self-Scoring

2.3.1 Bidders may choose to include a self-evaluation of rated capabilities in their proposal. The self-evaluation consists of the Bidders completing the "Bidder Self Score" column in the matrix at Appendix F3 to Annex F.

2.3.2 The Bidder's Self Score will have no bearing on the evaluation.

ANNEX F

APPENDIX F1

MARITIME MINIATURE

UNMANNED AIRCRAFT SYSTEM

INSTRUCTIONS TO BIDDERS

TECHNICAL BID EVALUATION

1. The Bidder must include its name in the response.
2. The Department of National Defence (DND) bid evaluation team will use Microsoft Office 2013 and Adobe Reader XI software suites to process and view electronic documents. The Bidder should submit bid documentation in Microsoft Office 2013 format.
3. In Appendix F2 to Annex F the Bidder must provide a compliance reference for specific instances of compliance with the Statement Of Work (SOW). The Bidder must provide references to the specific section, paragraph, and page in the proposal to substantiate each response.
4. In Appendix F3 to Annex F, the Bidder must provide a compliance reference for specific instances of compliance with the System Performance Specification (SPS). The Bidder must provide references to the specific section, paragraph, and page in the proposal to substantiate each response.
5. In Appendix F3 to Annex F, the Bidder may choose to self-score by filling a score in the 'Bidder Self Score' columns for rated items. The maximum points for compliance are indicated in the 'Potential Score' column.

**ANNEX F
APPENDIX F2**

**MARITIME MINIATURE
UNMANNED AIRCRAFT SYSTEM**

**STATEMENT OF WORK
COMPLIANCE MATRIX**

Bidder's name: _____

Where the Bidder input row indicates “CS” for Compliance Statement, the value has been set to (YES) by default. Bidders not conforming or agreeing with this requirement must replace the CS with (NO), the bid will then be deemed to be non-compliant.

Where the Bidder input row indicates “POC” for Proof of Compliance, the Bidder must identify where in the proposal the proof of compliance is demonstrated by providing a reference to the specific section of the proposal, test report, trial report, operations report or other document(s) which supports the bidder’s compliance claim. If the proposal does not provide adequate evidence to support the mandatory requirement, the bid will be deemed non-compliant.

Note: Compliance references will include a compliance statement, statement of intent, certificates, video, statistical data, and reports from other customers.

Item No	Section Text
	Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
1	INTRODUCTION
1.4	Mandatory Deliverables
1.4.1	The required corresponding outcomes are:
	<ul style="list-style-type: none"> a. Delivery of airworthiness supporting documentation; b. Delivery of drawings, associated lists, cataloguing information and technical manuals; c. Delivery of quantity seven (7) UAS; d. Delivery of quantity two (2) ship integration kits; e. Development and delivery of training and a training package; f. Development and delivery of management plans including a Project Management Plan, Integrated Logistic Support Plan, Acceptance Test Plan and a Training Plan.
	CS : YES
1.5	Electronic Document Format
1.5.1	The Contractor must deliver electronic copies of documents in a format and quality suitable for extracting text, tables and images to Microsoft Office 2013 for translation and insertion by DND into bilingual DND manuals. Adobe Portable Document Format files are acceptable for documents that the Technical Authority (TA) has no requirement to insert, modify or extract information.
	CS : YES
3	GENERAL REQUIREMENTS
3.1	Airworthiness and Performance
3.1.1	The Contractor must deliver documentation that demonstrates current qualifications, certification and approval for flight operations by an allied military airworthiness authority or a civilian agency or regulatory body, using standards and procedures acceptable to Canada (e.g. Transport Canada, United States Federal Aviation Administration (FAA), European Aviation Safety Agency (EASA), and equivalent organizations in the other NATO countries).
	POC:

Item No	Section Text
Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)	
3.1.2	The Contractor must deliver Availability Statistics Data in accordance with (IAW) Contract Data Requirements List (CDRL) B002, Data Item Description (DID) SE-002, based on statistical cumulative data for a minimum of 5,000 recent operational flights to demonstrate the UAS availability is as specified in the SPS.
	POC:
3.1.3	The Contractor must provide DND airworthiness specialists access to the Contractor's facility after contract award to assess design suitability, engineering and maintenance support of the MMUAS.
	POC:
3.1.4	The Contractor must provide subject matter experts in the respective disciplines to support the DND assessment of design suitability, engineering and maintenance support of the UAS.
	POC:
3.1.5	When requested, the Contractor must support CAF flight incident investigations by providing analysis of the event, interpretation of the telemetry data, analysis of components (if recovered), and provision of relevant historical system failure data.
	CS: YES
3.2	Technical Performance
3.2.1	The Contractor must deliver the UAS that performs IAW the SPS.
	CS : YES
3.3	Markings
3.3.1	The Contractor must generate, assign and install Unique Item Identifiers (UII) to all non-consumable items delivered to DND IAW A-LM-505-702/JS-001 and IAW STANAG 2290. The UII must be in a machine readable form on the outside of the materiel or on the package when not easily accessible.
	CS : YES
3.3.3	The Contractor must provide the aircraft serial number information to Canada as early as is practical during the system delivery planning process.
	CS : YES
3.3.5	The Contractor must apply the applicable markings and registration numbers assigned by Canada to each aircraft using appropriate vinyl decals prior to delivery of the UAS.
	CS : YES
4	PROGRAM MANAGEMENT SERVICES
4.1	Program Management
4.1.1	Project Management Plan
4.1.1.1	The Contractor must provide program management, including a Project Manager (PM) and any support staff necessary to manage the work as specified in this SOW
	CS : YES

Item No	Section Text
Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)	
4.1.1.2	<p>The Contractor must deliver and maintain a Project Management Plan (PMP), IAW CDRL A001, DID PM-001, identifying the Contractor's project organizational structure, contact names and information, and a Work Breakdown Structure (WBS) for tasks required to deliver the Work, including a Master Schedule and Milestones. The PMP must include managing the in-service support including Repair and Overhaul (R&O) activities.</p> <p>POC:</p>
4.1.1.3	<p>The Contractor must manage the project IAW the approved PMP.</p> <p>CS : YES</p>
4.1.2	Meetings
4.1.2.1	<p>The Contractor must provide support and assistance for Progress Review Meetings (PRMs).</p> <p>CS : YES</p>
4.1.2.2	<p>The PRMs must take place in the National Capital Region of Canada, unless otherwise specified in this SOW or such other reasonable location as Canada requests in writing.</p> <p>CS : YES</p>
4.1.2.3	<p>The Contractor must provide appropriate representation at PRMs, to be held with Canada at the following designated intervals:</p> <ul style="list-style-type: none"> g. Project kick-off PRM at the Contractor's facility within 30 days of Contract Award; h. Quarterly PRMs (three (3) month intervals) until all UAS, spare parts, and trainings services are delivered; i. Annual PRMs for the duration of the Contract; j. Additional PRMs if or when required; and k. Weekly teleconferences, if deemed necessary by Canada. <p>CS : YES</p>
4.1.2.4	<p>When the Contractor has more than 48 hours lead time notice before a meeting, the Contractor must provide a one (1) page meeting agenda to the TA.</p> <p>CS : YES</p>
4.1.2.5	<p>The Contractor must provide minutes for each meeting, videoconference and tele-conference IAW CDRL A002, DID PM-002.</p> <p>CS : YES</p>
4.1.2.6	<p>The Contractor must deliver copies of any Presentation Packages as presented at the meeting to the TA in electronic format.</p> <p>CS : YES</p>
4.1.2.7	<p>The Contractor must deliver draft presentations for PRMs at least one week prior to the PRM.</p> <p>CS : YES</p>
4.1.3	Reports
4.1.3.1	<p>The Contractor must deliver:</p> <ul style="list-style-type: none"> a. Progress Reports IAW CDRL A003, DID PM-003; and

Item No	Section Text Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
	<p>b. Special Purpose Task Reports IAW CDRL A003, DID PM-003 for activities undertaken under a TIES task.</p> <p>CS : YES</p>
4.1.4	Airworthiness Clearance/Flight Authorization
4.1.4.2	<p>The Contractor must deliver Previous Airworthiness Clearance Supporting Documentation IAW CDRL A004, DID PM-004. This documentation will be used by Canada to support the applications for Technical Airworthiness Clearance (TAC), Operational Airworthiness Clearance (OAC) and Release to Service.</p> <p>POC:</p>
4.1.4.4	<p>The Contractor supplied goods and services provided under this SOW must match the terms and conditions of documentation used to obtain TAC, OAC and flight authorization.</p> <p>CS : YES</p>
4.1.4.5	<p>The Contractor must deliver updated documents whenever there are any changes affecting documentation used to obtain the UAS airworthiness approval.</p> <p>CS : YES</p>
4.1.4.6	Airworthiness Supporting Documentation
4.1.4.6.1	<p>The Contractor must deliver a Summary of Operational History IAW CDRL A005, DID PM-005 using statistics from 5,000 recent operational flights.</p> <p>POC:</p>
4.1.4.6.2	<p>The Contractor must deliver a System Safety Case with Hazard Analysis IAW CDRL A006, DID PM-006.</p> <p>POC:</p>
4.1.4.6.3	<p>The Contractor must deliver Flight Safety Program documentation developed or produced in support of UAS airworthiness evaluations, training and operations.</p> <p>POC:</p>
4.1.4.6.4	<p>The Contractor must deliver an Operations/Maintenance Manual IAW CDRL C006, DID ILS-006.</p> <p>POC:</p>
4.1.4.6.5	<p>The Contractor must deliver Training documentation IAW CDRL T002, DID TRG-002.</p> <p>POC:</p>
4.1.4.6.6	<p>The Contractor must deliver a Product Description Package IAW CDRL B001, DID SE-001.</p> <p>POC:</p>
4.1.5	Contractor Qualifications and Standards

Item No	Section Text Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
4.1.5.1	<p>The Contractor must deliver a Summary of Contractor Operator Qualifications, UAS Specific training and currency requirements IAW CDRL A007, DID PM-007.</p> <p>POC:</p>
4.1.6	Risk Management
4.1.6.1	<p>The Contractor must provide details of Risk Management IAW CDRL A001, DID PM-001.</p> <p>POC:</p>
4.1.6.2	<p>The Contractor must continuously monitor for risks and, once identified, must be reported to Canada within two (2) business days</p> <p>POC:</p>
4.1.6.3	<p>The Contractor must deliver and maintain information required by Canada for the completion of CF Record of Airworthiness Risk Management (CF-RARM) IAW CDRL A009, DID PM-009.</p> <p>POC:</p>
4.1.7	Frequency Management and Supportability
4.1.7.1	<p>The Contractor must deliver an Application for Frequency Supportability IAW CDRL A010, DID PM-010 for each of the following UA and GCS sub-systems:</p> <ul style="list-style-type: none"> a. Transmitter Equipment Characteristics; b. Receiver Equipment Characteristics; and c. Antenna Equipment Characteristics. <p>POC:</p>
4.1.8	Training Plan
4.1.8.1	<p>The Contractor must deliver a Training Plan IAW CDRL T001, DID TRG-001, and the Training Documentation IAW CDRL T003, DID TRG-003. The Training Plan and Training Documentation must identify the resources required to conduct training as discussed in section 6.12 of this SOW.</p> <p>POC:</p>
4.2	<u>Recommended Spare Parts List Validation</u>
4.2.1	<p>Canada will conduct a logistics support validation exercise within six (6) months of receipt of delivery of the last UAS. Feedback provided to the Contractor on completion of this exercise will enable the Contractor to correct any RSPL deficiencies.</p> <p>CS : YES</p>
5	SYSTEM ENGINEERING
5.1	General
5.1.1	The Contractor's System Engineering work for this SOW must focus on obtaining and sustaining Canada's capability of flying UAS off RCN Ships, which includes integration efforts into ships as well as flight

Item No	Section Text
	Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
	authorization requirements. In this context, the Contractor must employ system engineering, testing, and production procedures that fully comply with the SPS and this SOW.
	CS : YES
5.1.2	The Contractor must execute all required system engineering tasks to design, develop, and integrate any UAS changes needed to achieve or maintain the UAS performance IAW the SPS.
	CS : YES
5.2	<u>Cataloguing, Drawings, and Associated Lists</u>
5.2.1.1	Where the item has already been catalogued under a NATO Stock Number (NSN), the Contractor must provide information which identifies the items to Canada's satisfaction and enables Canada to adopt the existing NSN.
	CS : YES
5.2.1.2	Where the item has not already been catalogued with a NSN, the Contractor must deliver a Drawing Package and Associated List IAW CDRL B003, DID SE-003.
	CS : YES
5.2.2	The cataloguing information for each item must state whether the item is a Controlled Good. If applicable the information must identify if the item is subject to International Traffic in Arms Regulations (ITAR) regulations. If existing Engineering Drawings and Associated Lists do not already include the Controlled Good or ITAR information then the information may be provided separately.
	CS : YES
5.2.3	For items that are not proprietary to the Original Equipment Manufacturer (OEM), the Contractor must deliver Level 1 Drawing Packages and Associated Lists IAW CDRL B003, DID SE-003.
	CS : YES
5.2.4	For items that are proprietary to the OEM, the Contractor must deliver Level 1 Drawing Packages and Associated Lists IAW CDRL B003, DID SE-003, and documentation certifying that the items are only available from a sole manufacturer.
	CS : YES
5.2.5	The Contractor must enable Canada to access the appropriate Level 3 drawings at the Contractor facility with seven (7) calendar days' notice when required for any specific investigation involving safety or airworthiness issues or unresolved technical problems
	CS : YES
5.2.6	The Contractor must deliver Level 3 drawing packages IAW CDRL B003, DID SE-003, for any special purpose items developed under a TIES task
	CS : YES
5.3	Technical Issue Resolution
5.3.1	The Contractor must, on an as requested basis, resolve any identified technical or Contractor initiated procedural problem with the original contracted baseline UAS capability by providing technical advice and, if required, engineering support in the form of any system engineering tasks which must be executed to design, develop, integrate, manufacture, install, test, qualify, certify, and support the contracted baseline capability as per the SPS and scope of the Contract or as changed by any completed tasks and approved configuration changes in effect at the time a problem is identified.
	CS : YES

Item No	Section Text
	Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
5.4	Technical Investigations and Engineering Services
5.4.1	<p>Technical advice requiring drawings or preparation of documented answers not within the scope of the initial required deliverables must be provided as and when required under TIES tasks. The Contractor must provide quotes and process proposed TIES task documentation IAW the applicable contract terms and conditions.</p>
	CS : YES
5.4.2	<p>The Contractor must only perform the work and provide the services specified in any approved TIES task on receipt of the approved DND 626 form.</p>
	CS : YES
5.5	<u>Interface Control Documents for ship, payload and GCS integration</u>
5.5.1	<p>The Contractor must provide Interface Control Documents (ICD) IAW CDRL B004, DID SE-004 for each describing the specific information requirements from the SPS.</p>
	CS : YES
5.6	Request for Deviations/Waivers
5.6.1	<p>The Contractor must observe standard CAF practices for any temporary or permanent change from baseline system specifications for new UAS components developed and placed in service on equipment used for this contract.</p>
	CS : YES
5.6.2	<p>The Contractor must submit a Request for Deviation IAW CDRL B005, DID SE-005 when specific replacement or repaired components will not meet the SPS for a specific period of time.</p>
	CS : YES
5.6.3	<p>The Contractor must submit a Request for Waiver IAW CDRL B005, DID SE-005 when a proposed permanent change will affect the UAS compliance to the SPS.</p>
	CS : YES
5.7	Configuration Management
5.7.2	<p>The Contractor must deliver and maintain a Configuration Management (CM) Plan IAW CDRL B006, DID SE-006.</p>
	POC:
5.7.3	<p>The Contractor must manage the configuration of the UAS IAW the approved CM Plan.</p>
	CS: YES
5.7.4	<p>Any Contractor initiated changes to the configuration of the UAS as delivered, necessitated by failure to maintain performance IAW the SPS, must be to the account of the Contractor for a period of one (1) year from completion of first system delivery. This includes replacement of delivered repair parts, spares, consumables, modifications to systems, software changes, and any resulting changes required to publications.</p>
	CS : YES
5.7.5	<p>The Contractor must submit an Engineering Change Proposal IAW the approved CM Plan and receive approval from the TA prior to introducing configuration changes to UAS.</p>
	CS : YES

Item No	Section Text
	Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
5.7.6	The Contractor must provide service history, design and test data or other information as appropriate to achieve and maintain airworthiness approval and flight authorization for any configuration changes to the UAS while the UAS is in-service.
	POC:
5.7.7	The Contractor must recommend for DND approval which items from the UAS Product Description Package are to be designated as configuration items, using criteria presented in the CM Plan.
	POC:
5.7.8	The Contractor must assign unique identifiers to hardware and software items and their associated configuration documentation
	POC:
5.7.9	The Contractor must ensure the unique identifiers are marked on hardware, on software media, embedded in software code and electronically embedded in alterable firmware.
	POC:
5.7.10	The Contractor must identify the configuration baselines that will be used to manage the product configuration, and subsequently use these baselines to maintain configuration control.
	POC:
5.7.11	The Contractor must determine and subsequently prepare, the configuration documentation needed to define each configuration baseline for each type of configuration item. This documentation will progressively define functional requirements, design constraints, interface characteristics, test requirements and other technical data required.
	POC:
5.7.12	The Contractor must establish an engineering release system for configuration documentation, and use that system to issue any required material change notices IAW D-01-100-215/SF-000 Preparation of Materiel Change Notices, and the correct and current configuration documentation for use by functional activities (such as test and evaluation, maintenance planning and production).
	POC:
5.7.13	The Contractor must maintain traceability between product units and their respective manuals, warranties and life cycle support obligations.
	POC:
5.7.14	The Contractor must include two (2) copies of the operating system software and any required individual component software, to enable DND to conduct system software re-installations and for archive purposes into the software library.
	POC:
5.8	Acceptance Testing
5.8.1	The Contractor must deliver and maintain an Acceptance Test Plan (ATP) IAW CDRL B007, DID SE-007.
	POC:
5.8.2	The Contractor must perform System Acceptance Testing IAW the approved ATP prior to UAS delivery.
	CS : YES

Item No	Section Text Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
5.8.3	The Contractor must deliver an Acceptance Test Report IAW CDRL B007, DID SE-007 not more than 14 days after the conclusion of acceptance testing. CS : YES
6	INTEGRATED LOGISTICS SUPPORT
6.1	General
6.1.1	The Contractor must provide all documentation in order for DND to catalogue and inventory the complete UAS including consumables, repairable parts, Special Tools and Test Equipment (STTE) and any applicable materiel necessary to keep the UAS in operation. CS : YES
6.2	ILS Plan
6.2.1	The Contractor must deliver an ILS Plan IAW CDRL C001, DID ILS-001. POC:
6.3	Maintenance Concept
6.3.2.2	The Contractor must provide consumable items typically required for first line operator maintenance and any repair parts typically required for the conduct of 100 typical flights. CS : YES
6.3.3.1	If the Contractor's maintenance requires that CAF personnel do more than field repairs, then appropriately trained CAF technicians will complete the inspection and repairs following the Contractor's Unit Maintenance instructions and manuals. POC:
6.3.3.3	Special Tools and Test Equipment
6.3.3.3.1	The Contractor must identify any STTE required for the conduct of failure analysis and maintenance activities to be performed by CAF personnel following the Contractors recommended maintenance and manuals. STTE includes General Purpose Test Equipment, Special Purpose Test Equipment, General Purpose Tools, and Special Purpose Tools used to inspect, repair, overhaul, disassemble, assemble, test and otherwise maintain the UAS that are not provided with the UAS as operator maintenance tools. POC:
6.3.3.3.2	If any STTE are required for Unit Maintenance, then: a. The Contractor must provide a STTE list IAW CDRL C004, DID ILS-004; and b. The Contractor must provide a minimum one (1) per UAS of required STTE as Unit Maintenance Support Kits. POC:
6.3.3.3.3	If the Contractors recommended maintenance requires that the CAF hold STTE items, delivery of any required STTE must coincide with the delivery of the UAS. CS : YES
6.3.4	Contractor Maintenance
6.3.4.1	The Contractor level maintenance which must be performed by the Contractor may include repairs, upgrades, modifications and repair by exchange/replacement, and the work will be as specified in the In-Service Support (ISS) SOW at Annex AA.

Item No	Section Text
	Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
	CS : YES
6.4	<u>Maintenance</u>
6.4.1	The Contractor must deliver and maintain an Operations/Maintenance Manual IAW CDRL C006, DID ILS-006. The Maintenance portion of the Operations/Maintenance Manual must be prepared in the context of the Maintenance Concept described in this SOW, and must be designed to maintain the UAS at the required availability level as specified in the SPS.
	POC:
6.5	<u>Recommended Spare Parts List</u>
6.5.1	The Contractor must deliver a RSPL IAW CDRL C003, DID ILS-003 which identifies items necessary to maintain the UAS at the availability level specified in the SPS for 150 UAS flight hours during a deployed operation away from homeport for 90 days.
	POC:
6.6	<u>Provisioning Documentation</u>
6.6.1	The Contractor must provide a Provisioning Parts Breakdown IAW CDRL C004, DID ILS-004.
	POC:
6.7	<u>Initial Provisioning</u>
6.7.1	Within 60 calendar days after Contract Award, the Contractor must provide all necessary documentation required by Canada to catalogue and inventory the system into the CFSS.
	CS : YES
6.7.2	The Contractor must provide all consumable and repairable spare parts, all STTE, and any applicable material necessary for the UAS Operators to maintain system availability IAW the SPS.
	CS : YES
6.7.3	Complete aircraft with payloads may be shipped and stored in a Contractor supplied shipping container, if that is within the Contractor's normal ILS procedures and support concept.
	CS : YES
6.7.4	The Contractor must be prepared to hold DND owned repairable assemblies on an account to be established after Contract award. These repairable items will be selected from the RSPL based on the initial quantities acquired through this Contract.
	CS : YES
6.7.5	The Contractor must hold its own consumable items, spare parts and assemblies as required to support the UAS program on its own accounts. Items from this stock will be sold to Canada on an as required basis to replace items consumed, lost or destroyed during system operations.
	CS : YES
6.7.6	Together the DND owned assets and the Contractor owned assets form a pool of equipment, spare parts and consumable items ready to fill demands from unit operators. The Contractor must fill demands within 15 calendar days of receipt of approval from the TA and the RA or CA IAW the appropriate funding approval limitation.
	CS : YES
6.8	<u>Storage, Transportation and Handling</u>

Item No	Section Text
Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)	
6.8.1	<p>The Contractor must provide all technical data, publications and materiel required for the safe storage, transportation, handling, and disposal procedures of any items to be handled by CAF personnel during the conduct of the UAS operation and related maintenance work.</p> <p>POC:</p>
6.8.2	<p>The Contractor must provide instructions on the short term and the long term storage and handling of all batteries used in the UAS.</p> <p>POC:</p>
6.8.3	<p>The Contractor must deliver documentation which includes specific instructions for decommissioning and disposing of all UAS equipment that is deemed to be controlled goods or hazardous materials such as batteries.</p> <p>POC:</p>
6.8.4	<p>The Contractor must follow best commercial procedures for the labeling and packaging of equipment, assemblies and spare parts. Requirements on the minimum acceptable standards are available in:</p> <ul style="list-style-type: none"> a. C-02-005-009/AM-000, Inspection And Conditioning Of Materiel Returned To And Held in The Supply System; b. D-01-100-207/SF-000, Preparation of Parts Identification List; c. D-LM-008-001/SF-001, Methods of Packaging; d. D-LM-008-002/SF-001, Specification for Marking for Storage and Shipment; e. D-LM-008-022/SG-000, The Standard for packaging of documentation; and f. D-LM-008-036/SF-000, Minimum Requirements For Manufacturer's Standard Pack. <p>POC:</p>
6.9	<u>Publication Management</u>
6.9.1	<p>The Contractor must deliver and maintain a Publications Management Plan IAW CDRL C005, DID ILS-005.</p> <p>POC:</p>
6.9.2	<p>The Contractor must manage and maintain its own English language master copy of its own training publications and operations/maintenance manual IAW the Publications Management Plan.</p> <p>CS : YES</p>
6.9.3	<p>The Contractor must include the Operations/Maintenance Manual with each UAS delivery.</p> <p>CS : YES</p>
6.9.4	<p>For the duration of the Contract the Contractor must provide, at no cost to Canada, all safety and airworthiness related Contractor initiated alerts and notices which have any impact on the Canadian configuration.</p> <p>POC:</p>
6.9.5	<p>For the duration of the Contract the Contractor must provide, at no cost to Canada, draft copies of any Contractor initiated publication amendments which have any impact on the Canadian configuration. These Contractor documents will be used by Canada to initiate any related bilingual publications amendment work under Publication Management Program.</p> <p>POC:</p>
6.10	<u>Reproduction and Translation</u>

Item No	Section Text Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)
6.10.1	<p>Canada reserves the right to amend in consultation with the Contractor, where required, to translate any documentation into both of Canada's official languages, and to produce the bilingual documentation and publications for use within DND.</p> <p>CS : YES</p>
6.11	<u>Operation and Technical Publications</u>
6.11.1	<p>The Contractor must provide all technical publications and documentation required by UAS Operators to enable safe and effective performance of the applicable maintenance tasks and proper system training and operation. This must include, but not be limited to, the following:</p> <ul style="list-style-type: none"> a. UAS setup and teardown procedures, UAS operating instructions, UAS operational limitations, UAS emergency procedures, UAS maintenance instructions, etc., IAW CDRL C006, DID ILS-006; b. Interface Control Documents (ICDs), IAW CDRL B004, DID SE-004, required for ship and payload integration tasks; and c. Updates to the above when required due to equipment or procedure changes. <p>CS : YES</p>
6.12	<u>Training</u>
6.12.1	<p>The Contractor must provide training and a training support package that will serve to direct the initial cadre training for UAS Operators and to provide the source training documentation for Canada to train future UAS Operators.</p> <p>CS : YES</p>
6.12.2	<p>The Contractor provided equipment and software versions used for training must be of the same equipment and version as the delivered UAS.</p> <p>CS : YES</p>
6.12.3	<p>The Contractor must deliver a Training Plan IAW CDRL T001, DID TRG-001 which describes how the Contractor will meet the training requirements specified in this SOW.</p> <p>POC:</p>
6.12.4	<u>Training Documentation</u>
6.12.4.1	<p>The Contractor must deliver Training Documentation IAW CDRL T002, DID TRG-002.</p> <p>POC:</p>
6.12.4.2	<p>The Contractor delivered Training Documentation must be in sufficient detail to enable Canada to define the specification of course content, enabling objectives, lesson plans, training resource list and a course timetable IAW A-P9-050-000/PT-004, Design of Instructional Programs, and A-P9-050-000/PT-005, Development of Instructional Programs, and for the development of training evaluation program IAW A-P9-050-000/PT-007, Evaluation of Learners.</p> <p>CS : YES</p>
6.12.5	<u>Conduct of Training</u>
6.12.5.1	<p>The Contractor must provide UAS training to qualify a group of four (4) students as UAS Operators and include up to three (3) additional observers in the training.</p> <p>POC:</p>
6.12.5.2	<p>The Contractor provided training must be completed within six (6) months of Contract award.</p> <p>CS : YES</p>

Item No	Section Text
Compliance Statement (CS) / Proof of Compliance (POC) (Proposal reference section/para etc.)	
6.12.5.3	<p>The Contractor must provide equipment and systems for the training, which will take place at a DND facility located in Gagetown, New Brunswick, Canada. DND will provide classroom facilities and access to range space for the conduct of training flights.</p> <p>POC:</p>
6.12.5.4	<p>The Contractor training must be detailed enough to enable UAS Operators to operate and maintain the UAS without Contractor assistance (other than Contractor maintenance (level 3)).</p> <p>POC:</p>

**ANNEX F
APPENDIX F3**

MARITIME MINIATURE UNMANNED AIRCRAFT SYSTEM (MMUAS)

SYSTEM PERFORMANCE SPECIFICATION (SPS)

COMPLIANCE AND TECHNICAL EVALUATION MATRIX

Column 1 indicates the following: **M** = Mandatory
 R = Rated
 S = Scoring information

Compliance Statement / Proof of Compliance

- CS** Where the Bidder input row indicates “CS” the value has been set to (YES) by default. Bidders not conforming or agreeing with this requirement must replace the CS with (NO), the bid will then be deemed to be non compliant.
- POC** Where the Bidder input row indicates “POC”, the Bidder must identify where in the proposal the proof of compliance is demonstrated by providing a reference to the specific section of the proposal, test report, operations report or other document(s) which supports the bidder’s compliance claim. If the proposal does not provide adequate evidence to support the mandatory requirement, the bid will be deemed non-compliant. If the proposal does not provide adequate evidence to support the rated requirement to Canada’s satisfaction, the proposal will not receive the applicable Rated requirement technical score points.

Rated Items

- Potential Score:** The potential score which may be awarded for a performance specification item.
- Bidder Self Score:** The Bidder may choose to include the score they deem appropriate for a performance specification item.
- DND Score:** The score the DND will assign during bid evaluation.

	Bidder's name: _____	Potential Score	Bidder Self Score	DND Score
	System Performance Specification (SPS) text			
	Bidder Response: Compliance Statement (CS) – YES or NO			
	Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
	1. INTRODUCTION			
	2. APPLICABLE DOCUMENTS			
	3. REQUIREMENTS			
	3.1 System Maturity and Performance			
	3.1.1 Maturity			
M	3.1.1.1 The UAS must be qualified, certified or approved for civil, commercial or military flight operations by a North Atlantic Treaty Organization (NATO), Australia, or New Zealand airworthiness authority.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.1.1.2 The UAS must have completed at least 5,000 operational flights.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.1.2 Availability and Reliability			
M	3.1.2.1 The UAS must have at least a 95% Operational Availability for flight activities of at least 12 hours per day for deployed ship operations lasting 90 days.			
	CS: YES			
	3.1.2.2 The UAS must be designed with built-in tests, which enable the operator to easily detect system and subsystem failures.			
M	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.1.2.3 The UA must withstand an average of at least 30 launches and landings on a hard surface such as a ship deck or ground before requiring any corrective maintenance, beyond the normal prescribed routine operator maintenance such as propeller replacement.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.1.2.4 The UA must withstand an average of at least 30 launches and landings on water before requiring any corrective maintenance, beyond the normal prescribed routine operator maintenance such as propeller replacement.			

	Bidder's name:	Potential Score	Bidder Self Score	DND Score
	System Performance Specification (SPS) text			
	Bidder Response: Compliance Statement (CS) – YES or NO			
	Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.2 Range.			
M	3.2.1 The UAS must operate to a range of not less than 15 km (8 nm). Within this range, the UAS must control the UA and must receive uninterrupted telemetry, control, imagery, and metadata information in accordance with the SPS for as long as the UA is within the range.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
RS	3.2.2 The UAS should operate to a range up to 20 km (11 nm). Within this range, the UAS must control the UA and must receive uninterrupted telemetry, control, imagery, and metadata information in accordance with the SPS for as long as the UA is within the range. Score Starting at 0 points for the mandatory 15 km range add two (2) points per 333 m (six (6) points per km) for additional range, to a maximum of 30 points at 20 km range from the controlling GCS.	30		
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.2.3 The UAS ship antenna must provide 360 degree coverage around the ship out to the range stated in this SPS.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.3 Endurance:			
M	3.3.1 The UA must have a flight endurance of at least 2.5 hours, at all temperature conditions within the range from four (4) degrees Celsius to 30 degrees Celsius using the dual imager payload, and flying at a nominal cruising speed with no significant wind to assist or hinder the UA.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
RS	3.3.2 The UA should have a flight endurance up to 4 hours, at all temperature conditions within the range from four (4) degrees Celsius to 30 degrees Celsius using the dual imager payload, and flying at a nominal cruising speed with no significant wind to assist or hinder the UA. Score Starting at 0 points for the mandatory 2.5 hour endurance add five (5) points per 10 minutes for additional endurance to a maximum of 45 points at 4 hours endurance.	45		
	POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.4 System Composition			

Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
M		
3.4.1 Each UAS must, as a minimum, be comprised of all major components necessary for a two (2) person team to prepare for and conduct operational flights and operator level field maintenance.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.4.2 The UAS must consist of, but not be limited to the following:		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
a. Quantity two (2) UA;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
b. Quantity two (2) dual imager turret payloads with laser pointer;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
c. Quantity one (1) GCS;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
d. Batteries in a quantity appropriate for the conduct of at least 12 hours of operational surveillance flights, plus an additional one (1) hour of GCS function for flight planning, when the batteries have aged or deteriorated until they can only provide 85% of the new battery capacity;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
e. Quantity one (1) battery charging management system to support each type of battery for both the GCS and the UA. The battery charging management system must operate from a 100-240 Volt Alternating Current (VAC) 50/60 Hertz (Hz) power source;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
f. Quantity one (1) hand-held wind meter which measures wind speed, maximum wind gust, air temperature, barometric pressure and altitude;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
g. All necessary electrical interfaces, cables, hardware and software necessary for UAS launch, operation, control, recovery and analysis of acquired data;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		

Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
M		
h. All necessary special tools, test equipment, and software required for maintenance, testing and training;		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
i. Rigid storage cases; and		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
j. Spare parts to support at least 100 flights.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.4.3. The ship integration kit must consist of, but not be limited to:		
a. Rigid storage cases;		
b. Launch and Recovery equipment, if required;		
c. Ship antenna; and		
a. 50 metres of cables and appropriate connectors for ship integration of the GCS to the antenna.		
CS: YES		
POC: Product description or itemized list of contents submitted with proposal		
3.5 Environmental Conditions		
M		
3.5.1 The UA must launch, operate in accordance with this SPS, and recover in all climatic/environmental conditions listed in STANAG 4370 with the exception of:		
a. Operation in conditions encountered in category C4 Extreme Cold, C3 Severe Cold, and C2 Cold; and		
b. Operation in category C1 Intermediate Cold for ambient conditions and ground level temperatures below -20 degrees Celsius.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.5.2 The UAS must operate in conditions up to and including Sea State 3 as defined in the World Meteorological Organization (WMO), Manual on Codes, International Codes, Vol I.1 table 3700.		
CS: YES		
M		
3.5.3 The UA must be waterproof such that the UA can land in salt water and float for up to 4 hours in sea state 3 without damage to the UA.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.6 Physical Properties		
3.6.1 Rigid storage cases		

Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
M		
3.6.1.1 Rigid ship storage cases must be rated for no more than a two person lift.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.6.1.2 Rigid ship storage cases must fit through a ship door with measurements of 800 millimetres (mm) by 1300 mm.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.6.1.3 Rigid storage cases must be waterproof.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.6.2 Shipping		
M		
3.6.2.1 The UAS shipping containers, when packed in accordance with its load list, must have a size and weight of each case within the limits for shipment as accompanying baggage on commercial air carriers (e.g. Air Canada limits for overweight/oversized articles: maximum linear dimension 2920 mm; and maximum weight: 32 kilograms).		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.6.3 Markings		
M		
3.6.3.1 The UA must not have any external visual markings other than CAF identification markings, component part numbers and visual assistance for assembly and for recovery at night.		
CS: YES		
POC: Provide a Markings Drawing with proposal to demonstrate compliance		
M		
3.6.3.2 CAF identification markings must be of a size appropriate for the UA, typically 25 mm to 50 mm in height.		
CS: YES		
M		
3.6.3.3 Component part numbers must use characters not more than 10 mm in height.		
CS: YES		
M		
3.6.3.4 The UA paint scheme must reduce its visual signature under typical daylight operating conditions.		
CS: YES		
POC: Provide a Markings Drawing with proposal to demonstrate compliance		
3.7 Deployment		
3.7.1 Launch and Recovery		

Bidder's name: _____		Potential Score	Bidder Self Score	DND Score
	System Performance Specification (SPS) text			
	Bidder Response: Compliance Statement (CS) – YES or NO			
	Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
M	3.7.1.1 If the UAS includes launch and recovery equipment, the launch and recovery equipment must fit in the rigid storage cases specified in this SPS.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
RS	3.7.1.2 The UA should be hand-launchable from a Kingston Class ship deck and from the ground.	50		
	Score: 50 points for hand-launchable UA.			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.7.1.3 Once the UA has been recovered on the Kingston-class sweep deck as depicted in drawing 9558964, General Arrangement, the UA must be ready to launch within 15 minutes, including the battery being changed and self-tests being run.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.7.1.4 When required to change a payload on the UA which is otherwise ready for launch, the payload swap and UA self-test must be completed in less than ten (10) minutes in both day and night conditions.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.7.1.5 The UA must be capable of conducting fully automated landings within an average of 50 metres from a selected recovery point.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.7.1.6 The UA must have an operator controllable infra-red light source to assist with night recoveries.			
	CS: YES			
	POC: Identify proposal section describing the capability.			
	3.7.2 Flight Operation			
M	3.7.2.1 The UAS must have a reliable automated lost link recovery capability.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.7.2.2 The UA must operate at up to and including 2,000 feet above mean sea level.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.7.2.3 The UA must have a maximum take-off weight of less than 20kg.			
	CS: YES			

Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
POC: Identify where in the proposal the proof of compliance is demonstrated.		
3.7.3 Target Acquisition and Target Tracking		
M		
3.7.3.1 The UAS must automatically, in real-time, detect small moving objects on the surface of the ocean and display a visual alert to the operator identifying the detected objects.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.7.3.2 The UAS must be capable of maintaining a stationary target in the camera Field of View (FOV) for more than one (1) minute at image resolution and target ranges that enable operators to identify targets and to determine the apparent intent/actions of personnel being observed (some operator intervention is required to keep the sensor on target, and winds are less than 8 kilometres per hour (km/h))		
CS: YES		
POC: Provide a video for proof of compliance		
3.7.4 UA Operation in Windy Conditions		
M		
3.7.4.1 The UA must launch, operate in full flight capability, and recover under the following wind speed conditions:		
a. from calm up to sustained winds of at least 28 km/h (15 knots); and		
b. wind gusts up to at least 46 km/h (25 kts).		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.8 Image Quality		
M		
3.8.1 Under clear atmospheric conditions, when the UA is situated at an altitude of at least 152 m (500 feet) above ground and at a slant range of at least 198 metres (650 feet) from the target, the UAS GCS display must have a daylight colour electro-optical (EO) image of at least NATO Imagery Interpretability Rating Scale (NIIRS) Level 9.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.8.2 Under clear atmospheric conditions, when the UA is situated at an altitude of at least 152 m (500 feet) above ground and at a slant range of at least 198 metres (650 feet) from the target, the UAS GCS display must have an infrared (IR) image of at least NIIRS Level 7.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.9 Payloads		

	Bidder's name: _____	Potential Score	Bidder Self Score	DND Score
	System Performance Specification (SPS) text			
	Bidder Response: Compliance Statement (CS) – YES or NO			
	Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
M	3.9.1 The UAS payloads must be swappable such that UAS Operators can interchange payloads as and when required and the UA and payloads will still maintain full functionality.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.9.2 The UAS dual imager turret payload with laser pointer must have the EO Payload and the IR Payload co-located in a single steerable turret.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.9.3 The UAS dual imager turret payload with laser pointer must be steerable.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.9.4 The UAS dual image turret payload steerable range must be at least 60 degrees from the vertical axis in all directions measured from the nadir point.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.9.5 The UA must have an on-board image stabilization system.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
R	3.9.6 The UAS laser pointer portion of the payload should be Night Vision Goggle (NVG) compatible, noting that a typical wavelength of Canadian Armed Forces (CAF) NVG is in the range of 750 to 900 nanometres.	50		
	Score 50 points for laser pointer compatible with CAF NVG.			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
R	3.9.7 The UA should be capable to operate with additional type of payloads.	50		
	Score 10 points per additional type of payloads for a maximum of 50 points			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
R	3.9.8 The UA dual imager should be equipped with a Laser Designator (LD).	50		
	Score 50 points for dual imager equip with a LD.			
	POC: Identify where in the proposal the proof of compliance is demonstrated			

Bidder's name: _____		Potential Score	Bidder Self Score	DND Score
	System Performance Specification (SPS) text			
	Bidder Response: Compliance Statement (CS) – YES or NO			
	Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
M	3.10.1.5 The UAS GCS must include data imaging software that enables the operator to back up and install or re-install software as appropriate. CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
R	3.10.1.6 The UAS GCS should provide the operator with readily accessible electronic checklists for operational guidance during launch, flight, landing and maintenance. Score 10 points for electronic checklist POC: Identify where in the proposal the proof of compliance is demonstrated	10		
M	3.10.1.7 The UAS GCS must record up to and including 36 hours of full motion video with metadata. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.10.2 Mapping			
M	3.10.2.1 The UAS GCS must allow the operator to load map data. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.2.2 The UAS GCS mapping software must be able to use Compressed Arc-second Raster Chart/Map (ARC) Digitized Raster Graphic (CADRG) and Digital Terrain Elevation Data (DTED) level 1 and 2 Digital Terrain Model (DTM) (STANAG 3809) geographical data, in its native format or without the need for conversion software. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.2.3 The UAS GCS mapping software must display data in: a. Universal Transverse Mercator (UTM) Military Grid Reference System (MGRS) coordinates; and b. UTM military metric or decametric in the geodetic reference frame World Geodetic System (WGS) 84. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			

Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
3.10.2.4 The UAS GCS should allow the operator to load/reload mapping database files in the following native formats without the need for conversion software:		
a. DTED for level 1 and 2 DTM (STANAG 3809) type geographical data;		
CS: YES		
b. DIGEST for vector type geographical data (STANAG 7074); and		
CS: YES		
c. Photographs in GeoTIFF or CIB format as the situational awareness/planning map in GeoTIFF or CIB format.		
CS: YES		
3.10.2.5 The UAS GCS should allow the operator to load/reload mapping database in the DIGEST/USRP and DIGEST/ASRP for Raster type geographical data (STANAG 7074 & 4387) native format without the need for conversion software.		
CS: YES		
M		
3.10.2.6 The UAS GCS mapping software must be able to scale maps.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.10.3 Mission Planning and Playback		
M		
3.10.3.1 The UAS GCS must have operator tools including the capability to program mission flight plans, waypoints, altitude, speed, and related aircraft operating parameters.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.10.3.2 The UAS GCS must have a mission data playback feature to enable the operator to review and better understand system responses and performance during flights.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.10.4 Embedded Simulator		

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Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
M		
3.10.4.1 The UAS GCS must have an embedded simulator which allows the operator to create scenarios and to inject simulated equipment and data link degradation and failures.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.10.4.2 The UAS GCS embedded simulator must have a simulated environment of selectable operational areas for use in training and pre-mission rehearsals.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.10.4.3 The UAS GCS embedded simulator must have the capability to generate and display video tutorial clips that demonstrate UAS techniques and procedures for initial and refresher training purposes.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.10.5 UA Control		
M		
3.10.5.1 The UAS must permit dynamic re-tasking and uploading of new flight plans and/or waypoints through the telemetry data link.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.10.5.2 The UAS must have an operator selectable automated loiter capability.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.10.5.3 The UAS must enable the operator to take over control of the UA at any time during the mission, modify its flight plan or waypoints, and if desired, resume the flight plan to the next pre-programmed or re-programmed waypoint.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		

Bidder's name: _____		Potential Score	Bidder Self Score	DND Score
System Performance Specification (SPS) text				
Bidder Response: Compliance Statement (CS) – YES or NO				
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.				
M	3.10.5.4 The UAS must, at any time during the flight, enable the operator to: a. interrupt the flight by commanding the UA to immediately travel to the recovery site; and b. interrupt the flight by commanding the UA to immediately carry out the emergency recovery sequence.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.5.5 The UAS GCS must be able to hand-over control of the UA to and from another GCS.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.10.5.6 The UA should be controlled from the existing CAF CUI173 UAS GCS.			
R	Score 50 points for control from the existing CAF CUI173 UAS GCS.	50		
	POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.10.6 Real Time Image and Metadata Exploitation			
M	3.10.6.1 The UAS GCS must allow the operator to replay video imagery sequences while still recording the live flight data.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.6.2 The UAS GCS video imagery sequences and metadata must be in accordance with STANAG 4609.			
	CS: YES			
	POC: Provide a video to demonstrate proof of compliance			
	Note: Canada will use a CAF developed test tool to evaluate the video and metadata format compliance.			
M	3.10.6.3 The UAS GCS must record and display digital video feeds with embedded Key-Length and Value metadata as described in STANAG 4609.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.6.4 The UAS GCS must produce still images with the relevant metadata in accordance with STANAG 4545.			
	CS: YES			
	POC: Identify where in the proposal the proof of compliance is demonstrated			

	Bidder's name:	Potential Score	Bidder Self Score	DND Score
	System Performance Specification (SPS) text			
	Bidder Response: Compliance Statement (CS) – YES or NO			
	Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
M	3.10.6.5 The UAS GCS must have a real-time image exploitation which enables the operator to freeze an image with the coordinates at the centre at any time without stopping the mission recording. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.10.7 Playback Image and Metadata Exploitation			
M	3.10.7.1 The UAS GCS must allow the operator to record and archive video imagery sequences with the associated metadata. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.7.2 The UAS GCS must allow the operator playback recorded and archived video imagery sequences with the associated metadata. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.10.8 System Power			
M	3.10.8.1 The UAS GCS must operate from a 100-220 VAC 50/60 Hz power source CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
	3.10.9 GCS Hardware			
M	3.10.9.1 The UAS GCS must either: a. use a small hand held controller; b. use an appropriate rugged notebook or rugged tablet computer; or c. use a combination of a hand held controller and an appropriate rugged notebook or tablet computer. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			
M	3.10.9.2 The UAS GCS must have at least one (1) Ethernet local area network (LAN) interface and two (2) Universal Serial Bus (USB) interfaces available. CS: YES POC: Identify where in the proposal the proof of compliance is demonstrated			

Potential Score	Bidder Self Score	DND Score
Bidder's name: _____		
System Performance Specification (SPS) text		
Bidder Response: Compliance Statement (CS) – YES or NO		
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.		
M		
3.10.9.3 The UAS GCS rugged notebook or tablet computer must have all wireless LAN and Bluetooth capability disabled.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
3.11 Data Links and Frequencies		
M		
3.11.1 The UAS data link must send data to control the UA and receive imagery, metadata and telemetry information in accordance with this SPS.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.11.2 The UAS data link must use a noise and interference tolerant and interception resistant digital waveform technique for the command and control up-link.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.11.3 The UAS data link must be compatible with the CAF remote video terminal, the Remote Optical Video Enhanced Receiver (ROVER) family of equipment (L3 Tactical Network Rover (TNR), Rover 5i and Rover 6).		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.11.4 The UAS data link must use Advanced Encryption Standard (AES) 128 or AES 256 encryption.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.11.5 The UAS must enable the operator to change the frequency of the UAS while preparing for flight without physically changing any components, and without requiring access to STTE.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		
M		
3.11.6 The UAS radio frequency equipment must comply with the Radio Communications Act and with Canadian Radio-communication Regulations.		
CS: YES		
POC: Identify where in the proposal the proof of compliance is demonstrated		

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	Potential Score	Bidder Self Score	DND Score
Bidder's name: _____			
System Performance Specification (SPS) text			
Bidder Response: Compliance Statement (CS) – YES or NO			
Bidder Response: Proof of Compliance (POC) List the Bidder's proposal document, page, section/para/sub-para, etc.			
3.11.7 The UAS must have a data link frequency in one of the following ranges:			
a. 225 to 400 MHz (NATO Wide harmonized spectrum);			
b. 2360 to 2400 MHz;			
c. 4400 to 4940 MHz (NATO Wide harmonized spectrum); or			
d. 14.4 to 14.83 and 15.15 to 15.35 GHz (STANAG 7085 Ku band).			
CS: YES			
POC: Identify where in the proposal the proof of compliance is demonstrated			
Total Scores	335		

**MARITIME MINIATURE
UNMANNED AIRCRAFT SYSTEM**

BIDDERS CHECKLIST

Bidders may use the following checklist to verify all portions of the technical volume have been included in their proposal.

SOW reference	Description / Comments	
3.1.2	Documentation that demonstrates UAS maturity and supportability as specified in the System Performance Specification (SPS), and satisfactory proof of the design, production and quality assurance processes necessary to maintain the UAS for flight authorization within the terms specified in or associated with the SOW.	
3.1.3	Availability Statistics Data in accordance with (IAW) Contract Data Requirements List (CDRL) B002, Data Item Description (DID) SE-002, based on statistical cumulative data for a minimum of 5,000 recent operational flights to demonstrate the UAS availability is as specified in the SPS.	
4.1.1.2	Project Management Plan in accordance with CDRL A001, DID PM-001	
4.1.4.2	Previous Airworthiness Clearance Supporting Documentation in accordance with CDRL A004, DID PM-004	
4.1.4.6.1	Summary of Operational History IAW CDRL A005, DID PM-005	
4.1.4.6.2	System Safety Case with Hazard Analysis IAW CDRL A006, DID PM-006	
4.1.4.6.3	Flight Safety Program documentation	
4.1.4.6.4	Operations/Maintenance Manual IAW CDRL C006, DID ILS-006	
4.1.4.6.6	Product Description Package in accordance with CDRL B001, DID SE-001	
4.1.5.1	Summary of Contractor Operator Qualifications, UAS Specific training and currency requirements IAW CDRL A007, DID PM-007	
4.1.7.1	Application for Frequency Supportability in accordance with CDRL A010, DID PM-010 for each of the following:	
	a. Transmitter Equipment Characteristics,	
	b. Receiver Equipment Characteristics, and	

SOW reference	Description / Comments	
	c. Antenna Equipment Characteristics.	
5.7.2	Configuration Management Plan in accordance with CDRL B006, DID SE-006	
5.8.1	Acceptance Test Plan in accordance with CDRL B007, DID SE-007	
6.5.1	Recommended Spare Parts List in accordance with CDRL C003, DID ILS-003	
6.2.1	ILS Plan IAW CDRL C001, DID ILS-001	
6.9.1	Publication Management Plan in accordance with CDRL C005 and DID ILS-005	
6.12.3	Training Plan in accordance with CDRL T001, DID TRG-001	

Table 2: Annex F – Technical Evaluation Criteria and Compliance Matrix Deliverables required with Proposal

Appendix/Item	Description / Comments	
F2	SOW Compliance Matrix	
F3	SPS Compliance Matrix	

Annex G

Financial Bid Evaluation Methodology - Acquisition

Basis of Payment (Acquisition) - Bid Price Calculation

This table will be used to calculate the acquisition bid price

The prices and rates will be taken from the bid Basis of Payment

Line Item	Description	FF Extended Price for Each item
1	System	
2	Ship Integration Kit	
3	Training of UAS Operators	
4	Individual Technician Training	
5	Optional - System	
6	Optional - Ship Integration Kit	
7	Optional - Repairable Spare Parts	
8	Optional - Training for UAS Operators	
SubTotal 1 (sum of the Total FFPs)		

		Contract Period		
Labour Rates for AWAs		Estimated Level of Effort	Hourly Labour Rates	Extended Price
9	AWAs (labour categories)	C	D	C x D
	Field Services Representative (Operator)	40 hours	\$0.00	\$0.00
	Field Services Representative (Maintenance)	40 hours	\$0.00	\$0.00
	Senior Engineer	90 hours	\$0.00	\$0.00
	Junior Engineer	80 hours	\$0.00	\$0.00
	Software Engineer	90 hours	\$0.00	\$0.00
	Technician	50 hours	\$0.00	\$0.00
	Program Manager	50 hours	\$0.00	\$0.00
	Technical Writer	50 hours	\$0.00	\$0.00
	Instructor	50 hours	\$0.00	\$0.00
			=	
SubTotal 2 (sum of the extended prices)				

Acquisition Bid Price = Sum of Subtotals 1 and 2

ANNEX AA

MARITIME MINIATURE
UNMANNED AIRCRAFT SYSTEM

IN SERVICE SUPPORT

STATEMENT OF WORK

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1. GENERAL

1.1 Aim

1.1.1 This Statement of Work (SOW) describes the work that is required to sustain a Maritime Miniature Unmanned Aircraft System (MMUAS) for Intelligence Surveillance and Reconnaissance (ISR) support for the Royal Canadian Navy (RCN).

1.2 Overview

1.2.1 This SOW applies to a UAS that is a component of the RCN providing intelligence, surveillance, reconnaissance (ISR).

1.2.2 Functional Areas, Outcomes and Outputs

1.2.2.1 Functional Areas

1.2.2.1.1 As described in this SOW, the Contractor is required to achieve outcomes by producing outputs across five (5) functional areas:

- a. Program Management;
- b. Engineering Support;
- c. Materiel Support;
- d. Maintenance Support; and
- e. Airworthiness Support.

1.2.2.2 Outcomes:

1.2.2.2.1 The support for the UAS fleet requires the following outcomes:

- a. Provision of timely, accurate airworthy engineering support products and services;
- b. Provision of airworthy UAS and parts when and where required in an effective and efficient manner; and
- c. Provision of UAS maintenance and training support services.

1.2.2.3 Outputs

1.2.2.3.1 The following outputs are required in support of the UAS:

- a. Maintenance/updates of Plans and Reports, or creation of new plans and reports as and when tasked;
- b. Provision of Engineering Support Products and Services;
- c. Provision of Materiel Support Products and Services;
- d. Provision of Maintenance Support Products and Services; and
- e. Airworthiness documents updates.

1.3 Scope

1.3.1 This work is complementary to, and in support of the work detailed at Annex A, which relates to delivering the UAS.

1.3.2 Management plans created under the work detailed at Annex A which will then be deemed to be source documents maintained and used for the duration of this In-Service Support (ISS) work, include the following:

- a. Project Management Plan In Accordance With (IAW) Contract Data Requirement List (CDRL) A001, Data Item Description (DID) PM-001;
- b. Acceptance Test Plan IAW CDRL B007, DID SE-007;
- c. Integrated Logistics Support Plan IAW CDRL C001, DID ILS-001;
- d. Publications Management Plan IAW CDRL C005, DID ILS-005;
- e. Training Plan IAW CDRL T001, DID TRG-001.

1.3.3 Where applicable work under this SOW will be conducted IAW the appropriate plan or plans listed in section 1.3.2.

1.3.4 Technical Investigation and Engineering Support (TIES) tasks and Additional Work Request (AWR) tasks will require the Contractor to provide support from its location, or on specific occasions at sites specified in the individual task SOW. Each task requires separate authorization.

1.3.5 For component and assembly maintenance purposes, the complete overhaul of equipment returned to the Contractor (except life items that are time expired) is only permitted on a case by case basis when specifically authorized by the Technical Authority (TA). The intent is that repair work will be done and overhaul resorted to only where such is economically and technically justifiable; or where required by technical specifications. The following definitions will apply:

- a. Repair: The identification and correction of those specific defects which degrade the performance of an item causing it to function below the specifications;
- b. Overhaul: The restoration of an item to its original condition/near life expectancy. It includes the replacement of worn, damaged or life expired parts, the incorporation of approved modifications and the rework of components as necessary;
- c. Inter-changeability: Following repair, the item must remain fully interchangeable (form, fit and function) with articles catalogued under the same reference number, part number and of the same modification status. This concept of inter-changeability must be extended to include internal characteristics such as wave forms and components layout in order to ensure full compatibility with automatic test equipment software and automatic probing;
- d. Serviceable Condition: The condition of an equipment which allows it to be used, shipped or held in stores without being subjected to any limitations not applicable to new equipment; and

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e. Reliability and Maintainability: The definitions of MIL STD-721 will apply.

1.4 Electronic Document Format

1.4.1 The Contractor must deliver electronic copies of documents in a format and quality suitable for extracting text, tables and images to Microsoft Office 2013 for translation and insertion by DND into bilingual CAF manuals. Adobe Portable Document Format files are acceptable for documents that the Technical Authority (TA) has no requirement to insert, modify or extract information.

2. REFERENCES

2.1 Applicable reference acronyms, definitions, publications, and documents are listed at Annex A.

3. GENERAL REQUIREMENTS

3.1 Repair and Overhaul (R&O)

3.1.1 The Contractor must repair and/or overhaul only those items for which he has received authorization from the Requisition Authority (RA) in accordance with either an established list of pre-authorized repairs or an individual authorization specific to individual components or assemblies that are not on the pre-authorized list at the time the item is received. The Contractor must conform to such procedures as are advised in this SOW, A-LM-184-001/JS-001, and applicable reference documents/publications related to the Contractor management of DND equipment and stores in its possession. DND reserves the right to exercise surveillance over all applicable aspects of the Contractor's supply operation in Canada. Repair priority must be "Routine" unless otherwise stipulated.

3.2 Local Support

3.2.1 The Contractor must provide additional in-service support at Canadian Armed Forces (CAF) work sites to support training and maintenance on an as and when tasked basis. These Additional Work Request (AWR) tasks will be created to satisfy specific short duration requirements. There is no requirement and there is no intent to establish permanent support facilities or the long term employment of local personnel at each of the CAF training and operating sites. The majority of the work under the Contract should consist of the R&O of components and assemblies at the Contractor facilities, and the associated shipment of consumable items and repaired or replacement components and assemblies between the Contractor and the CAF units.

3.3 Materiel Transportation Responsibilities

3.3.1 The Contractor is responsible for all transportation of materiel between the Contractor and CAF units. In the event that there are circumstances that prevent delivery to deployed operational sites by the Contractor then Canada commits to assist with the transportation of those parts.

4. PROGRAM MANAGEMENT SERVICES

4.1 Program Management/Control

4.1.1 The Contractor must provide program management, including a Program/Project Manager (PM) and any support staff necessary to manage the Contractor work under this

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program. Canada will not provide office/work space for the PM and the associated support staff. For the period that the acquisition and this support Contract are both in effect the PM established under the acquisition program must be the joint PM of both Contracts.

4.1.2 The Project Management Plan created IAW CDRL A001, DID PM-001, must be adopted and modified as required to incorporate the ISS work, and the work must be managed following that Project Management Plan. This includes all requirements for maintaining schedules, hosting or attending meetings, producing minutes for meetings, delivering reports, delivering updates to information and documentation related to UAS airworthiness and operating frequencies when applicable, and ensuring its personnel are trained and qualified to deliver support.

4.2 Contractor Risk Management

4.2.1 As and when appropriate, and as a minimum following the requirements of CDRL A001, DID PM-001, the Contractor must track and report to Canada on any risks with a potentially serious impact on the CAF capability, or any risks that affects UAS airworthiness or airworthiness risk calculations.

4.2.2 The Contractor must provide, on an as required basis, any applicable updates to the documents provided for airworthiness approval and risk management when the background information substantiates any change in the airworthiness and operational risk assessments. This includes document submissions IAW CDRLs A004, A005, A006, A007, A009 and B002.

4.3 Acceptance Testing

4.3.1 At any time that a failure trend is detected, or if the nature of specific component or assembly repairs warrants such action, equipment being returned to Canada may be subjected to an appropriate form of acceptance testing. To support this requirement the Contractor must ensure that the Acceptance Test Plan procedures delivered IAW CDRL B007, DID SE-007, are updated annually or as and when any configuration change requires changes to the acceptance test procedures.

4.4 Integrated Logistics Support Plan

4.4.1 Where applicable the ILS plan delivered IAW CDRL C001, DID ILS-001, and its sub-component plans must be used for the routine MUAS support work under this SOW. As and when appropriate the Contractor must propose updates to the ILS Plan.

4.5 Maintenance Plan

4.5.1 Maintenance will be conducted IAW the Contractors maintenance requirements delivered IAW CDRL C006, DID ILS-006. In the event that there is any change to equipment, software or procedures that requires an amendment to the maintenance procedures the Contractor must inform Canada of the changes as early as is practical. The changes must only become effective the date Canada publishes an amendment to the applicable maintenance publication, or issues a service bulletin to the applicable CAF operator units.

4.6 Publication Management Plan

4.6.1 The Contractor retains responsibility for maintaining its publications IAW its Publication Management Plan as provided under CDRL C005, DID ILS-005. The Contractor remains responsible for informing Canada of any change to the technology or software that is a result of its support to other UAS operators or a result of configuration changes. Note that configuration

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changes for Canada's equipment will only be allowed on completion of the appropriate engineering change approval process by Canada.

4.7 Training Plan

4.7.1 If tasked, the Contractor will provide support to CAF training conducted IAW the Training Plan. If tasked, the Contractor must review and recommend updates to the Training Plan delivered IAW CDRL T001, DID TRG-001. Otherwise the CAF instructors will continue to instruct based upon the information received during the initial instructor and operator training program.

4.8 Office Services

4.8.1 The Contractor must perform the secretarial and clerical work necessary to carry out the work specified in this SOW with respect to the preparation, filing and transmission of all forms, reports and correspondence, relating to the movement, accounting, storage, repair, overhaul, quality control, and investigation of materiel. The provision of these office services must be deemed to be work as defined in PSPC clause (1) of 2035 General Conditions – Higher Complexity – Services.

4.9 Plant Shutdown/Vacation Period

4.9.1 During plant shutdown and/or vacation periods, the Contractor must ensure that adequate facilities/personnel are available to ensure the satisfaction of High Priority Requirements (HPRs). If Contractor personnel are not on site during shutdown, a list of names and home phone numbers of those Contractor personnel to be contacted during plant closure must be provided to the National Defence Quality Assurance Region (NDQAR). It is the Contractor's responsibility to ensure that personnel are available to satisfy Priority Repair Request (PRR) requirements once identified.

4.10 Contractor Use of DND Equipment/Publications

4.10.1 The Contractor must not use DND publications, tools, test-equipment, or jigs and fixtures for commercial work without the written consent of DND. In instances where DND has provided such consent, PWGSC will negotiate suitable compensation for DND. All requests must be directed to the RA through PWGSC.

5. SYSTEM ENGINEERING

5.1 General UAS Requirements

5.1.1 The Contractor's System Engineering services provided to Canada under this program must focus on sustaining Canada's flight authorization requirements. In this context, the Contractor must employ system engineering, testing and production procedures that fully comply with the Annex B (SPS) requirements and the standards of this SOW. The Contractor must comply with all system specifications and standards requirements of the UAS, as described in Annex B (SPS).

5.1.2 As and when required, the Contractor must execute all required system engineering tasks to design, develop and integrate any UAS changes needed to maintain the UAS performance IAW Annex B (SPS).

5.2 Drawings, Associated Lists and Cataloguing

5.2.1 The UAS and components, including reusable shipping/storage containers supplied by the Contractor that must be held by Canada in support of UAS operation, training and maintenance activity, must be appropriately catalogued.

5.2.1.1 Where the item has already been catalogued under a NATO Stock Number (NSN), the Contractor must only be required to provide information which identifies the items to Canada's satisfaction and enables Canada to adopt the existing Stock Number.

5.2.1.2 Where items have not already been catalogued the Contractor must provide IAW CDRL B003, DID SE-003, cataloguing documentation and information including drawings which conform to the standards of D-01-400-001/SG000, Engineering Drawings Practices.

5.2.2 The Contractor must enable Canada to access the appropriate Level 1 to Level 3 drawings at the Contractor facility with seven (7) calendar days' notice when required for any specific investigation involving safety or airworthiness issues or unresolved technical problems.

5.2.3 The Contractor must deliver to Canada a Level 3 drawing package, IAW CDRL B003, DID SE-003, which conforms to the standards of D-01-400-001/SG000, Engineering Drawings Practices, for any special purpose items developed at Canada's cost under a TIES or AWR task.

5.3 Technical Issue Resolution

5.3.1 The Contractor must, on an as required basis, resolve any identified technical or Contractor initiated procedural problems with the original contracted baseline MUAV capability by providing technical advice and if required engineering support in the form of any system engineering tasks which must be executed to design, develop, integrate, manufacture, install, test, qualify, certify and support the contracted baseline capability as per the specifications and scope of the Contract or as changed by any completed tasks and approved configuration changes in effect at the time a problem is identified.

5.4 Technical Investigations and Engineering Support (TIES)

5.4.1 Technical advice requiring drawings or preparation of documented answers, and engineering tasks such as integrating new payloads and managing component obsolescence, must be provided as and when required under TIES tasks.

5.4.2 The Contractor must provide quotes and process proposed TIES task documentation IAW the applicable contract terms and conditions.

5.4.3 The Contractor must only perform the work and provide the services specified in any approved TIES task on receipt of the appropriate approved contractual documentation (DND 626).

5.5 Configuration Management (CM)

5.5.1 The Contractor must be responsible for CM for the UAS hardware and software the Contractor provides for this program, and must conduct CM activities IAW the approved CM Plan delivered IAW CDRL B006, DID SE-006.

5.5.2 The Contractor must not introduce configuration or system support changes to systems providing ISR capabilities to Canada without the prior approval of the TA. The Contractor must submit an Engineering Change Proposal (ECP) IAW MIL-HDBK-61A, Configuration Control or an equivalent ECP process for each proposed configuration change. If Canada accepts the

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proposal the ECP will be signed off and returned to the Contractor for action/implementation, and Canada will raise a task for the applicable work.

5.5.3 The Contractor must follow the engineering release system for configuration documentation to issue any required material change notices and updated configuration documentation IAW D-01-100-215/SF-000.

5.6 System Evaluation and Acceptance Testing

5.6.1 If tasked, the Contractor must update the Acceptance Test Plan (ATP) delivered IAW CDRL B007, DID SE-007.

5.6.2 The Contractor must conduct any appropriate Acceptance Testing on any additional new systems and new or repaired equipment prior to delivery to Canada.

6. INTEGRATED LOGISTICS SUPPORT

6.1 Additional Spare parts and Parts Replacements

6.1.1 The Contractor must provide Canada the option to procure additional spare parts beyond the initial UAS deliverables.

6.1.2 The Contractor must generate, assign, and install Unique Item Identifiers (UII) to all non-consumable items delivered to DND. The UIIs shall be in a machine readable form on the outside of the material or on the package when not easily accessible. The implementation of this requirement must be as mandated by A-LM-505-702/JS-001 and IAW STANAG 2290.

6.2 ILS Plan

6.2.1 The Contractor must update and use the ILS Plan provided IAW CDRL C001, DID ILS-001.

6.2.2 Within the ILS Plan the Contractor must ensure the provision of Supply Support in the form of consumable and repairable spare parts on an as required basis to sustain the system reliability and availability.

6.2.3 Within the ILS Plan the Contractor must ensure the provision of Maintenance Support IAW the maintenance concept and the maintenance requirements described in CDRL C006 DID ILS-006.

6.2.4 Within the ILS Plan the Contractor must ensure it is capable of providing Field Service Representative (FSR) personnel to support training within 60 days of receipt of a training support AWR task.

6.3 Supply Support

6.3.1 Transaction Documentation

6.3.1.1 For items delivered to the Contractor via the CFSS, the Contractor's Document Control Group (DCG) facilities must file and retain the following auditable transaction documentations by applicable account Repairable Material Account (RMA) or Repair Shop Account (RSA) warehouse either by Stock Code or by Requisition Number, in accordance with Part 3 of A-LM-184-001/JS-001:

- a. Stock Code sequence followed by requisition number; or

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b. Requisition number.

6.3.1.2 For items delivered to the Contractor outside of the CFSS, the Contractor's Document Control Group (DCG) facilities must file and retain auditable transaction documentations, maintaining records to the same standards as for 6.3.1.1, by Part Number and Requisition Number.

6.4 Contractor Supply Accounting

6.4.1 Materiel held on Contractor Repair Parts Account (CRPA), RSA and RMA must be accounted for as per the Canadian Forces Supply System (CFSS) automated procedures in accordance with A-LM-184-001/JS-001. Government Furnished Overhaul Spares (GFOS) and Accountable Advanced Spares (AAS) will be accounted for in either a manual or an automated system. Regardless of the system used, the Contractor must maintain an audit trail acceptable to DND. Further, any automated or manual materiel accounting system must first be approved by the RA. Supply accounting records for DND materiel must be maintained separate from other company records.

6.5 DND Publications

6.5.1 General procedures with respect to management of publications are contained in PART 11 of A-LM-184-001/JS-001. The Contractor must document requirements for publications and submit to the NDQAR. The Contractor must develop procedures to control all DND publications in their possession and be responsible for amending all DND publications in his custody. The Record of amendments must be maintained as indicated in the applicable area of each publication.

6.5.2 Unless otherwise specified, publications may be copied and/or extracts taken from them. As these copies/extracts are not subject to follow-up amendment action, they are not valid for use as a reference document and must be stamped "FOR INFORMATION ONLY". Contractors must ensure that any classified documents are provided with the appropriate security, consistent with the provisions of A-SJ-100-001/AS-000.

6.5.3 The Contractor must respond to any request for "verification of publication holdings" which may be requested periodically by DND.

6.6 Management of DND-Owned Spares

6.6.1 On receipt of TA approval the Contractor must, on an as required and as available basis, issue spare parts from this account to units to replace unit equipment returned to the Contractor for repair.

6.6.2 The Contractor must be responsible for:

- a. determining the requirement for DND owned spares,
- b. obtaining the spares when DND approval is granted,
- c. maintaining custody of the spares,
- d. accounting for the spares in an approved manner for use on the R&O repair line and for meeting unit equipment demands, and

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- e. for the disposal (when so directed) of the spares in accordance with A-LM-184-001/JS-001.

6.6.3 Spares must be used in the following order:

- a. Government Furnished Overhaul Spares (GFOS);
- b. Contract Issue Spares (CIS) (if applicable);
- c. Accountable Advance Spares (AAS) (if applicable); and
- d. Contractor Furnished Materiel (CFM).

6.6.4 The Contractor must maintain custody of repaired spares, accounting for the spares in an approved manner, for items repaired and placed in Contractor stock pending demands from units.

Note: The Contractor is responsible for its own stock levels and accounting procedures for the consumable items, repairable items and repair parts held at its site in order to support the system availability and repair turnaround time requirements. Cost associated with acquiring and managing this stock is a Contractor responsibility.

6.7 Spares Review

6.7.1 If applicable, in conjunction with the stocktaking schedule, the Contractor must carry out a review of CIS to determine if holdings of any particular item:

- a. Exceed the economic stock retention level. The level is normally equal to an estimated four (4) months stock;
- b. Have become surplus to requirements as a result of a modification, disposal, obsolescent or transfer of the major equipment; and/or
- c. Are no longer fit for use in the R&O of DND equipment.

6.7.2 In conjunction with the stocktaking schedule, the Contractor must carry out a review of GFOS to determine if stock holdings include any item which:

- a. Has become surplus to requirement as a result of removal of the end item from the Selection Notice and Priority Summary (SNAPS);
- b. Has become redundant because of a modification change notice, product improvement, etc; or
- c. Is a catalogued item which should have been transferred to CIS.

6.7.3 The Contractor must contact the RA for disposition instructions in the event it becomes apparent that the Contractor is holding excess stock of spares owned by Canada.

6.8 Stocktaking

6.8.1 The Contractor must initiate and complete a one hundred per cent (100%) manual stocktaking of RMA, RSA, CRPA(CIS), GFOS and AAS as a minimum once every two (2) years in accordance with PART 6 of A-LM-184-001/JS-001.

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6.9 Selection Notice Observation Message (SNOM)

6.9.1 Contractors wishing to make observations on information contained in the SNAPS, including Maximum Repair Cost (MRC), must do so by submitting their observations using the Selection Notice Observation Message (SNOM) in accordance with PART 2 of A-LM-184-001/JS-001.

6.10 Loss Or Damage To DND Materiel

6.10.1 The Contractor must report to the NDQAR, or to the RA as applicable, all instances of loss or damage to DND owned materiel in his custody within two (2) working days of confirmation of its discovery.

6.10.2 The Contractor may be authorized to make repairs to DND-owned equipment on loan. All requests must be forwarded to the RA for approval. If applicable, if the Contractor is authorized to repair damaged DND materiel, he must notify the NDQAR before any repair commences to enable adequate quality assurance of the repair.

6.10.3 Loss or damage of materiel in transit must be actioned in accordance with Part 8 of A-LM-184-001/JS-001.

6.11 Scrap - Custody & Disposal

6.11.1 The Contractor must safeguard, control, and dispose of the scrap materiel in accordance with Part 7 of A-LM-184-001/JS-001.

6.12 Preservation And Packaging

6.12.1 All packaging for items delivered to the CAF must meet with best commercial packaging standards, meeting environmental conditions and clearly identifying both quantity and part number on both inner pack and outer pack, and comply with the packaging requirements specified in Annex B (SPS), and in D-LM-008-036/SF-000 Minimum Requirements For Manufacturer's Standard Pack. Further guidance on packaging is included in D-LM-008-001/SF-001 Methods of Packaging and D-LM-008-002/SF-001 Specification for Marking for Storage and Shipment.

6.12.2 When multiple line items are packed in a single container, a listing of all line items must be clearly affixed to the outer pack and a separate list provided inside the outer pack detailing the inventory of the larger outer pack.

6.13 Preservation And Packaging Failure

6.13.1 Equipment processed through the CFSS damaged due to preservation and packaging failures in shipments must be reported to the NDQAR using form CAF 777, Unsatisfactory Condition Report (UCR), supported by photographs in accordance with CFTO C-02-015-001/AG-000.

6.13.2 Equipment processed outside of the CFSS damaged due to preservation and packaging failures in shipments must be reported to the RA using form CAF 777, Unsatisfactory Condition Report (UCR), supported by photographs in accordance with CFTO C-02-015-001/AG-000.

6.14 Reusable Containers

6.14.1 When it is appropriate and the work is approved by the RA, the Contractor must inspect, repair and/or repaint reusable containers. If a requirement to repair, replace or provide a reusable container or other packaging materiel has been identified, it will become a charge against the

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R&O contract at a negotiated rate to be listed in the "basis of payment" (BoP) and on the repair work order.

6.14.2 All use of wood or organic materials must be subject to applicable Canadian and international standards, including International Standards for Phytosanitary Measures (ISPM) No.15, and The Canadian Wood Packaging Certification Program.

6.15 Transportation

6.15.1 The Contractor must be responsible to action all transportation requirements in accordance with PART 8 of A-LM-184-001/JS-001.

6.16 Customs & Excise

6.16.1 If the Contractor sub-contracts to an out of country location, the Contractor is responsible for the preparation of all the necessary customs documentations. DND's Customs Brokers must not be utilized unless specifically authorized in writing by the RA.

7. MAINTENANCE CONCEPT

7.1 General

7.1.1 The DND maintenance concept for the UAS is described in Annex A.

7.2 Support Process Concept Overview

7.2.1 When warranty or other equipment failures occur at the unit level that are beyond the operator and, if applicable, unit technician maintenance repair level, the unit will submit reports to the Contractor stating what components are required to return their systems to a 100 % serviceable state. The unit will collect unserviceable repairable items and ship them to the Contractor.

7.2.2 On approval from the TA and the RA (or the CA if the cost exceeds the RA's authority level) the Contractor must ship the required components and assemblies directly to the unit within 15 calendar days.

7.2.2.1 Contractor "Commodity Point" facility in Canada: To achieve the timely shipment of consumable items and spare parts to the CAF units the Contractor shall establish an appropriate inventory at a Contractor operated Commodity Point facility in Canada no later than the date of the start of the first training course in Canada. All items being returned to the Contractor for warranty service or for repair will be shipped to this Commodity Point by Canada. The Contractor shall be responsible for any transportation between its facility in Canada and any Designated Repair Facility / Facilities.

7.2.3 The Contractor must track any new parts cost and applicable shipping and handling costs to include the costs in to the monthly support service invoice IAW Annex BB (BoP). When delivered to the CAF units the items become CAF property.

7.2.4 On receipt of any returnable items from the CAF unit the Contractor must undertake repairs IAW the terms of the System warranty or this In-Service Support Contract SOW, as applicable.

7.2.5 On completion of repairs to CAF owned items The Contractor must place the item in its physical inventory, ready to fill the next order from a CAF unit.

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7.2.6 The Contractor must charge any applicable costs to Canada on the following monthly invoice submission IAW Annex BB (BoP).

7.3 R&O Process

7.3.1 For complete UAS support the R&O work must be processed IAW A-LM-184-001/JS-001, Special Instructions – Repair and Overhaul Contractors.

7.3.2 Exception to A-LM-184-001/JS-001

7.3.2.1 For lower level assembly and component support the process is essentially the same with the exception that the items are handled outside of the CFSS, and at all times the RA will be the primary DND contact for authority to proceed with work, and for the submission of any reports and documentation.

7.4 R&O Item Receipt

7.4.1 Upon receipt of DND equipment, the Contractor must:

- a. Identify the equipment and ensure authority to repair (IAW the pre-authorized repairable list or a specific authorization document from the RA);
- b. Open a work order within 48 hours of delivery to Contractor;
- c. Carry out a physical check to ensure that the item is complete and is in accordance with the accompanying vouchers;
- d. Complete receipt documentation, including any adjustment transactions, work order number; and
- e. Action warranty materiel.

7.4.2 If the Contractor is missing any information or documentation, he must request it through the RA and/or the TA.

7.4.3 For those items where the basis of payment is other than firm fixed price, and based upon available information and/or inspection of the item, the Contractor must determine the extent of work required, prepare a cost estimate, and if cost to repair is below the maximum repair cost (MRC), proceed with the repair. Whenever cost to repair threatens to exceed the MRC, the Contractor must request authority in writing to proceed with the repair from the RA.

7.4.4 Where it is impossible to determine the cost to repair, the Contractor may be granted authority by the RA to strip the equipment so as to assess its repair and/or overhaul potential and to estimate the costs. Unless otherwise specified, and regardless of the value of the equipment, the cost of the work involved in estimating the repair cost is chargeable to the item whether or not it is subsequently repaired.

7.5 Discrepancies In Shipments

7.5.1 If upon initial inspection, the Contractor identifies equipment as having the same form, fit and function as other equipment, but as being misidentified, the Contractor must forward a detailed message to the Consignor and to the RA with a recommendation for corrective action. A discrepancy in shipment can consist of any of the following:

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- a. In-condition;
- b. Surplus; or
- c. Shortage.

7.5.2 The Contractor must action discrepancies in shipments in accordance with the procedures of PART 3 of A-LM-184-001/JS-001, except that the information is passed to the RA for items processed outside of the CFSS.

7.6 Completion Of Work

7.6.1 On completion of Repair and/or Overhaul, the Contractor must prepare and transmit a stock holding code (SC) change notification in accordance with PART 2 of A-LM-184-001/JS-001, except that the information is passed to the RA for items processed outside of the CFSS..

7.6.2 The following "Contractor Certification" must be stamped on the CFSS Supply Document and signed prior to the Contractor transmitting the SC Change Notification:

Contractor Certification

I certify that the item(s) listed above have been inspected, tested and conform to all specifications and requirements detailed in the contract or purchase order.

Signature _____ Date _____

(Contractor QC)

7.7 Work Control

7.7.1 The Contractor must ensure that the repair of all DND equipment is controlled by a serial numbered work order in accordance with PART 2 of A-LM-184-001/JS-001. Upon completion of work, the work order must include as a minimum the following:

- a. A contract serial number against which all costs incurred are chargeable;
- b. The NATO Stock Number (NSN) and/or Part Number (PN), description, quantity and serial number, if any, of item repaired;
- c. A cross reference to all Supply Documents. This includes receipt, issues and returns, including scrap activity, finalization of repair, inspection, and final acceptance;
- d. Reference to the applicable technical data;
- e. Details of the work performed;
- f. A list of all the parts, by part number and description, found unserviceable and requiring repair and/or overhaul, ensuring that the repair scheme is referenced

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- g. A list of parts required, identifying the stores from which issued (eg, CIS, GFOS, AAS or CFM);
- h. Repair cost estimate; and
- i. The identity of the person opening the work order.

7.7.2 The Contractor must provide to the RA, and if applicable to the National Defence Quality Assurance Region (NDQAR) amended as necessary, a list of Contractor personnel authorized to open work orders.

7.7.3 All repaired items must be returned to DND in the same part number configuration as it was delivered to the Contractor, unless otherwise authorized in writing by the TA and the RA, and if applicable the Quality Assurance Authority.

7.7.4 All equipment assemblies, components and kits, after repair, must have a CAF 942 tag/label completed and attached as detailed in Government Publication C-02-005-009/AM-000. The CAF 942 tag/label must also be affixed to the external packaging. Form CAF 942 is available both as a tag (CAF 942) or label (CAF 942A).

7.8 Annual Repair Forecast – Selection Notice and Priority Summary (SNAPS)

7.8.1 The contractor must notify the RA when the receipt for a selected repairable line item exceeds the current (fiscal) year forecast (CYF) in the SNAPS report for items processed through the CFSS, or the Contract repairable list generated by the RA for items processed outside of the CFSS. The contractor must not induct the line item until written approval is received from the RA or the SNAPS forecast is amended, as applicable.

7.9 Cost Control

7.9.1 The Contractor must monitor the cost of each repair to ensure that total repair costs remain within approved limits. Appropriate management control procedures must be in place and records maintained. These control procedures and records must be available for review and/or audit on request.

7.10 Costing Records

7.10.1 The Contractor must prepare forms and maintain records which will provide, to the RA or the NDQAR, as applicable:

- a. A cost listing, by serial number if applicable, of each item or job lot going through the repair line;
- b. A detail of the extent of work carried out, in-process inspections completed and materiel embodied at any stage of the repair process;
- c. The average cost of repair and/or overhaul, by NSN; and
- d. The total repair cost for an item (NSN), by work order.

7.11 Maintenance Support

7.11.1 Minor Repairs

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7.11.1.1 If DND supplied parts are urgently required to effect delivery of Free Flow (components) and are not immediately available from DND, then minor repair may be carried out to the unserviceable part by the Contractor, as approved by the RA who will advise NDQAR accordingly.

7.11.2 Mobile Repair Parties (MRPs)

7.11.2.1 The Contractor must provide a MRP, when tasked and authorized by the RA.

7.11.2.2 There are two types of MRP:

- a. A scheduled MRP; for a scheduled MRP, the PA must follow the DND 626 Task Authorization process. (This process must be used to authorize and coordinate any on-site support tasks at CAF training and deployment sites.)
- b. An unscheduled, Immediate Operational Requirement (IOR) MRP. The unscheduled IOR MRP happens under exceptional and extraordinary circumstances (for example: pre-deployment preparations for an unexpected extended operational mission) and requires an immediate response from DND.

7.11.2.3 The process to action an unscheduled IOR MRP is as follows:

7.11.2.3.1 The TA/PM is responsible to:

- a. Contact the RA;
- b. Describe the work to be done;
- c. Request that the unscheduled IOR MRP process be used.

7.11.2.3.2 The RA is responsible to:

- a. Ensure that the instructions for unscheduled IOR MRPs are contained in the contract;
- b. Refer to the "Procedures and Guidelines for Mobile Repair Parties Manned by Contractor Personnel" document (NDID C-02-005-011/AM-000);
- c. Review the requirement to confirm that it is effectively an unscheduled IOR MRP;
- d. Approve the unscheduled IOR MRP;
- e. If the work is within the RA funding authorization level, confirm by e-mail to the TA/PM and the company that the requirement is approved. In this case the RA's e-mail is the written agreement that allows the work to proceed; and
- f. If the work is NOT within the RA funding authorization level, work with the CA to ensure the work is approved in as expeditious a manner as is practicable. In this case an e-mail from the CA will be deemed to be the written agreement that allows the work to proceed, pending receipt of the appropriate DND 626 or Contract amendment.

7.11.2.4 Upon mutual agreement the Contractor will be required to provide competent engineers and/or technicians to field sites to perform engineering projects and/or to effect repairs or modifications to the installations. All matters pertaining to the performance of the work on the

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site must be referred to the cognizant Base Technical Services Officer, and/or Air/Ship's Staff, or their appointed delegate who will be responsible for the conduct of the work and must signify satisfactory completion and acceptance of the work by signing Appendices 1 and 2 to the aforementioned NDID. This service must be accomplished to the satisfaction of the site Commanding Officer, his authorized representative, or NDHQ as directed.

7.11.2.5 On completion of work the Contractor must provide the RA with a cost breakdown indicating labour hours by trade, travel expenses, living expenses, etc. Costs must be all inclusive and must be an indication of the actual amount being claimed. Travel costs must not exceed approved TB Guidelines unless pre-approved in writing by the RA prior to undertaking the travel. TB Guidelines are available at http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/td-dv-eng.asp.

7.11.2.6 If requested, the Contractor must submit two (2) copies of a monthly progress report covering MRP activities to the RA. The level of detail and format will be stipulated in the individual DND 626 tasking should such a report be deemed to be necessary. (Note: such a report is rarely called up).

7.12 Equipment Turn Around Time (TAT)

7.12.1 Unless specifically identified within the contract, equipment TAT to a serviceable state must be achieved as required to meet the system 95% availability rating. TAT is defined as that period of time from "date of receipt to date item is reported serviceable". Repair priority is governed by the SNAPS or by the repairables list provided to the Contractor by the RA, as applicable. The principle of "first-in / first-out" (FIFO), must be observed whenever possible.

7.13 Priority Repair Request (PRR)

7.13.1 The Contractor must be prepared to satisfy PRRs in an expeditious manner. If the Required Delivery Date (RDD) cannot be met, the Contractor must advise the originator and the consignee for a more realistic Estimated Delivery Date (EDD). This EDD must be amended as required until the PRR is satisfied.

7.14 Special Investigations & Technical Studies (SITs)

7.14.1 When authorized by the RA, the Contractor must undertake special investigation and technical studies and must provide relevant data to these investigations as and when required. The scope of work normally covered under special investigation and technical studies is to cater for equipment not meeting specification standards or due to repetitive failures. This excludes studies and/or investigations which have or will have fleet fitment application.

7.15 Technical Investigations & Engineering Support (TIES)

7.15.1 When authorized by the RA, the Contractor must undertake TIES tasks. This activity includes the provision of system and maintenance support and management services. It includes the requirement analysis and planning to ensure current reliability availability of specifications can be met, the scheduling of maintenance, the identification of spares and support, as well as the development of policies and maintenance procedures. It also includes the contract management activities as well as the validation/acceptance of deliverables when maintenance activity in contracted.

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7.16 Warranty Consideration

7.16.1 Materiel which has been returned for warranty consideration must be actioned in accordance with PART 10 of A-LM-184-001/JS-001.

7.17 Stop Repair Action

7.17.1 The Contractor must comply immediately with all stop repair instructions. Detailed procedures are contained in PART 2 of A-LM-184-001/JS-001.

7.18 Reports

7.18.1 In addition to any report IAW CDRL A003, DID PM-003, as required under any work under the other various plans, and as detailed in any specific support service task SOW, the Contractor must submit an Annual Contractor Held Inventory Report.

7.19 The report, submitted to the RA, must detail the value of all AAS and GFOS inventory held on March 31. Appendix 1 provides details on how to report this inventory, and Appendix 2 is a sample copy of the report proforma (Standard Form).

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CONTRACTOR-HELD INVENTORY REPORTING REQUIREMENTS

1. The instructions to complete the Contractor-Held Inventory Reporting templates are as follows:

1.1 Part A: "DND Owned Inventory Holdings held by Contractors as at 31 Mar 20XX".

- a. A separate Inventory Holdings report is required for Consumable Inventory and Repairable Inventory. If your inventory cannot be reported or separated on the basis of consumable versus repairable, please state what the majority of the inventory would be classified as repairable or consumable based on the definitions below.
- b. Loaned equipment from DND must be authorized through a DND-authorized loan agreement. Reporting must be as per the conditions of the loan agreement.
- c. Whole Capital assets are not to be reported to DND. Whole Capital Assets are equipment that has been purchased by DND for the contractor that are not inventory, such as vehicles, test equipment, etc.
- d. The reports provided by the company inventory system are acceptable for reporting purposes to DND, as long as they contain the essential information requested in the template provided.
- e. Provide any alternate part number or manufacture part number in addition to the part number listed above. Provide the class also, if available, as well as any additional field information you have that may help to classify the data.
- f. Provide the inventory report in electronic format, MS Excel being the preferred software, advise RA if not available.

2 Definitions:

2.1 Government Furnished Overhaul Spares (GFOS) – Non-catalogued inventory spares which are not purchased by the contractor but arise from:

- a. AA spares transferred from another contractor;
- b. DND procurement with the US government;
- c. spares salvaged from DND equipment; or
- d. de-catalogued CIS spares which are for 3rd line use only. GFOS spares are not recorded in the Canadian Forces Supply System (CFSS).

2.2 Accountable Advance Spares (AAS) – Non-catalogued inventory spares which the contractor has been authorized by DND to purchase using DND funds, on an exceptional basis. The CFSS does not track AAS.

2.3 Bonded Stock – Inventory spares which the Out of Country contractor has been authorized by DND to purchase using DND funds, on an exceptional basis. The CFSS does not track bonded stock.

2.4 Repairable Inventory – An item of supply designated as capable of being repaired.

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2.5 Consumable Inventory – An item of supply that is not repairable.

3 Part B

3.1 "Repairable Template Input/Output Repairable Inventory Report for the Year Ending 31 March 20XX" and "Consumable Template Input/Output Consumable Inventory Report for the Year Ending 31 March 20XX":

Notes:

1. The closing inventory as at 31 Mar 20XX must be equal to the itemized listings provided in the consumable and repairable reports of 'DND Owned Inventory Holdings as at 31 Mar 20XX.'
 2. A separate Input/Output Inventory Report is required for Consumable Inventory and Repairable Inventory.
 3. It is preferable to provide the data in a part number level format detailing the equipment platform supported, but the summary level report as outlined in the template is acceptable.
 4. Report in one currency only and specify the currency if it is not Canadian.
-

4 Part C

4.1 "Additional Information Requested for Year-End Reporting"

4.1.1 The following information is requested:

- a. Description of the activities performed under the Repair and Overhaul (R&O) contract(s) supported by the inventory holdings if not supplied on the Part A spreadsheet (such as R&O on Hercules engines);
- b. How often stocktaking is performed on the contractor holdings of DND owned inventory;
- c. Date of last stocktaking;
- d. The accounting method used by the contractor to value the inventory reported first-in-first-out (FIFO), last-in-first-out (LIFO), historical cost or moving weighted average;
- e. Is this a sub-contractor to another company? If so, who?
- f. DND and contractor point of contact for the inventory report as at 31 Mar 20XX

Solicitation No:

PART B

REPAIRABLE TEMPLATE
INPUT / OUTPUT REPAIRABLE INVENTORY REPORT
FOR THE YEAR ENDING 31 MARCH 20XX

Opening Inventory as at 1 April 20XX:	
Plus: Cost of Goods Purchased or Acquired:	
Minus: Consumption / Removals:	
Closing Inventory as at 31 March 20XX:	\$ -

NOTES

Note 1: The closing inventory as at 31 March 20XX must be equal to the itemized listing of repairable items provided through Part A, DND Owned Inventory Holdings Held by Contractors as at 31 March 20XX.

Note 2: A separate Input / Output Inventory Report is required for Consumable Inventory and Repairable Inventory.

Note 3: Report in one currency only and specify the currency if it is not Canadian.

Solicitation No:

PART B

CONSUMABLE TEMPLATE
INPUT / OUTPUT CONSUMABLE INVENTORY REPORT
FOR THE YEAR ENDING 31 MARCH 20XX

Opening Inventory as at 1 April 20XX:	
Plus: Cost of Goods Purchased or Acquired:	
Minus: Consumption / Removals:	
Closing Inventory as at 31 March 20XX:	\$ -

NOTES

- Note 1: The closing inventory as at 31 March 20XX must be equal to the itemized listing of consumable items provided through Part A, DND Owned Inventory Holdings Held by Contractors as at 31 March 20XX.
- Note 2: A separate Input / Output Inventory Report is required for Consumable Inventory and Repairable Inventory.
- Note 3: Report in one currency only and specify the currency if it is not Canadian.

Solicitation No:

PART C

ADDITIONAL INFORMATION REQUESTED FOR YEAR END REPORTING

Description of the activities performed under the Repair & Overhaul (R&O) contract(s) supported by the inventory holdings if not supplied on the Part A spreadsheet (i.e. R&O on Hercules engines).	
How often is a stocktaking performed on the contractor holdings of DND owned inventory?	
What is the date of last stocktaking?	
What accounting method is used by the contractor to value the inventory reported (FIFO, LIFO, historical cost or moving weighted average)?	
Is this a sub-contractor to another company? If so, who?	
DND and Contractor points of contact for the inventory report as at 31 March 20XX.	

Note: Inventory reports may be subject to audit by the Office of the Auditor General (OAG).

ANNEX BB

BASIS OF PAYMENT

For

In-Service Support (ISS)

For

Maritime Miniature Unmanned Aircraft System (MMUAS)

1. DEFINITIONS

- i. **Hourly Rate** means a firm hourly rate to be charged for each hour worked and prorated for any period less than an hour.
- ii. **Monthly Rate** means a rate to be paid monthly based on the following formula:

$$\frac{\text{Firm Rate Per Month} \times \text{Number of Calendar Day(s) Worked}}{\text{Number of Calendar Days in that Month}}$$

- iii. **Laid-Down Cost** is the cost incurred by a supplier to acquire a specific product or service for resale to the government. This includes the supplier's invoice price (less trade discounts), plus any applicable charges for incoming transportation, foreign exchange, customs duty and brokerage, but excludes the GST/HST.
- iv. **Markup** includes applicable internal handling charges and general and administrative expenses plus profit.
- v. **Firm (Fixed) Price** is a method of pricing in which the total amount payable is a fixed lump sum or is an amount determinable in accordance with fixed unit prices. In such cases, both parties agree prior to the award of the contract as to the payable there under.
- vi. **Program Management:** Product Support Manager will perform generic support activities related to program issues and repair activity.

Generic activities directly supporting the in-plant Repair and Overhaul program are:

- a. hosting team meetings;
 - b. managing daily activities;
 - c. providing guidance to R&O team;
 - d. managing communication with customer;
 - e. preparing program reviews, reporting or analyzing technical data;
 - f. providing support to contractual and financial team;
 - g. resolution of technical issues;
 - h. monitor system data and overall trends;
 - i. supervision of touch labour activities; and
 - j. prioritizing flow through and managing and assigning resources as required.
- vii. **Technical Support Management:** Product Support Technologist or technician shall perform support activities related to multiple repair activity.

Generic activities directly supporting the in-plant Repair and Overhaul program include:

- a. repair setup;
- b. routine obsolescence resolution;
- c. test equipment calibration and initialization for repairs;
- d. preparation and processing of equipment;
- e. quality processes; and
- f. parts inspection and any activities that would support multiple repairs.

2. General

For all categories, the Contractor shall be paid firm prices. Goods and Services Tax (GST), Harmonized Sales Tax (HST) and custom duties or levies if applicable, should be included as separate items on invoices and progress claims.

1. Monthly Fee

The Contractor will be paid a monthly rate to cover project and contract management activities, which include, but are not necessarily limited to:

- a. Contract Administration;
- b. Technical Support Management;
- c. Progress Reports;
- d. RSPL Updates;
- e. Software Updates and Bug Fixes

The Monthly Rate will be paid as a unit price for that part of the month worked based upon the following formula, rounded to two (2) decimal places:

$$\frac{\text{Firm Rate per Month} \times \text{Number of Calendar Day(s) Worked}}{\text{Number of Calendar Days in that Month}}$$

The Contractor will be paid a fixed monthly fee of:

- a. \$ _____

Option Years:

- b. Year 1 \$ _____
- c. Year 2 \$ _____
- d. Year 3 \$ _____

3. Repair and Overhaul (R&O)

For all R&O work, as described in the Statement of Work (SOW) at Annex AA, the Contractor shall be paid **firm hourly rates by labour category of:**

Category	Firm Fixed Hourly Labour Rates
Engineer	\$
Technologist	\$
Technician	\$

4. Additional Work Arisings

For all Non R&O tasks such as Technical Investigation and Engineering Support (TIES), Additional Work Arisings (AWA), as described in the ISS SOW at Annex AA, the Contractor shall be paid firm hourly rates by labour category of:

Category	Firm Fixed Hourly Rates
Field Services Representative (Operator)	\$
Field Services Representative (Maintainer)	\$
Senior Engineer	\$
Junior Engineer	\$
Software Engineer	\$
Technician	\$
Program Manager	\$
Technical Writer	\$
Instructor	\$

5. Optional - Repairable Spare Parts

This optional item may be delivered as part of this contract. Should the option be exercised in full or in part, the Contractor shall be paid Firm Fixed Prices for the Repairable* Spare Parts. The Repairable Spare Parts List shall be for the quantities required to conduct 1,000 flights. FFP shall be INCOTERMS 2010 EXW Contractor's Plant,

Repairable Spare Parts List	Part #	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Fuselage				
Payload				
Etc..				

Repairable Spare Parts List	Part #	Firm Fixed Unit Price	Quantity	Firm Fixed Extended Price
Total Price of Repairable Spares for 1,000 Flights				

6. Optional - Consumable Spares Price List:

Description of the Consumable Spares	Firm Fixed Price
TOTAL PRICE	

7. Travel and Living

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](http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php), (<http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php>), and with the other provisions of the directive referring to "travelers", rather than those referring to "employees".

All travel shall be authorized in advance and in writing by the DND Procurement Authority (PA) prior to making any travel arrangements. The Contractor shall provide the details of the travel and living expenses with each claim including copies of invoices, and remit original receipts to the PA for reimbursement. All travel and living expenses are subject to Government Audit before or after the claim is paid.

8. Prices for Optional Items

The prices provided for the Optional Items shall be valid for the duration of contract including the Option Years 1, 2 and 3.

9. OPTION YEARS

Labour Rates for the option years will be incorporated in this document prior to exercising the options.

The Labour Rates in the contract shall provide the baseline for the Labour Rates for Option Year 1, 2 and 3. The Labour Rates for Option Year 1 shall be the Labour Rates in the contract escalated by no more than a percentage equal to Canada's Consumer Price Index (CPI) increase for the one-year option ending two months prior to the end of the contract. The Labour Rates for Option Year 2 shall be the Labour Rates for Option Year 1 escalated by no more than a percentage equal to the CPI increase for the one-year period ending two months prior to the end of Option Year 1. The Labour Rates for Option Year 3 shall be the Labour Rates for Option Year 2 escalated by no more than a percentage equal to the CPI increase for the one-year period ending two months prior to the end of Option Year 2. The Canadian Consumer Price Index shall be used for the labour rates calculations and the calculation will be based on the CPI for "All items, no seasonally adjusted."

	Technician	200 hours	\$0.00	\$0.00
	Program Manager	50 hours	\$0.00	\$0.00
	Technical Writer	150 hours	\$0.00	\$0.00
	Instructor	100 hours	\$0.00	\$0.00
	Subtotal 3 non-R&O Tasks =			
		FF	Extended	
5	Optional - Repairable Spare Parts		Price	
	Repairable Spare Parts			
	Subtotal 4 (Optional RSP) =			

In Service Support Bid Price = Sum of Subtotals 1 to 4