

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions**
Travaux publics et Services gouvernementaux
Canada
PO Box 1408, Room 100
167 Lombard Ave.
Winnipeg
Manitoba
R3C 2Z1
Bid Fax: (204) 983-0338

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 Navigation Trg. System Components	
Solicitation No. - N° de l'invitation W7006-130011/A	Date 2013-01-29
Client Reference No. - N° de référence du client W7006-130011	
GETS Reference No. - N° de référence de SEAG PW-\$WPG-209-8418	
File No. - N° de dossier WPG-2-35121 (209)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-03-08	
Time Zone Fuseau horaire Central Standard Time CST	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Allard, Ken	Buyer Id - Id de l'acheteur wpg209
Telephone No. - N° de téléphone (204) 983-4920 ()	FAX No. - N° de FAX (204) 983-7796
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF NATIONAL DEFENCE 17 WING WINNIPEG 715 WIHURI ROAD, MDC BUILDING 129 WINNIPEG MANITOBA R3J3Y5	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

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

Issuing Office - Bureau de distribution

Public Works and Government Services Canada - Western
Region
PO Box 1408, Room 100
167 Lombard Ave.
Winnipeg
Manitoba
R3C 2Z1

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


 Public Works and Government Services Canada		Travaux publics et Services gouvernementaux Canada		Document No.W7006-130011/A		Part - Partie 1 of - de 2		See Part 2 for Clauses and Conditions Voir Partie 2 pour Clauses et Conditions	
Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM Destination Plant/Usine	Delivery Req. Livraison Req.	Del. Offered Liv. offerte	
1 xx Navigation Trg. System Components		W7006	W7006	1	Lot	\$ XXXXXXXXXXXX	See Herein		

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PART 1 - GENERAL INFORMATION

1. Introduction

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

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

The Annexes include the Statement of Requirement, the Basis of Payment, the Security Requirements Checklist, and the Insurance Requirements.

2. Summary

This Statement of Work at Annex A defines the requirements necessary to accomplish the replacement of the monitors and console computers in the Navigation Training System (NTS) on the CT142 Aircraft. Quantity thirty monitors and thirty console computers are required to be installed in the CT142 Dash 8, as well as one standalone monitor and console computer for DND software testing.

3. Debriefings

After contract award, 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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual*

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

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2012-11-19) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

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

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

4. Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Manitoba.

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

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

Section I: Technical Bid :Two (2) hard copies

Section II: Financial Bid : One (1) hard copies

Section III: Certifications One (1) hard copies

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

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

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

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

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

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

Section I: Technical Bid

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

(i) As part of its technical bid, the Bidder must propose its preliminary project schedule in Word format. The project schedule must include the Bidder's work breakdown structure, the scheduling of main activities and milestone events, and any potential problem areas involved in completing the Work.

(ii) The Bidder's schedule must also provide target dates specific to achieving the significant project phases in Appendix 1 to Annex A

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

Section II: Financial Bid

1.1 Bidders must submit their financial bid in accordance with Annex C - Basis of Payment . The total amount of Goods and Services Tax or Harmonized Sales Tax must be shown separately, if applicable.

1.2 Exchange Rate Fluctuation

C3011T(2010-01-11), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) To be considered compliant Bidders must :
 - (i) submit a completed Compliance Matrix (Appendix 1 to Annex A); and
 - (ii) provide documentation to demonstrate compliance to each mandatory criterion as identified, and
 - (iii) a detailed Project Schedule
- (c) An evaluation team composed of representatives of Canada will evaluate the bids.

1.1 Technical Evaluation

Mandatory and point rated technical evaluation criteria are included in Annex B.

1.2 Financial Evaluation

Reference Annex B

The price of the bid will be evaluated in Canadian dollars, the Goods and Services Tax or the Harmonized Sales Tax excluded, FOB destination, Canadian customs duties and excise taxes included.

1.2.1 Mandatory Financial - A0220T (2007-05-25), Evaluation of Price

2. Basis of Selection

2.1 To be declared responsive, a bid must:

- (a) comply with all the requirements of the bid solicitation; and
- (b) meet all mandatory technical evaluation criteria; and
- (c) obtain the required minimum of 175 points (75%) overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 250 points.

Bids not meeting (a) or (b) or (c) will be declared non-responsive.

The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 60 % for the technical merit and 40% for the price.

To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 60%.

To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 40%.

For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.

Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).

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

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

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and related documentation to be awarded a contract. Canada will declare a bid non-responsive if the required certifications and related documentation are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications, to provide the related documentation or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

1. Mandatory Certifications Required Precedent to Contract Award

1.1 Code of Conduct and Certifications - Related documentation

- 1.1.1** By submitting a bid, the Bidder certifies, for himself and his affiliates, to be in compliance with the Code of Conduct and Certifications clause of the Standard instructions. The related documentation hereinafter mentioned will help Canada in confirming that the certifications are true. By submitting a bid, the Bidder certifies that it is aware, and that its affiliates are aware, that Canada may request additional information, certifications, consent forms and other evidentiary elements proving identity or eligibility. Canada may also verify the information provided by the Bidder, including the information relating to the acts or convictions specified herein, through independent research, use of any government resources or by contacting third parties. Canada will declare non-responsive any bid in respect of which the information requested is missing or inaccurate, or in respect of which the information contained in the certifications is found to be untrue, in any respect, by Canada. The Bidder and any of the Bidder's affiliates, will also be required to remain free and clear of any acts or convictions specified herein during the period of any contract arising from this bid solicitation.

Bidders who are incorporated, including those bidding as a joint venture, must provide with their bid or promptly thereafter a complete list of names of all individuals who are currently directors of the Bidder. Bidders bidding as sole proprietorship, including those bidding as a joint venture, must provide the name of the owner with their bid or promptly thereafter. Bidders bidding as societies, firms, partnerships or associations of persons do not need to provide lists of names. If the required names 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 will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form- PWGSC-TPSGC 229)

(<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>) for any or all individuals aforementioned within the time specified. Failure to provide such Consent Forms within the time period provided will result in the bid being declared non-responsive.

2. Additional Certifications Required with the Bid

Bidders must submit the following duly completed certifications with their bid:

2.1 Federal Contractors Program - Certification

The Federal Contractors Program (FCP) requires that some suppliers, including a supplier who is a member of a joint venture, bidding for federal government contracts, valued at \$200,000 or more (including all applicable taxes), make a formal commitment to implement employment equity. This is a condition precedent to contract award. If the Bidder, or, if the Bidder is a joint venture and if any member of the joint venture, is subject to the FCP, evidence of its commitment must be provided before the award of the Contract.

Suppliers who have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive government contracts over the threshold for solicitation of bids as set out in the *Government Contracts Regulations*. *Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.*

If the Bidder does not fall within the exceptions enumerated in 3.(a) or (b) below, or does not have a valid certificate number confirming its adherence to the FCP, the Bidder must fax (819-953-8768) a copy of the signed form LAB 1168, Certificate of Commitment to Implement Employment Equity, to the Labour Branch of HRSDC.

The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

() is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada;

() is not subject to the FCP, being a regulated employer under the *Employment Equity Act*, S.C. 1995, c. 44;

() *is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC (having not bid on requirements of \$200,000 or more), in which case a duly signed certificate of commitment is attached;*

() *is subject to the FCP, and has a valid certificate number as follows: _____ (e.g. has not been declared an ineligible contractor by HRSDC).*

Further information on the FCP is available on the HRSDC Web site.

2.2 Former Public Servant Certification

Contracts with 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 with FPS, bidders must provide the information required below.

Definitions

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

an individual;

an individual who has incorporated;

a partnership made of former public servants; or

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

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

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

Former Public Servant in Receipt of a Pension

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

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

name of former public servant;

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

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

Work Force Reduction Program

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? **Yes () No ()**

If so, the Bidder must provide the following information:

name of former public servant;

conditions of the lump sum payment incentive;

date of termination of employment;

amount of lump sum payment;

rate of pay on which lump sum payment is based;

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

number and amount (professional fees) of other contracts subject to the restrictions of a work force reduction 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 the Goods and Services Tax or Harmonized Sales Tax.

2.3 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive. A3005T (2010-08-16)

2.4 SACC Manual clause(s)

2.4.1 Education and Experience A3010T (2010-08-16)

PART 6 - RESULTING CONTRACT CLAUSES

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

1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the technical and management portions of the Contractor's bid entitled _____, dated _____.

1.1 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Annex A of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual*

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

2.1 General Conditions

2030 (2012-11-19) General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

3. Security Requirement

There is no security requirement for this requirement.

4. Term of Contract

4.1 Period of the Contract

The period of the contract is from date of Contract award to _____ inclusive (*To be inserted at contract award*)

4.2 Delivery Date

The Contractor must deliver the following deliverable items to the Technical Authority at the location and time designated below:

Item(s):

Computer Consoles and Monitors

Delivery Date:

On or before March 28, 2013

Location:

DND at _____ (*To be inserted at contract award*)

5. Authorities**5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Ken Allard
Supply Specialist | Spécialiste en approvisionnement
Acquisitions-Winnipeg | Approvisionnements - Winnipeg
Public Works and Government Services Canada
Travaux publics et Services Gouvernementaux Canada
Suite 100 - 167 Lombard Ave., P.O. Box 1408, Winnipeg MB R3C 2Z1
Email - ken.allard@pwgsc-tpsgc.gc.ca
Tel/Tél - (204) 983 4920
Fax/Téléc - (204) 983 7796

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 Project Authority

The Project Authority for the Contract is: *(To be inserted at contract award)*

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____-____-_____
Facsimile: ____-____-_____
E-mail address: _____

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

5.3 Technical Authority

The Inspection Authority for the Contract is: *(To be inserted at contract award)*

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____-____-_____
Facsimile: ____-____-_____
E-mail address: _____

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

5.4 Inspection Authority *(To be inserted at contract award)*

The Inspection Authority for the Contract is:

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone: ____-____-____

Facsimile: ____-____-____

E-mail address: _____

The Inspection Authority is the representative of the department or agency for whom the Work is being performed under the Contract and is responsible for inspection of the Work and acceptance of the finished work. The Inspection Authority may be represented on-site by a designated inspector and any other Government of Canada inspector who may from time to time be assigned in support of the designated Inspector.

5.3 Contractor's Representative *(To be inserted at contract award)*

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone: ____-____-____

Facsimile: ____-____-____

E-mail address: _____

6. Payment

6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid \$ _____. Customs duties are included or subject to exemption and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

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.

6.2 Canada will make milestone payments in accordance with the Schedule of Milestones (Annex C) detailed in the Contract and the payment provisions of the Contract, up to _____ percent (*To be inserted at contract award*) of the amount claimed and approved by Canada if:

- a) an accurate and complete claim for payment using PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b) the total amount for all milestone payments paid by Canada does not exceed _____ percent of the total amount to be paid under the Contract
- c) all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;
- d) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada

6.4 SACC Manual clauses

Time and Contract Price Verification	C0710C (2007-11-30)
Terms of Payment	H1001C (2008-05-12)
Discretionary Audit	C0705C (2010-01-11)
Cost Submission	C0305C (2008-05-12)

7. Invoicing Instructions

7.1 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) the description and value of the milestone claimed as detailed in the Contract.

7.2 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.

7.3 The Contractor must prepare and certify one original and one (1) copy of the claim on form PWGSC-TPSGC 1111, and forward it to the Project Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.

The Project Authority will then forward the original and one (1) copy of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

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

8. Certifications

8.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation 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.

9. Applicable Laws

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

10. Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the general conditions 2030 (2012-11-19) General Conditions - Higher Complexity
- (c) Annex A Statement of Work including Appendix 1 and Appendix 2 to this Annex
- (d) Annex B Basis of Payment;
- (e) Annex C Schedule of Milestones;
- (f) Annex D Insurance Requirements;
- (g) the Contractor's bid dated _____

11. SACC Manual clauses

Foreign Nationals (Canadian Contractor)	A2000C (2006-06-16)
Shipment of Hazardous Materials	B1505C (2006-06-16)
Excess Goods	B7500C (2006-06-16)
Electrical Equipment	B1501C (2006-06-16)
Canadian Forces Site Regulations	A9068C (2011-05-16)
Defence Contract	A9006C (2012-07-16)

12. Insurance Requirements

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

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

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. Coverage must be placed with an Insurer licensed to carry out business in Canada. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

ANNEX A

STATEMENT OF WORK

REPLACEMENT OF THE CT142, NAVIGATION TRAINING SYSTEM (NTS) MONITORS AND CONSOLE COMPUTERS

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1.0 SCOPE

1.1 Purpose

- 1.1.1 This Statement of Work (SOW) defines the requirements necessary to accomplish the replacement of the monitors and console computers in the Navigation Training System (NTS) on the CT142 Aircraft. Quantity thirty monitors and thirty console computers are required to be installed in the CT142 Dash 8, as well as one standalone monitor and console computer for DND software testing.

1.2 Background

- 1.2.1 402 Squadron (402 Sqn) based out of 17 Wing in Winnipeg, Manitoba, operates four CT142 aircraft for the purpose of supporting basic Air Navigator training. The CT142 Dash 8 aircraft is a modified civilian Dash 8 model 102 aircraft (DHC-8-102). The current NTS entered service in 2001 with the delivery of CT142803. The system has served 1 Canadian Forces Flying Training School (CFFTS) well in the conduct of Airborne Electronic Sensor Operators (AES Op) and Air Combat Systems Officers (ACSO) training to Wing Standards this past decade. Unfortunately, some of the NTS components such as the NTS monitors and console computers are technically dated with limited spares, and are fast approaching support obsolescence.
- 1.2.2 The Department of National Defence (DND) has a requirement to replace the NTS workstations and monitors currently installed on a fleet of four (4) CT142 Dash 8 aircraft. The monitors and workstations are located in each Student and Instructor Consoles on the aircraft. The monitors are currently ruggedized 20 inch colour Active Matrix Liquid Crystal Displays (AMLCD). The workstations were built by XWave for the NTS operating with Windows NT.
- 1.2.3 The purpose of this SOW is to define the tasks, specifications, deliverables and standards associated with this requirement.
- 1.2.4 This SOW takes precedence over any other documents referred to herein. In the event there is a conflict between any of the documents referred to herein and this SOW, the Technical Authority (TA) must be consulted. All on-aircraft work associated with this SOW must be carried out by a Transport Canada (TC) Approved Maintenance Organization (AMO). Federal Aviation Administration (FAA) certification will be considered as equivalent to TC certification. All work carried out and items provided by the Contractor must be accompanied by appropriate certification acceptable to Transport Canada (TC) and the Technical Airworthiness Authority (TAA).

1.3 Terminology

AMO	Acceptable Maintenance Organization
AMP	Airworthiness Management Plan
CFMI	Canadian Forces Modification Instruction
CFTO	Canadian Forces Technical Order
CoC	Certificate of Conformance
DAO	Design Approval Organization
DND	Department of National Defence
ISO	International Organization for Standardization
NDQAR	National Defence Quality Assurance Representative
NTS	Navigation Training System
OEM	Original Equipment Manufacturer
RA	Requisitioning Authority
TA	Technical Authority
TAA	Technical Airworthiness Authority
TAM	Technical Airworthiness Manual
TC	Transport Canada

2.0 APPLICABLE DOCUMENTS

2.1 The following publications support this SOW. In the event of conflicts between the documents referenced below and the content of the SOW, the SOW must take precedence.

A) Federal Aviation Administration (FAA) Standards:

- (1) AC 25.1309-1 Equipment, Systems and Installations;
- (2) AC 25.1431 Electronic Equipment;
- (3) AC 43.13-2A Acceptable Methods, Techniques and Practices –
Aircraft Alterations;
- (4) FAR 25 Airworthiness Standards: Transport Category Aircraft;

B) Transport Canada (TC) Standards:

- CAR 525 Airworthiness - Transport Category Aeroplanes;

C) Canadian Forces publications:

- (1) C-01-100-100/AG-005 Acceptance of Commercial and Foreign Government Publications as Adopted Publications;
- (2) C-05-005-001/AG-001 Technical Airworthiness Manual;
- (3) C-05-005-P04/AM-001 Aircraft Maintenance Record Set;

- | | |
|--------------------------|---|
| (4) C-05-020-007/AM-000 | Flight Test Orders for the Canadian Forces; |
| (5) C-12-142-000/MF-002 | Aircraft Maintenance Manual |
| (6) C-17-010-002/ME-000 | Installation Practices, Aircraft Electrical, and Electronics Wiring; |
| (7) D-01-100-220/SF-000 | Preparation of Modification Instructions; |
| (8) D-02-006-008/SG-001 | Design Change, Deviation, and Waiver Procedure; |
| (9) 1 CAD Order 1-611 | Conduct of Air Force Operational Test & Evaluation; |
| (10) 1 CAD Order 1-623 | Operational Airworthiness |
| (11) C-06-010-029/TP-002 | Electrical/Electronics Maintenance Facilities/Electrostatic Discharge (ESD) Procedures and Guidelines |
| (12) D-02-002-001/SG-001 | Canadian Forces Standard Identification Marking of Canadian Military Property |

D) Specifications:

- | | |
|------------------|---|
| (1) MIL-STD-461F | Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment; |
| (2) MIL-STD-464 | Electromagnetic Environmental Effects Requirements for Systems; |
| (3) MIL-STD-704E | Aircraft Electric Power Characteristics; and |
| (4) MIL-STD-810G | Environmental Engineering Considerations and Laboratory Tests |

E) Miscellaneous:

- | | |
|---|--|
| (1) ISO 9001:2008 | Quality Management System; |
| (2) ATA SPEC-100 | Current Revision; |
| (3) RTCA/DO-160 | Environmental Conditions and Test Procedures for Airborne Equipment; and |
| (4) Transport Canada Type Approval Certificate A-142 for the DHC-8-102; dated 12 June 1986. | |

3.0 REQUIREMENTS

3.1 Airworthiness Certification

- 3.1.1 All aspects of this contract are subject to the provisions of the Technical Airworthiness Manual (TAM), CFTO C-05-005-001/AG-001 for the scope and depth of Engineering and/or Maintenance related activities required to complete the work specified in the SOW.
- 3.1.2 The modified CT142 Dash 8 type design must be in compliance with the Basis of Certification (B of C) approved by the DND Technical Airworthiness Authority (TAA) for the design change. This includes the B of C detailed in Transport Canada Type Approval A-142, Type Certification Data Sheet Issue 23, September 26, 2001, plus any additional airworthiness standards and/or special conditions that may be applicable to this design change, as determined during development of the compliance program. Where requirements of the B of C and this SOW are in conflict, resolution must be sought from the TA. No connection, attachment, or modification must be made that invalidates compliance with the airworthiness standards listed in the B of C or that impairs any component or function of the aircraft.
- 3.1.3 The NTS components installation must receive Transport Canada approval. The Contractor must be responsible to ensure that the installation is approved through their Design Approval Organization (DAO) / Design Approval Representatives (DAR) as appropriate.

3.2 Certification Plan (CP)

- 3.2.1 A Certification Plan (CP) must be drafted by the Contractor for TA acceptance, to detail the process, and must address the proposed management and process aspects of the intended certification program leading to airworthiness approval of the NTS components replacement and their installation. The Certification Plan must:
- a. outline the purpose, scope, constraints and assumptions and assumptions;
 - b. outline the roles, responsibilities and qualifications of individuals involved in the certification process (TAA, TA, DAR(s), Engineer(s));
 - c. identify the aeronautical product to which the proposed design change applies including make, model, registration number and Type Certificate as applicable;
 - d. describe the proposed design change and its airworthiness significance as per the TAM;
 - e. describe the use and operating environment applicable to the change:
 - (1) the type of change, such as modification, alteration, change to approved maintenance program, and change to an approved role/mission/task;
 - (2) the assessed significance of the change; and
 - (3) general details, such as principal design features, operating characteristics, and limitations.

f. describe the process for the selection of the Basis of Certification and submission to the DND Technical Airworthiness Authority (TAA) including:

- (1) selection of the applicable airworthiness, noise, and environmental standards;;
- (2) identification of areas where the potential exists for a request for a TAA exemption;
- (3) identification of areas where the need for special conditions is anticipated;
- (4) identification of areas where a finding of equivalent safety, as described in sub-paragraph 3.2.2.S2 (6)(b)(3)(b) of the TAM, may be necessary; and/or
- (5) identification of areas where credit for previous design change certification by other airworthiness regulatory agencies is intended.

g. outline the proposed certification program including major activities, responsibilities, organizational relationships and schedule; and

h. describe the process for the development and submission of the required airworthiness documentation in accordance with paragraph 3.2.2.S2 (9) of the TAM.

3.3 Airworthiness Approval

3.3.1 For the purposes of airworthiness approval, the Contractor must be or utilize a Transport Canada (TC) approved Design Approval Organization (DAO) with a designated engineer identified as DAR qualified for the DASH 8 aircraft, or employ TC Design Approval Representatives (DARs) who possess delegated authorities in applicable technical specialty areas for the DASH 8 aircraft. Federal Aviation Administration (FAA) authorized agencies must be considered for equivalence at the discretion of the TA. All aspects of the design change (i.e. structures, systems, etc.) must require approval by, at a minimum, a competent individual who has been granted authority by TC to make such findings.

3.3.2 The DAO or DAR(s) must be acceptable to the DND TAA (at the discretion of DND) as being fully capable to make design certification approvals. Organizational and/or individual process manuals must be provided to DND for inspection as part of the Contractor bid. The CP must detail which approvals must rest with the Contractor and those that will remain with the TAA.

3.4 Tasks

3.4.1 The work to be performed under this SOW is:

- a. Purchase and obtain the following aircraft equipment:
 - i. 24 monitors;
 - ii. 24 console computers;
 - iii. 6 spare monitors;
 - iv. 6 spare console computers; and

- v. 1 standalone console computer and monitor utilized for DND software testing.
- b. Remove previous NTS monitors and NTS console computers and associated hardware. Dispose of removed equipment as per instructions received from the TA;
- c. Carry out the installation and testing of the new NTS Monitors and Console Computers for four CT142 Dash 8 aircraft (6 monitors and 6 console computers on each aircraft) in the following phases;
 - i. Preliminary Design;
 - ii. Detailed Design;
 - iii. Advanced Installation;
 - iv. Final Engineering Package; and
 - v. Fleet Fitment.

3.5 Technical Requirements

- 3.5.1 The NTS component installation must comply with either the Federal Air Regulations (FAR) Part 25 or Canadian Aviation Regulation (CAR) 525.
- 3.5.2 The equipment being supplied must be supportable for a minimum of five (5) years from installation and must be available Commercial Off-the-Shelf (COTS) equipment unless approved by the TA. The Contractor must demonstrate system supportability and reliability as a critical part of their proposal.
- 3.5.3 The contractor must warranty the hardware system for one year from date of acceptance of new hardware. The warranty must apply to third line maintenance and shipping, receiving and storage of hardware to and from third line maintenance.
- 3.5.4 The replacement NTS console computers and monitors must be fitted into the original location of the components removed. **Note:** The console opening for the monitor and the mounting holes are non standard. Monitors must be customized to install in the current opening or the monitor console opening must be modified to adapt to proposed setup.
- 3.5.5 With the replacement NTS components installed, the aircraft weight and balance must comply with the aircraft center of gravity and weight limits as stated in C-12-142- 000/MW-002.
- 3.5.6 The replacement NTS components must interface with the existing electrical power system. The NTS components must not create an electrical state that might generate an overload condition.
- 3.5.7 The replacement NTS components must utilize the existing networking and video signal standards and cabling (as specified in 3.4 Standards and Specifications).
- 3.5.8 The replacement NTS console computers must utilize the existing connector tray. Note: Current tray utilizes 4 anchor nuts (8/32 Anchor Nut Part number MS21060L08) to attach to the workstation.

3.5.9 The marking of installed NTS components must comply with the following requirements:

- a. Electrostatic discharge - Warning labels must be affixed to the protective packaging and to the equipment identifying the item(s) as ESD sensitive IAW C-06-010-029/TP-002. Identification markings must be affixed on all ESD sensitive subassemblies so as to be visible to maintenance personnel prior to maintenance handling of the equipment.
- b. Identification plates - Identification plates and/or information plates must be mounted in a conspicuous space on the front panel of the item to which the plate applies, when possible. Plates must provide the necessary information to uniquely identify the unit or subassembly IAW D-02-002-001/SG-001.

3.5.10 The Contractor must ensure that all hardware is compatible with existing operating system, and software, including the Tactical Mission Trainer Version 3.05.00 software (TMT software). The TMT software must be able to function and execute all its capabilities as ran on the current hardware. The hardware shall also be compatible with all latest XP updates. The TMT software is proprietary and testing can be done at 1 CFFTS, but the software cannot be released to contractor.

3.5.11 The Contractor must rework areas where systems were relocated to maintain structural integrity and moisture ingress protection and to maintain the airworthiness of the aircraft.

3.5.12 The Contractor must ensure that any connection to the NTS System to flight critical systems or buses is read-only. The NTS System must not be capable of writing to any flight critical systems or buses.

Any part(s) installed on CT142 aircraft must be obtained from an ISO approved vendor and be accompanied by a certificate of conformance (CoC) acceptable to the TA. The Contractor must provide packaging and demilitarization instructions.

3.6 Standards and Specifications

3.6.1 The replacement NTS console computers must meet the following specifications:

Physical	
Enclosure type 19" rack mountable	
Height	2U (3.5")
Depth	22.5" maximum (including use of existing connector tray)
Hard Drive access:	Removable HDD accessible from front panel
Power switch	Located on front panel
Name Plate	Identification plate with unique serial number attached to front of device
Indicators	Power and HDD activity lights on front panel
Power	
DC input range 18-36vdc (28vdc nominal)	
Environmental	
Operating Temperature 0°C to +50°C	
Non-Operating Temperature	-50°C to +70°C
Operating Humidity	Up to 95% Non-Condensing, 40°C @48 hours
Temperature/Shock/Altitude	Tested to MIL-STD-810G methods: 500.5, 501.5, 502.5, 503.5, and 516.6
EMC/EMI	Meets MIL-STD-461F requirements CE102, CS101, CS114, CS115, CS116, RE102 and RS103
Hardware	
Motherboard	Single CPU
CPU	Intel based IVY Bridge Architecture or newer
Memory	4GB minimum and capable of being expanded (32 BIT XP Supports only up to 3GB)
Storage	128GB minimum size HDD
Networking	100Base-T Ethernet IEEE 802.3 minimum via 8P8C socket (RJ-45) on rear of workstation
Video Display/Capture	Analog SVGA output; analog NTSC capture capability via use of Matrox Imaging Library (MIL)
Software	
Operating System	Windows XP SP3 32 BIT

3.6.2 The replacement NTS monitors must meet the following specifications:

Physical	
Height	18"
Width	19"
Screen Size	20.1" diagonal minimum
Controls	Power and Screen display controls on front
Name Plate	Identification plate with unique serial number (preferred on front of monitors)
Handles	To facilitate removal and installation of the monitors
Power	
DC input range	18-36vdc (28vdc nominal)
Connector	Use of existing D38999/26FESSN connector preferred
Environmental	
Operating Temperature	0°C to +50°C
Non-Operating Temperature	-50°C to +70°C
Temperature/Shock/Altitude	Tested to MIL-STD-810G methods: 500.5, 501.5, 502.5, 503.5, and 516.6
Operating Humidity	Up to 95% Non-Condensing, 40°C @48 hours
EMC/EMI	Meet MIL-STD-461F requirements: CE102, CS101, CS114, CS115, CS116, RE102, and RS103
Operating Specifications	
Resolution	1600 x 1200 pixels minimum native
Connectivity	RGB D15 VGA connector

3.6.3 All thirty console computers shall be identical in component (for example same chip set, cards, motherboards, CPU, etc).

PREPARATION AND REVIEW MEETINGS

4.1 The Contractor must prepare agendas and write minutes for all technical meetings. Agendas must be submitted to the Crown seven (7) days prior to the meeting, and minutes must be issued within seven (7) days following the meeting. The Contractor must prepare for and attend as a minimum the following meetings:

- a. Contract Post Award/Kick-off meeting held at the contractor's facilities; and
- b. Progress Review Meetings (PRM) as required by the TA.

4.2 A minimum of 1 review meeting must be conducted before the induction of each aircraft and upon completion of the scope of work. Representatives at the meeting must include but not be limited to the Contractor's POC, the TA and the NDQAR.

4.3 Opportunities for technical dialogue between the TA and any designated representatives and Contractor personnel must be provided on a continual and co-operative basis through the contractor's point of contact (POC).

5.0 DELIVERABLES

5.1 Project Schedule

5.1.1 The contractor must submit a Project Schedule must be submitted to the PO at the Kick-off meeting coherent with the following phases:

- a. Phase 1 – Preliminary Design;
- b. Phase 2 – Detailed Design;
- c. Phase 3 – Advanced Installation;
- d. Phase 4 – Final Engineering Package; and
- e. Phase 5 – Fleet Fitment.

5.2 Phase 1 – Preliminary Design

1 The contractor must prepare and submit to the TA for review and approval 30 days prior to the Preliminary Design Review the following deliverables:

- a. Certification Plan (draft);
- b. Structural Analysis Report (draft);
- c. Ground Functional Test Plan (draft);
- d. Flight Functional Test Plan (draft);
- e. Weight and Balance calculations;
- f. Electrical Load Analysis Report (draft);
- g. EMC Test Plan or Analysis (draft);
- h. Engineering drawings and associated lists (Level 1 Conceptual);
- i. Modification leaflet for the removal of the NTS monitors (draft);
- j. Modification leaflet for the removal of the NTS computers (draft);
- k. Modification leaflet for the installation of the NTS monitors (draft);
- l. Modification leaflet for the installation of the NTS computers (draft);

- m. Equipment specifications and operating instructions; and
- n. Amendments (draft) to all affected CT142 aircraft publications including:
 - i. C-12-142-000/DW-001 Wiring Diagram Manual;
 - ii. C-12-142-000/MB-000 Aircraft Operational Data;
 - iii. C-12-142-000/MB-001 Flight Manual;
 - iv. C-12-142-000/MB-002 Operating Procedures Manual;
 - v. C-12-142-000/MF-002 Aircraft Maintenance Manual; and
 - vi. C-12-142-000/MY-002 Parts List Supplement.

5.2.2 Software Testing Console: the software testing console, one console computer and one monitor, will be delivered to the TA to confirm the interoperability with the software prior to advanced installation.

5.2.3 The Contractor must convene a Preliminary Design Review meeting. It will be carried out at the Contractor's facility not sooner than 30 days after delivery of the Phase I engineering package. The Contractor must present to the TA its implementation plan including status of the project schedule.

5.3 Phase 2 – Detailed Design

5.3.1 Before commencing Phase 2 activities, the Contractor must receive notification from the TA in writing that all technical issues from the PDR have been resolved to the satisfaction of the TA. The Contractor is then authorized to proceed with detailed design activities.

5.3.2 The Contractor must prepare and submit a Phase 2 engineering package including Level II

The Contractor must prepare and submit a Phase 2 engineering package including Level II engineering drawings (production prototype) that depict deviations from a TC approved design to the TA for approval not less than 30 days prior to the Critical Design Review (CDR) meeting. The drawings are required in order to meet the requirements of this SOW. A data list that describes the complete installation (including those engineering drawings which form part of the TC approved design) must be included. Level II engineering drawings must be submitted in accordance with the project schedule.

5.3.3 The Contractor must convene a CDR meeting to be carried out at the Contractor's facility not sooner than 30 days after delivery of the Phase 2 engineering package. At the CDR meeting, the Contractor must present to the TA its implementation plan including status of the project schedule. The Phase 2 engineering package must consist of the following:

- a. Certification Plan (updated);
- b. Structural Analysis Report (updated);
- c. Ground Functional Test Plan (updated);
- d. Flight Functional Test Plan (updated)

- e. Weight and Balance calculations (updated);
- f. Electrical Load Analysis Report (updated);
- g. EMC Test Plan or Analysis (updated);
- h. Engineering drawings and associated lists (Level 2);
- i. Modification leaflet for the removal of the NTS monitors (updated);
- j. Modification leaflet for the removal of the NTS computers (updated);
- k. Modification leaflet for the installation of the NTS monitors (updated);
- l. Modification leaflet for the installation of the NTS computers (updated);
- m. Equipment specifications and operating instructions; and
- n. Amendments (updated) to all affected CT142 aircraft publications including:
 - i. C-12-142-000/DW-001 Wiring Diagram Manual;
 - ii. C-12-142-000/MB-000 Aircraft Operational Data;
 - iii. C-12-142-000/MB-001 Flight Manual;
 - iv. C-12-142-000/MB-002 Operating Procedures Manual;
 - v. C-12-142-000/MF-002 Aircraft Maintenance Manual; and
 - vi. C-12-142-000/MY-002 Parts List Supplement.

5.2 Phase 3 - Advanced Installation

5.2.1 Modification of the first CT142 aircraft must be considered to be Advanced Installation. The Contractor must provide all test equipment necessary for system analysis and tests including the EMI Test. The Contractor must carry out tests of all systems affected by the installation in accordance with the DND approved Ground Functional Test Plan, Flight Functional Test Plan and EMI Test Plan. DND must have the right to monitor all testing. The Contractor must be responsible for rectifying all problems that arise as a result of the design and/or installation.

5.4 Phase 4 – Final Engineering Package.

5.4.1 The contractor must prepare and submit to the TA within 30 days after Advance Installation the following deliverables:

- a. Certification Plan (Final);
- b. Structural Analysis Report (Final);
- c. Supplemental Type Certificate for Console Computers and Monitors (if applicable);

- d. Ground Functional Test Plan (final);
- e. Flight Functional Test Plan (final);
- f. Electrical Load Analysis Report (final);
- g. EMC Report or Analysis (final);
- h. Final engineering drawings and associated lists;
- i. Modification leaflet for the removal of the NTS monitors;
- j. Modification leaflet for the removal of the NTS computers;
- k. Modification leaflet for the installation of the NTS monitors;
- l. Modification leaflet for the installation of the NTS computers;
- m. Equipment specifications and operating instructions; and
- n. Amendments to all affected CT142 aircraft publications including:
 - i. C-12-142-000/DW-001 Wiring Diagram Manual;
 - ii. C-12-142-000/MB-000 Aircraft Operational Data;
 - iii. C-12-142-000/MB-001 Flight Manual;
 - iv. C-12-142-000/MB-002 Operating Procedures Manual;
 - v. C-12-142-000/MF-002 Aircraft Maintenance Manual; and
 - vi. C-12-142-000/MY-002 Parts List Supplement.

5.5 Phase 5 – Fleet Fitment

- 5.5.1 The modification of the remaining CT142 aircraft must be considered to be Fleet Fitment Installations.
- 5.5.2 Prior to commencing the modification of an aircraft, a Ground Operational Check of the NTS system must be performed. The operational check must be done by a DND representative.
- 5.5.3 The NTS performance and functional requirements must be verified by means of the Flight Test Procedures drafted by the Contractor and approved by DND. Flight Testing will be conducted by DND aircrew.
- 5.5.4 The Contractor must record the installation of the modification as follows:
The Contractor must provide certification in the contractor paperwork regarding the airworthiness of the aircraft. The individual providing certification must be a TC licensed Aircraft Maintenance Engineer and must sign the aircraft maintenance release on behalf of the MND.
- 5.5.5 The Contractor must provide the rights to all intellectual property and digital copies of all publications, documents and drawings

6.0 QUALITY ASSURANCE

- 6.1 The Contractor must be ISO 9001-2008 certified or, have an equivalent Quality Management System deemed acceptable to the Director Quality Assurance.
- 6.2 In the performance of the work described herein, the Contractor must comply with a Model for Quality Assurance in Design, Development, Production, Installation and Servicing published by an approved organization, current edition at date of submission of Contractor's bid.
- 6.3 The Contractor must ensure that all work completed under the terms of this SOW is performed in accordance with the approved Quality Assurance (QA) Plan and Procedures. The successful implementation and operation of the Contractor's QA system must be subject to audit by DND/NDQAR. All of the Contractor's in-progress inspection and test results must be subject to review and audit by DND/NDQAR. NDQAR must have access to any of the Contractor's premises where any part of the work is performed.
- 6.4 The Contractor must provide for storage of DND assets as detailed in A-LM-184-001/JS-001.

APPENDIX 1 TO ANNEX A

1.1 Project Schedule

1.1.1 The contractor must submit a Project Schedule to the PO at the Kick-off meeting coherent with the following phases:

- a. Phase 1 – Preliminary Design;
- b. Phase 2 – Detailed Design ;
- c. Phase 3 – Advanced Installation;
- d. Phase 4 – Final Engineering Package; and
- e. Phase 5 – Fleet Fitment.

1.2 Phase 1 Preliminary Design

1.2.1 The contractor must prepare and submit to the TA for review and approval 30 days prior to the Preliminary Design Review the following deliverables:

- a. Certification Plan (draft);
- b. Structural Analysis Report (draft);
- c. Ground Functional Test Plan (draft);
- d. Flight Functional Test Plan (draft);
- e. Weight and Balance calculations;
- f. Electrical Load Analysis Report (draft);
- g. EMC Test Plan or Analysis (draft);
- h. Engineering drawings and associated lists (Level 1 Conceptual);
- i. Modification leaflet for the removal of the NTS monitors (draft);
- j. Modification leaflet for the removal of the NTS computers (draft);
- k. Modification leaflet for the installation of the NTS monitors (draft);
- l. Modification leaflet for the installation of the NTS computers (draft);
- m. Equipment specifications and operating instructions; and
- n. Amendments (draft) to all affected CT142 aircraft publications including:
 - i. C-12-142-000/DW-001 Wiring Diagram Manual;
 - ii. C-12-142-000/MB-000 Aircraft Operational Data;
 - iii. C-12-142-000/MB-001 Flight Manual;
 - iv. C-12-142-000/MB-002 Operating Procedures Manual;
 - v. C-12-142-000/MF-002 Aircraft Maintenance Manual; and
 - vi. C-12-142-000/MY-002 Parts List Supplement.

1.2.2 Software Testing Console: the software testing console, one console computer and one monitor, will be delivered to the TA to confirm the interoperability with the software prior to advanced installation.

1.2.3 The Contractor must convene a Preliminary Design Review meeting. It will be carried out at the Contractor's facility not sooner than 30 days after delivery of the Phase I engineering package. The Contractor must present to the TA its implementation plan including status of the project schedule.

1.3 Phase 2 Detailed Design

1.3.1 Before commencing Phase 2 activities, the Contractor must receive notification from the TA in writing that all technical issues from the PDR have been resolved to the satisfaction of the TA. The Contractor is then authorized to proceed with detailed design activities.

1.3.2 The Contractor must prepare and submit a Phase 2 engineering package including Level II engineering drawings (production prototype) that depict deviations from a TC approved design to the TA for approval not less than 30 days prior to the Critical Design Review (CDR) meeting. The drawings are required in order to meet the requirements of this SOW. A data list that describes the complete installation (including those engineering drawings which form part of the TC approved design) must be included. Level II engineering drawings must be submitted in accordance with the project schedule.

1.3.3 The Contractor must convene a CDR meeting to be carried out at the Contractor's facility not sooner than 30 days after delivery of the Phase 2 engineering package. At the CDR meeting, the Contractor must present to the TA its implementation plan including status of the project schedule. The Phase 2 engineering package must consist of the following:

- a. Certification Plan (updated);
- b. Structural Analysis Report (updated);
- c. Ground Functional Test Plan (updated);
- d. Flight Functional Test Plan (updated)
- e. Weight and Balance calculations (updated);
- f. Electrical Load Analysis Report (updated);
- g. EMC Test Plan or Analysis (updated);
- h. Engineering drawings and associated lists (Level 2);
- i. Modification leaflet for the removal of the NTS monitors (updated);
- j. Modification leaflet for the removal of the NTS computers (updated);
- k. Modification leaflet for the installation of the NTS monitors (updated);
- l. Modification leaflet for the installation of the NTS computers (updated);
- m. Equipment specifications and operating instructions; and
- n. Amendments (updated) to all affected CT142 aircraft publications including:
 - i. C-12-142-000/DW-001 Wiring Diagram Manual;
 - ii. C-12-142-000/MB-000 Aircraft Operational Data;
 - iii. C-12-142-000/MB-001 Flight Manual;
 - iv. C-12-142-000/MB-002 Operating Procedures Manual;
 - v. C-12-142-000/MF-002 Aircraft Maintenance Manual; and
 - vi. C-12-142-000/MY-002 Parts List Supplement.

1.4 Phase 3 Advanced Installation

1.4.1 Modification of the first CT142 aircraft must be considered to be Advanced Installation. The Contractor must provide all test equipment necessary for system analysis and tests including the EMI Test. The Contractor must carry out tests of all systems affected by the installation in accordance with the DND approved Ground Functional Test Plan, Flight Functional Test Plan and EMI Test Plan. DND must have the right to monitor all testing. The Contractor must be responsible for rectifying all problems that arise as a result of the design and/or installation.

1.5 Phase 4 – Final Engineering Package.

1.5.1 The contractor must prepare and submit to the TA within 30 days after Advance Installation the following deliverables:

- a. Certification Plan (Final);
- b. Structural Analysis Report (Final);
- c. Supplemental Type Certificate for Console Computers and Monitors (if applicable);
- d. Ground Functional Test Plan (final);
- e. Flight Functional Test Plan (final);
- f. Electrical Load Analysis Report (final);
- g. EMC Report or Analysis (final);
- h. Final engineering drawings and associated lists;
- i. Modification leaflet for the removal of the NTS monitors;
- j. Modification leaflet for the removal of the NTS computers;
- k. Modification leaflet for the installation of the NTS monitors;
- l. Modification leaflet for the installation of the NTS computers;
- m. Equipment specifications and operating instructions; and
- n. Amendments to all affected CT142 aircraft publications including:
 - i. C-12-142-000/DW-001 Wiring Diagram Manual;
 - ii. C-12-142-000/MB-000 Aircraft Operational Data;
 - iii. C-12-142-000/MB-001 Flight Manual;
 - iv. C-12-142-000/MB-002 Operating Procedures Manual;
 - v. C-12-142-000/MF-002 Aircraft Maintenance Manual; and
 - vi. C-12-142-000/MY-002 Parts List Supplement.

1.5Phase 5 - Fleet Fitment

- 1.5.1 The modification of the remaining CT142 aircraft must be considered to be Fleet Fitment Installations.
- 1.5.2 Prior to commencing the modification of an aircraft, a Ground Operational Check of the NTS system must be performed. The operational check must be done by a DND representative.
- 1.5.3 The NTS performance and functional requirements must be verified by means of the Flight Test Procedures drafted by the Contractor and approved by DND. Flight Testing will be conducted by DND aircrew.

- 1.5.4 The Contractor must record the installation of the modification as follows:

The Contractor must provide certification in the contractor paperwork regarding the airworthiness of the aircraft. The individual providing certification must be a TC licensed Aircraft Maintenance Engineer and must sign the aircraft maintenance release on behalf of the MND.

- 1.5.5 The Contractor must provide the rights to all intellectual property and digital copies of all publications, documents and drawings.

**THE NEXT SECTION is APPENDIX 2 to ANNEX A - COMPLIANCE MARTRIX -
MANDATORY SPECIFICATIONS**

Refer to the Electronic Document Attachment on MERX

ANNEX B**BASIS OF PAYMENT**

This Annex, when completed will be considered as the Financial Bid. Unit prices below must be firm and in Canadian funds including Canadian customs duties, excise taxes, which are to be Delivered Duty Paid (DDP), FOB destination, including offloading as indicated herein.

	Requirement	Unit of Measure	Quantity	Firm Unit Price (CDN)	Extended Total (CDN)
1	Console Computers Model #_____	Each	30	\$	\$
2	Monitors Model #_____	Each	30	\$	\$
3	Standalone Console Computer and Monitor for DND software testing	/Unit	1	\$	\$
4	Aircraft Installation and Fitment	/Fleet	4 Dash 8 aircraft	\$	\$
	Total				\$

ANNEX C SCHEDULE OF MILESTONES

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

Milestone No.	Deliverable	Firm Amount (To be inserted at contract award)	Milestone Due Date
Milestone 1	<p>Project Schedule:</p> <p>i) The contractor must submit a draft Project Schedule (Schedule A) within 30 days of Contract Award</p> <p>ii) Attend the Kick-Off meeting, presenting in detail Phase 1- 1.2.1 Preliminary Design along with an overview of Certification plan 1.2.2 a) and Level 1 Engineering 1.2.2 b)</p> <p>iii) Make complete delivery of NTS monitors and NTS console computers hardware, including the Software Testing Console (additional monitor and computer).</p>	\$ _____	On or before March 29, 2013
Milestone 2	<p>Project Schedule:</p> <p>i) submit completed Phase 1 objectives 1.2.2</p> <p>ii) Preliminary Design Review meeting 1.2.3</p> <p>Phase 2 – Detailed Design</p> <ul style="list-style-type: none"> • Critical Design Review 	\$ _____	July 2, 2013
Milestone 3	<p>Phase 3 – Advanced Installation: TA approves Contractor for advanced installation.</p> <p>Phase 4 – Final Engineering Package</p> <p>Phase 5 - Fleet Fitment Schedule for Fleet Fitment</p> <p>Flight Test and Flight Test Report</p>	\$ _____	November 15, 2013

Milestone 4	Airworthiness Compliance Evidence and acceptance by DAR Final Sign off and Acceptance	\$ _____	On or before December 31, 2013
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ANNEX D

INSURANCE REQUIREMENTS

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.

2. The Commercial General Liability policy must include the following:

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

K. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

L. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.

M. Sudden and Accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.

N. Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

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

For other provinces and territories, send to:

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

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