

**REQUEST FOR PROPOSAL (RFP)**

**FOR**

**JOINT TERMINAL ATTACK CONTROLLER  
VIRTUAL TRAINING SYSTEM  
(JTAC VTS)**

**AND**

**JOINT TERMINAL ATTACK CONTROLLER  
VIRTUAL TRAINING SYSTEM IN-SERVICE  
SUPPORT AND REPAIR AND OVERHAUL  
(JTAC VTS ISS R&O)**

**FOR**

**DEPARTMENT OF NATIONAL DEFENCE (DND)**

**SOLICITATION: W8486-228446/A**

**THIS DOCUMENT CONTAINS A SECURITY REQUIREMENT**

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## **Volume 1: Joint Terminal Attack Controller Virtual Training System**

### **List of Annexes**

- Annex A - Statement of Work - JTAC VTS
- Annex B - Basis of Payment
- Annex C- Security Requirement Check List
- Annex D - Electronic Payment Instruments
- Annex E – Federal Contractor's Program for Employment Equity – Certification
- Annex F – COVID-19 Vaccination Requirement Certification
- Annex G - Task Authorization Form DND 626
- Annex H – Non-Disclosure Agreement

### **List of Attachments**

- Attachment 1 – Mandatory Requirements
- Attachment 2 – Rated Criteria
- Attachment 3 - Pricing Table
- Attachment 4 – Bid Submission Form
- Attachment 5 – Integrity Verification Form

## **Volume 2: - Joint Terminal Attack Controller Virtual Training System In Service Support Services**

### **List of Annexes**

- Annex A - Statement of Work - JTAC ISS
- Annex B - Basis of Payment
- Annex C - Security Requirement Check List
- Annex D - Electronic Payment Instruments
- Annex E - Federal Contractor's Program for Employment Equity – Certification
- Annex F - COVID-19 Vaccination Requirement Certification
- Annex G - Task Authorization Form DND 626
- Annex H – Non-Disclosure Agreement

## **PART 1 - GENERAL INFORMATION**

### **1.1 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 and Additional Information: includes the certifications and additional information 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 Work (SOW), Basis of Payment, Security Requirements Check List, Electronic Payment Instruments, Federal Contractors Program for Employment Equity - Certification, COVID-19 Vaccination Requirement Certification and the DND 626 Task Authorization Form.

The Attachments include the Mandatory Requirements, Rated Criteria, the Pricing Tables, Integrity Verification Form and the Bid Submission Form.

#### **1.1.2 RFP Volume 1 - Joint Terminal Attack Controller Virtual Training System Acquisition Resulting Contract**

The Acquisition Resulting Contract includes the clauses and conditions that will apply to the Resulting Acquisition contract.

#### **1.1.3 RFP Volume 2 - Joint Terminal Attack Controller Virtual Training System In-Service Support and Repair and Overhaul Resulting Contract**

The In-Service Support and Repair and Overhaul Resulting Contract will apply to the Resulting In-Service Support and Repair and Overhaul contract.

### **1.2 Summary**

- 1.2.1 The Department of Public Works and Government Services Canada (PWGSC) on behalf of the Department of National Defence (DND) has a requirement to acquire and support the static Joint Terminal Attack Controller Virtual Training System (JTAC VTS). The JTAC VTS will support the training required to force generate accredited Joint Terminal Attack Controllers (JTAC). In order to achieve accreditation JTAC must meet the requirements identified in Joint Terminal Attack Controller (JTAC) (Ground) Memorandum of Agreement (MOA). DND has an immediate need to force generate accredited JTAC and intend to procure one static JTAC VTS for delivery to 5 CDSB Gagetown as soon as possible and the option to procure one additional static and 2 portable JTAC VTS.

The requirement must include project management, reporting services, maintenance and support services, training and resource category in accordance with Volume 1 Annex A - Statement of Work Acquisition and Volume 2 Annex A – Statement of Work In-Service Support Services and Repair and Overhaul.

This solicitation is intended to result in the award of two contracts. One Acquisition contract and an In-Service Support and Repair and Overhaul contract to a single successful bidder under this solicitation process. The scope of work is detailed in Volume 1 Annex A, Joint Terminal Attack Controller Virtual Training System Acquisition Resulting Contract and Volume 2 Annex A, Joint Terminal Attack Controller Virtual Training System In-Service Support and Repair and Overhaul Resulting Contract. The following represents a high-level view of the requirements:

1.2.1.1 The acquisition contract scope includes:

- a) Provide a static JTAC VTS meeting the technical requirements;
- b) Complete the Project Management tasks;
- c) Complete the System Engineering;
- d) Complete and pass the Acceptance testing;
- e) Provide certifications;
- f) Provide all the documentation requirements;
- g) Deliver and install the static JTAC VTS;
- h) Integrated Logistics Support;
- i) Provide initial training.

1.2.1.2 The In-Service Support and Repair and Overhaul contract scope includes:

- a) Program Management;
- b) Operating Support;
- c) Engineering Support;
- d) Maintenance Support;
- e) Supply Support;
- f) Repair and Overhaul;
- g) Additional Work Requests;
- h) Training.

A portion of the Work to be performed under the Contract will be on an “as-and-when-requested basis” using a DND 626 Task Authorization (TA) Form. The Work described in the TA must be in accordance with the scope of the Contract.

The anticipated period of the Acquisition contract is broken down as follows:

**Project Phase:** Initial contract period of 6 months design & development Phase

**Operational Phase:** The period of the JTAC VTS Acquisition Contract is from date of contract award, until the Technical Authority has confirmed that all of the required deliverable's as outlined in Annex A, Statement of Work have been accepted and received to the satisfaction of DND. This includes, but is not limited to, all JTAC VTS requirements, meetings, and all CDRLs and DIDs, as outlined in Annex B Basis of Payment; Schedule B - JTAC VTS Acquisition Milestone Schedule.

**Option Periods:** Two one-year irrevocable option periods allowing Canada to extend the term and conditions of the contract; and

A **Transition-Out Phase**, which will begin 120 calendar days prior to the end of the Operational Phase and extend the Contract period by 90 calendar days beyond the Operational Phase under the same conditions to ensure the required transition.

- 1.2.2 There are security requirements associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 Resulting Contract Clauses. For more information on personnel and organization security screening or security clauses, Bidders should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.
- 1.2.3 This requirement is subject to the COVID-19 Vaccination Policy for Supplier Personnel. Failure to complete and provide the COVID-19 Vaccination Requirement Certification as part of the bid will render the bid non-responsive.
- 1.2.4 This requirement is subject to international trade agreements and is subject to the provisions of the Canadian Free Trade Agreement (CFTA), Canada - European Union Comprehensive Economic and Trade Agreement (CETA); World Trade Organization Agreement on Government Procurement (WTO- AGP); Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Canada - Korea Free Trade Agreement (CKFTA).
- 1.2.5 The Federal Contractors Program (FCP) for employment equity applies to this procurement; refer to Part 5 – Certifications and Additional Information, Part 7 – Resulting Contract Clauses and the attachment titled Federal Contractors Program for Employment Equity – Certification.
- 1.2.6 This bid solicitation requests that bidders use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

### **1.3 Debriefings**

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

### **1.4 Phase Bid Compliance Process**

The Phased Bid Compliance Process applies to this requirement. Bidders must refer to Part 4 Evaluation Procedures and Basis of Selection: article 4.1.1 Phase Bid Compliance Process (PBCP) for further information

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## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

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

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

The 2003 (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 180 days

### 2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit **via e-post Connect** by the date and time indicated on page one of the bid solicitation.

**Note:** For bidders needing to register with epost Connect the email address is:

[tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca](mailto:tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca)

**Interested Bidders must register a few days prior to solicitation closing date.**

**Note:** Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions 2003, or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC or e-mail directly to PWGSC Contracting Authority will not be accepted.

### 2.3 Former Public Servant

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

## Definitions

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

- 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: 2019-01 and the Guidelines on the Proactive Disclosure of Contracts.

#### **Work Force Adjustment Directive**

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

If so, the Bidder must provide the following information:

- 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.



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## 2.4 Enquiries - Bid Solicitation

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.

The Contracting Authority for this solicitation is:

Name: Sophia Edwards-Letellier  
Title: Supply Team Leader  
Public Works and Government Services Canada  
Defence and Marine Procurement Branch  
Electronics, Munitions and Tactical Systems Procurement Directorate  
Telephone: 343-543-7073  
E-mail address: [Sophia.Edwards-Letellier@tpsgc-pwgsc.gc.ca](mailto:Sophia.Edwards-Letellier@tpsgc-pwgsc.gc.ca)

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

## 2.5 Applicable Laws

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

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

## 2.6 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least 20 days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

## 2.7 Supporting Documentation

Some documents are not included in the downloadable RFP package on the buyandsell website. During the solicitation period, DND publications that are referenced in the RFP and are not commercially available can be issued to Bidders upon request. It is imperative that the Bidder's request for bid solicitation documentation be made as soon as possible to ensure timely receipt of the associated publications. Bidders are required to submit their request to the Contracting Authority.

Bidders must obtain from its employee(s) or subcontractor(s) the completed and signed non-disclosure agreement, attached at Annex H – Non-Disclosure Agreement, and provide it to the Contracting Authority before they are given access to information by or on behalf of Canada in connection with the Work.

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The supporting documentation will be issued electronically through epost connect.

## 2.8 Bid Challenge and Recourse Mechanisms

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

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## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

- 3.1.1 Due to the present restrictions associated with the Covid 19 pandemic, hard copy bids for this solicitation will not be accepted, and the use of the epost Connect system for bid submission is mandatory.
- 3.1.2 The Bidder must submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

- 3.1.3 The bid must be gathered per section and separated as follows:

Section I: Technical Bid - Acquisition JTAC  
Section II: Technical Bid - In-Service Support and Repair and Overhaul  
Section III: Financial Bid – Acquisition JTAC and In-Service Support and Repair and Overhaul  
Section IV: Certifications  
Section V: Additional Information

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

### 3.2 Section I and II: Technical Bid

- 3.2.1 Section I-Acquisition Technical and Management Bid and Section II- In-Service Support and repair and overhaul Technical and Management Bid
- a) 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.
  - b) 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.

### 3.3 Section III: Financial Bid

- 3.3.1 Bidder must submit their financial bid in Canadian Funds and in accordance with Annex B, Basis of payment, detailed in Volume 1 RFP - Acquisition Resulting Contract, and to Annex B, Basis of payment, detailed in Volume 2 In-Service Support and Repair and Overhaul Resulting Contract.

#### 3.3.2 Blank Prices

Bidders are requested to insert "\$0.00" for any item for which it does not intend to charge or for items that are already included in other prices set out in the tables. If the Bidder leaves any price blank, Canada will treat the price as "\$0.00" for evaluation purposes and may in accordance with the Phase Bid Compliance Process notify bidders of missing financial information and give them a specific time to provide or confirm that the price is, in fact, \$0.00.

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Any Bidder who does not confirm that the price for a blank item is \$0.00 or provide the missing financial information will be declared non-responsive.

- 3.3.2.1 **Negative values in Bidder's proposal will be evaluated as a zero-dollar value.** Bidders must input financial information identified as grey in attachment 3, Pricing Table Worksheets.

### 3.3.3 **Electronic Payment of Invoices – Bid**

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

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

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

### 3.3.4 **Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

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

## 3.4 **Section IV: Certifications**

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

## 3.5 **Section V: Additional Information**

### 3.5.1 **Bid Submission Form**

Bidders are requested to include the Bid Submission Form – Attachment 4 with their bids. It provides a common form in which bidders can provide information required for evaluation and contract award, such as a contact name and the Bidder's Procurement Business Number, etc. Using the form to provide this information is not mandatory, but it is recommended. If Canada determines that the information required by the Bid Submission Form is incomplete or requires correction, Canada will provide the Bidder with an opportunity to do so.

### 3.5.2 **Bidder's Proposed Sites or Premises Requiring Safeguarding Measures**

- 3.5.2.1 As indicated in Part 6 under Security Requirements, the Bidder must provide the full addresses of the Bidder's and proposed individuals' sites or premises for which safeguarding measures are required for Work Performance:

Street Number / Street Name, Unit / Suite / Apartment Number  
City, Province, Territory / State  
Postal Code / Zip Code  
Country

- 3.5.2.2 The Company Security Officer must ensure through the [Contract Security Program](#) that the Bidder and proposed individuals hold a valid security clearance at the required level, as indicated in Part 6, Security and Financial Requirements.

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria. There are several steps in the evaluation process, which are described below. Even though the evaluation and selection will be conducted in steps, the fact that Canada has proceeded to a later step does not mean that Canada has conclusively determined that the Bidder has successfully passed all the previous steps. Canada may conduct steps of the evaluation in parallel.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids. Canada may hire any independent consultant, or use any Government resources, to evaluate any bid. Not all members of the evaluation team will necessarily participate in all aspects of the evaluation.
- (c) Where Canada has made a final determination that a bid has not met any individual mandatory element of this bid solicitation, including a technical evaluation pass mark, Canada reserves the right to not proceed further in the evaluation of the bid and may deem the bid non-responsive.

The Technical and Financial bids will initially be scored separately. The basis of selection will be the responsive bid with the lowest evaluated price per point. The lowest evaluated price per point calculation will be determined as follows:

$$\frac{\text{Responsive bid total evaluated price}}{\text{Responsive bid total points awarded}} = \text{bidders lowest evaluated price per point}$$

- (f) Canada will use the Phased Bid Compliance Process described below.

#### 4.1.1 Phased Bid Compliance Process

##### 4.1.1.1 (2018-07-19) General

- (a) Canada is conducting the PBCP described below for this requirement.
- (b) Notwithstanding any review by Canada at Phase I or II of the PBCP, Bidders are and will remain solely responsible for the accuracy, consistency and completeness of their Bids and Canada does not undertake, by reason of this review, any obligations or responsibility for identifying any or all errors or omissions in Bids or in responses by a Bidder to any communication from Canada.

THE BIDDER ACKNOWLEDGES THAT THE REVIEWS IN PHASE I AND II OF THIS PBCP ARE PRELIMINARY AND DO NOT PRECLUDE A FINDING IN PHASE III THAT THE BID IS NON-RESPONSIVE, EVEN FOR MANDATORY REQUIREMENTS WHICH WERE SUBJECT TO REVIEW IN PHASE I OR II AND NOTWITHSTANDING THAT THE BID HAD BEEN FOUND RESPONSIVE IN SUCH EARLIER PHASE. CANADA MAY DEEM A BID TO BE NON-RESPONSIVE TO A MANDATORY REQUIREMENT AT ANY PHASE. THE BIDDER ALSO ACKNOWLEDGES THAT ITS RESPONSE TO A NOTICE OR A COMPLIANCE ASSESSMENT REPORT (CAR) (EACH DEFINED BELOW) IN PHASE I OR II MAY NOT BE SUCCESSFUL IN RENDERING ITS BID RESPONSIVE TO THE MANDATORY REQUIREMENTS THAT ARE THE SUBJECT OF THE NOTICE OR CAR, AND MAY RENDER ITS BID NON-RESPONSIVE TO OTHER MANDATORY REQUIREMENTS.

- (c) Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure

of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.

- (d) The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2019-03-04) Standard Instructions – Goods or Services – Competitive Requirements nor Canada's right to request or accept any information during the solicitation period or after bid solicitation closing in circumstances where the bid solicitation expressly provides for this right, or in the circumstances described in subsection (c).
- (e) Canada will send any Notice or CAR by any method Canada chooses, in its absolute discretion. The Bidder must submit its response by the method stipulated in the Notice or CAR. Responses are deemed to be received by Canada at the date and time they are delivered to Canada by the method and at the address specified in the Notice or CAR. An email response permitted by the Notice or CAR is deemed received by Canada on the date and time it is received in Canada's email inbox at Canada's email address specified in the Notice or CAR. A Notice or CAR sent by Canada to the Bidder at any address provided by the Bidder in or pursuant to the Bid is deemed received by the Bidder on the date it is sent by Canada. Canada is not responsible for late receipt by Canada of a response, however caused.

#### **4.1.1.2 (2018-03-13) Phase I: Financial Bid**

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

- (f) In its response to the Notice, the Bidder will be entitled to remedy only that part of its Financial Bid which is identified in the Notice. For instance, where the Notice states that a required line item has been left blank, only the missing information may be added to the Financial Bid, except that, in those instances where the addition of such information will necessarily result in a change to other calculations previously submitted in its Financial Bid, (for example, the calculation to determine a total price), such necessary adjustments shall be identified by the Bidder and only these adjustments shall be made. All submitted information must comply with the requirements of this solicitation.
- (g) Any other changes to the Financial Bid submitted by the Bidder will be considered to be new information and will be disregarded. There will be no change permitted to any other Section of the Bidder's Bid. Information submitted in accordance with the requirements of this solicitation in response to the Notice will replace, in full, only that part of the original Financial Bid as is permitted above, and will be used for the remainder of the bid evaluation process.
- (h) Canada will determine whether the Financial Bid is responsive to the requirements reviewed at Phase I, considering such additional information or clarification as may have been provided by the Bidder in accordance with this Section. If the Financial Bid is not found responsive for the requirements reviewed at Phase I to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase I to the satisfaction of Canada, will receive a Phase II review.

#### **4.1.1.3 (2018-03-13) Phase II: Technical Bid**

- (a) Canada's review at Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible 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 PBCP. Mandatory technical criteria that are not identified in the solicitation as being subject to the PBCP, will not be evaluated until Phase III.
- (b) Canada will send a written notice to the Bidder (Compliance Assessment Report or "CAR") identifying any Eligible Mandatory Criteria that the Bid has failed to meet. A Bidder whose Bid has been found responsive to the requirements that are reviewed at Phase II will receive a CAR that states that its Bid has been found responsive to the requirements reviewed at Phase II. Such Bidder shall not be entitled to submit any response to the CAR.
- (c) A Bidder shall have the period specified in the CAR (the "Remedy Period") to remedy the failure to meet any Eligible Mandatory Criterion identified in the CAR by providing to Canada in writing additional or different information or clarification in response to the CAR. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the CAR.
- (d) The Bidder's response must address only the Eligible Mandatory Criteria listed in the CAR as not having been achieved, and must include only such information as is necessary to achieve such compliance. Any additional information provided by the Bidder which is not necessary to achieve such compliance will not be considered by Canada, except that, in those instances where such a response to the Eligible Mandatory Criteria specified in the CAR will necessarily result in a consequential change to other parts of the Bid, the Bidder shall identify such additional changes, provided that its response must not include any change to the Financial Bid.
- (e) The Bidder's response to the CAR should identify in each case the Eligible Mandatory Criterion in the CAR to which it is responding, including identifying in the corresponding section of the original Bid, the

wording of the proposed change to that section, and the wording and location in the Bid of any other consequential changes that necessarily result from such change. In respect of any such consequential change, the Bidder must include a rationale explaining why such consequential change is a necessary result of the change proposed to meet the Eligible Mandatory Criterion. It is not up to Canada to revise the Bidder's Bid, and failure of the Bidder to do so in accordance with this subparagraph is at the Bidder's own risk. All submitted information must comply with the requirements of this solicitation.

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

#### **4.1.1.4 (2018-03-13) Phase III: Final Evaluation of the Bid**

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



#### **4.1.2 (2017-07-31) Technical Evaluation**

##### **4.1.2.1 (2017-07-31) Mandatory Technical Criteria**

4.1.2.1.1 The Phased Bid Compliance Process will apply to all mandatory technical criteria in Attachment 1 Mandatory Requirements.

4.1.2.1.2 Each bid must comply with each and every mandatory requirement of this bid solicitation. Any bid that does not meet any mandatory requirement will be deemed non-responsive. Only responsive bids will be considered in the next step of the evaluation process.

##### **4.1.2.2 Point Rated Technical Criteria**

4.1.2.2.1 Responsive bids will be evaluated in accordance with the point rated technical evaluation criteria detailed in Attachment 2, Point Rated Criteria. Bids will be evaluated and scored based exclusively on the merits of the written response in accordance with the evaluation criteria. Since it is not mandatory for bidders to respond to point rated requirements, and there is no mandatory minimum score to be achieved for Bidders to be deemed responsive, the Phased Bid Compliance Process will not apply to point rated criteria.

#### **4.1.3 Financial Evaluation**

Financial bids will be evaluated and scored in accordance with the financial evaluation criteria detailed in Attachment 3, Pricing Tables and the following SACC Manual Clause:

SACC Manual Clause A0220T (2014-06-26), Evaluation of Price-Bid is incorporated by reference and forms part of the bid solicitation.

SACC Manual Clause A0222T (2014-06-26), Evaluation of Price-Canadian/Foreign Bidders is incorporated by reference and forms part of the bid solicitation.

#### **4.2 Basis of Selection**

4.2.1 To be declared responsive, a bid must:

- a) comply with all the requirements of the bid solicitation;
- b) meet all mandatory criteria; and
- c) obtain the lowest cost per point

4.2.1.1 Bids not meeting a. b. and c. will be declared non-responsive.

4.2.2 The basis of selection for this procurement is the responsive proposal representing the lowest compliant cost-per-point. The methodology and application of the lowest cost per- point selection is detailed below.

4.2.2.1 Neither the responsive bid that receives the highest number of points nor the one that proposed the lowest price will necessarily be accepted. The responsive bid with the lowest evaluated cost- per- point will be recommended for award of a contract.

4.2.3 Lowest evaluated cost-per-point

a) For each responsive bid, the lowest evaluated cost-per-point calculation will be determined as follows:

Responsive bid total evaluated price = bidders lowest evaluated price per point  
Responsive bid total points awarded

- b) When a calculation includes a decimal answer, calculations will be rounded to the nearest hundredth value.

**Example:**

- (i) 7.254 to the nearest hundredth = 7.25  
(ii) 7.255 to the nearest hundredth = 7.26

- c) The responsive Bidder with the lowest evaluated price per point calculation will be recommended for the award of both contracts.

#### 4.2.4 Evaluation Examples

Three (3) bids were received in response to a competitive solicitation. The following bids were evaluated:

##### **Bidder A**

Bidder A submitted missing information under Phase II (Compliance Assessment Report or "CAR") which satisfied the bid evaluation team, resulting in a responsive bid. Bidder A achieved a total point rated score of 1000 points out of a possible 1000 points. Bidder A's total bid price is \$500,000.00 and is the highest priced bid of the three (3) responsive bids received.

$$\frac{\$500,000.00}{1000 \text{ points}} = \$500.00 \text{ per point}$$

##### **Bidder B**

Bidder B submitted a responsive bid at the conclusion of Phase III and achieved a total point rated score of 750 points out of a possible 1000 points. Bidder B's total bid price is \$350,000.00

$$\frac{\$350,000.00}{750 \text{ points}} = \$466.67 \text{ per point}$$

##### **Bidder C**

Bidder C also submitted a responsive bid at the conclusion of Phase III and achieved a total point rated score of 625 points out of a possible 1000 points. Bidder B's total bid price is \$300,000.00

$$\frac{\$300,000.00}{625 \text{ points}} = \$480.00 \text{ per point}$$

Bidder B's bid represents the lowest evaluated Cost-per-point and will be recommended for the award of both the Acquisition contract, and In Service Support contract.

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## PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

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

### 5.1 Certifications Required with the Bid

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

#### 5.1.1 Integrity Provisions - Declaration of Convicted Offences

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

#### 5.1.2 Additional Certifications Required with the Bid

##### 5.1.2.1 Covid 19 vaccination requirement certification

In accordance with the COVID-19 Vaccination Policy for Supplier Personnel, all Bidders must provide with their bid, the COVID-19 Vaccination Requirement Certification attached to this bid solicitation, to be given further consideration in this procurement process. This Certification incorporated into the bid solicitation on its closing date is incorporated into, and forms a binding part of any resulting Contract.

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

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

#### 5.2.1 Integrity Provisions – Required Documentation

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

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

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

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

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

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

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## PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

### 6.1 Security Requirements

1. Before award of a contract, the following conditions must be met:
  - (a) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Volume 1 Resulting Contract Clauses Acquisition Contract, and Volume 2 - Resulting Contract Clauses - In-Service Support and Repair and Overhaul;
  - (b) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work sites must meet the security requirements as indicated in Part 7 Volume 1 Resulting Contract Clauses Acquisition Contract, and Volume 2 - Resulting Contract Clauses - In-Service Support and Repair and Overhaul;
  - (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;
  - (d) the Bidder's proposed location of work performance and document safeguarding must meet the security requirements as indicated in Part 7 – Volume 1 Resulting Contract Clauses Acquisition Contract, and Volume 2 Resulting Contract Clauses - In-Service Support and Repair and Overhaul; and
  - (e) the Bidder must provide the addresses of proposed sites or premises of work performance and document safeguarding as indicated in Part 3 - Section V Additional Information.
2. Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.

In the case of a joint venture Bidder, each member of the joint venture must meet the security requirements.
3. For additional information on security requirements, Bidders should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

### 6.2 Financial Capability

The following clause, inserted by reference, forms part of this bid solicitation:

SACC Manual clause A9033T (2012-07-16) Financial Capability

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## PART 7 - RESULTING CONTRACT CLAUSES

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

### 7.1 Requirement

The Contractor must perform the Work in accordance with the Acquisition Statement of Work at Annex A and corresponding Appendices.

### 7.2 Optional Goods and Services

- 7.2.1 The Contractor grants to Canada the irrevocable option to acquire additional goods, services or both in accordance with the terms and conditions 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.

### 7.3 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

#### 7.3.1 Task Authorization Process

- 7.3.1.1 The Project Authority will provide the Contractor with a description of the goods to be procured or Work to be performed using the Task Authorization Form (DND 626) specified in Annex H – DND 626 Task Authorization Form.
- 7.3.1.2 The TA will contain the details of the Work 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 method(s) of payment as specified in the Contract.
- 7.3.1.3 The Contractor must provide the Project Authority, within 5 calendar days of receipt of the TA, 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.
- 7.3.1.4 The Contractor must not commence Work until an authorized TA has been received by the Contractor. The Contractor acknowledges that any Work performed before an authorized TA has been received will be done at the Contractor's own risk.

#### 7.3.2 Task Authorization Limit

- 7.3.2.1 The Project Authority may authorize individual task authorizations up to a limit of *To be Inserted at Contract Award*, Applicable Taxes included, inclusive of any revisions.
- 7.3.2.2 Any task authorization to be issued in excess of that limit must be authorized by the Project Authority and Contracting Authority before issuance.

#### 7.3.3 Canada's Obligation - Portion of the Work - Task Authorizations

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 tasks performed by the Contractor.

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### 7.3.4 Periodic Usage Reports - Contracts with Task Authorizations

- 7.3.4.1 The Contractor must compile and maintain records on its provision of services to the federal government under authorized Task Authorizations issued under the Contract.
- 7.3.4.2 The Contractor must provide this data in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "nil" report.
- 7.3.4.3 The data must be submitted on a quarterly basis to the Contracting Authority.

The quarterly periods are defined as follows:

1st quarter: April 1 to June 30;

2nd quarter: July 1 to September 30;

3rd quarter: October 1 to December 31; and

4th quarter: January 1 to March 31.

- 7.3.4.4 The data must be submitted to the Contracting Authority no later than 30 calendar days after the end of the reporting period.

### 7.3.5 Reporting Requirement - Details

- 7.3.5.1 A detailed and current record of all authorized tasks must be kept for each contract with a task authorization process. This record must contain the following:
- 7.3.5.1.1 For each authorized task:
- i. the authorized task number or task revision number(s);
  - ii. a title or a brief description of each authorized task;
  - iii. the total estimated cost specified in the authorized Task Authorization (TA) of each task, exclusive of Applicable Taxes;
  - iv. the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;
  - v. the start and completion date for each authorized task; and
  - vi. the active status of each authorized task, as applicable.
- 7.3.5.1.2 For all authorized tasks:
- i. the amount (exclusive of Applicable Taxes) specified in the contract (as last amended, as applicable) as Canada's total liability to the contractor for all authorized TAs; and
  - ii. the total amount, exclusive of Applicable Taxes, expended to date against all authorized TAs.

### 7.3.6 Task Authorization - Department of National Defence

The administration of the Task Authorization process will be carried out by DLP 6-5. This process includes monitoring, controlling and reporting on expenditures of the contract with task authorizations to the Contracting Authority.

## 7.4 Standard Clauses and Conditions

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

### 7.4.1 General Conditions

[2030](#) (2020-05-28), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

### 7.4.2 Supplemental General Conditions

The following Supplemental General Conditions apply to and form part of the Contract:

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

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

**Modification 4002 15** (2008-05-12) Ownership of Developed Custom Software is amended as follows:

#### At paragraph 2 Insert:

Despite the Contractor's ownership of all the Intellectual Property Rights in the Foreground Information, if the Developed Custom Software includes or incorporates data or information that belongs to Canada, the Intellectual Property Rights in the Developed Custom Software will belong to Canada and the Contractor's Intellectual Property Rights in the Foreground Information are restricted to those capable of being exploited without the use of the information or data supplied by Canada. The Contractor grants to Canada 1) a license with respect to the Foreground Information capable of being exploited without the use of the information or data supplied by Canada and 2) a license in the Background Information that is necessary for Canada to exercise fully all of its rights in the Developed Custom Software, all in accordance with the Intellectual Property provisions set out in 4006 (2010-08-16), Supplemental General Conditions- Contractor to Own Intellectual Property Rights in Foreground Information.

4004 (2013-04-25), Supplemental General Conditions - Maintenance and Support Services for Licensed Software,

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

**Modification 4006 02** (2008-05-12) Records and disclosure of Foreground Information is amended as follows:

#### At paragraph 1 Insert:

1. During the performance of the Contract, and for a period of six years after the date the Contract has been terminated in accordance with its terms, the Contractor must keep detailed records of the Foreground Information, including details of its creation, ownership and about any sale or transfer of any right in the Foreground Information. The Contractor must report and fully disclose to Canada all Foreground Information created by marking it as required by this section as required by the Contract. If the Contract does not specifically state when and how the Contractor must do so, the Contractor must provide this information when requested by the Contracting Authority or a representative of the department or agency for which the Contract is performed, whether before or after the completion of the Contract. Notification of Intellectual Property Rights ("Notification") on deliverables and the identification of Intellectual Property within deliverables will be addressed as follows:



- i. **For deliverables that contain only Foreground Information**, the Contractor must include a notice of Intellectual Property Rights in or on each deliverable. The Contractor must record that Canada has licensed Intellectual Property Rights as per Contract No. **To be inserted at Contract Award**, and must state that the deliverable contains no Background Information, and will identify the Contractor (if applicable) and each applicable grantor to the Contractor of those rights in the Foreground Information.
- ii. **For deliverables that contain only Background Information**, the Contractor must include a notice of Intellectual Property Rights in or on each deliverable. The Contractor must record that Canada has licensed Intellectual Property Rights as per Contract No. **To be inserted at Contract Award** and must state that the deliverable contains only Background Information, and will identify the Contractor (if applicable) and each applicable grantor to the Contractor of those rights in the Background Information.
- iii. **For deliverables that consist of Background Information and Foreground Information**, the Contractor must include a notice of Intellectual Property Rights in or on each deliverable, such that the Foreground Information and the Background Information may be distinguished from each other. The Contractor must record that Canada has licensed Intellectual Property Rights as per Contract No. **To be inserted at Contract Award**, and must identify the Contractor (if applicable) and each applicable grantor to the Contractor of those rights in the Background Information and in the Foreground Information.

4010 (2012-07-16) Services Higher Complexity

4012 (2012-07-16) Goods – Higher Complexity, apply to and form part of the Contract.

4013 (2021-11-29), Compliance with on-site measures, standing orders, policies, and rules.

## 7.5 Security Requirements

7.5.1 The following security requirements (SRCL and related clauses provided by the Contract Security Program) apply and form part of the Contract.

1. The Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Designated Organization Screening (DOS), issued by the Contract Security Program (CSP), Public Works and Government Services Canada (PWGSC).
2. The Contractor/Offeror personnel requiring access to **PROTECTED** information, assets or sensitive site(s) must **EACH** hold a valid **RELIABILITY STATUS**, granted or approved by the CSP, **PWGSC**. Until the security screening of the Contractor personnel required by this Contract has been completed satisfactorily by the CSP, **PWGSC**, the Contractor personnel **MAY NOT ENTER** sites without an escort.
3. The Contractor/Offeror **MUST NOT** remove any **PROTECTED** information or assets from the identified site(s), and the Contractor/Offeror must ensure that its personnel are made aware of and comply with this restriction.
4. Subcontracts which contain security requirements are **NOT** to be awarded without the prior written permission of the CSP, **PWGSC**.
5. The Contractor/Offeror must comply with the provisions of the:
  - a) Security Requirements Check List and security guide (if applicable), attached at Annex C;
  - b) *Contract Security Manual* (Latest Edition).

## 7.5.2 Contractor's Sites or Premises Requiring Safeguarding Measures

7.5.2.1 Where safeguarding measures are required in the performance of the Work, the Contractor must diligently maintain up-to-date the information related to the Contractor's and proposed individuals' sites or premises for the following addresses:

Street Number / Street Name, Unit / Suite / Apartment Number  
City, Province, Territory / State  
Postal Code / Zip Code  
Country

7.5.2.2 The Company Security Officer must ensure through the [Contract Security Program](#) that the Contractor and individuals hold a valid security clearance at the required level.

## 7.6 Term of Contract

### 7.6.1 Period of the Contract

The Contract is effective on the date it is issued (as shown on page 1 of this Contract) and ends three years later.

7.6.1.1 The "**Contract Period**" is the entire period in which the Contractor is obliged to perform the Work, which includes:

7.6.1.2 The "**Project Phase**", which begins on the date of Contract award and ends six (6) months after contract award or sooner.

7.6.1.3 The "**Operational Phase**", which begins on the delivery and acceptance of the first system, and ends 12 months after the installation of the final system.

The period of the JTAC VTS Acquisition Contract is from the date of contract award to 12 months after the Technical Authority has confirmed that all of the required deliverables as outlined in Annex A - Statement of Work have been received and accepted to the satisfaction of DND. This includes, but is not limited to, all JTAC VTS requirements, meetings, and all CDRLs and DIDs, as outlined in Annex B- Statement of Work; Schedule B- JTAC VTS Acquisition Milestone Schedule.

7.6.1.4 The "**Option Periods**", periods during which the Operational Phase of the Contract is extended, should Canada choose to exercise any options set out in the Contract.

7.6.1.5 The "**Transition-Out Phase**", which begins 120 calendar days prior to the end of the Operational Phase and continues for an additional 90 calendar days after the Operational Phase ends. For greater clarity, the Operational Phase may overlap with the Transition-Out Phase and the Contract may be extended by up to 90 calendar days, after the Operational Phase, or in the event of termination of the Contract during which the Contractor, at the request of Canada, will be required to provide services as outlined in the Contract, upon the same terms and conditions.

### 7.6.2 Delivery Date

#### 7.6.2.1 JTAC VTS static systems delivery and installation

The delivery of the JTAC VTS static systems must be delivered within six (6) months of contract award.

7.6.2.2 Delivery of Manuals, Publications, Contract Data Requirements List and Data Item Descriptions, and Initial Spares in accordance with Annex A -Statement of Work, Appendix 2.

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All the deliverables must be received in accordance with Annex A - Statement of Work including.

#### 7.6.2.3 Initial Training

Training must be delivered in accordance with Annex A - Statement of Work.

#### 7.6.3 **Option to Extend the Contract**

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

Canada may exercise this option at any time by sending a written notice to the Contractor at least 60 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.

#### 7.6.4 **Delivery Points**

Delivery of the requirement will be made to delivery point 5 CDSB Gagetown (***Specific address will be provided at contract award***)

#### 7.7 **Authorities**

##### 7.7.1 **Contracting Authority**

The Contracting Authority for the Contract is:

Name: Sophia Edwards-Letellier  
Title: Supply Team Leader  
Public Works and Government Services Canada  
Acquisitions Branch  
Directorate: Electronics, Munitions and Tactical Systems Procurement Directorate  
Telephone: 343-543-7073  
E-mail address: [sophia.edwards-letellier@tpsgc-pwgsc.gc.ca](mailto:sophia.edwards-letellier@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.

##### 7.7.2 **Procurement Authority (*to be inserted at contract award*)**

The Procurement Authority for the Contract is:

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

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 the implementation of tools and processes required for 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 Work can only be made through a contract amendment issued by the Contracting Authority.

#### 7.7.3 **Technical Authority (to be inserted at contract award)**

The Technical Authority for the Contract is:

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

Telephone: \_\_\_\_-\_\_\_\_-\_\_\_\_\_  
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.

#### 7.7.4 **Contractor's Representative (bidder to insert)**

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

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

**Note to Bidders:** This section will be completed upon Contract Award.

The Contractor's Representative is the person delegated by the Contractor who is responsible for the management and all technical and administrative matters relating to this Contract.

#### 7.8 **Proactive Disclosure of Contracts with Former Public Servants**

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

#### 7.9 **Payment**

##### 7.9.1 **Basis of Payment - Statement of Work, excluding Optional Good and Services**

- 7.9.1.1 For the Work described in Annex A - Statement of Requirement and Appendix 4 to Annex A -Statement of Work (excluding Optional Services), the Contractor will be paid in accordance with Article 1 in Annex B - Basis of Payment.

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## 7.9.2 Basis of Payment - Optional Goods and Services

7.9.2.1 For the Work described as Optional Goods and Services in Appendix 2 to Annex A - Statement of Work, one of the following types of Basis of Payment will form part of the approved TA. The task price must be determined in accordance with Article 2. in Annex B - Basis of Payment.

7.9.2.2 Canada's liability to the Contractor under the authorized TA must not exceed the amount specified in the authorized TA. Custom duties are included, and Applicable Taxes are extra.

### 7.9.2.3 Basis of payment-Taskings

A Basis of Payment will be specified within each DND 626 Task Authorization and may be one, or a combination, of the following:

### 7.9.2.4 Basis of payment: Individual task authorizations

The Contractor will be paid for the Work specified in the authorized task authorization, in accordance with the Annex B- Basis of Payment; Schedule A Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Pricing Schedule Table 3 Rates.

Canada's liability to the Contractor under the authorized task authorization must not exceed the limitation of expenditure specified in the authorized task authorization. Custom duties are included and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized task authorization 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 Contracting Authority before their incorporation into the Work.

### 7.9.2.5 Basis of Payment – Firm, Firm Unit Price(s) or Firm Lot Price - Task Authorizations

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the Contractor will be paid the firm lot price or the firm unit price as specified as specified in Annex B- Basis of Payment; Schedule A Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition \$\_\_\_\_\_ (**amount to be inserted at issuance of DND 626**). Customs duties are included and Applicable Taxes are extra.

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

#### 7.9.2.6 Basis of Payment - Firm Hourly Rates

The Contractor will be paid firm hourly rates as detailed in Annex B – Basis of Payment; Schedule A Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Pricing Schedule, Table 3 Rates, for work performed in accordance with the Contract. Customs duties are included and Applicable Taxes are extra.

7.9.3 **Competitive Award:** The Contractor acknowledges that the Contract has been awarded as a result of a competitive process. No additional charges will be allowed to compensate for errors, oversights, misconceptions or underestimates made by the Contractor when bidding for the Contract.

7.9.4 **Labour Rates:** In Canada's experience, Contractor from time to time propose rates at the time of bidding for one or more categories of resources that they later refuse to honour, on the basis that these rates do not allow them to recover their own costs and/or make a profit. This denies Canada of the benefit of the awarded contract. If the Contractor refuses, or is unable, to provide an individual with the qualifications described in the Contract within the time described in the Contract (or proposes instead to provide someone from an alternate category at a different rate), whether or not Canada terminates the Contract as a whole, Canada may impose sanctions or take other measures in accordance with the PWGSC Vendor Performance Policy (or equivalent) then in effect, which may include prohibiting the Contractor from bidding on future requirements that include any professional services, or rejecting the Contractor's other bids for professional services requirements on the basis that the Contractor's performance on this or other contracts is sufficiently poor to jeopardize the successful completion of other requirements.

7.9.5 **Purpose of Estimates:** All estimated costs contained in the Contract are included solely for the administrative purposes of Canada and do not represent a commitment on the part of Canada to purchase goods or services in these amounts.

#### 7.9.6 Limitation of Expenditure

7.9.6.1 Canada's total liability to the Contractor under the Contract must not exceed (\$ ***To be Inserted at contract award***) Customs duties are included and Applicable Taxes are extra.

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

- a) when it is 75% committed, or
- b) four months before the contract expiry date, or
- c) as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,

whichever comes first.

7.9.6.3 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.

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## 7.9.7 Method of Payment

### 7.9.7.1 Milestone Payments-Subject to holdback

7.9.7.1.1 Canada will make payments in accordance with the payment provisions of the Contract, for cost incurred in the performance of the Work, up to 90 percent of the amount claimed and approved by Canada if:

- a. an accurate and complete claim for payment using form [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 amount claimed is in accordance with the Basis of Payment
- c.
- d. the total amount for all milestone payments paid by Canada does not exceed 90 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 have been completed and accepted by Canada.

7.9.7.1.2 The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all Work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted

### 7.9.7.2 Schedule of Milestones

The schedule of milestones for which payments will be made in accordance with the Contract is outlined in Annex B – Basis of Payment; Schedule B – Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Milestone Payments.

#### 7.9.7.2.1 Method of Payment – Taskings

##### a) Progress Payments (for Task Authorizations with a Maximum Price):

For each TA issued under the Contract that contains a maximum price:

- i. Canada will pay the Contractor no more frequently than once a month in accordance with Annex B - Basis of Payment. The Contractor must submit time sheets for each resource showing the days and hours worked to support the charges claimed in the invoice.
- ii. Once Canada has paid the maximum TA price, Canada will not be required to make any further payment, but the Contractor must complete all the Work described in the TA, all of which is required to be performed for the maximum TA price. If the Work described in the TA is completed in less time than anticipated, and the actual time worked (as supported by the time sheets) at the rates set out in the Contract is less than the maximum TA price, Canada is only required to pay for the time spent performing the Work related to that TA.

##### b) Lump Sum Payment on Completion (for Task Authorizations with a Firm Price):

Canada will pay the Contractor upon completion and delivery of all the Work associated with the TA in accordance with the payment provisions of the Contract if:

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

**c) Monthly Payment (for Task Authorizations with a Firm Price):**

Canada will pay the Contractor, in accordance with the approved TA, upon completion and delivery of all the Work associated with the TA in accordance with the payment provisions of the Contract if:

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

**7.9.7.2 Multiple Payments**

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

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

**7.9.8 No Responsibility to Pay for Work not performed due to Closure of Government Offices**

7.9.8.1 Where the Contractor, its employees, subcontractors, or agents are providing services on government premises under the Contract and those premises are inaccessible because of the evacuation or closure of government offices, and as a result no work is performed, Canada is not responsible for paying the Contractor for work that otherwise would have been performed if there had been no evacuation or closure.

7.9.8.2 If, as a result of any strike or lock-out, the Contractor or its employees, subcontractors or agents cannot obtain access to government premises and, as a result, no work is performed, Canada is not responsible for paying the Contractor for work that otherwise would have been performed if the Contractor had been able to gain access to the premises.

**7.10 Electronic Payment of Invoices – Contract**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s): ***(to be inserted at contract award)***

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)



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## 7.11 Time Verification

C0711C (2008-05-12) Time Verification- apply to and form part of the Contract.

## 7.12 Invoicing Instructions - Progress Payment Claim - Supporting Documentation required

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 (for Taskings);
  - b. a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses (for Taskings);
  - c. a copy of the monthly progress report.
2. Applicable Taxes 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 Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.
  3. The Contractor must prepare and certify one original of the claim on form [PWGSC-TPSGC 1111](#), and forward it electronically 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.

The Procurement Authority will then forward the original of the claim electronically to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

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

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## 7.13 Certifications and Additional Information

### 7.13.1 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.

### 7.13.2 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.

## 7.14 Applicable Laws

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

## 7.15 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 4002 (2010-08-16), Software Development or Modification Services (as amended) ;
- c. the general conditions 2030 (2020-05-28) General Conditions, Higher Complexity – Goods;
- d. the supplemental general conditions 4001 (2015-04-01) Hardware Purchase Lease and Maintenance;
- e. the supplemental general conditions 4004 (2013-04-25) Maintenance and Support Services for Licensed Software;
- f. the supplemental general conditions 4006 (2010-08-16), Contractor to Own Intellectual Property Rights in Foreground Information;
- g. the supplemental general conditions 4010 (2012-07-16) Services – Higher Complexity
- h. the supplemental general conditions 4012 (2012-07-16) Goods – Higher Complexity
- i. the supplemental general conditions 4013 (2021-11-29), Compliance with on-site measures, standing orders, policies, and rules.
- j. Annex A, Acquisition Statement of Work; and it's appendices;
  - i. A1. 0 Appendix 1: JTAC VTS Technical Specifications
  - ii. A2.0 Appendix 2: Contract Data Requirements List
  - iii. A3.0 Appendix 3: Data Item Description
  - iv. A4.0 Appendix 4: Glossary
- k. Annex B, Basis of Payment
  - i. Appendix 1: Schedule A - Economic Price Adjustment
- l. Annex C, Security Requirements Check List;
- m. the signed DND 626 Form Task Authorizations (including all of its annexes, if any);
- n. the Contractor's bid dated \_\_\_\_\_, (to be inserted at contract award).

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## 7.16 Defence Contract

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

## 7.17 Foreign Nationals (Canadian Contractor OR Foreign Contractor)

7.17.1 SACC Manual clause A2000C (2006-06-16) Foreign Nationals (Canadian Contractor)

**OR**

7.17.1 SACC Manual clause A2001C (2006-06-16) Foreign Nationals (Foreign Contractor)

## 7.18 SACC Manual Clauses

The following SACC clauses are included by reference and form part of the resulting contract:

SACC Manual clause A9062C (2011-05-16), Canadian Forces Site Regulations;  
SACC Manual clause B1006C (2014-06-26), Condition of Material;  
SACC Manual clause B1501C (2018-06-21), Electrical Equipment;  
SACC Manual clause B7500C (2006-06-16), Excess Goods;  
SACC Manual clause B9028C (2007-05-25), Access to Facilities and Equipment;  
SACC Manual clause D2000C (2007-11-30), Marking;  
SACC Manual clause D2001C (2007-11-30), Labelling;  
SACC Manual clause D3013C (2007-11-30), Preparation for Delivery – Canadian based Contractor  
SACC Manual clause D3019C (2007-11-30), Preparation for Delivery -United States based Contractor  
SACC Manual clause D6010C (2007-11-30), Palletization;  
SACC Manual clause D9002C (2007-11-30), Incomplete Assemblies.

## 7.19 ISO 9001:2015 Quality Management Systems - Requirements (Quality Assurance Code Q)

In the performance of the Work described in the Contract, the Contractor must comply with the requirements of:

*ISO 9001:2015 - Quality management systems - Requirements*, published by the International Organization for Standardization (ISO), current edition at date of submission of Contractor's bid.

It is not intended that the Contractor be registered to ISO 9001; however, the Contractor's quality management system must address all requirements appropriate to the scope of the Work. Only exclusions in accordance with clause A.5 and 4.3 of ISO 9001 are acceptable.

## 7.20 Assistance for Government Quality Assurance (GQA)

- a) The Contractor must provide the Quality Assurance Representative (QAR) with the accommodation and facilities required for the proper accomplishment of GQA and must provide any assistance required by the QAR for evaluation, verification, validation, documentation or release of product.
- b) The QAR must have the right of access to any site of the Contractor's, sub-contractors or any sub-tier external providers of goods and/or services where any part of the Work is being carried out. The QAR must be afforded unrestricted opportunity to evaluate and verify Contractor conformity with quality system procedures and to validate product or service conformity with the requirements of the Contract. The Contractor must make available for reasonable use by the QAR the equipment necessary for all validation purposes. Contractor personnel must be made available for operation of such equipment as required.

- c) When the QAR determines that GQA is required at a subcontractors or external provider's facilities, the Contractor must provide for this in the purchasing document or other documented means and forward copies to the QAR, together with relevant technical data as the QAR may request.
- d) The Contractor must notify the QAR of non-conforming product or service received from a subcontractor or external provider when the product or service has been subject to GQA.
- e) For the design, development or maintenance of software, the Contractor must interpret the requirements of *ISO 9001:2015 "Quality management systems - Requirements"*, according to the guidelines of the latest issue (at contract date) of *ISO/IEC 90003:2018 "Software engineering - Guidelines for the application of ISO 9001:2015 to computer software"*.

**7.21 Quality Assurance Authority (Department of National Defence) (To be determined at contract award)**

SACC Manual Clause D5510C (2017-08-17) Quality Assurance Authority (DND): Canadian-based Contractor

**OR**

SACC Manual Clause D5515C (2010-01-11) Quality Assurance Authority (DND): Foreign-based and United States Contractor

**7.22 Customs Duties - Contractor Importer**

1. As the goods to be supplied under the Contract are defence supplies, customs duties on importation to Canada may be remitted under the Tariff Item Number 9982.00.00 of the Schedule to the *Customs Tariff*.
2. Remission of customs duties payable may be granted under the Tariff Item Number 9982.00.00 when the total contract value of the defence supplies is C\$250,000 or more. This reflects the import value of the goods plus the duty that would be applicable in the absence of the *Customs Tariff*.
3. The Contractor will be responsible for pre-arranging remission on importation or for paying customs duties on importation and applying to Canada Border Services Agency for a refund. The Contractor is also responsible for applying to Public Works and Governments Services Canada in good time for the certification required by the *Customs Tariff*.

**7.23 Release Documents (Department of National Defence) (To be determined at contract award)**

SACC Manual Clause D5606C (2017-11-28) Release Documents (DND) – Canadian-based Contractor

**OR**

SACC Manual Clause D5605C (2021-05-20) Release Documents (DND) – United States-based Contractor

**OR**

SACC Manual Clause D5604C (2008-12-12) Release Documents (DND) – Foreign-based Contractor

**7.24 Release Documents – 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 OK2
  - Attention: \_\_\_\_\_
- 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 OK2  
E-mail: [ContractAdmin.DQA@forces.gc.ca](mailto:ContractAdmin.DQA@forces.gc.ca).

#### 7.25 Shipping instructions- Delivered Duty Paid

The Contractor must ship the goods prepaid DDP - Delivered Duty Paid to 5 CDSB Gagetown (***specific address will be inserted at contract award***). Unless otherwise directed, delivery must be made by the most economical means. Shipping charges must be shown as a separate item on the Contractor's invoice. The Contractor is responsible for all delivery charges, administration, costs and risks of transport and customs clearance, including the payment of customs duties and Applicable Taxes.

#### 7.26 Inspection and Acceptance

The Technical Authority is the Inspection Authority. All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work 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.

#### 7.27 Insurance

SACC Manual clause [G1005C](#) (2016-01-28) Insurance - No Specific Requirement

#### 7.28 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

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

ANNEX A

STATEMENT OF WORK

FOR THE

JOINT TERMINAL ATTACK CONTROLLER VIRTUAL TRAINING SYSTEM



NOTICE

This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document must continue to apply.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçues originalement doivent continuer de s'appliquer.

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## **1.0 SCOPE**

### **1.1 Purpose**

- 1.1.1 The purpose of this Statement of Work (SOW) is to define the work required to design, build, test and deliver the Joint Terminal Attack Controller Virtual Training System (JTAC VTS), as described in the JTAC VTS System Requirements Specification (SRS) (Appendix A1.0).

### **1.2 Background**

- 1.2.1 The JTAC VTS will support the training required to force generate accredited Joint Terminal Attack Controllers (JTAC). In order to achieve accreditation JTAC must meet the requirements identified in Joint Terminal Attack Controller (JTAC) (Ground) Memorandum of Agreement (MOA). This document identifies a mix of real life and virtual drills and stipulates the standards to be met for accreditation. It also identifies the required capabilities of any virtual training system to be used in the accreditation process. At present, the Canadian Armed Forces do not have a virtual training capability that meets the accreditation requirements. The current system known as the Interim Forward Observer Officer/Forward Air Controller System (IFFS) uses technologies that cannot be updated to meet the latest standards.
- 1.2.2 Currently the CAF cannot force generate accredited JTAC within its own capabilities. Limited accreditation is achieved through the use of allied simulation facilities, but this is both expensive and reliant on allies freeing up some of their own capacity. This solution is not tenable in the long term. JTAC VTS aims to address this shortcoming by procuring a number of simulators that meet the accreditation criteria and deploying them to units responsible for force generating JTAC. These are:
- 1.2.2.1 5 Canadian Division Support Base (CDSB) Gagetown;
  - 1.2.2.2 2 CDSB Valcartier;
  - 1.2.2.3 3 CDSB Shilo; and
  - 1.2.2.4 4 CDSB Petawawa.
- 1.2.3 The JTAC MOA identifies two different versions of the virtual trainers; a non-deployable static version that is used in a classroom setting, and a deployable version that can be used to enhance other forms of field training and exercises. The initial JTAC VTS solution will require the design, development, production and delivery of the static classroom version.

### **1.3 Intended Use**

- 1.3.1 Static Installations. It is intended that two JTAC VTS static systems will be installed at and operated by the Royal Canadian Artillery School (RCAS) for initial JTAC Operator training; for the training and accreditation of JTAC Instructors; and training and accreditation of JTAC Evaluators. Additionally, one system will be installed at each of the three Regular Force (Reg F) Close Support Artillery Regiments for ongoing continuation training.

## 1.4 Constraints

- 1.4.1 The JTAC VTS static systems will replace the IFFS systems at RCAS and at the Regiments. They will be installed in the same rooms and have access to the same facilities as the IFFS. The JTAC VTS is constrained by this infrastructure. JTAC VTS static installations must not require modifications to be made to the existing infrastructure.

## 1.5 Timelines

- 1.5.1 The Canadian Armed Forces (CAF) have an immediate need to force generate accredited JTAC and intend to procure one static and one additional costed option for JTAC VTS delivery to 5 CDSB Gagetown as soon as possible. Additionally the CAF requires three costed options to include both the procurement and sustainment of the JTAC VTS for 2CDSB Valcartier, 4CDSB Petawawa and 3 CDSB Shilo, with the later quantities being delivered on an as-and-when requested basis.

## 1.6 Concept of Operations

- 1.6.1 It is intended that trained CAF personnel from the holding units operate the JTAC VTS. Operators are to be trained to set-up, initiate, operate and close down the system. The CAF operators will lead all training activities and all after actions will be completed by them.

## 1.7 Concept of Support

- 1.7.1 The concept of support is intended to meet two different ends. The first is the immediate need to ensure that the JTAC VTS installations are available and performing as intended to conduct training. The second is longer term. It is imperative that the JTAC VTS retain the capability to force generate accredited JTAC. There is an expectation that software will need periodic patching and that continuous advances in simulation technology will drive changing standards to be met by simulators compliant with JTAC accreditation. For these reasons the JTAC VTS concept of support will address the need for the following maintenance types:

- 1.7.1.1 **Preventive Maintenance:** Actions performed, as scheduled activities required assuring that the system continues to operate correctly in its environment. Preventive maintenance is normally

associated with hardware and includes replacement of items that have reached the end of their specified service life.

1.7.1.2 **Adaptive Maintenance:** Effort that is initiated by changes in the environment in which the system must operate (e.g. Commercial Off the Shelf (COTS) operating system patches and service packs).

1.7.1.3 **Corrective Maintenance:** Unscheduled maintenance necessitated by unexpected system or component performance (e.g., faults or errors).

1.7.1.4 **Perfective Maintenance:** All changes, insertions, deletions, modifications, enhancements and extensions made to meet the evolving or expanding needs of the user. This will include changes driven by the need to retain JTAC accreditation.

1.7.2 These maintenance types will be delivered across the following maintenance levels:

1.7.2.1 **First Line Maintenance:** This involves inspection of the equipment and simple Preventive and Corrective Maintenance in the operational environment, performed by Operators. First Line Maintenance is performed at this level IAW the Original Equipment Manufacturer (OEM) maintenance recommendations.

1.7.2.2 **Second Line Maintenance:** This involves Preventive and Corrective Maintenance and removal or replacement of major assemblies at the operational site. Second Line Maintenance covers, but is not limited to major component replacements, installation of software (patches or new releases), mechanical repairs, limited overhaul, alignments and/or calibration Work using stocked spare components. Second Line Maintenance also provides configuration and test support.

1.7.2.3 **Third Line Maintenance:** It involves extensive repair and overhaul (R&O) of equipment, or correction of software problems necessary to restore the JTAC VTS to an operational or accredited state. Typically, Third Line maintenance is performed at the OEM's facility.

1.7.3 Detailed support requirements will be covered in a separate In-Service Support SOW.

## 1.8 Key Roles

1.8.1 The following paragraphs identify the key Department of National Defence (DND) roles with responsibility for delivery, operation and support of the JTAC VTS:

- 1.8.1.1 Operational Authority. Canadian Army Doctrine and Training Centre (CADTC) is the Operational Authority (OA). As such, it is responsible for identifying the requirements identified in this Contract. It is also responsible for monitoring JTAC accreditation requirements as they develop, in order to provide direction to the Technical Authority and user communities with the intent of keeping JTAC VTS fit for purpose.
- 1.8.1.2 Technical Authority. Director Combat Support Equipment Management 7-2 (DCSEM) is the Technical Authority (TA). As such, it is responsible for the generation of this SOW, verification of all deliveries against the requirements of this SOW. It is also responsible as the Life Cycle Material Manager (LCMM) for the through life in-service support of JTAC VTS.
- 1.8.1.3 Contracting Authority. PSPC is the Contracting Authority (CA). As such, it is responsible for all aspects of the management of this contract.

## 1.9 Acronyms and Abbreviations

- 1.9.1 A detailed list of all acronyms and abbreviations are detail in Appendix A4.0.



## **2.0 APPLICABLE DOCUMENTS**

### **2.1 References**

- 2.1.1 Whereas mentioned, the following Standards must be used for the preparation of deliverables to the extent specified in this SOW at A4.0.

### **2.2 Order of Precedence**

- 2.2.1 In the event of a conflict between the content in this SOW and the referenced documents, this SOW's content will take precedence.

### **2.3 Official Language Requirements**

- 2.3.1 The Contractor must provide all publications intended for use by the JTAC VTS user community i.e. instructors, Trainees and maintainers, in both English and French.
- 2.3.2 The Contractor must keep both the English and Canadian French versions of bilingual user publications up to date and make changes simultaneously to both versions.
- 2.3.3 The Contractor must have user publications translated by certified translators, such as members of an authorized provincial association of translators, to ensure the translated text's quality.
- 2.3.4 The Contractor must ensure all translations are consistent with approved DND terminology. Approved terminology sources, in order of priority, are as follows:
- 2.3.4.1 Canadian Oxford Dictionary Second Edition (for English);
  - 2.3.4.2 Le Petit Robert Edition 2017 (for French); and
  - 2.3.4.3 Termium, PSPC Translation Bureau Linguistic Data Bank (<http://www.termiumplus.gc.ca/>);
- 2.3.5 The Contractor must review and accept responsibility for the validity of all (both their own and all sub-Contractors) information found in the Technical Publications.

### **2.4 Data Deliverable Format**

- 2.4.1 Unless otherwise specified as a specific requirement, the Contractor must deliver all the soft copies of data deliverables in formats compatible with the office software currently in use by the DND as listed:
- 2.4.1.1 IBM® Engineering Requirements Management DOORS®;

- 
- 2.4.1.2 Microsoft (MS) Windows 10 Enterprise Operating System (OS), Service Pack 1;
  - 2.4.1.3 MS Edge 2019Edge;
  - 2.4.1.4 MS Office Professional Plus 2013 (Word, Excel, Access, PowerPoint, and Outlook);
  - 2.4.1.5 Google Chrome;
  - 2.4.1.6 Foxit PhantomPDF Version 10;
  - 2.4.1.7 Adobe Acrobat Reader 2017; and
  - 2.4.1.8 7-Zip, V19.00.
- 2.4.2 Those compatible formats must allow the files to be recognized, opened, and viewed or read in their intended form and format using DND's office software, along with allowing the user to modify, select, copy and paste information from the files to other DND office software files.

### **3.0 PROJECT MANAGEMENT**

#### **3.1 Project Management Program**

- 3.1.1 The Contractor must designate a Project Manager with the responsibilities to coordinate, execute, and manage the Contractor's project management activities for the Contract. The Contractor's Project Manager must have the total responsibility for all works required under the Contract.
- 3.1.2 The Contractor's Project Manager must be the primary point of contact between the Contractor, the DND Technical Authority and the PSPC Contracting Authority for all issues related to the Contract.

#### **3.2 Project Management Plan**

- 3.2.1 The Contractor must provide a Project Management Plan (PMP) IAW Contract Data Requirement List (CDRL) JTAC VTS-PM-001 at Appendix A2.2 (page 100) to ANNEX A and the associated Data Item Deliverable (DID) JTAC VTS-PM-001 at Appendix A3.3 (page 115) to ANNEX A.

#### **3.3 Transition Plan**

- 3.3.1 The Transition Phase of the Contract must be described in general terms, establishing the specific activities and goals of the Phase from delivery phase to in-service support in terms of the Contractor's Organizational structure, processes, and milestones.
- 3.3.2 The Contractor must provide a Transition Plan IAW CDRL JTAC VTS-PM-002 at Appendix A2.2 (page 100) to ANNEX A and the associated DID JTAC VTS-PM-002 at Appendix A3.4 (page 117) to ANNEX A.

#### **3.4 Intellectual Property Management Plan and List**

- 3.4.1 The Contractor must provide an Intellectual Property (IP) Management Plan and List IAW CDRL JTAC VTS-PM-003 at Appendix A2.2 (page 100) to ANNEX A and the associated DID JTAC VTS-PM-003 at Appendix A3.5 (page 120) to ANNEX A.

#### **3.5 Reports**

#### **3.6 Standard Report Format**

- 3.6.1 The Contractor must provide a Standard Report Format IAW CDRL JTAC VTS-PM-004 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-PM-004 at Appendix A3.6 (page 125) to ANNEX A.

#### **3.7 Project Progress Report**

- 3.7.1 The Contractor must provide a Project Progress Report IAW CDRL JTAC VTS-PM-005 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-PM-005 at Appendix A3.7 (page 127) to ANNEX A.

### 3.8 Significant Incident Report

- 3.8.1 The Contractor must provide a Significant Incident Report IAW CDRL JTAC VTS-PM-006 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-PM-006 at Appendix A3.8 (page 129) to ANNEX A.

### 3.9 Project Meetings

#### 3.9.1 General

- 3.9.1.1 The Contractor must ensure that the necessary data, personnel and facilities are available for each meeting
- 3.9.1.2 As appropriate, meetings may be held at the Contractor's or DND facilities at the discretion of the Technical Authority.
- 3.9.1.3 The Contractor's Program Manager must be present at all meetings where it has been determined in advance that a decision may be required at their level of authority. If the Program Manager does not have final approval authority for decision making and changes, then the person that has that final approval authority must also be present at the meeting.
- 3.9.1.4 The Contractor must provide the Meeting Agenda(s) IAW CDRL JTAC VTS-PM-007 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-PM-007 at Appendix A3.9 (page 131) to ANNEX A.
- 3.9.1.5 The Contractor must provide Presentation Materials IAW CDRL JTAC VTS-PM-008 at Appendix A2.2 (page 100) to ANNEX A and the associated DID JTAC VTS-PM-008 at Appendix A3.10 (page 133) to ANNEX A.
- 3.9.1.6 The Contractor must record, prepare, and provide the Meeting Minutes of each meeting IAW CDRL JTAC VTS-PM-009 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-PM-009 at Appendix A3.11 (page 135) to ANNEX A.
- 3.9.1.7 Where the Contractor organizes and/or chairs the meeting or where the Contractor is not a third party to the meeting and is requested to take minutes by DND.
- 3.9.1.8 The Contractor must not make any change in the interpretation of any portion of the contract through the minutes of a meeting or any

other communication. No change in the interpretation of the SOW, Technical Specification, cost, and schedule, as defined in the Contract, may be authorized by the minutes of a meeting. Such changes will require formal contract amendment by the CA.

### 3.9.2 Kick-off Meeting

3.9.2.1 The Contractor must hold and chair a Kick-off Meeting (at the Contractor's facility) no later than 21 calendar days after contract award to review and secure a common understanding of the following:

3.9.2.1.1 The requirements of the Contract;

3.9.2.1.2 The requirements of the SOW;

3.9.2.1.3 A general overview of the project, risks, schedule, and communication channels to follow, and

3.9.2.1.4 Other contractual and programmatic issues associated with the project as agreed between the TA, CA, and the Contractor.

3.9.2.2 Refer to Meeting Documentation requirements found at ANNEX A para. 3.9.1.5.

### 3.9.3 Systems Engineering (SE) Meeting

3.9.3.1 The Contractor must hold and chair the first SE meeting following the closure of the Kick-Off Meeting to:

3.9.3.1.1 Review and secure a common understanding of the requirements expressed in the SE CDRLs and DIDs, the Technical Specification(s), and other referenced specifications; and

3.9.3.1.2 Discuss possible design strategies and concepts and associated risks.

3.9.3.2 If the preliminary design of the JTAC VTS, based on the requirements derived from the Technical Specification(s), is sufficiently advanced and the entry criteria for the Preliminary Design Review (PDR) have been met, as described in ANNEX A para. 4.3.1, the Contractor can request approval by the TA for the PDR occurring along with this meeting.

3.9.3.3 Refer to Meeting Documentation requirements found at ANNEX A para. 3.9.1.5.

### 3.9.4 Integrated Logistics Support (ILS) Meeting

3.9.4.1 The Contractor must hold and chair an ILS Meeting following the closure of the Kick-Off Meeting (detailed in 3.9.2) to:

3.9.4.1.1 Review and secure a common understanding of the requirements expressed in the ILS CDRLs and DIDs, DND Canadian Forces Technical Orders (CFTO)s and specifications; and,

3.9.4.1.2 Discuss possible sparing strategies and concepts, lowest replaceable units, and lines of maintenance and associated risks.

3.9.4.1.3 Discuss possible strategies for the conduct of Adaptive and Perfective Maintenance.

3.9.4.2 Refer to Meeting Documentation requirements found at ANNEX A para. 3.9.1.5.

### 3.9.5 Initial Provisioning Conference

3.9.5.1 The Contractor must hold and chair an Initial Provisioning Conference (IPC) in order to establish initial spares quantities and distribution.

### 3.9.6 Other meetings

3.9.6.1 The Contractor must hold and chair (at the Contractor's facility) additional SE meetings described in ANNEX A para. 4.2.5.

3.9.6.2 The Contractor and the TA may schedule informal reviews, such as teleconferences, video conferences, briefings, and technical interchange meetings, to help achieve the Contract requirements.

## **4.0 SYSTEMS ENGINEERING**

### **4.1 Overview**

- 4.1.1 The Contractor must perform Systems Engineering (SE) activities and apply SE processes throughout the concept, development, production, utilization, support, and retirement life cycle stages of the JTAC VTS.
- 4.1.2 The Contractor must define and implement SE processes in conformance with IEEE 15288.1-2014, or equivalent standard, as further described within this document.
  - 4.1.2.1 The Contractor must measure conformance via the outcomes and outputs specified by IEEE 15288.1-2014, or equivalent standard.
- 4.1.3 The Contractor must define and conduct technical reviews and audits in conformance with IEEE 15288.2-2014 or equivalent standard.
  - 4.1.3.1 The Contractor must measure conformance via the outputs and criteria specified by IEEE 15288.2-2014, or equivalent standard.
- 4.1.4 The Contractor must use SE processes to define the system's requirements, transform the requirements into an effective product providing the required system functionality, and sustain the product functionality during the production/manufacturing phase.
- 4.1.5 The Contractor must implement a SE process that will transform all system requirements into a set of lower-level performance requirements that define the system, including the following:
  - 4.1.5.1 The SE process must plan, identify, allocate functional requirements, provide inputs to documentation, and include requirements, design, and implementation reviews.
  - 4.1.5.2 The SE effort must integrate all elements of a multifunctional engineering effort to meet system requirements.
- 4.1.6 The Contractor must ensure the timely integration of engineering specialties such as reliability, maintainability, supportability, cybersecurity, logistics engineering, human factors engineering, safety, value engineering, standardization, and transportability into design and development.
- 4.1.7 The Contractor must perform engineering, design activities, and tasks as necessary to support production, installation, integration, test, and acceptance of all hardware components and software delivered.

### **4.2 Systems Engineering Management**

- 
- 4.2.1 The Contractor must designate a SE Manager to coordinate, execute, and manage the Contractor's systems engineering activities for the Contract.
- 4.2.2 System Engineering Management Plan
- 4.2.2.1 The Contractor must provide a Systems Engineering Management Plan (SEMP) IAW CDRL JTAC VTS-SE-101 at Appendix A2.2 (page 100) and the associated DID JTAC VTS-SE-101 at Appendix A3.12 (page 137) to ANNEX A.
- 4.2.3 The Contractor must conduct its engineering activities program and ensure that all subcontractor activities are consistent with and IAW the approved SEMF.
- 4.2.4 Engineering Schedule
- 4.2.4.1 The Contractor must provide a time-based schedule of engineering activities as part of the Contract Master Schedule (CMS).
- 4.2.4.2 The Contractor must capture all technical milestones, including system reviews and their critical dependencies in the CMS.
- 4.2.5 Conduct of Mandated System Reviews
- 4.2.5.1 The Contractor must conduct all Mandated System Reviews (MSRs) and all Internal System Reviews IAW the approved SEMF.
- 4.2.5.2 The Contractor must conduct all MSRs at Contractor premises unless otherwise agreed by the TA and CA.
- 4.2.5.3 Unless otherwise agreed between the parties, the Contractor must not commence an MSR until:
- 4.2.5.3.1 All data items required by the CDRL to be delivered before the review have been delivered, and the TA considers the data items to be suitable for conducting the review;
- 4.2.5.3.2 All entry criteria defined in the governing plans for that review have been met;
- 4.2.5.3.3 All action items from any previous reviews affecting this review have been successfully addressed, or action plans agreed with the TA; and
- 4.2.5.3.4 All pre-requisite activities defined in the contract have been successfully conducted.
- 4.2.5.4 Before each MSR, the Contractor must provide an MSR Package for that review IAW CDRL JTAC VTS-SE-102 at Appendix A2.2
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(page 100) to ANNEX A, and the associated DID JTAC VTS-SE-102 at Appendix A3.13 (page 145) to ANNEX A.

- 4.2.5.5 Before each MSR, the Contractor must provide a Meeting Agenda for that review, and following each MSR, provide Meeting Minutes of that review.
- 4.2.5.6 Before each MSR, the Contractor must provide the MSR Presentation Materials IAW CDRL JTAC VTS-PM-008 at Appendix A2.2 to this SOW and the associated DID JTAC VTS-PM-008 at Appendix A3.10 to this SOW. A Meeting Agenda IAW CDRL JTAC VTS-PM-007 at Appendix A2.2 to this SOW and the associated DID JTAC VTS-PM-007 at Appendix A3.9 to this SOW for that review, and following each MSR, provide Meeting Minutes of that review IAW CDRL JTAC VTS-PM-009 at Appendix A2.2 to this SOW and the associated DID JTAC VTS-PM-009 at Appendix A3.11 to this SOW.
  - 4.2.5.6.1 Refer to Meeting Documentation requirements found at ANNEX A para. 3.9.1.5.
- 4.2.5.7 The Contractor must ensure that Contractor representatives and subcontractor's representatives participate in each MSR to the subject and objectives of that System Review.
- 4.2.5.8 The Contractor and the TA must co-chair each MSR.
- 4.2.5.9 The TA will classify each action item raised during MSRs as either a major or minor action item, considering their impact on MSR's objectives.
- 4.2.5.10 Unless otherwise agreed between the parties, the Contractor must not exit an MSR until:
  - 4.2.5.10.1 All exit criteria, as defined in the governing plans for that review, have been met;
  - 4.2.5.10.2 All contract plans, schedules, and activities for future phases have been reviewed and confirmed as appropriate, realistic, and achievable with acceptable risk;
  - 4.2.5.10.3 All major action items have been closed;
  - 4.2.5.10.4 All minor action items have been documented and assigned with agreed closure dates; and
  - 4.2.5.10.5 The MSR has achieved its objectives, as defined in the SOW and the governing plans relating to that review.

4.2.5.11 The Contractor must not claim completion for an MSR until both the TA and the Contractor are satisfied that all the exit criteria have been met.

#### 4.2.6 Requirements Traceability Verification Matrix (RTVM)

4.2.7 The Contractor must describe the overall system, its subsystems, and major assemblies while providing performance and design traceability to the System Requirements Specification by providing an Equipment Specification IAW CDRL JTAC VTS-SE-103 at Appendix A2.2 (page 100) to ANNEX A and the associated DID JTAC VTS-SE-103 at Appendix A3.14 (page 147) to ANNEX A.

4.2.7.1 The Contractor must provide an RTVM IAW CDRL JTAC VTS-SE-104 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-104 at Appendix A3.15 (page 149) to ANNEX A.

4.2.7.2 The Contractor must utilize the Technical Specification at Appendix A1.0 to ANNEX A to develop the RTVM and demonstrate compliance to the Technical Specification.

4.2.7.3 The Contractor must trace each specification requirement and verification requirement to one or more requirements in the next lower-level specification hierarchy (downward traceability).

4.2.7.4 The Contractor must trace each specification requirement and verification requirement to one or more requirements in the next higher level in the specification hierarchy (upward traceability).

4.2.7.5 The Contractor supplied RVTM must be IBM DOORS compatible so that DND is can maintain its internal database for the life of the JTAC VTS capability.

### 4.3 System Design

#### 4.3.1 Preliminary Design Review (PDR)

4.3.1.1 The Contractor must conduct an MSR, the PDR, after the preliminary design phase, IAW the approved SEMP.

4.3.1.1.1 The purpose of the PDR is for the Government to formally review the activities and work products generated by the Contractor during the preliminary design stage's performance to develop the allocated baseline and verify that the approach for the system design is ready to proceed into the detailed design phase.

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- 4.3.1.1.2 The Contractor must present and describe the system design and program status.
- 4.3.1.1.3 The Contractor must include the following topics for discussion and presentation at the PDR:
- 4.3.1.1.3.1 Proposed hardware sourcing.
  - 4.3.1.1.3.2 Proposed software sourcing:
  - 4.3.1.1.3.3 Proposed Integration plan;
  - 4.3.1.1.3.4 Logistics design aspects and concerns;
  - 4.3.1.1.3.5 Test and evaluation;
  - 4.3.1.1.3.6 Program problem and risk areas recommended solutions, and evaluation of alternatives; and
  - 4.3.1.1.3.7 Updated RTVM
- 4.3.1.2 PDR Entry Criteria
- 4.3.1.2.1 The Contractor must meet the following entry criteria for the PDR to take place:
- 4.3.1.2.1.1 Updated RTVM showing traceability of requirements is available;
  - 4.3.1.2.1.2 Allocated Baseline has been developed;
  - 4.3.1.2.1.3 Risk assessments and risk mitigation plans have been developed;
  - 4.3.1.2.1.4 Reliability and Maintainability (R&M) requirements have been allocated to the design IAW para 4.3.1.2.1.5;
  - 4.3.1.2.1.5 The Contractor must provide a Reliability and Maintainability (R&M) Predictions Data IAW CDRL JTAC VTS-SE-105 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-105 at Appendix A3.16 (page 152) to ANNEX A.
  - 4.3.1.2.1.6 CMS shows the critical path through CDR;
  - 4.3.1.2.1.7 Program technical risk is medium or lower;
  - 4.3.1.2.1.8 Program execution risk is medium or lower;
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#### 4.3.1.3 PDR Exit Criteria

4.3.1.3.1 The Contractor must meet the following exit criteria for the PDR to complete:

- 4.3.1.3.1.1 CDRL items that were part of the PDR entry criteria have been discussed;
- 4.3.1.3.1.2 Updated RTVM demonstrates forward and backward traceability;
- 4.3.1.3.1.3 Risk assessments and risk mitigation plans have been discussed. Risks and their respective mitigation plans are in place and manageable for implementation of the functional requirements into a preliminary design;
- 4.3.1.3.1.4 Program schedule is executable within the anticipated cost and technical risks;
- 4.3.1.3.1.5 Program is properly staffed;
- 4.3.1.3.1.6 PDR presentation materials IAW CDRL JTAC VTS-PM-008 at Appendix A2.2 to this SOW and the associated DID JTAC VTS-PM-008 at Appendix A3.10 to this SOW are available;
- 4.3.1.3.1.7 Per the CMS, an executable schedule has been presented;
- 4.3.1.3.1.8 Allocated Baseline has been established;

#### 4.3.2 Critical Design Review (CDR)

4.3.2.1 The Contractor must conduct an MSR, the CDR, after the detailed design phase, IAW the approved SEMP.

- 4.3.2.1.1 The purpose of the CDR is for the Government to review the activities formally and work products generated by the Contractor during the performance of the detail design stage to develop the product baseline and to verify that the building blocks are either ready for further development, adequately defined for procurement, or adequately defined for fabrication.
- 4.3.2.1.2 The Contractor must present and describe the finalized system design and program status and address the design changes made since the PDR.
- 4.3.2.1.3 The Contractor must include the following topics for discussion and presentation at the CDR:

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- 4.3.2.1.3.1 Hardware design.
  - 4.3.2.1.3.2 Software design.
  - 4.3.2.1.3.3 Systems integration design.
  - 4.3.2.1.3.4 Electromagnetic Environmental Effects impacts;
  - 4.3.2.1.3.5 R&M and system safety programs progress, including updated R&M predictions and hazards analysis results;
  - 4.3.2.1.3.6 Logistics design aspects and concerns;
  - 4.3.2.1.3.7 Test and evaluation;
  - 4.3.2.1.3.8 Program problem and risk areas recommended solutions, and evaluation of alternatives; and
  - 4.3.2.1.3.9 Updated RTVM.
- 4.3.2.2 CDR Entry Criteria
- 4.3.2.2.1 The Contractor must meet the following entry criteria for the CDR to take place:
    - 4.3.2.2.1.1 Updated RTVM showing requirements traceability is available;
    - 4.3.2.2.1.2 Product Baseline has been developed;
    - 4.3.2.2.1.3 Updated risk assessment and risk mitigation plans are available;
    - 4.3.2.2.1.4 Risks and their respective mitigation plans are in place and manageable for implementation of the functional requirements into a final design;
    - 4.3.2.2.1.5 R&M requirements have been addressed in the design;
    - 4.3.2.2.1.6 Trade-off analyses have been completed;
    - 4.3.2.2.1.7 Logistics analysis has been conducted, and plans have been established;
    - 4.3.2.2.1.8 CMS shows the critical path through testing;
- 4.3.2.3 CDR Exit Criteria
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4.3.2.3.1 The Contractor must meet the following exit criteria for the CDR to complete:

- 4.3.2.3.1.1 CDRL items that were part of the CDR entry criteria have been satisfactorily discussed;
- 4.3.2.3.1.2 Updated RTVM demonstrates forward and backward traceability.
- 4.3.2.3.1.3 Updated risk assessments and risk mitigation plans have been satisfactorily discussed. Risks and their respective mitigation plans are in place and manageable for implementation of the functional requirements into a final design;
- 4.3.2.3.1.4 Program schedule is executable within the anticipated cost and technical risks;
- 4.3.2.3.1.5 Program is properly staffed;
- 4.3.2.3.1.6 PDR presentation materials IAW CDRL JTAC VTS-PM-008 at Appendix A2.2 to this SOW and the associated DID JTAC VTS-PM-008 at Appendix A3.10 to this SOW are available;
- 4.3.2.3.1.7 Per the CMS, an executable schedule has been presented;
- 4.3.2.3.1.8 Product Baseline has been established;

#### 4.4 System Implementation

##### 4.4.1 Hardware Development

- 4.4.1.1 The Contractor must document all hardware development processes and procedures in the SEMP for the JTAC VTS.
- 4.4.1.2 The Contractor must conduct all hardware development activities for the Contract IAW the approved SEMP for the JTAC VTS.
- 4.4.1.3 The Contractor must integrate and assemble the system hardware that satisfies the Technical Specification Appendices' performance requirements.
- 4.4.1.4 The Contractor must conduct market surveillance and market investigations to maximize the use of commercial and non-developmental items.

4.4.1.5 The Contractor must apply the systems engineering process during each level of system development (system, subsystem, and component) to provide the best approach, and provide the following:

4.4.1.5.1 Hardware designs and lower-level specifications must be based on performance, cost, industry acceptance, long-term availability, maintainability, supportability, and upgrade potential.

4.4.1.5.2 The design concept must include an open systems approach, which must be based on an engineering and business strategy.

4.4.1.6 The Contractor must choose specifications and standards adopted by industry standards bodies or de facto standards (set by the marketplace) for selected system interfaces, products, practices, and tools.

4.4.1.6.1 The Contractor must document all hardware and interface design changes into the existing Hardware Baseline Document.

#### 4.4.2 Software Development

4.4.2.1 The Contractor must plan and conduct its Software engineering activities IAW the approved SEMP.

4.4.2.2 The Contractor must ensure that approved subcontractors undertaking Software engineering activities conduct those activities IAW the approved SEMP and the contract.

4.4.2.3 The Contractor must design and develop the system software and firmware and must follow industry software engineering best practices.

4.4.2.4 The Contractor must ensure that the design process and developed software must incorporate features that promote:

4.4.2.4.1 Assessment of open source software products;

4.4.2.4.2 Ease of operation;

4.4.2.4.3 Ease of software maintenance;

4.4.2.4.4 Ease of future updates and modifications;

4.4.2.4.5 Fault Tolerance;

- 4.4.2.4.6 Gender Based Analysis Plus (GBA+); and
- 4.4.2.4.7 Smart designs that can justify a reduction for documentation.
- 4.4.2.5 Computer programs and computer data systems must be fully integrated IAW the Technical Specification Appendices of this SOW.
- 4.4.2.6 The Contractor must conduct market surveillance and market investigations to maximize the use of open-source software, commercial software, and non-developmental software.
- 4.4.3 System Data Packages & Equipment Lists
  - 4.4.3.1 The Contractor must provide a System Data Packages & Equipment Lists IAW CDRL JTAC VTS-SE-106 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-106 at Appendix A3.17 (page 154) to ANNEX A.

## 4.5 Specialty Engineering

- 4.5.1 Growth, Evolution and Obsolescence Program
  - 4.5.1.1 The Contractor must provide a growth, evolution, and obsolescence program that meets the following objectives:
    - 4.5.1.1.1 Technology evolution and Obsolescence issues are appropriately considered in the design of the JTAC VTS;
    - 4.5.1.1.2 Technology evolution and Obsolescence issues are appropriately considered against the evolution of the JTAC MOA and ATP-3.3.2.2 - Joint Terminal Attack Controller Program.
    - 4.5.1.1.3 The Contractor's design, development, and production programs will not deliver equipment that has obsolescence problems at the time of delivery; and
    - 4.5.1.1.4 Solutions for the JTAC VTS minimize Life Cycle Cost when technology evolution and obsolescence issues are considered.
  - 4.5.1.2 The Contractor must address the planning for and manage the growth, evolution, and obsolescence program in the SEMP.
  - 4.5.1.3 The Contractor must conduct the growth, evolution, and Obsolescence program IAW the approved SEMP.
- 4.5.2 Human Engineering



4.5.2.1 The Contractor must provide a Human Engineering program that meets the following objectives:

4.5.2.1.1 Develop or improve human interfaces of the JTAC VTS;

4.5.2.1.2 Achieve required effectiveness of human performance during JTAC VTS operation, maintenance, support, control, and transportation; and

4.5.2.1.3 Make economical demands upon personnel resources, skills, training, and costs.

4.5.2.2 The Contractor must address planning for and management of the Human Engineering program in the SEMP.

4.5.2.3 The Contractor must conduct the Human Engineering program IAW the approved SEMP.

4.5.2.4 The Contractor must ensure that Human Engineer program for the JTAC VTS incorporates Gender-Based Analysis Plus and demonstrate how the program incorporates the following:

4.5.2.4.1 The design of training systems and working to reduce the potential of racial and ethnic biases are not being reinforced. For example, in a simulation is the enemy always portrayed as being a member of one ethnic or religious group? The Contractor must demonstrate what steps they are taking to reduce potential biases;

4.5.2.4.2 Human systems integration and human-machine interface design. For example, ensuring that workstations and equipment can accommodate from the 5th percentile of females up to the 95th percentile of males.

4.5.2.4.3 Data collection/performance reporting. The Contractor must report on the effectiveness of mitigation strategies to specific GBA+ identified issues.

4.5.2.4.4 Diversifying job opportunities. The Contractor must demonstrate gender and racial diversity in the workforce is supported in the workforce. This could be the bidder's internal policies as it relates to diversity and inclusion; plans to work with training schools to recruit more women and other underrepresented groups.

4.5.3 Electromagnetic Environmental Effects

4.5.3.1 The Contractor must provide an Electromagnetic Environmental Effects program that ensures that Electromagnetic Environmental Effects is appropriately considered in the design of the JTAC VTS.

4.5.3.2 The Contractor must address planning for and management of the Electromagnetic Environmental Effects program in the SEMP.

4.5.3.3 The Contractor must conduct the Electromagnetic Environmental Effects program IAW the approved SEMP.

#### 4.5.4 Electromagnetic Interference and Compatibility

4.5.4.1 The JTAC VTS must meet Test lab verification for Industry Canada radio-frequency interference and susceptibility standards (Interference-Causing Equipment Standards (ICES)) or verification against equivalent U.S., European or international standards.

4.5.4.2 Electrical safety: The JTAC VTS electrical equipment must meet Canadian certification from one or more of the following:

4.5.4.2.1 Canadian Standards Association (CSA);

4.5.4.2.2 Underwriter Laboratories of Canada (ULC);

4.5.4.2.3 Warnock Hersey (WH);

4.5.4.2.4 Underwriters' Laboratories, Inc (ULI)

4.5.4.2.5 ETL Testing Laboratories (ETL); or

4.5.4.2.6 MET Laboratories Inc.

#### 4.5.5 System Security

4.5.5.1 The Contractor must provide a System Security program that meets the following objectives:

4.5.5.1.1 The JTAC VTS must be a PROTECTED B system IAW Annex C Security Requirements Check List.

4.5.5.1.2 Ensure the DND's security obligations are met as they pertain to the confidentiality, availability, and integrity of information processed, stored, and communicated electronically or by similar means by the JTAC VTS;

4.5.5.1.3 Ensure the DND's security obligations and compliance requirements are met as they pertain to the protection of information, control of access to information, and providing an

audit trail of access to the information contained within the JTAC VTS;

4.5.5.2 The Contractor must address planning for and management of the System Security program in the SEMP.

4.5.5.3 The Contractor must conduct the System Security program IAW the approved SEMP.

#### 4.5.6 System Cybersecurity

4.5.6.1 The Contractor must provide a Cybersecurity Architectural Design Document IAW CDRL JTAC VTS-SE-107 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-107 at Appendix A3.18 (page 156) to ANNEX A.

## 5.0 CONFIGURATION MANAGEMENT

### 5.1 Overview

5.1.1 The Contractor must conduct Configuration Management (CM) activities IAW IEEE 15288.1-2014 and ANSI/EIA-649-C, or equivalent standards, to ensure effective configuration identification, configuration control, change control, and configuration audits for the Work as well as effective management and implementation of engineering changes.

### 5.2 Configuration Management Planning

5.2.1 The Contractor must address planning for and management of the CM program in the SEMP, IAW DID Configuration Management Plan #

5.2.1.1 The Contractor must provide a Configuration Management Plan IAW CDRL JTAC VTS-SE-108 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-108 at Appendix A3.19 (page 160) to ANNEX A.

5.2.2 The Contractor must manage, conduct and coordinate all Contractor and subcontractor CM activities IAW the approved SEMP.

5.2.3 The Contractor must ensure that all subcontractors comply with the requirements of the SEMP and are integrated into the Contractor's CM activities

### 5.3 Configuration Baselines

5.3.1 The Contractor must develop and maintain each of the following Configuration Baselines for the JTAC VTS during the contract:

5.3.1.1 Functional Baseline (FBL);

5.3.1.2 Allocated Baseline (ABL); and

5.3.1.3 Product Baseline (PBL).

5.3.2 Software Version Description Document (SVDD)

5.3.2.1 The Contractor must provide a Software Version Description Document (SVDD) IAW CDRL JTAC VTS-SE-109 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-109 at Appendix A3.20 (page 162) to ANNEX A.

5.3.3 Equipment Breakdown Structure (EBS)

5.3.3.1 The Contractor must provide an Equipment Breakdown Structure (EBS) IAW CDRL JTAC VTS-SE-110 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-110 at Appendix A3.21 (page 165) to ANNEX A.

5.4 Configuration Control

5.4.1 The Contractor must manage configuration changes and Deviations (see para. 7.3.1), including their:

5.4.1.1 Identification;

5.4.1.2 Request and documentation;

5.4.1.3 For configuration changes only, classification as Class I (major change) or Class II (minor change);

5.4.1.4 Evaluation and coordination; and

5.4.1.5 Implementation and verification of the changes;

5.4.2 The Contractor must provide Engineering Change Proposals (ECPs) IAW CDRL JTAC VTS-SE-111 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-111 at Appendix A3.20 (page 162) to ANNEX A, to implement changes to the approved FBL and PBL.

5.4.2.1 The Contractor must document all necessary changes to specifications, drawings, and other documentation requiring revision should the ECP be approved, in place of the reference to Specification Change Notices DID JTAC VTS-SE-113 at Appendix A2.22 (page 129) to ANNEX A.

5.4.2.2 Copies of these revisions must be provided for CDRLs already provided to DND, following the original CDRL timelines for review.

5.4.3 As per ACMP-2009, the Contractor must classify an ECP as Class I if:

5.4.3.1 The FBL, once established, is affected to the extent that any of the requirements are not within specified limits or specified tolerances;

5.4.3.2 The PBL, once established, is affected or the change impacts one or more of the following:

5.4.3.2.1 Government Furnished Equipment (GFE);

5.4.3.2.2 Safety (to include safety-critical software);

5.4.3.2.3 Security;

5.4.3.2.4 Deliverable computer software;

5.4.3.2.5 Compatibility or interoperability with interfacing items;

5.4.3.2.6 Delivered operational and maintenance manuals;

5.4.3.2.7 Interchangeability or replaceability; or

5.4.3.2.8 Skills, manning, training, biomedical factors or human engineering design;

5.4.3.3 Any contractual factors are affected, such as costs, guarantees, warranties, deliveries, or scheduled contractual milestones.

5.4.4 The Contractor must classify an ECP as Class II for all changes not classified as Class I. The Contractor will require that the TA reviews Class II changes for concurrence in the classification only.

5.4.4.1 At the TA's request, the Contractor must resubmit a proposed Class II change to a PBL as a proposed Class I change to that PBL.

5.4.5 Software Change Request

5.4.5.1 The Contractor must provide a Software Change Request IAW CDRL JTAC VTS-SE-112 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-112 at Appendix A3.23 (page 173) to ANNEX A.

5.4.6 For any proposed changes to a Configuration Baseline, the Contractor must ensure that all Configuration Baselines will be mutually consistent and compatible.

## 5.5 Configuration Status Accounting

5.5.1 The Contractor must establish and maintain, IAW the approved SEMP, a Configuration Status Accounting (CSA) system that correlates, stores,

maintains, and provides readily available views of all configuration information relating to those items identified as Configuration Items (CI).

5.5.2 The Contractor must provide CSA Reports, from the Contractor's CSA system, IAW CDRL JTAC VTS-SE-113 at Appendix A2.2 (page 100) to ANNEX A and the associated DID JTAC VTS-SE-113 at Appendix A3.24 (page 176) to ANNEX A, capturing all current change status and change history and the as-designed, as-built, as-delivered and as-modified configuration of all Configuration Items and tracked components of the JTAC VTS.

5.5.2.1 For Computer Software Configuration Items and Computer Software Components, the CSA must include the as-delivered, as-modified, and as-tested configurations of the latest or current CSA Report IAW DID JTAC VTS-SE-113.

## 5.6 Configuration Audits

5.6.1 The Contractor must invite the TA, or representatives appointed by the TA, to witness all FCAs and PCAs.

5.6.2 Unless the TA otherwise notifies the Contractor, the TA or appointed representative(s) must witness all Configuration Audits that are conducted for acceptance.

5.6.3 Unless the TA has notified that it will not witness a Configuration Audit IAW para 5.6.2, the Contractor must not conduct that Configuration Audit in the absence of the TA or the appointed representative(s).

5.6.4 Functional Configuration Audit (FCA)

5.6.4.1 The Contractor must conduct an MSR, the FCA, on each JTAC VTS Configuration Item, before delivery, IAW the approved SEMP.

5.6.4.1.1 The objective of the FCA for an item is to demonstrate that the item's actual performance complies with all elements of its specification.

5.6.4.1.2 As part of the FCA for an item, the item's configuration status needs to be established such that all verification activities have been conducted on a known final baseline or one that can adequately trace to the final baseline. The Contractor must review test and other data to verify that the item performs as required by its functional/allocated configuration identification.

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- 5.6.4.1.3 The Contractor must conduct the FCA on the configuration of the item, which is representative (prototype or preproduction) of the configuration to be released for:
- 5.6.4.1.3.1 Production of the operational inventory quantities, when more than one article is to be produced; or
  - 5.6.4.1.3.2 Acceptance, when only a single article is to be produced.
- 5.6.4.1.4 When a prototype or preproduction article is not produced, the Contractor must conduct the FCA on the first production article.
- 5.6.4.1.5 For cases where Configuration Item qualification can only be determined through integrated system testing, FCAs for such Configuration Items will not be considered complete until completion of the integrated testing.
- 5.6.4.2 FCA Entry Criteria
- 5.6.4.2.1 The Contractor must meet the following entry criteria for the FCA to take place:
- 5.6.4.2.1.1 The Contractor has provided the TA with clear identification of the item to be audited, including nomenclature, specification identification number, and Configuration Item number, if applicable;
  - 5.6.4.2.1.2 The Contractor has provided the TA with a current listing of all deviations and waivers against the item, either requested of or approved by DND TA;
  - 5.6.4.2.1.3 The updated RTVM showing allocation of system requirements to the item has been established and is traceable from the system requirement to the item and from the item requirement back to system requirements;
  - 5.6.4.2.1.4 The Contractor has provided the TA with the draft Product Specification for the item;
- 5.6.4.3 FCA Exit Criteria
- 5.6.4.3.1 The Contractor must meet the following exit criteria for the FCA to complete:
- 5.6.4.3.1.1 CDRL items that were part of the FCA entry criteria have been satisfactorily discussed;

- 5.6.4.3.1.2 The test procedures, reports, and data used by the FCA team have been made a matter of record in the FCA minutes;
- 5.6.4.3.1.3 All risks identified during the FCA have been documented and analyzed, and the risks with proceeding to the next phase are acceptable to the TA;
- 5.6.4.3.1.4 An updated RTVM, if required;
- 5.6.5 Physical Configuration Audit (PCA)
  - 5.6.5.1 The Contractor must conduct an MSR, the PCA, on each JTAC VTS Configuration Item, before delivery, IAW the approved SEMP.
    - 5.6.5.1.1 The objective of the PCA for an item is to:
      - 5.6.5.1.1.1 Confirm that the 'as-built' or 'as-coded' configuration is consistent with the configuration documentation;
      - 5.6.5.1.1.2 Confirm that the configuration documentation is complete and accurate; and
      - 5.6.5.1.1.3 Establish or verify the PBL for the item.
    - 5.6.5.1.2 The Contractor must perform a detailed audit of engineering drawings, specifications, Technical Data, and tests utilized in the Configuration Item production, including the design documentation, listings, and manuals for software Configuration Items. The review includes an audit of the released engineering documentation and quality control records to ensure the as-built or as-coded configuration is reflected by this documentation.
    - 5.6.5.1.3 The Contractor must conduct a PCA on the first production article of a Configuration Item and those CI's that are a re-procurement of a Configuration Item already in the inventory.
    - 5.6.5.1.4 Satisfactory completion of a PCA for a Configuration Item results in establishing the Product Baseline for that Configuration Item.
  - 5.6.5.2 PCA Entry Criteria
    - 5.6.5.2.1 The Contractor must meet the following entry criteria for the PCA to take place:



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- 5.6.5.2.1.1 The Contractor has submitted the final draft of the product specification for the Configuration Item to be audited to the TA for review before PCA;
- 5.6.5.2.1.2 The Contractor has provided the TA with a current listing of all deviations and waivers against the item, either requested of or approved by DND TA;
- 5.6.5.2.1.3 The Contractor has provided the TA with identification of the Configuration Item to be audited in terms of nomenclature, specification identification number, and Configuration Item number;
- 5.6.5.2.1.4 The Contractor has provided the TA with drawings, part numbers, and build status of the Configuration Item subject to audit, including serial numbers and software identification;
- 5.6.5.3 PCA Exit Criteria
- 5.6.5.3.1 The Contractor must meet the following exit criteria for the PCA to complete:
- 5.6.5.3.1.1 CDRL items that were part of the PCA entry criteria have been satisfactorily discussed;
- 5.6.5.3.1.2 All risks identified during the PCA have been documented and analyzed, and the risks with proceeding to the next phase are acceptable to the TA;
- 5.6.5.3.1.3 Configuration differences between the Configuration Item qualified and the Configuration Item being audited have been made a matter of record in the PCA minutes;
- 5.6.5.3.1.4 All build records for the Configuration Item confirm that the Configuration Item has been built IAW the drawings and specifications;

## **6.0 VERIFICATION AND VALIDATION (V&V)**

### **6.1 V&V Management**

#### **6.1.1 V&V Planning**

- 6.1.1.1 The Contractor must address planning for and management of the V&V program in the SEMP.
- 6.1.1.2 The Contractor must conduct all V&V activities for the contract IAW the approved SEMP and approved Acceptance Test Plan and Procedures (ATP&Ps) for each V&V phase, per CDRL JTAC VTS CDRL SE-115 prepared IAW DID JTAC VTS SE-115.
- 6.1.1.3 The Contractor must provide a System Verification Plan IAW CDRL JTAC VTS-SE-114 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-114 at Appendix A3.25 (page 179) to ANNEX A.

#### **6.1.2 DND Involvement in Acceptance V&V (AV&V)**

- 6.1.2.1 The Contractor must invite the TA, or representatives appointed by the TA, to witness, and participate in, when applicable, all AV&V activities.
- 6.1.2.2 Unless otherwise notified by the TA, the TA or appointed representative(s) must witness and participate in AV&V activities.
- 6.1.2.3 Unless the TA has notified that they will not witness an AV&V activity IAW para 6.1.2.2, the Contractor must not conduct that AV&V activity in the absence of TA or appointed representative(s).
- 6.1.2.4 Unless otherwise agreed in writing by the TA, the Contractor must provide the TA, or representatives appointed by the TA, with at least 60 Calendar Days advance notice of the start date and time of all AV&V activities for the JTAC VTS.

#### **6.1.3 Test Readiness Reviews (TRRs)**

- 6.1.3.1 Before the commencement of each AV&V phase, the Contractor must hold an MSR, a TRR, IAW the approved SEMP, which:
  - 6.1.3.1.1 Confirms the accuracy and completeness of the ATP&Ps for the V&V phase;
  - 6.1.3.1.2 Confirms the status of the applicable Configuration Baseline of the system, item, or process under test;

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- 6.1.3.1.3 Reviews results from preceding test activities, where applicable to the AV&V activity;
- 6.1.3.1.4 Assures that the relevant Item under Test (IUT) is ready for testing. The IUT may be a CI, group of CIs, subsystem, component, or system;
- 6.1.3.1.5 Assures that any DND resources required are available and prepared for formal testing; and
- 6.1.3.1.6 Assures that the Contractor is prepared for formal testing.
- 6.1.3.2 The TRR should be held after the test procedures for formal testing have been dry run against the same configuration of the IUT as that which will be presented for formal testing. A technical understanding of the informal test results arising from the dry run should be established.
- 6.1.3.3 TRR Entry Criteria
- 6.1.3.3.1 The Contractor must meet the following entry criteria for the TRR to take place:
- 6.1.3.3.1.1 The status of all design and test documentation for the IUT has been established and declared to the TA;
- 6.1.3.3.1.2 The updated RTVM showing traceability from IUT requirements to the test procedures and contract test requirements has been established and declared to the TA;
- 6.1.3.3.1.3 Action items from any previous reviews affecting TRR have been successfully addressed, or action plans agreed with the TA;
- 6.1.3.4 TRR Exit Criteria
- 6.1.3.4.1 The Contractor must meet the following exit criteria for the TRR to complete:
- 6.1.3.4.1.1 All required resources including personnel, equipment, and facilities are available for formal testing;
- 6.1.3.4.1.2 The IUT and test procedures are deemed to be satisfactory by both the Contractor and the TA to support formal testing;
- 6.1.3.4.1.3 Plans for the measurement and analysis program for the next AV&V phase have been agreed to by the TA,
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including the measures to be collected, associated collection methods, and analysis techniques;

- 6.1.3.4.1.4 All risks identified during the TRR have been documented and analyzed, and the risks with proceeding to the next phase are acceptable to the TA;

#### 6.1.4 Failure Reporting and Analysis

- 6.1.4.1 During AV&V of the JTAC VTS elements, the Contractor must establish, maintain and update a Problem Resolution System that:

- 6.1.4.1.1 collects Failure data (including applicable CI identification and configuration data);

- 6.1.4.1.2 classifies the Failure Severity IAW the following table:

| Failure Severity | Applies if a problem could:  |
|------------------|--|
| 1                | a. Prevent the accomplishment of an operational or mission essential capability.<br>b. Jeopardize safety, security, or other requirement designated 'critical'.  |
| 2                | a. Adversely affects the accomplishment of an operational or mission essential capability, and no workaround solution is known.<br>b. Adversely affect technical, cost, or schedule risks to the Contract or too life-cycle support of the system, and no work-around solution is known. |
| 3                | a. Adversely affects the accomplishment of an operational or mission essential capability, but a work-around solution is known.<br>b. Adversely affects technical, cost, or schedule risks to the Contract or the system's life-cycle support, but a work-around solution is known.      |
| 4                | a. Result in user/operator inconvenience but does not affect a required operational or mission essential capability<br>b. Result in inconveniences for development or support personnel, but does not prevent the accomplishment of those responsibilities                               |
| 5                | any other effect   |

- 6.1.4.1.3 Documents the failures and associated failure modes;

- 6.1.4.1.4 Defines corrective actions;

- 6.1.4.1.5 Identifies the scope of additional V&V activities required to confirm that the failure has been remedied; and

- 6.1.4.1.6 Maintains a history of all transactions.

6.1.4.2 The Contractor must provide all facilities and assistance reasonably required by the DND for the DND to access the Problem Resolution System for the duration of the contract.

6.1.4.3 The Contractor must submit for TA approval all corrective actions to address safety-related failures during AV&V that are assigned a Failure Severity classification of either 1 or 2.

6.1.4.4 The Contractor must invite the TA, or representatives appointed by the TA, to witness corrective actions and the closure of failures during AV&V assigned a Failure Severity classification of either 1 or 2.

6.1.4.5 The Contractor must incorporate all updates to failures and associated reports into the Problem Resolution System.

#### 6.1.5 Regression Testing

6.1.5.1 Subject to para. 6.1.5.2, the Contractor must repeat an AV&V activity (i.e., conduct regression testing) if:

6.1.5.1.1 Changes are made to the configuration of a JTAC VTS component after starting an AV&V activity;

6.1.5.1.2 The analysis of test data and the assessment of test results against pass/fail criteria indicate that the item under test has failed to meet its applicable requirements;

6.1.5.1.3 The analysis of test data and the assessment of test results against pass/fail criteria are inconclusive; or

6.1.5.1.4 The Contractor deviates from the ATP&Ps without prior Approval by the TA.

6.1.5.2 The Contractor must demonstrate to the TA's satisfaction that any changes to the configuration does not affect any AV&V activities. Then subject to the TA's approval of the regression analysis, the Contractor will not be required to repeat that AV&V activity.

## 6.2 AV&V

### 6.2.1 General

6.2.1.1 The Contractor must conduct AV&V activities on equipment of the same hardware, software, firmware, and data configuration (as applicable) which will require the TA's approval prior to the commencement of work.

6.2.1.2 The Contractor must confirm that the test environment, all test equipment, and software test tools, if applicable, used for the AV&V of the JTAC VTS are IAW the approved ATP&P.

6.2.1.3 The Contractor must maintain a log during all AV&V activities to record applicable information, including test details, the configuration of the items under test, the ATP&Ps used and any deviations from them, the test results, and any configuration changes and maintenance actions.

## 6.2.2 Design Acceptance

6.2.2.1 The closure of the AV&V Phases, following the completion and acceptance of the Acceptance Verification and Validation described above, will constitute Design Acceptance.

6.2.2.2 Design Acceptance will be used as a significant planning milestone for the Integrated Logistic Support (ILS) program delivery.

6.2.3 The Contractor must provide ATP&Ps IAW CDRL JTAC VTS-SE-115 at Appendix A2.2 (page 100) to ANNEX A and the associated DID JTAC VTS-SE-115 at Appendix A3.26 (page 182) to ANNEX A, which are necessary for the conduct of AV&V consistent with the approved SEMP.

6.2.4 The Contractor must provide Acceptance Test Reports (ATRs) IAW CDRL JTAC VTS-SE-116 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-116 at Appendix A3.27 (page 186) to ANNEX A, which are necessary for the evaluation of AV&V results, consistent with the approved ATP&Ps.

## 7.0 QUALITY MANAGEMENT

### 7.1 Contractor Quality Responsibilities

7.1.1 The Contractor must have a Quality Management System (QMS) based on ISO 9001:2015 'Quality Management Systems – Requirements', or other internationally accepted equivalent standard as agreed by DND Directorate of Quality Assurance (DQA) at Contract Award.

### 7.2 Quality Plan

7.2.1 The Contractor must maintain and apply the QMS in para 7.1.1 to all phases of the contract.

7.2.2 During the progress of work under the contract, the DQA Quality Assurance Representative (QAR) may perform audit and surveillance activities in relation to the work performed, including any of the following:

7.2.2.1 System Audit;

7.2.2.2 Process Audit; or

7.2.2.3 Product Audit.

7.2.3 The Contractor must provide all facilities and assistance reasonably required by the QAR to perform audit and surveillance activities as described in para 7.2.2.

7.2.4 The Contractor must ensure that all subcontractors have QMS based on ISO 9001:2015 'Quality Management Systems – Requirements', or other internationally accepted equivalent standards appropriate to the work required under the Subcontract.

7.2.5 The Contractor must ensure that all work performed under a Subcontract meets the requirements of the QMS to be applied by the Contractor under para. 7.1.1.

### 7.3 Non-Conforming Deliveries

7.3.1 If the Contractor seeks to use non-conforming materials or work in the deliveries, the Contractor must follow D-02-006-008/SG-001 the Design Change, Deviation and Waiver Procedure and provide the related and completed form, which will be provided to the Contractor by the QAR when necessary. The following is a summary of the related form:

7.3.2 FORM DND 675 – Request for Waiver or Deviation the Contractor must provide a Request for Deviation (RFD) / Request for Waiver (RFW) IAW CDRL JTAC VTS-SE-117 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-SE-117 at Appendix A3.28 (page 188) to ANNEX A. The Request for Deviation (RFD) / Request for Waiver (RFW)) – is used to request and obtain waivers to permit the acceptance of items, which through error during manufacture, do not conform to the technical data requirements of the contract OR is used to request and obtain authorization for a temporary departure from the technical data requirements of the contract to be incorporated in any number of items being manufactured to the contract.

7.3.2.1.1 Waiver – The written authorization granted after manufacture to permit the acceptance of items that during production or after having been submitted for inspection are found to depart from the contract's technical data requirements but are considered suitable for use "as is" or after approved repair.

7.3.2.1.2 Deviation – Written authorization for a temporary departure, granted before the manufacture of an item, departs from a particular performance or design requirement of a contract, specification, or referenced document, for a specific number of items, a specified service, or a specific period of time. This

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departure is NOT recorded in the technical data for future manufacture.

- 7.3.3 The DND TA may approve or not approve the application for a Waiver or Deviation in its sole and absolute discretion and may provide approval subject to any amendments to, or conditions on, the approval of a Waiver application or Deviation, which are deemed necessary by DND.
- 7.3.4 Any approval of an application for a Waiver or Deviation will not release the Contractor from the performance of its obligations under the contract, except to the extent specifically set out in the approved application for a Waiver or Deviation.
- 7.3.5 If an application for a Waiver or Deviation is approved, the Contractor must undertake all actions to rectify the non-conformance IAW the timeframes and any other requirements for such rectification or to meet any conditions specified in the approved application for a Waiver or Deviation.
- 7.3.6 When the Contractor has rectified the non-conformance(s) in an approved application for a Waiver or Deviation, it must notify the QAR and seek closure of the application for a Waiver or Deviation by submitting, with the notice, evidence to demonstrate that the applicable non-conformance(s) have been rectified.



## 8.0 INTEGRATED LOGISTICS SUPPORT (ILS)

### 8.1 Operations Concept

8.1.1 JTAC VTS is to be operated by CAF personnel. In order to achieve this JTAC VTS operators will require:

8.1.1.1 Training. CAF personnel will provide long-term operator training in-house. To this end, the Contractor must provide an initial Operator "train-the-trainer" Course to provide the initial cadre of trained operator trainers. It is likely that the Contractor will be required to repeat the Operator "train-the-trainer" course periodically.

8.1.1.2 Manuals. CAF Operators will require a comprehensive set of user manuals in both English and French.

### 8.2 Maintenance Concept

8.2.1 The JTAC VTS will be maintained by trained CAF personnel supported by the Contractor. Maintenance training, supply support and manuals in both English and French will be tailored to match the maintenance concept.

8.2.1.1 **Operator Maintenance** – Operators will be required to conduct first line preventive and corrective maintenance. Preventive maintenance tasks will include component cleaning and visual inspection of component condition and cabling. Corrective maintenance tasks may include such activity as system rebooting and periphery replacement. Operator maintenance activities must not require the use of Special Tools and Test Equipment (STTE) Tasks should have a duration of less than one (1) hour.

8.2.1.2 **Technician Maintenance**, CAF technicians will be required to conduct first line and limited second line corrective maintenance and limited second line adaptive maintenance. First line corrective maintenance tasks will include the exchange of failed major components. Second line corrective maintenance tasks could include the replacement and repair of cabling. Limited second line adaptive maintenance tasks will include the installation of software patches and upgrades. Technician maintenance tasks could require the use of STTE and should have a duration of less than four (4) hours.

8.2.2 **Contractor Maintenance** A support contract will require the Contractor to provide third line corrective and adaptive maintenance. Third line corrective maintenance will include the repair of major components and selected LRUs. Third line adaptive maintenance will include the preparation of software service packs for on-site installation by CAF technicians. Evolving

JTAC accreditation requirements will also require the Contractor to undertake Perfective maintenance tasks. All Contractor maintenance will be undertaken on an as-and-when requested basis.

#### 8.2.3 In-Service Support Plan (ISSP)

8.2.4 The Contractor must provide an In-Service Support Plan (ISSP) IAW -ILS-201 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-201 at Appendix A3.29 (page 190) to this ANNEX A.

### 8.3 ISS Program

8.3.1 The ISS Program is subject of a separate SOW.

### 8.4 Material Change Notice

8.4.1 The Contractor must provide a Material Change Notice IAW CDRL JTAC VTS-ILS-202 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-202 at Appendix A3.30 (page 192) to this ANNEX A.

### 8.5 Safety Data Sheet

8.5.1 The Contractor must provide a Safety Data Sheet (SDS) IAW CDRL JTAC VTS-ILS-203 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-203 at Appendix A3.31 (page 194) to this ANNEX A.

### 8.6 Sparing Analysis Report

8.6.1 The Contractor must provide a Sparing Analysis Report IAW CDRL JTAC VTS-ILS-204 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-204 at Appendix A3.32 (page 196) to this ANNEX A.

### 8.7 Supplementary Provisioning Technical Documentation

8.7.1 The Contractor must provide a Supplementary Provisioning Technical Documentation IAW CDRL JTAC VTS-ILS-205 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-205 at Appendix A3.33 (page 198) to this ANNEX A.

### 8.8 Technical Data Deliverables List

8.8.1 The Contractor must provide a Technical Data Deliverables List IAW CDRL JTAC VTS-ILS-206 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-206 at Appendix A3.34 (page 200) to this ANNEX A.

### 8.9 Technical Publications Requirements List (TPRL)

- 8.9.1 The Contractor must provide a Technical Publications Requirements List (TPRL) IAW CDRL JTAC VTS-ILS-207 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-207 at Appendix A3.35 (page 202) to this ANNEX A.

## **9.0 Training**

- 9.1.1 Canada intends to follow a train-the-trainer approach in support of the JTAC VTS. Experienced JTAC-I, as defined in JTAC MOA 2004-01 will be trained to conduct in-house training, aimed at two target audiences.
- 9.1.2 Basic Users: Basic users will be not be JTAC trained. These users will be trained to conduct identified user maintenance tasks, prepare the system for use and conduct basic system diagnosis and fault finding.
- 9.1.3 JTAC Users: Qualified JTAC Users will be trained to conduct the operations above as well as to build scenarios and conduct the full range training operations available at the Instructor Station.

## **9.2 JTAC VTS JTAC-I Train-the-Trainer Training Package**

- 9.2.1 The Contractor must provide a JTAC VTS JTAC-I Train-the-Trainer Training Package IAW CDRL JTAC VTS-ILS-208 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-208 at Appendix A3.36 (page 204) to this ANNEX A.

## **9.3 Training Sessions**

- 9.3.1 The Contractor must provide an initial Training Session after delivery of the first JTAC VTS.
- 9.3.1.1 Scheduling of the initial Training Session will be done after contract award and jointly planned between the DND and the Contractor.
- 9.3.2 The Contractor must provide an initial Training Session consisting of:
- 9.3.2.1 JTAC VTS JTAC-I Train-the-Trainer Training Session for one (1) to 10 Trainees, with a course length of no more than five (5) days.
- 9.3.3 The Contractor must provide Training Sessions in English. The instructor(s) must be bilingual to understand and answer questions from Trainees in both official languages, English and Canadian French.
- 9.3.4 The Contractor must provide instructor(s) that are Subject Matter Experts on the JTAC VTS equipment being provided.
- 9.3.5 The Contractor must use the approved and accepted JTAC VTS JTAC-I Train-the-Trainer Training Package for the Training Session, and course lessons must follow the content found within that training package.

- 9.3.6 The Contractor must provide course material listed within the JTAC VTS JTAC-I Train-the-Trainer Training Package CDRL as Issued to Trainees at Training Session(s). All course material and Trainee handouts must be provided in English Canadian French.
- 9.3.7 The Contractor must use the JTAC VTS and additional training material identified in the JTAC VTS JTAC-I Train-the-Trainer Training Package Instructor Lesson Plan for the Training Session.
- 9.3.8 The Contractor must provide the additional training material that is listed in the JTAC VTS JTAC-I Train-the-Trainer Training Package Instructor Lesson Plan as 'supplied by the Contractor'.
- 9.3.9 The Contractor must provide additional JTAC VTS JTAC-I Train-the-Trainer Training Session on an as and when requested basis.
  - 9.3.9.1 Scheduling of additional JTAC VTS JTAC-I Train-the-Trainer Training Session Training Session will be jointly planned between the DND and the Contractor
- 9.3.10 The Contractor should supplement live training with a series of "how to" videos to be embedded in the Instructor workstations.

## **10.0 Manuals**

### **10.1 System Manuals**

- 10.1.1 The Contractor must provide User and Maintenance Manuals in both English and French that will allow CAF Operators and Maintainers to support JTAC VTS.
- 10.1.2 The Contractor must provide a System Manuals IAW CDRL JTAC VTS-ILS-209 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-209 at Appendix A3.37 (page 207) to this ANNEX A.

### **10.2 Vendor Manuals**

- 10.2.1 In the case of COTS components such as projectors, the Contractor must provide the OEM manuals, a list of such manuals must be included in the System Manual
- 10.2.2 The Contractor must provide a Vendor Manuals IAW CDRL JTAC VTS-ILS-210 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-210 at Appendix (page) to this ANNEX A.

### **10.3 Instruments, Decals, Data Plates, and Warnings**

- 10.3.1 The Contractor must deliver all instruments, decals, and data plates marked in metric units.

- 10.3.2 Where international symbols are not possible, the Contractor must provide bilingual markings in English and Canadian French.

#### **10.4 Government Furnished Equipment**

- 10.4.1 The Contractor must provide a Government Property Report IAW CDRL JTAC VTS-ILS-211 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-211 at Appendix A3.39 (page 211) to this ANNEX A.

#### **10.5 Government Delivery Schedule**

- 10.5.1 The Contractor must provide a Government Delivery Schedule IAW CDRL JTAC VTS-ILS-212 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-212 at Appendix A3.40 (page 213) to this ANNEX A.

#### **10.6 Identification Shipping and Packaging Data**

- 10.6.1 The Contractor must provide an Identification Shipping and Packaging Data IAW CDRL JTAC VTS-ILS-213 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-213 at Appendix A3.41 (page 215) to this ANNEX A.

## 11.0 ENVIRONMENTAL

### 11.1 General

- 11.1.1 IAW the Substances listed under Prohibition of Certain Toxic Substances Regulations (SOR/2012-285), the substances listed under this regulation must not be incorporated in any part of the equipment.
- 11.1.2 IAW the Asbestos and asbestos containing products must not be incorporated in any part of the equipment, IAW the Prohibition of Asbestos and Products containing Asbestos Regulations (PAPCAR): (SOR/2018-196).
- 11.1.3 IAW the Federal Halocarbon Regulations (SOR/2003-289) and the Ozone-depleting Substances and Halocarbon Alternatives Regulations (SOR/2016-137), any halocarbons that are incorporated into the design of equipment, must comply with regulations (SOR/2003-289) and (SOR/2016-137). If such substances must be used, the Contractor must:
  - 11.1.3.1 Inform the Technical Authority by identifying the substance(s).
  - 11.1.3.2 Identify the specific location within the equipment and its concentration.
- 11.1.4 IAW the Mercury that is present in any part of the equipment, must comply with the mercury content limit as identified in the Products Containing Mercury Regulations (SOR/2014-254), if mercury is present in any part of the equipment, the Mercury content limit must comply with the regulation (SOR/2014-254). If such substances must be used, the Contractor must:
  - 11.1.4.1 Inform the Technical Authority by identifying the substance(s).
  - 11.1.4.2 Identify the specific location within the equipment and its concentration.
- 11.1.5 IAW the Polychlorinated Biphenyls (PCBs) that are present in any part of the equipment must comply with the PCB Regulations (SOR/2008-273), if PCBs are present in any part of the equipment, they must comply with the regulation. If such substances must be used, the Contractor must:
  - 11.1.5.1 Inform the Technical Authority by identifying the substance(s).
  - 11.1.5.2 Identify the specific location within the equipment and its concentration.
- 11.1.6 The Contractor must use low-risk chemical products for equipment maintenance and repair where feasible. Low-risk chemical products are defined as those that do not contain substances regulated under the

Canadian Environmental Protection Act, 1999 (CEPA) and listed on Schedule 1 of CEPA.

11.1.7 The Contractor must ensure that all work carried out on DND equipment by staff, or duly appointed subcontractors is completed as follows:

11.1.7.1 Completed using personnel qualified and certified in the scope of work that they are undertaking and,

11.1.7.2 In compliance with all applicable municipal, territorial, provincial, federal environmental protection statutes and regulations.

11.1.8 Prior to the commencement of work the Contractor must have in place an Emergency / Spill Response Plan and also processes and procedures for the identification, management, handling and disposal of all substances, pollutants and material covered by the applicable municipal, territorial, provincial, federal environmental protection statutes and regulations.

## 11.2 Environmental Management System

11.2.1 The Contractor must implement and maintain an Environmental Management System (EMS), which is consistent with the principles presented in ISO 14001. Certification to this standard is preferred but not mandatory. The Contractor must, however, have a formalized set of procedures and control measures in place to demonstrate environmental compliance and minimize environmental impact of the work.

## 11.3 EHS Packaging Labels

11.3.1 The Contractor must label and ship goods falling within the Hazardous Products Act, R.S.C. 1985, C. H-3 and regulation(s) there under, IAW the said Act and regulation(s).

11.3.1.1 The Contractor must clearly identify the contents of the hazardous material with labels, and the SDS must explain what those hazards are.

## 11.4 Environmental Equipment Assessment (EEA)

11.4.1 The Contractor must prepare and submit an Environmental Equipment Assessment (EEA) IAW CDRL JTAC VTS-ILS-214 at Appendix A2.2 (page 100) to ANNEX A, and the associated DID JTAC VTS-ILS-214 at Appendix A3.42 (page 217) to this ANNEX A. The EEA includes the list of integrated hazardous substances and chemical products incorporated in the equipment design. The EEA must include Safety Data Sheets (SDS) for all hazardous chemical products IAW WHMIS 2015 requirements. The Contractor may provide confidential information in a separate document. Note: Proprietary information will be treated with confidentiality.

- 11.4.2 The Contractor must update the Equipment Environmental Assessment (EEA) delivered as part of the acquisition contract (conforming to DID JTAC VTS-ILS-221). The EEA includes the list of integrated hazardous substances and chemical products incorporated in the equipment design. Whenever there is a change in those substances and/or chemical products during in-service support, the EEA must be updated accordingly. Change is defined as removing or replacing hazardous substances and/or chemical products identified in the EEA Tables, or the addition of these items not previously listed.



## **12.0 TECHNICAL REQUIREMENTS**

### **12.1 JTAC VTS Static Installation.**

- 12.1.1 The Contractor must provide JTAC VTS Static installations IAW the requirements defined in SRS.
- 12.1.2 The Contractor must install JTAC VTS Static installations at the following locations in the quantities and at the timing to be determined by DND:
  - 12.1.2.1 5 Canadian Division Support Base (CDSB) Gagetown;
  - 12.1.2.2 2 CDSB Valcartier;
  - 12.1.2.3 3 CDSB Shilo; and
  - 12.1.2.4 4 CDSB Petawawa

### **12.2 User Manuals**

- 12.2.1 The Contractor must deliver a complete set of JTAC VTS Static installation User Manuals with each Static installation.

### **12.3 Spare Parts.**

- 12.3.1 The Contractor must deliver the scaling of spare parts and consumables for as determined at the IPC for each JTAC VTS Static installation concurrent with installation and delivery.
- 12.3.2 The Contractor must maintain the scaling of spare parts and consumables as determined by the IPC for anticipated levels of as-and-when requested second and third line maintenance.

### **12.4 Technical Investigations and Engineering Studies.**

- 12.4.1 The Contractor must maintain a capability to conduct Technical investigations and Engineering Studies (TIES) on an as and when requested basis.

### **12.5 Training**

- 12.5.1 The Contractor must provide the training as detailed in Section 9 of this SOW.

## A1.0 APPENDIX 1: JTAC VTS TECHNICAL SPECIFICATION

### REVISION HISTORY

| Item | Description   | Version          | Date              | Owner/Author               |
|------|---|------------------|-------------------|----------------------------|
| 1    | JTAC VTS SRS Draft<br>(Published from DOORS) *  | V1<br>(Original) | 27 July 2020      | Bruce Douglas/Bruce Harris |
| 2    | DCSEM 7 comments  | 1A               | 08 August 2020    | Bruce Douglas/Harris       |
| 3    | Merged comments version   | 2                | 17 August 2020    | Bruce Douglas/Bruce Harris |
| 4    | Updated version   | 3                | 24 August 2020    | Bruce Douglas/Bruce Harris |
| 5    | Updated version   | 3A               | 01 September 2020 | Bruce Douglas/Bruce Harris |
| 6    | Changes accepted, most<br>comments addressed and<br>minor revisions (grammar,<br>flow, spelling etc.)   | 4                | 29 September 2020 | Bruce Harris               |
| 7    | All comments addressed.<br>Added changes due to<br>updated JTAC MOA and<br>feedback on missing JTAC<br>MOA requirements   | 5                | 02 November 2020  | Bruce Harris               |
| 8    | Revised the technical<br>specification to mitigate the<br>cyber security requirements<br>as well as removing the<br>mobile training kit<br>requirement, as its<br>specifications were not<br>clearly defined to be<br>contracted. | 7                | 7 June 21         | Bruce Douglas              |

This Word version of the SRS was published from the DOORS JTAC VTS SRS module.  
The module's objects (requirements statements) were derived from:

- the original IFFS SOR;
- the original RFP SOW ANNEX A, Appendix 1 – Functional Requirements
- the updated SOR (deficiencies had been identified in the existing system, and operational requirements improved or added due to those deficiencies);
- the recognition of simulation technological evolution;
- the accreditation deficiencies found by the accreditation team;
- an early draft SRS from Director Land Command Systems Program Management (DLCSPM); and

- g. Joint Fire Support Executive Steering Committee (JFS ESC) Action Plan (AP) Memorandum of Agreement (MOA) 2004-01 Joint Terminal Attack Controller (JTAC) (Ground) published 08 Oct 2020;

## **A1.1 SCOPE**

- A1.1.1 The purpose of this System Requirement Specification is to define the system specifications to meet DND's requirement for a Joint Terminal Attack Controller Virtual Training System (JTAC VTS).

## **A1.2 Background**

- A1.2.1 The JTAC VTS will support the training required to force generate accredited Joint Terminal Attack Controllers (JTAC). In order to achieve accreditation JTAC must meet the requirements identified in JTAC MOA 2004-01. This document identifies a mix of real life and virtual drills and stipulates the standards to be met for accreditation. It also identifies the required capabilities of any virtual training system to be used in the accreditation process. At present, the Canadian Armed Forces do not have a virtual training capability that meets the accreditation requirements. The current system known as the Interim Forward Observer Officer/Forward Air Controller System (IFFS) uses technologies that cannot be updated to meet the latest standards.

- A1.2.2 Currently the CAF cannot force generate accredited JTAC within its own capabilities. Limited accreditation is achieved by allied simulation facilities, but this is both expensive and reliant on allies freeing up some of their own capacity. This solution is not tenable in the long term. JTAC VTS aims to address this shortcoming by procuring a number of simulators that meet the accreditation criteria and deploying them to units responsible for force generating JTAC. These are:

A1.2.2.1 5 Canadian Division Support Base (CDSB) Gagetown;

A1.2.2.2 2 CDSB Valcartier;

A1.2.2.3 3 CDSB Shilo; and

A1.2.2.4 4 CDSB Petawawa.

- A1.2.3 The JTAC MOA 2004-01 identifies two different versions of the virtual trainers; a non-deployable static version that is used in a classroom setting, and a deployable version that can be used to enhance other forms of field training and exercises. This JTAC VTS SRS identifies the requirements for the static classroom version.

## **A1.3 High Level Requirements**

A1.3.1 The JTAC VTS system is the technical solution that will address the following high-level requirement areas, which will ensure overcoming the capability deficiencies identified in the SOR and meet the detailed operational requirements therein.

A1.3.1.1 Accreditation. The system must be fully accredited to the latest version of the JTAC MOA and ATP 3-09.3 for all ratified controls.

A1.3.1.2 Realism and Immersion. The ability for the JTAC VTS to provide a realistic and immersive simulated virtual training environment. Must be accomplished by using emulated in-service equipment, realistic mission scenarios, scaled to individual and collective levels of training.

A1.3.1.3 Effects. The ability for JTAC VTS systems to enable operators to plan and coordinate engagements by joint effectors on the battlefield. Simulated effects must include both munition and non-munition means to bring to bear both lethal and non-lethal effects, allow operators to conduct analysis and prosecute with both precision or area effects, while also enabling the conduct of procedures to minimize unwanted effects (collateral damage, fratricide, etc.).

A1.3.1.4 Flexibility. This includes:

A1.3.1.4.1 The ability to offer force generating units the flexibility on how they will operate and manage their training systems, whether through dedicated contracted operator(s), instructor(s), or trainee-driven options;

A1.3.1.4.2 The ability for all equipment and software of the JTAC VTS Project to be scalable, modular, and task-tailored to meet core missions, as well as capable of being housed within the existing locations of the legacy fleet;

A1.3.1.4.3 The ability for the JTAC VTS operators to build and execute scenarios in geographic locations worldwide, simulate day and night conditions, and all elements and battlefield conditions; and

A1.3.1.4.4 The ability to simulate degraded communications and cyber-contested virtual environments is required to prepare for both modern and future operations.

A1.3.1.5 Training Management. This includes:

A1.3.1.5.1 The ability to load, create, and modify mission scenarios for customized training.

A1.3.1.5.2 The ability to collect, track, and report system usage data and trainee performance metrics.

## A1.4 Definitions

### A1.4.1 Requirements

A1.4.1.1 Mandatory. A requirement is deemed to be Mandatory (aka Essential) when that requirement must be met for the system be considered compliant with the operational requirements. Mandatory requirements' statements must use the word "must".

A1.4.1.2 Desirable. A requirement is deemed to be Desirable when that requirement does not need to be met for the system be considered compliant. A desirable is usually related to a Mandatory requirement and provides if met more capability than demanded by the Mandatory requirements. Desirable requirements' statements must use the word "should".

### A1.4.2 Personnel

A1.4.2.1 Instructor. Instructor are qualified and experienced personnel who will build and operate scenarios, manage the system usage, generate After Action Reports (AARs) and other related reports and returns, and ultimately assess trainee performance.

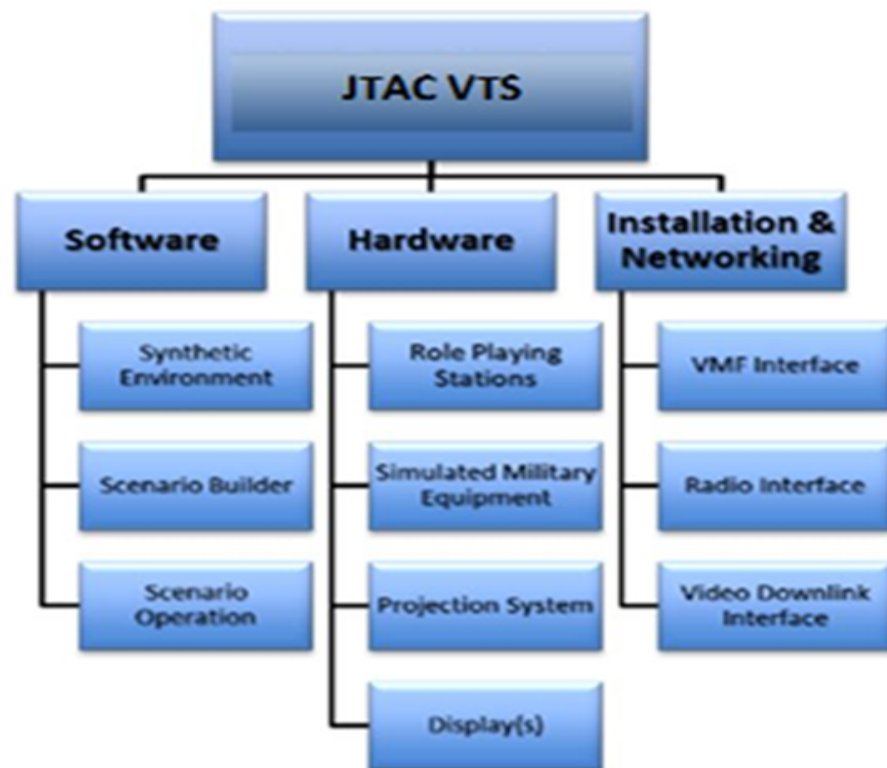
A1.4.2.2 Trainee. Trainees are Specialist Canadian Army (CA) personnel who will interact with the system to develop or reinforce competencies, by seeking qualification, certification, continuity training, or professional development.

A1.4.2.3 Maintainer. Maintainers are DND and/or Industry personnel, who will conduct Second Line specialist maintenance and prepare items for shipping to and from Third Line maintenance facilities, and personnel at third and possibly fourth line maintenance facilities.

## A1.5 System Component Requirements

A1.5.1 System. The term "system" used in this SRS is the JTAC VTS (both fixed and mobile elements).

A1.5.2 System Element. The system elements are the fixed and mobile JTAC simulators.



**Figure 1: JTAC VTS Requirements Diagram**

- A1.5.3 System Components. The system components are the Line Replaceable Units (LRU) in the fixed and mobile system elements.
- A1.5.4 System Element Failure. A System Element Failure is defined as a failure to complete a scheduled training activity due to the system element becoming inoperable in whole or in part.
- A1.5.5 Training Day. A training day is defined as any eight-hour period where training is being carried out.
- A1.5.6 Continuous Operation. A system element is considered to be in Continuous Operation when it is in use continuously during the Training Day, with the element in standby mode, or powered off, only during the normal planned breaks during training.
- A1.5.7 Controls. A control consists of at least one simulated, dry or live aircraft (fixed/rotary wing) attacking a surface target.
- A1.5.8 Availability. Availability has the following meaning: The degree to which a system, subsystem or equipment is in a specified operable and committable

state at the start of a mission, when the mission is called for at an unknown (in other words, random) time.

- A1.5.9 Operational Availability. Operational availability is a measurement of how long a system has been available to be used when compared with how long it should have been available to be used. (Op Avail = Mean Time Between Failures (MTBF) / (MTBF + Mean Time to Repair (MTTR))).

## A1.6 System Functional Requirements

### A1.6.1 General Requirements

- A1.6.1.1 The system must be a fit-for-purpose training system, capable of providing Canadian Army Joint Terminal Attack Controllers (JTACs) with a robust and stable synthetic environment to interact with, in the performance of simulated Close Air Support (CAS) and Surface-to-Surface fire support missions.
- A1.6.1.2 The Contractor must evaluate proposed equipment for security vulnerabilities. Where possible, the Communications Security Establishment (CSE)'s Common Criteria approved products should be used.
- A1.6.1.3 The System must be designed to provide access only to authorized users (at a minimum this must include a user name and visually hidden password).
- A1.6.1.4 The System must detect and log all successful and unsuccessful logins and maintain a record of such for at least 1 month.
- A1.6.1.5 The System must be configured to employ malicious code protection at information system entry and exit points and at workstations and servers to detect and eradicate malicious code.
- A1.6.1.6 The system must be a fully accredited system under the JTAC MOA and ATP 3-09.3 for the controls identified in this SRS. These are:
  - A1.6.1.6.1 Type 2 controls;
  - A1.6.1.6.2 Type 3 controls;
  - A1.6.1.6.3 Bombs on Coordinate (BOC) controls;
  - A1.6.1.6.4 Fixed Wing controls;
  - A1.6.1.6.5 Rotary Wing controls;

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- A1.6.1.6.6 Laser controls;
  - A1.6.1.6.7 Infrared (IR) Pointer controls;
  - A1.6.1.6.8 Remote Observer controls;
  - A1.6.1.6.9 Video Downlink controls;
  - A1.6.1.6.10 Suppression of Enemy Air Defence (SEAD) controls;
  - A1.6.1.6.11 Urban controls;
  - A1.6.1.6.12 Forward Air Controller (Airborne) (FAC(A)) controls;
  - A1.6.1.6.13 Night controls; and
  - A1.6.1.6.14 VMF Digitally Aided Close Air Support (DACAS) controls.
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- A1.6.1.7 The system must be based upon proven, fielded equipment that is in-service with a North Atlantic Treaty Organization (NATO) or American, British, Australian military partner.
  - A1.6.1.8 The system should be a fully accredited system under the JTAC MOA and ATP 3.09 for Type 1 controls.
  - A1.6.1.9 The system must include the capability to perform fires in the synthetic environment.
  - A1.6.1.10 The system must include the capability to perform Surface-to-Surface fires in the synthetic environment.
  - A1.6.1.11 The system must include the capability to perform Air-to-Surface fires in the synthetic environment.
  - A1.6.1.12 The system must be of sufficient fidelity to fully meet and maintain the minimum requirements of the JTAC MOA JTAC Simulation System Accreditation Criteria in Table B.3.6.).
  - A1.6.1.13 The system should be of sufficient fidelity to fully meet all the desired requirements of the JTAC MOA in Table B.3.6 and NATO HQ AIRCOM FAC Standardization Team (FST} Standard Operating Procedure (SOP) Simulator Assessment Checklist. JTAC Simulation System Accreditation Criteria.
  - A1.6.1.14 The system must be designed so that the instructors are able to monitor the trainee's actions, both visually and audibly in real time.
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- A1.6.1.15 The system must be designed such that a minimum of one (1) trainee are able to interact with the simulator, with full freedom of movement at the centre point of the display.
- A1.6.1.16 The system should be capable of conducting the following mission types:
  - A1.6.1.16.1 DACAS missions identified in this SRS;
  - A1.6.1.16.2 Cursor-on-Target (COT) DACAS missions;
  - A1.6.1.16.3 Link-16 DACAS missions; and
  - A1.6.1.16.4 Network Enabled Weapons (NEW) DACAS missions.
- A1.6.1.17 The system must allow the instructor and the trainee to observe and correct indirect fire fall of shot from rockets, artillery, mortars, and Naval Surface Fire Support (NSFS) out to ranges of at least 4,500m from the observer.
- A1.6.1.18 The system must prevent loss of data that is collected prior to an unplanned loss of simulator control (for example, inadvertent shutdown, power failure, software glitch).
- A1.6.1.19 The system must have at least one set of SME per simulator.

## **A1.7 Installation**

### **A1.7.1 Fixed Installation.**

- A1.7.1.1 The system must be installed as a fixed installation in the locations currently occupied by the IFFS.
- A1.7.1.2 The system should be able to achieve Type 1 control accreditation.
- A1.7.1.3 If the system can achieve Type 1 control accreditation, it must fit within the infrastructure (physical layout and power availability) at ASC-G/RCAS – Canadian Forces Base (CFB) Galetown.
- A1.7.1.4 The system fixed installations must use a display with a horizontal field of view of a minimum of 180 degrees from the trainee's perspective.
- A1.7.1.5 The system fixed installations must have an immersive, realistic audio environment that meets the minimum fidelity requirements outlined in the JTAC MOA in Table B.3.6 JTAC Simulation System Accreditation Criteria and NATO HQ AIRCOM FAC

Standardization Team (FST} Standard Operating Procedure (SOP)  
Simulator Assessment Checklist, including full surround sound.

- A1.7.1.6 The system's fixed installations must utilize infrared projector technology for all night operations to facilitate the use of a Night Vision Device (NVD) by the user, rather than simulated NVDs (note that trainees will be in Full Fighting Order).

## A1.8 Role Playing Stations

- A1.8.1 The system must include, as a minimum, dedicated role playing stations in each installation, as detailed below:

- A1.8.1.1 Instructor Station. The Instructor Station must allow the Instructor to perform full administrative, dynamic control of the synthetic environment while building and running a scenario.

- A1.8.1.2 Trainee Station. The Trainee Station must:

- A1.8.1.2.1 Allow the Trainee to traverse the terrain and pan their viewpoint of their virtual entity within the synthetic environment.

- A1.8.1.2.2 Include a gamepad to allow a trainee to traverse the terrain and pan their viewpoint of their virtual entity within the synthetic environment.

- A1.8.1.2.3 Be capable of inhabiting any entity within the synthetic environment as required (despite the dedicated naming).

- A1.8.1.2.4 Be capable of duplicating the view or role of any other station, including mirroring and sharing views simultaneously (Note: Only the original inhabitant of the view can control, and that any other inhabitant can monitor the perspective only).

- A1.8.1.3 Video Downlink (VDL) Station. The VDL Station must transmit the targeting pod feed of any selected aircraft to an external VDL transceiver, explained further in Section A1.18.

- A1.8.1.3.1 The VDL Station must include a control stick to allow the VDL Station Operator and or the Instructor Station Operator to control the targeting pod of the selected aircraft.

- A1.8.1.4 Pilot Station.

- A1.8.1.5 The Pilot Station must be able to:

- A1.8.1.5.1 View “sparkle” pattern target marks (target correlation by system or the operator).
- A1.8.1.5.2 View “snake” pattern target marks (target correlation by system or the operator).
- A1.8.1.5.3 View “rope” pattern target marks (target correlation by system or the operator).
- A1.8.1.5.4 View "pulse" pattern target marks (target correlation by system or the operator).
- A1.8.1.5.5 (Note: Pattern Target Marks are defined as:
- A1.8.1.5.6 Sparkle - Mark/markings target by infrared (IR) pointer;
- A1.8.1.5.7 Snake - Oscillate an IR pointer in a figure eight about a target;
- A1.8.1.5.8 Rope - Circling an IR pointer around an aircraft to help the aircraft identify the friendly ground position; and
- A1.8.1.5.9 Pulse - Illuminate/illuminating a position with flashing IR energy)
- A1.8.1.6 The Pilot Station should:
  - A1.8.1.6.1 Have the capability to perform manual control of any selected aircraft operating within the synthetic environment.
  - A1.8.1.6.2 Include a Hands On Throttle and Stick (HOTAS) controller to allow a user to pilot an inhabited aircraft entity within the synthetic environment.
  - A1.8.1.6.3 At the Gagetown location, the system should be capable of connecting multiple role-playing stations to a scenario simultaneously and locally to enable multiple users or scalable SME within the same scenario.
  - A1.8.1.6.4 The system must be scalable and modular, allowing additional role-playing stations to be added or removed as required to customize layout and/or expand with additional roles, within the existing infrastructure of the JTAC VTS site locations.

## **A1.9 Scenario Builder and the Synthetic Environment**

- A1.9.1 The system must include a robust Scenario Builder capability for a user to create unique synthetic environments using a user-friendly interface.

A1.9.2 The system Scenario Builder must allow the user to add to the scenario the predesigned entities detailed below:

- A1.9.2.1 Military and civilian aircraft entities.
- A1.9.2.2 Military and civilian ground vehicle entities.
- A1.9.2.3 Military and civilian waterborne vehicle entities.
- A1.9.2.4 Military and civilian personnel entities.
- A1.9.2.5 Military and civilian structure entities.
- A1.9.2.6 Road entities.
- A1.9.2.7 Animal entities.

A1.9.3 Fixed Wing Aircraft. The system Scenario Builder must at the minimum, simulate the fixed-wing aircraft detailed below:

- A1.9.3.1 F/A-18 Hornet;
- A1.9.3.2 F/A-18 Super Hornet;
- A1.9.3.3 F-16 Viper;
- A1.9.3.4 Mirage 2000;
- A1.9.3.5 A-10 Thunderbolt II;
- A1.9.3.6 AC-130 Variants, including the Spectre/Spooky/Stinger II/Ghostrider Gunships;
- A1.9.3.7 B-52 Stratofortress;
- A1.9.3.8 B1 Lancer; and
- A1.9.3.9 F-35 Lightning II.

A1.9.4 Rotary Wing Aircraft. The system Scenario Builder must simulate, at a minimum, the rotary-wing aircraft (including flight paths, munition drops, munitions firings, and impacts) as detailed below:

- A1.9.4.1 AH-64 Apache;
- A1.9.4.2 AH-1 Cobra;
- A1.9.4.3 OH-58 Kiowa; and

A1.9.4.4 UH-60 Black Hawk,

A1.9.5 Remotely Piloted Aircraft System. The system Scenario Builder should simulate the Remotely Piloted Aircraft System (RPAS) (this includes flight paths, munition drops, munitions firings, and impacts) as detailed below:

A1.9.5.1 Micro RPAS;

A1.9.5.2 Mini RPAS;

A1.9.5.3 MQ-1 Predator; and

A1.9.5.4 MQ-9 Reaper.

A1.9.6 Unmanned Aerial Vehicles. The system Scenario Builder should simulate the Unmanned Aerial Vehicles (UAVs) (including flight paths, munition drops, munitions firings, and impacts) as detailed below:

A1.9.6.1 Micro RPAS;

A1.9.6.2 Mini RPAS;

A1.9.6.3 RQ-4 Global Hawk; and

A1.9.6.4 Heron.

A1.9.7 Pods and Targeting.

A1.9.7.1 The system Scenario Builder must simulate the Aircraft Pods and Targeting equipment (including connectivity and data transfers) as detailed below:

A1.9.7.1.1 AN/AAQ-28(V) LITENING air-based targeting pod; and

A1.9.7.1.2 AN/AAQ-33 Sniper Advanced Targeting Pod air-based targeting pod.

A1.9.7.2 The system Scenario Builder should simulate the Aircraft Pods and Targeting equipment (including connectivity and data transfers) as detailed below:

A1.9.7.2.1 AN/ASQ-228 Advanced Targeting Forward-Looking Infrared; and

A1.9.7.2.2 Multi-Spectral Targeting System.

A1.9.8 Anti-Aircraft Weapons.

- A1.9.8.1 The system Scenario Builder must simulate anti-aircraft weapons, their munitions and their behaviors against target entities.
- A1.9.8.2 The system Scenario Builder should simulate the anti-aircraft weapons as detailed below.
  - A1.9.8.2.1 Anti-aircraft Gun, ZSU-23-4 Shilka.
  - A1.9.8.2.2 SA-7 Grail;
  - A1.9.8.2.3 SA-14 Gremlin;
  - A1.9.8.2.4 SA-18 Grouse;
  - A1.9.8.2.5 SA-16 Gimlet;
  - A1.9.8.2.6 Stinger FIM-92;
  - A1.9.8.2.7 2S6; and
  - A1.9.8.2.8 SA-6 Gainful.

## **A1.10 Customization**

- A1.10.1 The system Scenario Builder must, at a minimum, permit the customization of entities placed in the synthetic environment, for the attributes detailed below:
  - A1.10.1.1 The allegiance of the entities;
  - A1.10.1.2 The rules of engagement of the entities;
  - A1.10.1.3 The status of the entities; and
  - A1.10.1.4 Allow the user to define specific automatic behavior for the mobile entities in the scenario.
- A1.10.2 The system Scenario Builder should allow the user to define specific automatic behavior for:
  - A1.10.2.1 Mobile entities in the scenario using Routes;
  - A1.10.2.2 Mobile entities in the scenario using Waypoints;
  - A1.10.2.3 Mobile entities in the scenario using Triggers; and
  - A1.10.2.4 Mobile entities in the scenario using Conditions.

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- A1.10.3 The system Scenario Builder must, at a minimum, allow the user to set the waypoint types detailed below:
- A1.10.3.1 The Move waypoint type;
  - A1.10.3.2 The Loiter/orbit waypoint type; and
  - A1.10.3.3 The Attack waypoint type.
- A1.10.4 The system Scenario Builder must allow the user to set both automatic and manually executed triggers (for example, conditions or time based).
- A1.10.5 The system Scenario Builder must allow the user to set repeating patrol patterns for entities within the synthetic environment.
- A1.10.6 The system Scenario Builder should allow the user to set entity actions to be executed by trigger or waypoint as detailed below.
- A1.10.6.1 Embarking/disembarking a vehicle;
  - A1.10.6.2 Planting an Improvised Explosive Device (IED), to be executed by trigger or waypoint;
  - A1.10.6.3 Fast rope from a rotary-wing aircraft (in other words, rapid descent of personnel from the aircraft);
  - A1.10.6.4 Hover; and
  - A1.10.6.5 Attack.
- A1.10.7 The system Scenario Builder must allow the user to combine multiple similar entities into groups.
- A1.10.8 The system Scenario Builder must, at a minimum, allow the selection and display of a physical distribution type for a user-selected group/formation as detailed below:
- A1.10.8.1 The selection and display of a column;
  - A1.10.8.2 The selection and display of a line;
  - A1.10.8.3 The selection and display of a vee; and
  - A1.10.8.4 The selection and display of an echelon right/left.
- A1.10.9 The system Scenario Builder should automatically generate cities, towns and villages based on a defined population, developmental level, culture and geography.

A1.10.10 The system Scenario Builder should include prebuilt groups of entities as detailed below:

A1.10.10.1 Cities, towns and villages;

A1.10.10.2 Airports;

A1.10.10.3 Military installations;

A1.10.10.4 Power facilities; and

A1.10.10.5 Industrial complexes.

A1.10.11 The system must include prewritten scenarios to support the execution of the controls noted in this SRS (Section A1.9)

A1.10.12 The system must be capable of generating entities sufficient in number and type to facilitate the full scope of military scenarios (major combat operations).

A1.10.13 The system must be capable of building (or selecting) and of running a scenario with a minimum of 200 externally generated simultaneous entities.

A1.10.14 The system must be capable of providing natural obscuration in the scenarios, hindering observation of targets, aircraft, weapons effects, and other entities when appropriate (depressions, terrain masking, etc.). For example, entities can be masked by manmade structures (buildings, vehicles), elevated terrain features (mountains, hills), low terrain features (valleys, reverse slope, depressions), vegetation (trees, brush).

A1.10.15 The system should have a recording capability, to allow effective After Action Review (AAR) sessions.).

A1.10.16 The system Scenario Builder must allow for the export of saved scenarios.

A1.10.17 The system should be capable of conducting war-gaming.

A1.10.18 The system should be capable of conducting mission rehearsals.

A1.10.19 The system should be capable of conducting experimentation.

A1.10.20 The system must be capable, at a minimum, of importing geo-typical maps portraying various environment types found across the globe, as detailed below:

A1.10.20.1 Geo-typical maps portraying Urban areas;

A1.10.20.2 Geo-typical maps portraying Jungles;



A1.10.20.3 Geo-typical maps portraying Forests;

A1.10.20.4 Deserts;

A1.10.20.5 Mountains;

A1.10.20.6 Plains;

A1.10.20.7 Arctic regions;

A1.10.20.8 Marshlands; and

A1.10.20.9 Swamps.

A1.10.21 The system should include geo-specific maps that accurately reflect flora, fauna, and man-made features of real world locations.

A1.10.22 The system should include geo-specific maps portraying major Canadian Army training areas as detailed below:

A1.10.22.1 CFB Gagetown;

A1.10.22.2 CFB Petawawa;

A1.10.22.3 CFB Shilo;

A1.10.22.4 CFB Suffield;

A1.10.22.5 CFB Valcartier;

A1.10.22.6 CFB Wainwright; and

A1.10.22.7 Cold Lake Air Weapons Range.

A1.10.23 The system must be capable of creating exportable (in open formats) two-dimensional (2D) tactical and topographical maps.

A1.10.24 The system must be able to render visible entities in different light conditions.

A1.10.25 The system must be able to render entities visible using light amplification or thermal energy sensors.

A1.10.26 The system must be able to display a smooth transition between differences in terrain elevation in order to avoid sharp and unnatural edges.

A1.10.27 The system should be able to display the Military Grid Reference System (MGRS) overlay to users.

A1.10.28 The system should be able to display Latitude/Longitude overlay to users.

A1.10.29 The system's entities in the synthetic environment must continue to automatically and realistically operate, displace, and interact with the synthetic environment as per realistic patterns of life using artificial intelligence, when entities are not inhabited by a role playing station.

## **A1.11 Scenario Operation**

A1.11.1 The system Instructor must have the ability to perform all functions dynamically during the execution of a scenario without the requirement to restart the system or scenario.

A1.11.2 The system Instructor must have the ability to modify all pre-existing entities and behaviors dynamically during the execution of a scenario (without the requirement to restart the system or scenario).

A1.11.3 The system Instructor must have the ability to dynamically alter the time-of-day of the synthetic environment.

A1.11.4 The system must realistically replicate the following:

A1.11.4.1 The time of day and the shadowing consistent with sun angles and location;

A1.11.4.2 The moon's phase, consistent with the system time of day and date;

A1.11.4.3 The stars representation, consistent with the time of day and date;

A1.11.4.4 A full range of visibility (200 feet to unrestricted); and

A1.11.4.5 Visibility in fog.

A1.11.5 The system Instructor must have the ability to:

A1.11.5.1 Dynamically alter the weather patterns of the synthetic environment; and

A1.11.5.2 Accelerate, decelerate or pause the passage of time within the synthetic environment.

A1.11.6 The system's synthetic environment must simulate the air environment in which the airborne entities normally operate.

A1.11.7 The system should have options for meteorological conditions (based upon randomization and realistic modelling).

A1.11.8 The system must replicate:

A1.11.8.1 Varying cloud heights (in 500ft increments); and

A1.11.8.2 Scattered clouds, selectable in percentage of the entire sky.

A1.11.9 The system should be capable of feature terrain generation as follows:

A1.11.9.1 Visually rich feature terrain generation for any location in the world;

A1.11.9.2 Generation based upon open standards; and

A1.11.9.3 Low-latency navigation.

A1.11.10 The system must allow the dynamic entry at the Instructor Station of:

A1.11.10.1 All relevant fields of a voice Game Plan and Close Air Support 9-Line Briefing, IAW ATP-3-09.3, to allow selected fixed-wing aircraft (single, multiple) to automatically execute a Close Air Support engagement IAW ATP-3-09.3;

A1.11.10.2 A Rotary-Wing Close Air Support 5-Line Briefing, IAW ATP-3-09.3, to allow selected rotary-wing aircraft (single, multiple) to automatically execute a Close Air Support engagement IAW ATP-3-09.3;

A1.11.10.3 All relevant fields of a Special Operations Forces Gunship Call For Fire, IAW ATP-3-09.3, to allow a selected AC-130 gunship to automatically execute a Close Air Support engagement IAW ATP-3-09.3; and

A1.11.10.4 The system must allow at a minimum the dynamic entry at the Instructor Station of all relevant fields of a Call For Fire (CFF) IAW ATP-3-09.3 and ATP 3-09.32 to allow a selected indirect fire entity or group to automatically execute a fire mission.

A1.11.11 The system CFF interface must be IAW B-GL-371-004/FP-001.

A1.11.12 The system should be able to display a CAF CFF interface IAW, B-GL-371-004/FP-001 and ATP 3-09.32.

A1.11.13 The system's CFF interface should display:

A1.11.13.1 Observer's Identification.

A1.11.13.2 Warning Orders.

A1.11.13.3 Location of Target.

A1.11.13.4 Direction.

A1.11.13.5 Description of Target.

A1.11.13.6 Type of Engagement.

A1.11.13.7 Trajectory

A1.11.13.8 Ammunition.

A1.11.13.9 Distribution of Fire.

A1.11.13.10 At My Command.

A1.11.13.11 Method of Adjustment or Order for FFE.

A1.11.14 The system must allow the Instructor to dynamically alter the flight path of an aircraft that is executing a CAS or Gunship CFF engagement.

A1.11.15 The system Instructor must, at a minimum, have options for introducing error into both CAS and CFF engagement, as detailed below:

A1.11.15.1 The Hit target;

A1.11.15.2 The Miss target (long/cardinal direction, distance);

A1.11.15.3 The Miss target (short/cardinal direction, distance);

A1.11.15.4 The Miss target (left/cardinal direction, distance); and

A1.11.15.5 The Miss target (right/cardinal direction, distance).

A1.11.16 The system Instructor must have the ability to dynamically create, destroy and repair any entity within the synthetic environment, using accurate projectile damage modelling.

A1.11.17 When not inhabited by a role-playing station, entities in the synthetic environment must operate and interact with the synthetic environment automatically and realistically, using Artificial Intelligence (AI).

A1.11.18 The system must provide the option to alternate between first-person and third-person perspectives of all entities in the synthetic environment when inhabited at a role-playing station.

A1.11.19 The VDL Station must allow the user to snap the inhabited targeting pod to a point of interest through the manual input of grid coordinates.

A1.11.20 The system must be able to display all man-made features (buildings, bridges, roads, etc.) and entity models (military and civilian vehicles, weapons systems, people, etc.) consistent with real world representations and behavior.

A1.11.21 The system must be able to display all man-made features (buildings, bridges, roads, etc.) and entity models scaled appropriately to facilitate detection, identification, location and engagement of targets.

A1.11.22 Targetable Models.

A1.11.22.1 The system must have targetable models.

A1.11.22.2 The system's targetable models must have a damage states as detailed below:

A1.11.22.2.1 Intact (no visible damage) damage state.

A1.11.22.2.2 Damaged damage state (overall structure intact with visible damage to wheels/tracks, turret, guns/missiles, etc.).

A1.11.22.2.3 Destroyed damage state (model structure severely damaged, smoking hulls, etc.).

A1.11.22.3 The system must display weapons effects on moving vehicles such that the vehicles must cease motion when attacked, to indicate a mobility kill.

A1.11.22.4 The system must have scalable entities to include common Five Eyes Intelligence Alliance (FVEY) members consisting of AUS, CAN, NZ, UK, and USA. As well including Soviet-era vehicle fleets and joint effectors (as individual entities, and up to formed groups; both static and mobile).

A1.11.22.5 The system should be able to support the generation of Canadian-specific entities (vehicles, weapons, equipment, etc.) into the simulator environment, as detailed below:

A1.11.22.5.1 LAV 6 entities.

A1.11.22.5.2 Leopard 2A4/6 entities.

A1.11.22.5.3 Tactical Armoured Patrol Vehicle (TAPV) entities.

A1.11.22.5.4 M113 entities.

A1.11.22.5.5 G-Wagon entities.

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- A1.11.22.5.6 Medium Support Vehicle System entities.
  - A1.11.22.5.7 C7 Rifle entities.
  - A1.11.22.5.8 C9 Light Machine Gun (LMG) entities.
  - A1.11.22.5.9 C6 General Purpose Machine Gun (GPMG) entities.
  - A1.11.22.5.10 84mm Carl Gustav entities.
  - A1.11.22.5.11 M72 Light Anti-Armour Weapon (LAW) entities.
  - A1.11.22.5.12 C16 Automatic Grenade Launcher (AGL) entities.
  - A1.11.22.5.13 Canadian CADPAT/Multi-Cam uniform entities.
  - A1.11.22.5.14 Canadian Flag (low and high-visibility) entities.
  - A1.11.22.5.15 Patches (JTAC IFF) entities.
- A1.11.23 Ground Entity Models.
- A1.11.23.1 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to detect, recognize, and identify, in Day Visual Unaided conditions (3 meter high target), at the ranges from the trainee as detailed in this SRS (minimum acceptable).
  - A1.11.23.2 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to detect them at 2400 metres in Day Visual Unaided conditions.
  - A1.11.23.3 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to recognize them at 900 metres in Day Visual Unaided conditions.
  - A1.11.23.4 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to identify them at 600 metres in Day Visual Unaided conditions.
  - A1.11.23.5 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to detect, recognize, and identify, in Day Visual Aided conditions, at the ranges from the trainee as detailed in this SRS (minimum acceptable).

A1.11.23.6 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to Detect them at 6,000 metres in Day Visual Aided conditions.

A1.11.23.7 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to Recognize them at 4,000 metres in Day Visual Aided conditions.

A1.11.23.8 The system' ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to identify them at 2000 metres in Day Visual Aided conditions.

A1.11.23.9 The system's ground entity models must have sufficient detail (size, shape, colour, resolution) to permit trainees to detect, recognize and identify, in Night Aided conditions (NVG or thermal imager) at the minimum acceptable ranges from the trainee as detailed below:

A1.11.23.9.1 Detect them at 1,000 metres in Night Aided conditions; and

A1.11.23.9.2 Recognize them at 500 metres in Night Aided conditions.

#### A1.11.24 Aircraft Models.

A1.11.24.1 The system's aircraft models while in flight, must have sufficient detail (size, shape, resolution) to permit trainees to detect, recognize and identify for Day Visual Unaided conditions at the ranges from the trainee as detailed in this SRS (minimum acceptable);

A1.11.24.2 The system's aircraft models while in flight, must have sufficient detail (size, shape, resolution) to permit trainees to detect them at a minimum of six nautical miles (~11000) metres in Day Visual Unaided conditions;

A1.11.24.3 The system's aircraft models while in flight, must have sufficient detail (size, shape, resolution) to permit trainees to determine direction of aircraft flight at a minimum of six nautical miles (~11000) metres in Day Visual Unaided conditions; and

A1.11.24.4 The system's aircraft models while in flight must have sufficient detail (size, shape, resolution) to permit trainees to identify aircraft at a minimum of four nautical miles (~7400) metres in Day Visual Unaided conditions.

#### A1.11.25 Sounds.

- A1.11.25.1 The system must emulate sounds consistent with the natural and man-made simulations (with an accurate representation of Doppler shift) for the effects detailed in this SRS;
- A1.11.25.2 The system must emulate explosion sounds consistent with the size of weapon (minimum distinction -> small, medium, large weapons);
- A1.11.25.3 The system must emulate delays and intensity of sound propagation consistent with range and size of detonations (time from flash; intensity of the "bang");
- A1.11.25.4 The system's machine entity sounds must be representative of actual military and civilian equipment; and
- A1.11.25.5 The system's cultural sounds must be consistent with normal sounds produced by the environment.

#### A1.11.26 Weapon Effects.

- A1.11.26.1 The system must have the ability to emulate weapons effects and second order effects that are proportional in size and visual effect, to inflicted damage consistent with current in-service weapons for the effects detailed below:
  - A1.11.26.1.1 Blast effects (visible explosions, fire proportional to weapon size) that are proportional in size and visual effect, consistent with current in-service weapons;
  - A1.11.26.1.2 Damage effects (structural damage, casualties proportional to weapon size and effects), consistent with current in-service weapons;
  - A1.11.26.1.3 Collateral effects (structural damage, casualties proportional to weapon size and effects) consistent with current in-service weapons; and
  - A1.11.26.1.4 Smoke and fire effects from munition impacts consistent with current in-service weapons with accurately modeled persistence and dissipation as determined by prevailing wind velocity.

#### A1.11.27 Second Order Effects.

- A1.11.27.1 The system must simulate second order effects of engagements (explosions, smoke, battlefield obscurants) as detailed below:



- A1.11.27.1.1 Engagement of Fire;
- A1.11.27.1.2 Engagement of Smoke;
- A1.11.27.1.3 Engagement of Explosions; and
- A1.11.27.1.4 Engagement of Dust.
- A1.11.27.2 The system must have aviation weapons deliveries that are consistent with current aircraft Tactics, Techniques and Procedures (TTPs) for the characteristics detailed in this SRS.
- A1.11.28 Aviation Weapons Deliveries.
  - A1.11.28.1 The system must have aircraft models capable of realistic weapons Standard Configuration Load (SCL).
  - A1.11.28.2 The system must replicate aircraft dropping bombs.
  - A1.11.28.3 The system must have bomb flight paths that are physics based.
  - A1.11.28.4 The system must replicate aircraft employing forward firing weapons (rockets, guns, missiles).
  - A1.11.28.5 The system must have rotary wing aircraft capable of off-axis engagements (as appropriate).
  - A1.11.28.6 The system must permit the system operator to abort attacks, based on an abort call from the JTAC, or due to failure to provide proper clearance in a timely manner.
  - A1.11.28.7 The system must have the ability to facilitate realistic time and spatial relationships required for airspace de-confliction and integration of air-to-surface fires during the conduct of a CAS mission, and to produce negative feedback when control measures are not employed correctly (e.g. midair collisions) for the missions detailed below:
    - A1.11.28.7.1 CAS Time-On-Target (TOT) missions; and
    - A1.11.28.7.2 CAS Time-To-Target (TTT) mission.
  - A1.11.28.8 The system must have the ability to produce negative feedback when control measures are not employed correctly (e.g. midair collisions) for:
    - A1.11.28.8.1 CAS Time-On-Target (TOT) missions; and

A1.11.28.8.2 CAS Time-To-Target (TTT) mission.

A1.11.28.9 The system must simulate, as a minimum, the aircraft-delivered munitions detailed below:

- A1.11.28.9.1 20mm munition;
- A1.11.28.9.2 30mm munition;
- A1.11.28.9.3 MK-82 (500 lbs.) munition;
- A1.11.28.9.4 MK-83 (1000 lbs.) munition;
- A1.11.28.9.5 MK-84 (2000 lbs.) munition;
- A1.11.28.9.6 GBU-12 (500 lbs.) munition;
- A1.11.28.9.7 GBU-14 (1000 lbs.) munition;
- A1.11.28.9.8 GBU-16 (2000 lbs.) munition;
- A1.11.28.9.9 GBU-31 (2000 lbs.) munition;
- A1.11.28.9.10 GBU-32 (1000 lbs.) munition;
- A1.11.28.9.11 GBU-38 all variants (500 lbs.) munition;
- A1.11.28.9.12 GBU-49 (500 lbs.) munition;
- A1.11.28.9.13 GBU-54 LJDAM munition;
- A1.11.28.9.14 LUU-19 munition;
- A1.11.28.9.15 Rocket pods (HE and Smoke) munition;
- A1.11.28.9.16 AGM-65 (12in) Maverick munition;
- A1.11.28.9.17 AGM-114 Hellfire munition; and
- A1.11.28.9.18 GBU-39 (250 lbs.) Small Diameter Bomb (SDB).

A1.11.29 Effects.

A1.11.29.1 The system must facilitate the visual marking of CAS targets with air and indirect delivered fire systems with the effects below:

- A1.11.29.1.1 Volume and duration of smoke closely replicating fielded weapons (IAW their weapons manuals); and

- A1.11.29.1.2 Marking effects (e.g. smoke, dust) behaving appropriately when influenced by the environmental factors (e.g. drift based on wind direction and speed).
- A1.11.29.2 The user must be able to determine range and bearing from a mark to the target to facilitate aircrew target acquisition.
- A1.11.29.3 The system must emulate High Explosive (HE), smoke, and illumination effects for surface-to-surface fires as detailed below:
  - A1.11.29.3.1 Rockets;
  - A1.11.29.3.2 Artillery;
  - A1.11.29.3.3 Mortars; and
  - A1.11.29.3.4 NSFS.
- A1.11.30 Ballistics.
  - A1.11.30.1 The system should display the ballistic paths of all weapons and munitions of effector entities within the system (Note: The display of ballistics paths should be selectable on/off).
  - A1.11.30.2 The system should emulate field artillery fire at point of origin, ballistic flight, and impacts for the platforms detailed below:
    - A1.11.30.2.1 The 155mm platforms as detailed below:
      - A1.11.30.2.1.1 M777 Lightweight Towed Howitzer;
      - A1.11.30.2.1.2 M198;
      - A1.11.30.2.1.3 M109A6 Paladin;
      - A1.11.30.2.1.4 K9 Thunder; and
      - A1.11.30.2.1.5 AS90.
    - A1.11.30.2.2 The 152mm platforms as detailed below:
      - A1.11.30.2.2.1 D-20;
      - A1.11.30.2.2.2 2S3M;
      - A1.11.30.2.2.3 2S5; and
      - A1.11.30.2.2.4 2S19.

A1.11.30.2.3 The 122mm platforms as detailed below:

A1.11.30.2.3.1 D-30 or D-30A; and

A1.11.30.2.3.2 2S1.

A1.11.30.2.4 The 105mm platforms as detailed in this SRS.

A1.11.30.2.4.1 M119;

A1.11.30.2.4.2 C3; and

A1.11.30.2.4.3 LG1.

A1.11.31 Artillery Munitions.

A1.11.31.1 The system should emulate the firing, ballistics, and effects of the artillery munitions, with fusing options for airburst, point detonating, and delay as detailed below:

A1.11.31.1.1 The 155mm artillery munition detailed below:

A1.11.31.1.1.1 M795 HE 155mm;

A1.11.31.1.1.2 M107HE 155mm;

A1.11.31.1.1.3 M549 ER HE 155mm;

A1.11.31.1.1.4 M982 Excalibur 155mm; and

A1.11.31.1.1.5 M485A2 155mm.

A1.11.31.1.1.6 The 152mm artillery munitions detailed below:

A1.11.31.1.1.6.1 OF32 or OF96 HE 152mm; and

A1.11.31.1.1.6.2 OF72 or OF91 HE 152mm.

A1.11.31.1.2 The 122mm artillery munitions detailed below:

A1.11.31.1.2.1.1 OF-81 or OF-462 or 3OF56 or OF-843 or Type 843 122mm;

A1.11.31.1.2.1.2 S-463 Illumination 122mm; and

A1.11.31.1.2.1.3 D-462 Smoke 122mm.

A1.11.31.1.2.2 The 105mm artillery munitions detailed below:

A1.11.31.1.2.2.1 M1 HE 105mm; and

A1.11.31.1.2.2.2 M314A3 Illumination 105mm.

A1.11.32 Rocket Artillery.

A1.11.32.1 The system should emulate rocket artillery launches, ballistic flight, and impacts for the platforms as detailed below:

A1.11.32.1.1 M270 Multiple Launch Rocket System (MLRS).

A1.11.32.1.2 M142 High-Mobility Artillery Rocket System (HIMARS).

A1.11.32.1.3 BM-12 / Type 63 (107mm).

A1.11.32.1.4 BM-21 GRAD (120mm).

A1.11.32.1.5 BM-27 Uragan / 9P140 (220mm).

A1.11.32.1.6 BM-30 Smerch / 9A52-2 (300mm).

A1.11.32.2 The system should emulate the firing, ballistics, and effects of the rocket munitions with fuzing options for airburst, point detonating, and delay as detailed below:

A1.11.32.2.1.1 M26 Dual-Purpose Improved Conventional Munitions (DPICM) munition.

A1.11.32.2.1.2 M26A1 Extended Range Rocket (ERR) munition.

A1.11.32.2.1.3 M26A2 ERR munition with M77/M85 sub-munitions.

A1.11.32.2.1.4 M30 Guided MLRS (GMLRS) DPICM munition.

A1.11.32.2.1.5 M31A1 GMLRS Unitary munition.

A1.11.32.2.1.6 M39/MGM-140 (Army Tactical Missile System) ATACMS munition.

A1.11.32.2.1.7 9M28 Series (120mm HE) munition.

A1.11.32.2.1.8 9M27 Series (220mm HE) munition.

A1.11.32.2.1.9 9M55 or 9M529 Series (300mm HE) munition.

A1.11.33 Mortars.

A1.11.33.1 The system should emulate mortar fire at point of origin, ballistic flight, and impacts for the platforms as detailed below:

A1.11.33.2 L16 (81mm);

A1.11.33.3 82-BM-37/M1937 or 82-PM-41/M1941 or Type 52 (82mm);

A1.11.33.4 M120 (120mm); and

A1.11.33.5 2S9 (120mm).

A1.11.33.6 The system should emulate the firing, ballistics, and effects of the following mortar munitions to include fuzing options for airburst, point detonating, and delay as detailed below:

A1.11.33.7 The 81mm munitions as detailed below:

A1.11.33.7.1 C70A2 HE 81mm;

A1.11.33.7.2 C105 Illumination 81mm;

A1.11.33.7.3 C146 Red Phosphorous 81mm; and

A1.11.33.7.4 O-832D HE 82mm munition.

A1.11.33.8 The 120mm munitions as detailed below:

A1.11.33.8.1 M933 or M934 or M934A1 HE 120mm;

A1.11.33.8.2 M930 Illumination 120mm; and

A1.11.33.8.3 M929 WP Smoke 120mm.

A1.11.34 NSFS.

A1.11.34.1 The system should simulate NSFS for the platforms as detailed below:

A1.11.34.1.1 United States Navy (USN) / Royal Australian Navy (RAN) - Mark 45 (5"54 and 5"62) guns;

A1.11.34.1.2 USN / Australian Navy - Mark 75 (76mm) gun;

A1.11.34.1.3 Royal Canadian Navy (RCN) Halifax Class Frigates - MK2 70 and MK3 110 Bofors (57mm) guns;

A1.11.34.1.4 RCN Harpoon Missile (PGM); and

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A1.11.34.1.5 RCN Canadian Surface Combatant (127mm) gun.

A1.11.35 MTO Information. The system must have the capability to produce and transmit message to observer (MTO) information (to include time of flight (TOF), maximum ordinate, and Angle-Target, as required).

A1.11.36 CEP.

A1.11.36.1 The system should simulate circular error probabilities (CEP) and various distribution/sheaf of fire as detailed below:

A1.11.36.1.1 Circular distribution of fire (with modifiable radius metric);

A1.11.36.1.2 Converge;

A1.11.36.1.3 Parallel/linear (in range or lateral);

A1.11.36.1.4 Multi-aim point; and

A1.11.37 Fire Missions.

A1.11.37.1 The system should simulate the fire mission types and special procedures (IAW Canadian fires doctrine) as detailed below:

A1.11.37.1.1 Area Neutralization;

A1.11.37.1.2 Danger Close;

A1.11.37.1.3 Destruction;

A1.11.37.1.4 Smoke; and

A1.11.37.1.5 Mark (smoke or illumination).

A1.11.37.2 The system should simulate the Special Procedures (SP) fire missions as detailed below:

A1.11.37.2.1 Linear;

A1.11.37.2.2 Deliberate Smoke (Canada) or Quick Smoke (US);

A1.11.37.2.3 Illumination;

A1.11.37.2.4 Remote Anti-Armor Mine System (RAAMS); and

A1.11.37.2.5 Dual-Purpose Improved Conventional Munition (DPICM) / Improved Conventional Munitions (ICM).

A1.11.37.3 The system should simulate the fire mission Precision Guided Munitions (PGM) (e.g. Excalibur).

A1.11.37.4 The system should simulate the fire mission Laser Point.

A1.11.37.5 The system should simulate the fire mission Coordinated Illumination.

#### A1.11.38 Entity Behaviors.

A1.11.38.1 The system should have the capability to simulate non-lethal effects applied to entity behaviors using AI, to include the behaviors as detailed below:

A1.11.38.1.1 Fleeing the engagement area;

A1.11.38.1.2 Dispersing;

A1.11.38.1.3 Taking cover;

A1.11.38.1.4 Ceasing activity;

A1.11.38.1.5 Displaying confusion/disorientation;

A1.11.38.1.6 Reporting visual or audible detections;

A1.11.38.1.7 Loss of communications and coordination of groups;

A1.11.38.1.8 Rendering first aid to casualties;

A1.11.38.1.9 Reinforcing; and

A1.11.38.1.10 Counter-attacking.

#### A1.12 Instructional Control and Monitoring.

##### A1.12.1 Training Information.

A1.12.1.1 The system must be capable of creating training information.

A1.12.1.1.1 Notes:

A1.12.1.1.1.1 JTAC training and evaluation records may be held on an electronic. However, the system must be capable of producing a hard copy of individual JTAC records and contain the information as detailed in the JTAC MOA.



A1.12.1.1.1.2 Any JTAC training and evaluation records created by the system must not be stored on the system but held on a removable medium.

A1.12.1.2 The system must be capable of creating individual trainee information logs.

A1.12.1.3 The system must be capable of creating individual trainee training history.

A1.12.1.4 The system must be capable of creating individual trainee progress reports.

A1.12.1.5 The system must be capable of maintaining training information as described in this SRS for a period of at least two years.

A1.12.1.6 The system must have the ability to collect and report trainee performance analytics relating to engagement efficiency and accuracy.

#### A1.12.2 Feedback Capability.

A1.12.2.1 The system should provide instructional control and monitoring capabilities in order to be able to objectively provide soldier feedback and progression based upon the capture and automatic statistical analysis of individual trainee metrics, as detailed below:

A1.12.2.1.1 Number of targets detected.

A1.12.2.1.2 Number of rounds fired/munitions dropped.

A1.12.2.1.3 Number of target hits.

A1.12.2.1.4 Number of target misses.

A1.12.2.1.5 Target location deviations.

A1.12.2.1.6 Time from first possible observation of the target to actual observation of the target.

A1.12.2.1.7 Time from target observation to laser measurement.

A1.12.2.1.8 Time from laser fired to the first shot.

A1.12.2.1.9 Time from first shot to target effect achieved (suppressed, neutralized, or destroyed).

#### A1.12.3 Reports.

- A1.12.3.1 The system must be capable of generating training history and progress reports for both individuals and organizations (for example: course serials, units, formations).
- A1.12.3.2 The training history and progress reports for both individuals and organizations must be able to be accurately, and without loss, transferable to Government of Canada (GoC) software (Excel, MS Word).
- A1.12.3.3 The system should be capable of printing reports and documents, in support of training and administration.
- A1.12.3.4 The system must have the capability for the storage and retrieval of all users' information and statistical metrics, for a period of at least one year.
- A1.12.3.5 Training history and progress reports data may only be stored on removable media.
- A1.12.3.6 The system must not automatically delete stored information (instructors must be in control of this process).
- A1.12.3.7 The system must have the capability to record and report system usage data (hourly, daily, weekly, annual, and lifetime usage).

#### A1.12.4 Video Capability.

- A1.12.4.1 The system must have embedded video playback capability, with the operator able to pause, play, fast-forward, rewind, and mark recorded training.
- A1.12.4.2 The video will be stored for purposes of the specific training scenario - long-term storage is not required. Outputs may be used in trainee reports and then deleted when directed.
- A1.12.4.3 The system must have the capability to select, annotate, and export video sequences from replays in three dimensional (3D) stealth and 2D tactical maps, with the related communications and sound (radio, intercom, and combat sounds included).
- A1.12.4.4 The system must be able to provide users and operators be able to adopt a free-look or entity viewpoint during video playback, from different perspectives.

#### A1.12.5 Communications and Templates.

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- A1.12.5.1 The system must provide the instructor with the capability to monitor all trainees' communications.
- A1.12.5.2 The system must provide the instructor with the capability to relocate the trainee's location and associated GPS coordinates to anywhere within the synthetic environment.
- A1.12.5.3 The system must have the capability to conduct voice CFF using, at a minimum, Canadian, ABCANZ, and NATO templates that are available and modifiable within the user interface as detailed below:
- A1.12.5.3.1 CAS 9 Liner template;
- A1.12.5.3.2 5 Liner: Gunship and Close Combat Attack (CCA) template; and
- A1.12.5.3.3 JFIRES (US) Call for Fire template.
- A1.12.5.4 The system should have the capability to conduct digital and voice CFF using, at a minimum, Canadian, ABCANZ, and NATO templates presented and modifiable within the user interface as detailed below:
- A1.12.5.4.1 Canadian Call for Fire template;
- A1.12.5.4.2 Canadian Engagement Report template;
- A1.12.5.4.3 Canadian Availability Report template;
- A1.12.5.4.4 NATO Request for Fire template;
- A1.12.5.4.5 Naval Guns up Ready to Fire (GURF) Report template; and
- A1.12.5.4.6 Naval Gunfire Support Report Form template.
- A1.12.5.5 The system must be capable of displaying a Naval Surface Fire Support CFF user interface IAW ATP-4F.
- A1.12.5.6 The system should have the ability to produce proforma and conduct a Hasty Troop Commander and Battery Commander Fire Plan as per Canadian Doctrine IAW B-GL-371-002/FP-001 and B-GL-371-004/FP-001.
- A1.12.5.7 The system must provide the means for a request or CFF to be approved or denied.

- A1.12.5.8 The system should have the capability to conduct 3D Fire Support Coordination Measure (FSCM) and Airspace Coordination Measure (ASCM) de-confliction (to include but not be limited to visualize restrictive and permissive measures; toggle on and off/activate and deactivate; flag violations).
- A1.12.5.9 The system must be capable of visually depicting laser safety zones.

### **A1.13 Simulated Military Equipment (SME)**

A1.13.1 The system must include physical SME, to allow the trainee to interact with the synthetic environment in a manner consistent with real-world equipment. The system SME is largely defined by the requirements of JTAC MOA Table B.3.6 JTAC Simulation System Accreditation Criteria.

#### **A1.13.2 SME General.**

- A1.13.2.1 The system SME must be co-located geographically within the synthetic environment with the entity inhabited at the Trainee Station.
- A1.13.2.2 The system must allow all pieces of SME to operate simultaneously.
- A1.13.2.3 The system SME should be constructed using molded bodies, rather than 3D printed bodies, to accurately simulate the feel of real-world equipment.
- A1.13.2.4 The system SME should have motion tracking in six degrees of freedom.
- A1.13.2.5 The system must permit a user at any role-playing station to view the perspective of any piece of SME listed in this SRS on their role-playing station's screen.
- A1.13.2.6 The system must have SME that are equivalent to in-service with a NATO or ABCANZ nation.
- A1.13.2.7 The system should have the capability to be expandable, to be able to incorporate future tactical equipment.

#### **A1.13.3 SME Characteristics.**

- A1.13.3.1 The system SME must accurately model the operation and performance characteristics of their real-world counterparts as detailed below:

- 
- A1.13.3.1.1 Form Factor;
  - A1.13.3.1.2 User Interface;
  - A1.13.3.1.3 Optical Clarity;
  - A1.13.3.1.4 Infrared Capability;
  - A1.13.3.1.5 Magnification; and
  - A1.13.3.1.6 Range.
- A1.13.3.2 The system's SME must be connected using either wireless or wired connections.
- A1.13.3.3 The system's SME should be designed such that the SMEs are capable of operation using either of the system's wireless and wired connections.
- A1.13.3.4 The system SME optical devices must provide sufficient eye relief to remain fully functional if the user is wearing corrective eyewear (glasses).
- A1.13.4 SME Laser Devices.
- A1.13.4.1 The system SME laser devices must allow the trainee to (as applicable) laser designate, laser mark or obtain distance and direction to a target within the synthetic environment, from the perspective of the trainee's position within the synthetic environment.
  - A1.13.4.2 The system SME laser devices must have a Laser-Target-Line (LTL) that is visible to any other entity in the synthetic environment using the appropriate optical equipment.
  - A1.13.4.3 The system must include an SME Laser Target Designator (LTD).
  - A1.13.4.4 The SME LTD must be modelled after a man-portable LTD in use by NATO militaries.
  - A1.13.4.5 The SME LTD should be modelled after the Leonardo Type-163.
  - A1.13.4.6 The system must include an SME Laser Range Finder (LRF).
  - A1.13.4.7 The SME LRF must be modelled after the Safran Vectronix Vector 21.
-

A1.13.4.8 The SME LRF should be modelled after the Newcon Optik LRM 3500M-35C.

A1.13.4.9 The system must include an SME Handheld Laser Pointer (HLP).

A1.13.4.10 The SME HLP must be modelled after an HLP in use by NATO militaries.

A1.13.4.11 The SME HLP should be modelled after the IZLID 1000P.

A1.13.4.12 The system must include an SME Thermal Imaging Optic (TIO) modelled after a TIO in use by NATO militaries.

#### A1.13.5 Other SME Devices.

A1.13.5.1 The system must include SME Binoculars modelled after binoculars in use by NATO militaries.

A1.13.5.1.1 The system's SME Binoculars must include a mil scale reticle pattern.

A1.13.5.2 The system's SME Global Positioning System must provide a user with the information/capability as detailed below:

A1.13.5.2.1 The system must provide an SME Global Positioning System (GPS) with form, fit, and function based on the Rockwell Collins Defence Advanced GPS Receiver (DAGR);

A1.13.5.2.2 The system must provide a means to spoof GPS devices (DAGR, DACAS) in the immediate area of the system to show their position as that of the entity inhabited at the Trainee Station within the synthetic environment;

A1.13.5.2.3 The system SME GPS system must show its position consistent with that of the entity inhabited at the Trainee Station within the synthetic environment;

A1.13.5.2.4 If applicable, the system SME DAGR must be capable of outputting its position to an external device through an accurately simulated J1 or J2 port; and

A1.13.5.2.5 The system must have an emulated or simulated replica Global Positioning System (GPS) that corresponds to a WGS-84 or newer military mapping datum database, and map products used in the training simulation.

A1.13.5.3 The system should provide an SME compass.

- A1.13.5.4 The system must provide the user with accurate directional measurements within the synthetic environment.
- A1.13.5.5 The system should provide an on-screen compass at the Trainee Station.
- A1.13.5.6 The system should provide an SME Personal Weapon (PW) modelled after the C8 (M4 Family of Weapons (FOW)), with a mounted optical sight with low power magnification.

## **A1.14 Projection System**

- A1.14.1 The system's Projection System must have an output at a minimum resolution of 4K.
- A1.14.2 The system's Projection System must project a minimum of a 180° horizontal field of view to the trainee.
- A1.14.3 The system's Projection System should project a 270° horizontal field of view to the trainee.
- A1.14.4 The system's Projection System must project a minimum of a 40° vertical field of view to the trainee.
- A1.14.5 The system's Projection System should project a vertical field of view ranging from -30 degrees to +70 degrees, to the trainee.
- A1.14.6 The system's Projection System will have a refresh rate of the displayed images to permit panning the battlefield such that no visual anomalies or perceivable latency as experienced by the trainee is minimized IAW industry display standards.

## **A1.15 Displays**

- A1.15.1 The system's displays must display a minimum of a 180° field of view to the trainee.
- A1.15.2 The system's displays should display a minimum of a 270° field of view to the trainee.
- A1.15.3 The system's displays must use image blending and warping technology to ensure a seamless image between intersecting projector fields of view.
- A1.15.4 The system's displays must provide realistic display of entities in line with current generation gaming engine quality.

- A1.15.5 The system's displays must reproduce directional 3D sound consistent with the location of the source.
- A1.15.6 The system's displays must have a visual range within the simulation of at least 12,000 m.
- A1.15.7 The system's displays must include correlated day vision, night vision, and thermal representations.
- A1.15.8 The system's displays should feature a user toggle to swap between correlated day vision, night vision, and thermal spectrum representations.
- A1.15.9 The system's displays must present multi-spectral views and images to replicate real-world characteristics of that spectrum and the specific characteristics of the simulated device.
- A1.15.10 The system's displays must be able to simulate optical properties, such as magnification and the use of reticules.
- A1.15.11 The system's displays' operation must be sensitive to those environmental conditions that affect visibility (including, but not limited to, weather, obscurants, and time of day).
- A1.15.12 The system's displays must be able to accurately display environmental conditions (including, but not limited to light and weather conditions for all seasons).
- A1.15.13 The system's displays must be able to present synchronized images across all stations, including SME sensor feeds, as well as the instructor and trainee stations.

## **A1.16 VMF Interface**

- A1.16.1 The system must connect via Radio Frequency Over the Air (RF OTA) to an external Digitally Aided Close Air Support (DACAS) system, using Variable Message Format (VMF).
- A1.16.2 The system must allow for the performance of DACAS missions, IAW United States Joint Fire Support (JFS) Executive Steering Committee (ESC) Coordinated Implementation (CI) Change Control Board (CCB) Engineering Change Proposals (ECP) 1 and, United States Joint Fire Support (JFS) Executive Steering Committee (ESC) Coordinated Implementation (CI) Change Control Board (CCB) Engineering Change Proposals (ECP) 2 and DACAS JT TTP.
- A1.16.3 The system must support VMF messaging as defined by the standards detailed in this SRS, hereafter referred to as the B/D1/D1 VMF stack.



- A1.16.3.1 The system must support VMF messaging as defined by MIL-STD-6017B (standard).
- A1.16.3.2 The system must support VMF messaging as defined by MIL-STD-2045-47001D1 (header).
- A1.16.3.3 The system must support VMF messaging as defined by MIL-STD-188-220D1 (bearer).
- A1.16.4 The system VMF Interface must operate from the Instructor Station.
- A1.16.5 The system must be capable of using the radios as detailed below (provided as Government Furnished Equipment (GFE)) to connect to the external DACAS system:
  - A1.16.5.1 PRC-152A; and
  - A1.16.5.2 PRC-117G.
- A1.16.6 The system should support DACAS ECP 1 baseline VMF messages as detailed below:
  - A1.16.6.1 VMF message K05.1 Position Report (Rx).
  - A1.16.6.2 VMF message K01.1 Free Text Message (Tx/Rx).
  - A1.16.6.3 VMF message K02.34 Aircraft On-Station (Tx).
  - A1.16.6.4 VMF message K02.33 Close Air Support Aircrew Briefing (Rx).
  - A1.16.6.5 VMF message WILCO/CANTCO (Tx).
  - A1.16.6.6 VMF message K02.35 Aircraft Depart Initial Point (Tx).
  - A1.16.6.7 VMF message K02.59 Request for K02.57 Aircraft Attack Position and Target Designation (Rx).
  - A1.16.6.8 VMF message K02.57 Aircraft Attack Position and Target Designation (Tx).
  - A1.16.6.9 VMF message K02.28 Close Air Support Mission Battle Damage Assessment (Rx).
- A1.16.7 The system must transmit the K02.35 Aircraft Depart Initial Point message automatically (if the message type is supported), upon the aircraft passing in the synthetic environment, the Initial Point specified in the K02.33 Close Air Support Aircrew Briefing.

- A1.16.8 The system must respond to the K02.59 Request for K02.57 Aircraft Attack Position and Target Designation automatically (if the message type is supported), IAW the directions provided in the K02.59 message.
- A1.16.9 The system should be capable of transmitting a K02.28 Close Air Support Mission Battle Damage Assessment message.
- A1.16.10 When transmitting, the system must automatically populate relevant data fields in each message, consistent with the state of the scenario, including the information as detailed below:
- A1.16.10.1 cause the K02.34 Aircraft On Station message to automatically populate with the current load-out of the selected aircraft.
  - A1.16.10.2 cause the K02.57 Aircraft Attack Position and Target Designation message to automatically populate with the selected aircraft's position and sensor point of interest within the synthetic world.
- A1.16.11 Upon receipt of a message, the system must implement relevant information from the connected DACAS system into the synthetic environment, including the information detailed in this SRS.
- A1.16.12 Upon receipt of a message, the system must plot the DACAS system's position on the Instructor's station, consistent with the position given in the K05.1 Position Report.
- A1.16.13 The system must route the strike aircraft's approach and egress path IAW the information received in the K02.33 Close Air Support Aircrew Briefing message, as detailed below:
- A1.16.13.1.1 Initial Point information received in the K02.33 Close Air Support Aircrew Briefing message.
  - A1.16.13.1.2 Offset information received in the K02.33 Close Air Support Aircrew Briefing message.
  - A1.16.13.1.3 Final attack heading information received in the K02.33 Close Air Support Aircrew Briefing message.
  - A1.16.13.1.4 Egress information received in the K02.33 Close Air Support Aircrew Briefing message.
- A1.16.14 The system must allow the instructor to manually transmit all VMF messages noted in this section, except where explicitly stated otherwise in this SRS.

## **A1.17 Radio Interface**

- A1.17.1 The system must include a simulated push-to-talk radio interface between the trainee, Instructor, and any other non-AI entity within the synthetic environment.
- A1.17.2 The system simulated radio system should emulate the PRC-152A and PRC-117G user interface.
- A1.17.3 The system simulated radio system should emulate the AN/PRC-163 user interface.
- A1.17.4 The system simulated radio system must accurately reflect the configuration and operation of the real-world PRC-152A and PRC-117G.
- A1.17.5 The system simulated radio system should accurately reflect the configuration and operation of the AN/PRC-163.

#### **A1.18 Video Downlink Interface**

- A1.18.1 The system VDL interface must operate from the VDL Station.

#### **A1.19 Non-Functional Requirements**

##### **A1.20 Availability**

- A1.20.1 The system elements must be both accessible and capable of 24/7 operation.
- A1.20.2 The system elements are expected to operate on an irregular schedule in support of the hosting unit's training plan.
- A1.20.3 The system elements must be able to operate continuously for eight hours per day.
- A1.20.4 The system elements should be able to operate continuously for twenty-four hours.
- A1.20.5 The system elements must be able to support continuous operations in support of lengthy command post or computer assisted exercises for up to seven (7) days.
- A1.20.6 The system Design Availability must be no less than 95%.
- A1.20.7 The system must have the ability to collect and report system performance analytics to include at a minimum system element usage and system component usage.

##### **A1.21 Reliability**

- A1.21.1 The system must be reliable, with a relatively low failure rate, with no more than one unplanned outage per week, with a MTBF of 10,005 minutes, based on 24/7 operational cycle, an average planned outage of no more than 60 minutes per week, and with a MTTR as defined in this SRS.

## **A1.22 Maintainability**

- A1.22.1 The system elements must have a Mean Time to Repair (MTTR) of no more than 15 minutes.
- A1.22.2 The system elements must be repairable by instructors or local maintenance personnel (First Line).
- A1.22.3 Second and Third Line repairs must be accomplished within 30 days.
- A1.22.4 Routine maintenance checks should be automated as much as possible in order to reduce the requirement for user monitoring.
- A1.22.5 The system must have automated Built in Test (BIT) with error report generation capability.

## **A1.23 Health & Safety**

- A1.23.1 The system must not compromise health, safety, or the effective use of the simulator.
- A1.23.2 The system must be safe to operate and maintain throughout its lifecycle.
- A1.23.3 The system must conform to Canadian safety and health regulations, such as laser safety.
- A1.23.4 The system must be designed such that sustained and peak physical burdens (such as weight, eyestrain) and mental demands on the trainees are minimized.
- A1.23.5 The system design must ensure that the level of electromagnetic emissions experienced by the trainee's remains within the limits specified in Canadian Health and Safety guidelines.
- A1.23.6 The system's design must be such that trainees and instructors will not experience a steady state interior noise level in excess of 85 dB(A) IAW MIL-STD-1474, Requirement 1, Category D (the level measurements to be at both the instructor and operators' ear location in position of normal system use).
- A1.23.7 The system must be designed to control the transmission of vibration to trainees IAW MIL-STD-1472G.

## **A1.24 Survivability**

- A1.24.1 The system will not deploy operationally.
- A1.24.2 The system elements must be able to function within the climate, humidity, dust, and static electricity control levels of the existing facilities.
- A1.24.3 If the system elements are capable of being networked with other system elements or other virtual trainers, they all must be resistant to cyber-attacks including but not limited to hacking, denial of service, and intrusion.
- A1.24.4 The system elements and components must be sufficiently robust to not fail during training (see Reliability and Availability sections above).
- A1.24.5 The system must be provided with protection in the event of power failures or power fluctuations/surges for all hardware components and associated equipment.
- A1.24.6 It is expected that the simulator may be used for extended periods of time (eight (8) hour training days, five (5) times per week, 45 weeks per year).

## **A1.25 Environmental**

- A1.25.1 The system elements will be used indoors, within the existing infrastructure for each location (physical layout and power availability).
- A1.25.2 The system elements must be capable of operation in a temperature environment of +5 degrees C to +35 degrees C.
- A1.25.3 The system elements must be capable of operation and storage in non-condensing humidity conditions, between 20 and 85 percent.
- A1.25.4 The system elements must operate within five (5) hours after having been removed from storage in a temperature environment of -15 degrees C to +35 degrees C.
- A1.25.5 The system elements must be capable of operation using the standard North American system (110 volts, 60 Hertz, single phase).
- A1.25.6 Loss of power must not cause corruption of the computer's simulation programs or operating system.
- A1.25.7 The system elements must be protected against normal commercial power fluctuations (surges and spikes).

A1.25.8 The simulation programs and operating system used by the system elements computers must be protected against corruption in the event of a loss of power.

## **A1.26 Human Factors**

A1.26.1 The system must have been designed taking the guidelines of MIL-STD-1472G and Mil-HDBK 759C (Notice-2) into consideration.

A1.26.2 The system must be operable by the 5th to 95th percentile of the CAF personnel.

## A2.0 APPENDIX 2: CONTRACT DATA REQUIREMENTS LIST

### A2.1 Management and Explanation of the CDRL

#### A2.1.1 Management of Data Items

- A2.1.1.1 The Contractor must review, update and deliver amendments, or confirm the continuing accuracy of data items annotated with a maintenance period, IAW the CDRL.
- A2.1.1.2 The Contractor must deliver amended, reissued, or resubmitted data items to the location(s) and in the format and quantities specified in the CDRL for the initial submission of the data items.

#### A2.1.2 Explanation of the CDRL

- A2.1.2.1 **CDRL Line Number** – This field provides the unique sequential number that identifies each data item within different functional groups (e.g., PM-001, SE-101, & ILS-201).
- A2.1.2.2 **CDRL Title** – This field identifies the title of the data item.
- A2.1.2.3 **SOW Para Ref** – This field shows the paragraph in the SOW where the data item is stipulated. There may be multiple references to the data item in the SOW, but generally, only the first (or one) reference is shown in the CDRL.
- A2.1.2.4 **Version** – This field identifies the delivery of a data item during its lifecycle (i.e., draft, final).
- A2.1.2.5 **Delivery Schedule** – This field specifies the date(s) and events by which the data item must be delivered. The date of delivery applies to all delivery locations and quantities unless otherwise specified. Following are some of the abbreviations and symbols used with this column:
  - A2.1.2.5.1 'KO' means the Kick-Off Meeting date;
  - A2.1.2.5.2 Numerals indicate the number of Calendar Days unless specified otherwise;
  - A2.1.2.5.3 '(+)' means after the specified date or event; and
  - A2.1.2.5.4 '(-)' means before the specified date or event.
  - A2.1.2.5.5 If a data item is required to be delivered before an event having a duration of greater than one day, the delivery date

must be calculated from the first day of that event. If a data item is required to be delivered after an event having a duration of greater than one day, the delivery date must be calculated from the last day of that event.

- A2.1.2.6 **Quantity** – This field specifies the total number of data items to be delivered to the associated delivery location(s), including the number of hard (H) and soft (S) copies. When both hard and soft copies are requested, the action copy will be indicated in the note's column.
- A2.1.2.7 **Addressee** – This field shows the DND representative's short title to whom the hard and soft copies of the data items must be delivered. The action hard copy of the data item must be delivered to the first nominated location in this field.
- A2.1.2.8 **Data Item Description Reference** – This field identifies the DID with which the data item must comply.
- A2.1.2.9 **DND Action Period** – This field defines the number of Calendar Days available to the DND to action the data item and respond to the Contractor if it requires a response.
- A2.1.2.9.1 The period begins upon the date the action copy of the data item is received at the first nominated addressee.
- A2.1.2.9.2 The action period applies to all deliveries, including first deliveries, amendments, and re-issues. If a data item is delivered earlier than the first delivery date shown in the CDRL, the DND TA is not obliged to action it until after that date. If the action period states 'by MSR' for a data item delivered before a Mandated System Review (MSR), the action period ends when the minutes for that MSR are approved.
- A2.1.2.10 **DND Action Required** – This field indicates the purpose for which the data item is being submitted to the DND TA, either for Review, Approval, or Acceptance.
- A2.1.2.11 **Maintenance** – This field specifies either the timings or the time intervals after each delivery. The Contractor must review the data item, and either has its continuing accuracy status confirmed in writing or be updated and reissued. The Maintenance column does not apply to draft or preliminary versions of data items. The following abbreviations and codes apply to this column:



- 
- |             |   |
|-------------|---|
| A2.1.2.11.1 | xM – every x calendar months;   |
| A2.1.2.11.2 | R – to enable it to be considered at each MSR set out in the System Engineering program;                            |
| A2.1.2.11.3 | SA – to enable it to be provided to conduct Acceptance of each System;  |
| A2.1.2.11.4 | FA – to enable it to be provided for Final Acceptance; and  |
| A2.1.2.11.5 | NA or blank – not applicable.   |
| A2.1.2.12   | Notes: Where necessary, additional explanatory information relating to a CDRL data item is provided in this column. |

A2.2 CDRL Item List

| CDRL #          | CDRL Title                                   | SOW Para Ref         | Version          | Delivery Schedule   | Qty | Addressee  | DID # and Ref                      | DND Action Period | DND Action Required  | Maint | Notes |
|-----------------|--|----------------------|------------------|---------------------|-----|------------|------------------------------------|-------------------|----------------------|-------|-------|
| JTAC VTS-PM-001 | Project Management Plan                      | Para. 3.2.1 (pg. 13) | Draft            | Bid Proposal        | 1S  | TA, PA, CA | JTAC VTS-PM-001                    | 21                | Review               |       |       |
|                 |  |                      | Revised          | KO (+) 28           |     |            |                                    |                   |                      |       |       |
|                 |  |                      | Revised or Final | DND Comments (+) 14 | 1S  | TA, CA     | App. A3.3 (pg. 115)                | 7                 | Review or Acceptance |       |       |
| JTAC VTS-PM-002 | Transition Plan                              | Para. 3.3.2 (pg. 13) |                  | KO (+) 120          | 1S  | TA, CA     | JTAC VTS-PM-002 A3.4 (pg. 117)     | 21                | Review or Acceptance |       |       |
| JTAC VTS-PM-003 | Standard Report Format                       | Para 3.71 (pg.13)    | NA               | NA                  | NA  | NA         | JTAC VTS-PM-003 App. A3.6 (pg.125) | NA                | NA                   | NA    | NA    |
| JTAC VTS-PM-004 | Intellectual Property Management Plan & List | Para. 3.4.1 (pg.13)  | Final            | KO (+) 90           | 1S  | TA, CA, PA | JTAC VTS-PM-004 A3.5 (pg. 120)     | 7                 | Review or Acceptance |       |       |

| CDRL #          | CDRL Title                  | SOW Para Ref           | Version | Delivery Schedule  | Qty | Addressee   | DID # and Ref                          | DND Action Period | DND Action Required  | Maint | Notes |
|-----------------|-----------------------------|------------------------|---------|--------------------|-----|-------------|--|-------------------|----------------------|-------|-------|
| JTAC VTS-PM-005 | Project Progress Report     | Para 3.7.1 (pg.14)     | Draft   | KO (+) 28          | 1S  | TA, CA      | JTAC VTS-PM-005                        | 21                | Review               |       |       |
|                 |                             |                        | Revised | DND Comments (+) 7 | 1S  | TA, CA, PA, | App. A3.7 (pg. 127                     | 7                 | Review or Acceptance |       |       |
|                 |                             |                        | Final   | Monthly            | 1S  | TA, CA, PA, |  | 7                 | Review               |       |       |
| JTAC VTS-PM-006 | Significant Incident Report | Para. 3.8.1 (pg. 14)   |         | As required        | 1S  | TA          | JTAC VTS-PM-006<br>App. A3.8 (pg. 129) | 7                 | Acceptance           |       |       |
| JTAC VTS-PM-007 | Meeting Agenda              | Para. 3.9.1.4 (pg. 14) | Draft   | Meeting Date (-) 7 | 1S  | CA, TA, PA  | JTAC VTS-PM-007                        | 5                 | Review               |       |       |
|                 |                             |                        | Revised | Meeting Date (-)1  | 1S  | CA, TA, PA  | App. A3.9 (pg. 131)                    |                   |                      |       |       |
|                 |                             |                        | Final   | Meeting Date       | 1H  | CA, TA, PA  |  |                   | Acceptance           |       |       |
| JTAC VTS-PM-008 | Presentation Materials      | Para. 3.9.1.5 (pg. 14) | Final   | Meeting Date (-) 7 | 1S  | CA, TA, PA  | JTAC VTS-PM-008<br>A3.10 (pg. 133)     |                   |                      |       |       |

| CDRL #          | CDRL Title                          | SOW Para Ref           | Version          | Delivery Schedule   | Qty | Addressee  | DID # and Ref        | DND Action Period | DND Action Required  | Maint | Notes   |
|-----------------|-------------------------------------|------------------------|------------------|---------------------|-----|------------|----------------------|-------------------|----------------------|-------|---|
| JTAC VTS-PM-009 | Meeting Minutes                     | Para3.9.1.6 (pg. 14)   | Draft            | Meeting Date (+) 7  | 1S  | CA, TA, PA | JTAC VTS-PM-009      | 7                 | Review               |       |   |
|                 |                                     |                        | Revised or Final | DND Comments (+) 7  | 1S  | CA, TA, PA | App. A3.11 (pg. 135) | 7                 | Review or Acceptance |       |   |
| JTAC VTS-SE-101 | Systems Engineering Management Plan | Para. 4.2.2.1 (pg. 18) | Draft            | KO (+) 28           | 1S  | TA         | JTAC VTS-SE-101      | 21                | Review               |       |   |
|                 |                                     |                        | Revised or Final | DND Comments (+) 14 | 1S  | TA, CA     | App. A3.12 (pg. 137) | 7                 | Review or Acceptance | 3M    |   |
| JTAC VTS-SE-102 | Mandated System Review Package      | Para. 4.2.5.4 (pg. 18) | Draft            | MSR Meeting (-) 28  | 1S  | TA         | JTAC VTS-SE-102      | 14                | Review               |       |   |
|                 |                                     |                        | Revised          | MSR Meeting         | 1S  | TA         | App. A3.13 (pg. 145) | 7                 | Review               |       | The revised MSR Package for presentation and discussion at the MSR meeting. |

| CDRL #          | CDRL Title                                    | SOW Para Ref           | Version          | Delivery Schedule                        | Qty | Addressee | DID # and Ref        | DND Action Period | DND Action Required  | Maint | Notes                             |
|-----------------|---|------------------------|------------------|--|-----|-----------|----------------------|-------------------|----------------------|-------|-----------------------------------|
|                 |   |                        | Revised or Final | DND Comments (+)<br>7                    | 1S  | TA        |                      | 7                 | Review or Acceptance |       |                                   |
| JTAC VTS-SE-103 | Equipment Specification                       | Para. 4.2.7 (pg. 20)   | Draft            | MSR Meeting (-) 21                       | 1S  | TA        | JTAC VTS-SE-103      | 14                | Review               |       |                                   |
|                 |   |                        | Revised          | MSR Meeting                              | 1S  | TA        | App. A3.14 (pg. 147) | 7                 | Review or Acceptance |       |                                   |
|                 |   |                        | Revised          | DND Comments (+)<br>7                    | 1S  | TA        |                      | 7                 |                      |       |                                   |
|                 |   |                        | Revised or Final | Once the Acceptance Reports are accepted | 1S  | TA        |                      | 7                 |                      |       |                                   |
| JTAC VTS-SE-104 | Requirements Traceability Verification Matrix | Para. 4.2.7.1 (pg. 20) | Draft            | MSR Meeting (-) 21                       | 1S  | TA        | JTAC VTS-SE-104      | 14                | Review               |       |                                   |
|                 |   |                        | Revised          | MSR Meeting                              | 1S  | TA        | App. A3.15 (pg. 149) | 7                 | Review               |       | The revised RTVM for presentation |

| CDRL #          | CDRL Title   | SOW Para Ref               | Version          | Delivery Schedule                             | Qty | Addressee | DID # and Ref        | DND Action Period | DND Action Required  | Maint | Notes             |
|-----------------|--|----------------------------|------------------|---|-----|-----------|----------------------|-------------------|----------------------|-------|-------------------|
|                 |  |                            |                  |   |     |           |                      |                   |                      |       | and discussion at |
|                 |  |                            |                  |   |     |           |                      |                   |                      |       | the MSR Meeting.  |
|                 |  |                            | Revised          | DND Comments (+)<br>7                         | 1S  | TA        |                      | 7                 | Review               |       |                   |
|                 |  |                            | Revised or Final | Once the Acceptance Test Reports are accepted | 1S  | TA        |                      | 7                 | Review or Acceptance |       |                   |
| JTAC VTS-SE-105 | Reliability and Maintainability (R&M) Predictions Data | Para. 4.3.1.2.1.5 (pg. 21) | Draft            | PDR Meeting (-) 21                            | 1S  | TA        | JTAC VTS-SE-105      | 14                | Review               |       |                   |
|                 |  |                            | Revised          | PDR Meeting                                   | 1S  | TA        | App. A3.16 (pg.152). | 7                 | Review or Acceptance |       |                   |
|                 |  |                            | Final            | PDR Meeting (+) 42                            | 1S  | TA        |                      | 14                |                      |       |                   |
| JTAC VTS-SE-106 | System Data Packages &                                 | Para. 4.4.3.1 (pg. 26)     | Draft –          | CDR Meeting (-) 21                            | 1S  | TA        | JTAC VTS-SE-106      | 14                | Review               |       |                   |

| CDRL #          | CDRL Title                    | SOW Para Ref           | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref                        | DND Action Period | DND Action Required  | Maint | Notes |
|-----------------|-------------------------------|------------------------|------------------|---------------------|-----|-----------|--------------------------------------|-------------------|----------------------|-------|-------|
|                 | Equipment Lists               |                        |                  |                     |     |           |                                      |                   |                      |       |       |
|                 |                               |                        | Revised          | CDR Meeting         | 1S  | TA        | App. A3.17 (pg. 154)                 | 7                 | Review or Acceptance |       |       |
|                 |                               |                        | Draft –          | PCA Meeting (-) 21  | 1S  | TA        |                                      | 14                | Review               |       |       |
|                 |                               |                        | Revised          | PCA Meeting         | 1S  | TA        |                                      | 7                 | Review or Acceptance |       |       |
|                 |                               |                        | Revised or Final | DND Comments (+) 14 | 1S  | TA        |                                      | 7                 | Review or Acceptance |       |       |
| JTAC VTS-SE-107 | Cybersecurity Design Document | Para. 4.5.6.1 (pg. 29) | Draft            | KO (+) 28           | 1S  | TA        | JTAC VTS-SE-107 App. A3.18 (pg. 156) | 21                | Review               |       |       |
|                 |                               |                        | Revised or Final | DND Comments (+) 14 | 1S  | TA        |                                      | 7                 | Review or Acceptance |       |       |
| JTAC VTS-SE-108 | Configuration Management Plan | Para. 5.2.1.1 (pg.29)  | Draft            | KO (+) 28           | 1S  | TA        | JTAC VTS-SE-108                      | 21                | Review               |       |       |
|                 |                               |                        | Revised or Final | DND Comments (+) 14 | 1S  | TA        | App. A3.19 (pg. 160)                 | 7                 | Review or Acceptance |       |       |

| CDRL #                   | CDRL Title                                   | SOW Para Ref          | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref       | DND Action Period | DND Action Required  | Maint | Notes |
|--------------------------|--|-----------------------|------------------|---------------------|-----|-----------|---------------------|-------------------|----------------------|-------|-------|
|                          |  |                       |                  |                     |     |           |                     |                   |                      |       |       |
|                          |  |                       |                  |                     |     |           |                     |                   |                      |       |       |
| JTAC VTS-SE-109<br><br>+ | Software Version Description Document (SVDD) | Para. 5.3.2.1 (pg.30) | Draft            | KO (+) 28           | 1S  | TA        | JTAC VTS-SE-109     | 14                | Review               |       |       |
|                          |  |                       | Revised or Final | DND Comments (+) 14 | 1S  | TA        | App A3.20 (pg. 162) | 7                 | Review or Acceptance |       |       |
|                          |  |                       | Updated          | As required         | 1S  | TA        |                     | 7                 |                      |       |       |
| JTAC VTS-SE-110          | Equipment Breakdown Structure (EBS)          | Para. 5.3.3.1 pg.(30) | Draft            | CDR Meeting (-) 21  | 1S  | TA        | JTAC VTS-SE-110     | 14                | Review               |       |       |
|                          |  |                       | Revised          | CDR Meeting         | 1S  | TA        | App. A3.21 (pg. 165 | 7                 | Review or Acceptance |       |       |
|                          |  |                       | Final            | CDR Meeting (+) 42  | 1S  | TA        |                     | 7                 |                      |       |       |
| JTAC VTS-SE-111          | Engineering Change Proposal                  | Para. 5.4.2 (pg. 30)  | Draft            | As required         | 1S  | TA, CA    | JTAC VTS-SE-111     | 14                | Review               |       |       |



| CDRL #          | CDRL Title                             | SOW Para Ref           | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref        | DND Action Period | DND Action Required  | Maint | Notes |
|-----------------|--|------------------------|------------------|---------------------|-----|-----------|----------------------|-------------------|----------------------|-------|-------|
|                 |  |                        |                  |                     |     |           |                      |                   |                      |       |       |
|                 |  |                        | Revised or Final | DND Comments (+) 7  | 1S  | TA, CA    | App. A3.20 (pg. 162) | 7                 | Review or Acceptance |       |       |
| JTAC VTS-SE-112 | Software Change Request                | Para. 5.4.5.1 (pg. 26) | Draft            | As required         | 1S  | TA, CA    | JTAC VTS-SE-112      | 14                | Review               |       |       |
|                 |  |                        | Revised or Final | DND Comments (+) 7  | 1S  | TA        | App.A3.23 (pg. 173)  | 7                 | Review or Acceptance |       |       |
| JTAC VTS-SE-113 | Configuration Status Accounting Report | Para. 5.5.2 (pg. 32)   | Draft            | CDR Meeting (+) 28  | 1S  | TA        | JTAC VTS-SE-113      | 14                | Review               |       |       |
|                 |  |                        | Revised or Final | DND Comments (+) 14 | 1S  | TA        | App. A3.24 (pg. 176) | 7                 | Review or Acceptance | 2M    |       |
| JTAC VTS-SE-114 | System Verification Plan               | Para. 6.1.1.3 (pg. 36) | Draft            | TRR Meeting (-)28   | 1S  | TA        | JTAC VTS-SE-114      | 14                |                      |       |       |
|                 |  |                        | Revised          | TRR Meeting         | 1S  | TA        | App. A3.25 (pg. 179) | 7                 |                      |       |       |

| CDRL #          | CDRL Title                          | SOW Para Ref         | Version          | Delivery Schedule             | Qty | Addressee | DID # and Ref        | DND Action Period | DND Action Required  | Maint | Notes   |
|-----------------|-------------------------------------|----------------------|------------------|-------------------------------|-----|-----------|----------------------|-------------------|----------------------|-------|---|
|                 |                                     |                      | Revised or Final | DND Comments (+) 7            | 1S  | TA        |                      | 7                 |                      |       |   |
| JTAC VTS-SE-115 | Acceptance Test Plan and Procedures | Para. 6.2.3 (pg. 40) | Draft            | TRR Meeting (-) 28            | 1S  | TA        | JTAC VTS-SE-115      | 14                | Review               |       |   |
|                 |                                     |                      | Revised          | TRR Meeting                   | 1S  | TA        | App. A3.26 (pg. 182) | 7                 | Review               |       | Revised package for presentation and discussion at the TRR Meeting. |
|                 |                                     |                      | Revised or Final | DND Comments (+) 7            | 1S  | TA        |                      | 7                 | Review or Acceptance |       |   |
| JTAC VTS-SE-116 | Acceptance Test Reports             | Para. 6.2.4 (pg. 40) | Draft            | Acceptance Verification (+) 7 | 1S  | TA        | JTAC VTS-SE-116      | 14                | Review               |       |   |
|                 |                                     |                      | Revised or Final | DND Comments (+) 14           | 1S  | TA        | App. A3.27 (pg. 186) | 14                | Review or Acceptance |       |   |
| JTAC VTS-SE-117 | Request for Deviation (RFD) /       | Para. 7.3.2 (pg. 41) | Draft            | Acceptance Verification (+) 7 | 1S  | TA        | JTAC VTS-SE-117      | 7                 | Review               |       |   |

| CDRL #           | CDRL Title                     | SOW Para Ref         | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref                            | DND Action Period | DND Action Required  | Maint | Notes |
|------------------|--------------------------------|----------------------|------------------|---------------------|-----|-----------|--|-------------------|----------------------|-------|-------|
|                  | Request for Waiver (RFW)       |                      |                  |                     |     |           | App. A3.28 (pg. 188)                     |                   |                      |       |       |
|                  |                                |                      | Revised or Final | DND Comments (+) 14 | 1S  | TA        |  | 14                | Review or Acceptance |       |       |
| JTAC VTS-ILS-201 | In-Service Support Plan (ISSP) | Para. 8.2.3 (pg. 44) | Draft            | KO/KO (+) 28        | 1S  | TA        | JTAC VTS-ILS-201<br>App. A3.29 (pg. 190) | 14                | Review               |       |       |
|                  |                                |                      | Revised or Final | DND Comments (+) 14 | 1S  | TA        |  | 14                | Review or Acceptance |       |       |
| JTAC VTS-ILS-202 | Material Change Notice         | Para. 8.4.1 (pg. 44) | As required      | As required         | 1S  | TA        | JTAC VTS-ILS-202<br>App. A3.30 (pg. 192) | 7                 | Acceptance           |       |       |
| JTAC VTS-ILS-203 | Safety Data Sheet              | Para. 8.5.1 (pg. 44) | Final            | KO (+) 60           | 1S  | TA        | JTAC VTS-ILS-203<br>App. A3.31 (pg. 194) | 7                 | Acceptance           |       |       |
| JTAC VTS-ILS-204 | Sparing Analysis Report        | Para. 8.6.1 (pg. 44) | Final            | KO (+) 60           | 1S  | TA        | JTAC VTS-ILS-204<br>App. A3.32 (pg. 196) | 14                | Acceptance           |       |       |

| CDRL #           | CDRL Title   | SOW Para Ref          | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref                            | DND Action Period | DND Action Required  | Maint | Notes |
|------------------|--|-----------------------|------------------|---------------------|-----|-----------|--|-------------------|----------------------|-------|-------|
| JTAC VTS-ILS-205 | Supplementary Provisioning Technical Documentation | Para. 8.7.1(pg. 44)   | Final            | KO (+) 60           | 1S  | TA        | JTAC VTS-ILS-205<br>App. A3.33 (pg.198)  | 14                | Acceptance           |       |       |
| JTAC VTS-ILS-206 | Technical Data Deliverables List                   | Para. 8.8.1 (pg. 44)  | Final            | KO (+) 60           | 1S  | TA        | JTAC VTS-ILS-206<br>App. A3.34 (pg. 200) | 14                | Acceptance           |       |       |
| JTAC VTS-ILS-207 | Technical Publications Requirements List           | Para. 8.9.1 (pg. 45)  | Final            | KO (+) 60           | 1S  | TA        | JTAC VTS-ILS-207<br>App. 202 (pg.202)    | 14                | Acceptance           |       |       |
| JTAC VTS-ILS-208 | Training Package                                   | Para. 9.2.1(pg. 45)   | Draft            | [KO (+) 28          | 1S  | TA        | JTAC VTS-ILS-208<br>App. A3.36 (pg. 204) | 60                | Review               |       |       |
|                  |  |                       | Revised or Final | DND Comments (+) 60 | 1S  | TA        |  | 30                | Review or Acceptance |       |       |
| JTAC VTS-ILS-209 | System Manuals                                     | Para. 10.1.2 (pg. 46) | Draft            | [KO (+) 28          | 1S  | TA        | JTAC VTS-ILS-209 App. A3.37 (pg. 207)    | 60                | Review               |       |       |

| CDRL #           | CDRL Title                   | SOW Para Ref          | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref                         | DND Action Period | DND Action Required  | Maint | Notes |
|------------------|------------------------------|-----------------------|------------------|---------------------|-----|-----------|---------------------------------------|-------------------|----------------------|-------|-------|
|                  |                              |                       | Revised or Final | DND Comments (+) 60 | 1S  | TA        |                                       | 30                | Review or Acceptance |       |       |
| JTAC VTS-ILS-210 | Vendor Manuals               | Para. 10.2.2 (pg. 46) |                  | [KO (+) 28          | 1S  |           | JTAC VTS-ILS-210 A3.38 (pg. 209)      | 21                |                      |       |       |
| JTAC VTS-ILS-211 | Government Property Report   | Para. 10.4.1(pg. 47)  | Draft            | [KO (+) 28          | 1S  | TA        | JTAC VTS-ILS-211 App. A3.39 (pg. 211) | 14                | Review               |       |       |
|                  |                              |                       | Revised or Final | DND Comments (+) 30 | 1S  | TA        |                                       | 7                 | Review or Acceptance |       |       |
|                  |                              |                       | Annually         |                     | 1S  | TA        |                                       | 7                 | Acceptance           |       |       |
| JTAC VTS-ILS-212 | Government Delivery Schedule | Para. 10.5.1(pg. 47)  | Draft            | KO (+) 28           | 1S  | TA        | JTAC VTS-ILS-212 App. A3.40 (pg. 213) | 60                | Review               |       |       |
|                  |                              |                       | Revised or Final | DND Comments (+) 30 | 1S  | TA        |                                       | 30                | Review or Acceptance |       |       |

| CDRL #           | CDRL Title                                 | SOW Para Ref          | Version          | Delivery Schedule   | Qty | Addressee | DID # and Ref                            | DND Action Period | DND Action Required  | Maint | Notes |
|------------------|--|-----------------------|------------------|---------------------|-----|-----------|--|-------------------|----------------------|-------|-------|
| JTAC VTS-ILS-213 | Identification Shipping and Packaging Data | Para. 10.6.1 (pg. 47) | As required      | DND (+) 7           | 1S  | TA        | JTAC VTS-ILS-213<br>App. A3.41 (pg. 215) | 7                 | Acceptance           |       |       |
| JTAC VTS-ILS-214 | Environmental Equipment Assessment         | Para. 11.4.1 (pg. 49) | Draft            | KO (+) 28           | 1S  | TA        | JTAC VTS-ILS-214<br>App. A3.42 (pg. 217) | 14                | Review               |       |       |
|                  |  |                       | Revised or Final | DND Comments (+) 30 | 1S  | TA        |  | 7                 | Review or Acceptance |       |       |

## **A3.0 APPENDIX 3: DATA ITEM DESCRIPTION**

### **A3.1 Data Deliverable Format**

A3.1.1 Unless otherwise specified as a specific requirement, the Contractor must deliver all the soft copies of data deliverables in formats compatible with the office software currently in use by the DND as listed:

- A3.1.1.1 Microsoft (MS) Windows 7 Enterprise Operating System (OS), Service Pack 1;
- A3.1.1.2 MS Internet Explorer (IE) 9.0 with 256 Bit Encryption;
- A3.1.1.3 MS Office Professional Plus 2013 (Word, Excel, Access, PowerPoint, and Outlook);
- A3.1.1.4 Adobe Acrobat X; and
- A3.1.1.5 WinZip 8.1 SR-1;

### **A3.2 DID Table Definitions**

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

#### **BLOCK 1 – TITLE**

The title of the data item for the DID.

#### **BLOCK 2 - IDENTIFICATION NUMBER**

The Data Item Description (DID) number, consisting of a sequential three-digit number and prefixed with an abbreviation code to uniquely identify the DID. Note that the 001-099 series is reserved for Project Management (PM) DIDs, the 101-199 series is reserved for Systems Engineering (SE) DIDs, and the 201-299 series is reserved for Integrated Logistics Support (ILS) DIDs. The abbreviation codes used for the prefix are:

- “PM” for Project Management
- “SE” for Systems Engineering
- “ILS” for Integrated Logistics Support

#### **BLOCK 3 - DESCRIPTION**

Provides a general description of the data content requirements.

#### **BLOCK 4 – RELATED DOCUMENT(S)**

Provides a listing of the related documents and specifications associated with and required to produce this DID.

## **BLOCK 5 - CONTRACT REFERENCE**

The specific paragraph numbers from the Contract Statement of Work and CDRL help identify the work effort associated with the data item.

## **BLOCK 6 - PREPARATION INSTRUCTIONS**

Provides the preparation instructions for the content and format requirements for the DID.



### A3.3 DID – Project Management Plan

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Project Management Plan (PMP)</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-001</b>  |
| 3. DESCRIPTION<br>The Project Management Plan (PMP) is the top-level plan that describes the Contractor's strategy, plans, methodologies, and processes for meeting the Contract's requirements.   |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.2.1 (pg. 13)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The PMP must describe the management processes, administrative procedures, and organizational structure used to manage the work of the Contractor.<br>6.1.2. The PMP must further detail the practices and procedures for project scheduling, planning, organizing, directing, executing, communicating, reporting, managing risk, managing environmental health and safety issues and impacts, managing information, and closing action items for all Work required by the Contract.<br>6.1.3. The PMP must address in detail the above points through the following:<br>6.1.3.1. Overview:<br>6.1.3.1.1. Purpose, Background, Scope, and Objectives;<br>6.1.3.1.2. Assumptions, Constraints, and Risks;<br>6.1.3.1.3. All Project Deliverables;<br>6.1.3.1.4. Organization Summary; and<br>6.1.3.1.5. Schedule Summary.<br>6.1.3.2. Organization:<br>6.1.3.2.1. Project Management Organizational Chart, consisting of internal and external organizations as it pertains to this Contract;<br>6.1.3.3. Management Processes:<br>6.1.3.3.1. Project Management Approach and Procedures; |   |

- 6.1.3.3.2. Schedule Control;
- 6.1.3.3.3. Quality Assurance;
- 6.1.3.3.4. Reporting;
- 6.1.3.3.5. Communications;
- 6.1.3.3.6. Risk Management;
- 6.1.3.3.7. Environmental, Health and Safety Issues Management;
- 6.1.3.3.8. Information Management (IM); and
- 6.1.3.3.9. Change Control Processes.

## 6.2. **SOFT COPY FORMAT**

6.2.1. The PMP must be submitted as a PDF file type.

6.2.2. **Soft Copy format submission size below 7MB** – The PMP PDF may be submitted via email as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-PM-001 – PMP – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The PMP PDF must be submitted on a USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. PMP;

6.2.3.3. JTAC VTS-PM-001;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.

### A3.4 DID – Transition Plan

| DATA ITEM DESCRIPTION  |  |
|--|--|
| 1. TITLE<br><b>Transition Plan</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-002</b>                                       |
| 3. DESCRIPTION<br><p>The JTAC VTS Transition Plan describes how the Contractor plans to seamlessly transition materials, services and information control into in-service support (in-service support which will be conducted IAW the JTAC VTS In-Service Support Statement of Work as part of the JTAC VTS In-Service Support contract under the authority of DND), for the systems, capabilities, materials, information and knowledge established as a result of the JTAC VTS Acquisition contract</p>  |  |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.3.2 (pg. 13)</b><br><b>CDRL: App. A2.2(pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><p>6.1.1. The Transition Plan must address activities needed to ensure that the Contractor is ready in all respects for maintaining the JTAC VTS deliverables and all associated equipment systems delivered under acquisition, and most specifically the needs for those to be transitioned to in-service support, including both Contractor and DND elements of in-service support. The plan must address concepts such as how the capability and capacity will be established for the provision of support from first contract or system deliveries until completion of last deliveries, including to the end of the transition periods between the acquisition and in-service contracts. The plan must also describe how systems will be transitioned from acquisition control into in-service support control, through a process with Canada's acceptance, for each system or delivery and the transition of each specific acquisition project controlled item and service into in-service support control.</p> <p>6.1.2. The Transition Plan must also describe and address the following:</p> <p>6.1.2.1. how the Contractor will execute plans, processes, requirements and work during lead-up to Transition;</p> <p>6.1.2.2. how the Contractor plans to ramp up their in-service capacity to support all JTAC VTS delivered systems and associated equipment under in-service</p> |  |

support, in parallel with a ramp-down of interim support (pre-transition) provided under acquisition;

6.1.2.3. the sequencing, scalability, and geographical location for all support activities;

6.1.2.4. the problem reporting and risk management processes which will identify In-service Support Start-up Support and interim Acquisition Support deficiencies, risks, issues, gaps and make recommendations for their mitigation and resolution in order to achieve Transition;

6.1.2.5. coordination of meetings with Canada during Transition;

6.1.2.6. readiness measures to be used in lead-up to transition to ensure the Contractor is establishing various services as required IAW the ISS SOW including timelines for when resources will be put in place and details regarding access requirements to Canada's facilities;

6.1.2.7. readiness measures to be used in lead-up to transition to ensure the Contractor has demonstrated their capability, capacity and support services to support the JTAC VTS;

6.1.2.8. plans to address how the Contractor will ensure alignment with JTAC VTS Program Management elements, DND Formations and assigned Units, so that Services can be planned and delivered efficiently;

6.1.2.9. transition of required Integrated Logistic Support (ILS) materials and information including technical data and training materials;

6.1.2.10. transition of DND training capability from Initial Operational Capability (IOC) to achievement of Full Operational Capability (FOC); and

6.1.2.11. transition of the Contractor's linked Electronic Information Environment / Collaborative Environment electronic data exchange systems to the In-Service Support Contract.

## 6.2. GENERAL FORMAT

6.2.1. This DID must be submitted IAW the SOW Section 3.3 unless otherwise amplified herein.

6.2.2. The layout and content formatting structure of this DID must be determined by the Contractor unless otherwise specified herein.

## 6.3. SOFT COPY FORMAT

6.3.1. The Transition Plan must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The Transition Plan PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-PM-002 – Transition Plan – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Transition Plan PDF must be submitted on CD or DVD media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Transition Plan;

6.3.3.3. JTAC VTS-PM-002;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.5 DID – Intellectual Property Management Plan & List

| DATA ITEM DESCRIPTION   |  |
|---|--|
| 1. TITLE<br><b>Intellectual Property Management Plan &amp; List (IPMPL)</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-003</b>                                       |
| 3. DESCRIPTION<br><p>The Intellectual Property Management Plan &amp; List (IPMPL) defines the Contractor's plans, processes and responsibilities for meeting the IP requirements of the Contract and defines the IP management activities related to the Contract.</p> <p>The IPMPL also identifies and lists all Contractor, sub-Contractor, Third Party and DND Foreground Information and Background Information IP and Technical Data that is relevant to the Contract, and all limitations with respect to the IP and Technical Data.</p>  |  |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.4.1 (pg. 13)</b><br><b>CDRL: App. A2.2(pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><b>6.1.1. Section A - Management and Monitoring of the IP portfolio – The IPMPL must include the following information:</b><br><b>6.1.1.1. Policies and processes affecting the management of IP, particularly in respect to the creation, acquisition, identification, labelling, ownership, protection and licensing of IP;</b><br><b>6.1.1.2. Organizational structures responsible for managing IP, showing applicable business units including all sub-Contractors, and their relationships to one another and to the DND;</b><br><b>6.1.1.3. Personnel responsible for managing IP;</b><br><b>6.1.1.4. The roles and responsibilities of the various organisations, business units and personnel involved in the management of IP;</b><br><b>6.1.1.5. Tools including software management applications used to manage IP, and</b><br><b>6.1.1.6. Process to deal with IP issues and disputes.</b><br><b>6.1.2. Section B – Intellectual Property List</b> |  |

6.1.2.1. The IP List may be prepared using the Contractor's own format, however all the required information for the IPMPL (see the tables below to show format) must be provided for the Foreground Information and Background Information IP and listed separately. For all such IP the following information is required:

6.1.2.1.1. Column A – Document Number – Document or publication index number.

6.1.2.1.2. Column B – Revision Level – Version number, date or other revision tracking indication.

6.1.2.1.3. Column C – Document Title.

6.1.2.1.4. Column D – IP Registration Number/Detail (if applicable) – Format: <country of registration> <type of IP> <registration number>. Type of IP could be a copyright, patent, registered design, e.g. Canada Patent No.2,097,125

6.1.2.1.5. Column E – Date of Issue.

6.1.2.1.6. Column F – Originator – Company name and address.

6.1.2.1.7. Column G – Current Owner (if different from originator) – Company name and address.

6.1.2.1.8. Column H – Limitations on the IP (Usage and Licensed Rights).

6.1.2.1.9. Usage: Full explanation of the extent, justification and impact of each limitation on Canada's use of the licensed IP must be specified including details of all activities planned to alleviate the impact of the limitation.

6.1.2.1.10. Licensed Rights: Each item listed in the IP List must include specification of limitations on licence terms as applicable. These may include:

6.1.2.1.10.1. jurisdiction;

6.1.2.1.10.2. sole/exclusive/non-exclusive;

6.1.2.1.10.3. sub-licensing;

6.1.2.1.10.4. (ir)revocable;

6.1.2.1.10.5. events triggering IP rights and access to Technical Data (e.g., termination or expiration of contract);

6.1.2.1.10.6. term (perpetual, sunrise/sunset);

6.1.2.1.10.7. geographic (worldwide, in Canada);

6.1.2.1.10.8. royalty-free, fees, royalties, minimum sales; and

6.1.2.1.10.9. other IP arrangements:

- 6.1.2.1.11. IP/Technical Data arrangements that are subject to other contract arrangements or right of first offer to the Contractor, sub-Contractor or third party; or
- 6.1.2.1.12. IP/Technical Data arrangements directly between Canada and sub-Contractors, Canadian or foreign.
- 6.1.2.1.13. Column I – Technical Data Arrangements – Each item in the IP List must include specification of Technical Data arrangements; detailed in the relevant deeds, to secure access to Technical Data that satisfies the DND's IP requirements. This will include, for each IP item:
- 6.1.2.1.14. Technical Data that will be delivered immediately;
- 6.1.2.1.15. Technical Data that will be available/configuration controlled in escrow;
- 6.1.2.1.16. Technical Data that will be available/configuration controlled by the Contractor; and
- 6.1.2.1.17. Technical Data that will be available/configuration controlled by each sub-Contractor/third party.
- 6.1.2.1.18. Column J – IP Transition – Each item listed in the IP List must specify how the status of IP rights and access to Technical Data will be recorded and transitioned to future Contractors and sub-Contractors/third parties.
- 6.1.2.1.19. Column K – Export Approval – Each item in the IP List must specify export approval requirements where relevant, including Source Code and Software Design Data. Evidence of the Contractor's ability to export the required items, and details of all restrictions on the use of that material must both be provided.
- 6.1.2.1.20. The IP List must include the Background Information IP related to the equipment that the Contractor does NOT own and CANNOT provide Canada access to. For all such Background Information IP the following information is required:
- 6.1.2.1.21. Column A – Document Number – Document or publication index number.
- 6.1.2.1.22. Column B – (if available/releasable) Revision Level – Version number, date or other revision tracking indication.
- 6.1.2.1.23. Column C – (if available/releasable) Document Title
- 6.1.2.1.24. Column D – (if available/releasable) IP Registration Number/Detail (if applicable) – Format: <country of registration> <type of IP> <registration number>. Type of IP could be a copyright, patent, registered design, e.g. Canada Patent No.2,097,125
- 6.1.2.1.25. Column E – (if available/releasable) Date of Issue.



6.1.2.1.26. Column F – (if available/releasable) Originator – Company name and address.

6.1.2.1.27. Column G – Current Owner (if different from originator) – Company name and address.

6.1.2.1.28. Column H – Brief Description – A brief description of the Background Information IP must be provided for those items where the requested information in Column A to Column F inclusive, is not provided.

6.1.3. See tables below.

| Document Number | Revision Level | Document Title | IP Registration Number/Detail | Date of Issue | Originator | Current Owner (if different from Originator) | Limitations on the IP* |                 | Technical Data Arrangements | IP Transition | Export Approval |
|-----------------|----------------|----------------|-------------------------------|---------------|------------|--|------------------------|-----------------|-----------------------------|---------------|-----------------|
|                 |                |                |                               |               |            |  | Usage                  | Licensed Rights |                             |               |                 |
| (A)             | (B)            | (C)            | (D)                           | (E)           | (F)        | (G)  | (H)                    | (H)             | (I)                         | (J)           | (K)             |
|                 |                |                |                               |               |            |  |                        |                 |                             |               |                 |
|                 |                |                |                               |               |            |  |                        |                 |                             |               |                 |

\*Note: Where no change or modifications are made to the contract terms, insert N/A in column H

## 6.2. GENERAL FORMAT

6.2.1. The IPMPL must be prepared as

## 6.3. SOFT COPY FORMAT

6.3.1. The IPMPL must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The IPMPL PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-PM-003 – IPMPL – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The IPMPL PDF must be submitted on CD or DVD media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. IPMPL;

6.3.3.3. JTAC VTS-PM-003;

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.6 DID – Standard Report Format

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Standard Report Format</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-004</b>  |
| 3. DESCRIPTION<br>The Standard Report Format describes the structure for formal reports that the Contractor prepares.   |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.4.1 (pg. 13)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Contractor must use a standard format for reports prepared for the Crown.<br>6.1.2. The Contractor's report must consist of the following:<br>6.1.2.1. Title Page. The title page must contain the following information:<br>6.1.2.2. Title: list the name of the report<br>6.1.2.3. Contract No: state the contract number<br>6.1.2.4. CDRL No: identify the CDRL<br>6.1.2.5. Prepared For: state the name of the Project Management Office<br>6.1.2.6. Prepared By: state the Contractor's name and address<br>6.1.2.7. Approved by: provide a signature block for the Project Management Office<br>6.1.2.8. Authenticated By: provide a signature block for Contractor approval signature(s)<br>6.1.3. Table of Contents. The Table of Contents must list the title and page number of each titled paragraph and subparagraph, figure, table, and appendix.<br>6.1.4. Document Control Log. The Document Control Log must contain three columns: Revision, Date, and Reason for the Change.<br>6.1.5. Revision Record. The Revision Record must contain a listing of pages and their revision status. |   |

6.1.6. Subject Matter. This part contains the subject matter of the report.

6.1.7. Notes.

6.1.7.1. This part should contain any general information that aids in understanding the document, such as background information and a glossary.

6.1.7.2. This part should include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in the report.

6.1.8. Appendices.

6.1.8.1. Each appendix must be referenced in the report's main body where the data would normally have been provided.

6.1.8.2. Appendices may be used to provide information published separately for convenience in document maintenance, such as charts and classified data.

6.1.8.3. Appendices may be bound as separate documents for ease of handling.

### A3.7 DID – Project Progress Report

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Project Progress Report</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-005</b>  |
| 3. DESCRIPTION<br><p>The Project Progress Report summarizes the Contractor's progress regarding the project milestones, schedules, plans, and deliverable end items. It provides the status of the work accomplished concerning the plan, highlights problem areas, and the corrective actions to resolve any issues.</p>   |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.7.1 (pg. 14)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><p>6.1.1. The Contractor must propose the Project Progress Report format for approval by DND.</p> <p>6.1.2. The Project Progress Report must include the following:</p> <ul style="list-style-type: none"><li>6.1.2.1. An executive summary which covers significant elements of the report;</li><li>6.1.2.2. The Project Master Schedule with progress up to the last day of the reporting period;</li><li>6.1.2.3. Identification/update of risks;</li><li>6.1.2.4. Project performance assessment, progress, problem areas, and any work-around plans;</li><li>6.1.2.5. Update of progress for major subcontracts;</li><li>6.1.2.6. Production status against each major deliverable, the time phase of significant stages of production and the time phase of testing, validation, and verification, demonstration, and acceptance activities;</li><li>6.1.2.7. Status report on data Deliverable End Items as called up in the Contract Data Requirements List (CDRL);</li><li>6.1.2.8. Status of Engineering Change Proposals (ECPs), Deviation and Waiver requests where applicable;</li></ul> |   |

- 6.1.2.9. Financial review;
- 6.1.2.10. Action items outstanding; and
- 6.1.2.11. Any other areas of concern, interest, or importance.

## 6.2. **GENERAL FORMAT**

- 6.2.1. The Project Progress Report must be prepared as MS Office Suite Product

## 6.3. **SOFT COPY FORMAT**

- 6.3.1. The Project Progress Report must be submitted as a PDF file type.

- 6.3.2. **Soft Copy format submission size below 7MB** – The Project Progress Report PDF may be submitted via email as follows:

- 6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

- 6.3.2.2. Subject Field: JTAC VTS-PM-005 – Project Progress Report – [Rev #] – [Date of Issue]

- 6.3.3. **Soft Copy format submission size at or above 7MB** - The Project Progress Report] PDF must be submitted on a USB media and be labelled as follows:

- 6.3.3.1. Joint Terminal Attack Controller Virtual Training System
  - 6.3.3.2. Project Progress Report;
  - 6.3.3.3. JTAC VTS-PM-005;
  - 6.3.3.4. The Revision number, and
  - 6.3.3.5. The date of issue.

### A3.8 DID – Significant Incident Report

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Significant Incident Report</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-006</b>  |
| 3. DESCRIPTION<br>The Significant Incident Report is to be used by the Contractor to notify DND of any event that may severely impact the project.   |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.8.1 (pg. 14)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Contractor must propose the Significant Incident Report format for approval by DND.<br>6.1.2. The Significant Incident Report must be provided immediately upon the occurrence of any of the following situations:<br>6.1.2.1. A significant technical, logistical, or quality problem;<br>6.1.2.2. Significant schedule slippage or cost increase;<br>6.1.2.3. Safety incidents; and<br>6.1.2.4. Damage to the equipment to be delivered or Government Furnished Equipment (GFE).<br>6.1.3. The Significant Incident Report must contain the following:<br>6.1.3.1. The report number;<br>6.1.3.2. A brief description of the problem;<br>6.1.3.3. Action being taken to rectify the incident; and<br>6.1.3.4. Any additional significant information.<br>6.2. <b>GENERAL FORMAT</b><br>6.2.1. The Significant Incident Report must be prepared as<br>6.3. <b>SOFT COPY FORMAT</b> |   |

6.3.1. The Significant Incident Report must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The Significant Incident Report PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-PM-006 – Significant Incident Report – [Rev #]  
– [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Significant Incident Report PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Significant Incident Report;

6.3.3.3. JTAC VTS-PM-006;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.



### A3.9 DID – Meeting Agenda

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Meeting Agenda</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-007</b>  |
| 3. DESCRIPTION<br>The Meeting Agenda contains the venue information and identifies the discussion items to be covered at meetings.   |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.9.1.4 (pg. 14)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Meeting Agenda must set forth the venue, identify all requirements, and list the discussion items to be covered at the meeting.<br>6.1.2. Venue. The Meeting Agenda must address the venue as follows:<br>6.1.2.1. Meeting Identification Number;<br>6.1.2.2. Purpose;<br>6.1.2.3. Date, time and location; and<br>6.1.2.4. Attendees.<br>6.1.3. Discussion items. The Meeting Agenda must address the discussion items through the following sections:<br>6.1.3.1. Opening Remarks;<br>6.1.3.2. Agenda Review;<br>6.1.3.3. Review of Previous Minutes;<br>6.1.3.4. Opened Discussion Items;<br>6.1.3.5. New Discussion Items;<br>6.1.3.6. Review of Action Items;<br>6.1.3.7. Next Venue; and<br>6.1.3.8. Closing Remarks. |   |

## **6.2. SOFT COPY FORMAT**

6.2.1. The Meeting Agenda must be submitted as an MS Word file type.

6.2.2. The Meeting Agenda MS Word document must be submitted via email (submission size not to exceed 7MB) as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-PM-007 – Meeting Agenda – [Rev #] – [Date of Issue]

### A3.10 DID – Meeting Presentation Materials

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Meeting Presentation Materials</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-008</b>  |
| 3. DESCRIPTION<br>The Presentation Materials must consist of handouts or slides to be used as supplementary or supporting material during meetings.   |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.9.1.5 (pg. 14)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. This document must contain the presentation material, assembled by the Contractor, for all meetings where the Contractor is required to present or lead any portion of the meeting.<br>6.1.2. This document must normally consist appropriately formatted material to be used to convey information effectively and efficiently during meetings.<br>6.1.3. Specific presentation material content is subject to discussion between Canada and Contractor.<br><b>6.2. GENERAL FORMAT</b><br>6.2.1. The Meeting Presentation Materials may be prepared in the Contractor's preferred format acceptable to DND.<br><b>6.3. SOFT COPY FORMAT</b><br>6.3.1. The Meeting Presentation Materials must be submitted as a PDF file type.<br>6.3.2. <b>Soft Copy format submission size below 7MB</b> – The Meeting Presentation Materials PDF may be submitted via email as follows:<br>6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.<br>6.3.2.2. Subject Field: JTAC VTS-PM-008 – Meeting Presentation Materials – [Rev #] – [Date of Issue] |   |

**6.3.3. Soft Copy format submission size at or above 7MB - The Meeting Presentation Materials PDF must be submitted on CD or DVD media and be labelled as follows:**

- 6.3.3.1. Joint Terminal Attack Controller Virtual Training System
- 6.3.3.2. Meeting Presentation Materials;
- 6.3.3.3. JTAC VTS-PM-008;
- 6.3.3.4. The Revision number, and
- 6.3.3.5. The date of issue.

### A3.11 DID – Meeting Minutes

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Meeting Minutes</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-PM-009</b>  |
| 3. DESCRIPTION<br>The Meeting Minutes contains detailed records of proceedings, discussions, decisions, and action items from meetings.  |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 3.9.1.6 (pg. 14)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Meeting Minutes must contain the detailed records of proceedings, discussions, decisions, and action items from the meeting and be presented through the following sections:<br>6.1.1.1. General – consisting of meeting identification number, purpose, date, time, and location;<br>6.1.1.2. Attendees, consisting of the organization each person represents and the identification of the Chairperson(s);<br>6.1.1.3. Opening Remarks;<br>6.1.1.4. <b>Action Item Report</b> - used to monitor issues, assign responsibility, direct action, and track status, history, and progress, and must consist of:<br>6.1.1.4.1. Item #; date initiated; required action; assigned actionee; target completion date; cross-reference to all related action items.<br>6.1.1.4.2. Action Item Report must be <b>updated</b> with each meeting and must consist of:<br>6.1.1.4.2.1. Action Item current status and the actual date completed;<br>6.1.1.5. Next Venue;<br>6.1.1.6. Closing Remarks;<br>6.2. <b>SOFT COPY FORMAT</b><br>6.2.1. The Meeting Minutes must be submitted as a PDF file type. |   |

6.2.2. The Meeting Minutes PDF must be submitted via email (submission size not to exceed 7MB) as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-PM-009 – Meeting Minutes – [Rev #] – [Date of Issue]

### A3.12 DID – Systems Engineering Management Plan

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Systems Engineering Management Plan (SEMP)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-101</b>  |
| 3. DESCRIPTION<br>The SEMP describes the Contractor's strategy, plans, methodologies, and processes to manage a fully integrated engineering program IAW the contract. The SEMP describes the relationships between concurrent and sequential activities to demonstrate that a fully integrated engineering program has been achieved.   |   |
| 4. RELATED DOCUMENTS<br><b>IEEE 15288.1</b> , <i>IEEE Standard for Application of Systems Engineering on Defense Programs</i><br><b>IEEE 15288.2</b> , <i>IEEE Standard for Technical Reviews and Audits on Defense Programs</i><br><b>ANSI/EIA-649-C</b> , <i>Configuration Management Standard</i>   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.2.2.1 (pg. 18)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. <b>Engineering Management</b><br>6.1.1.1. The SEMP must define the engineering organization for the contract, including the key engineering positions and the partitioning of engineering efforts between the various Contractor and subcontractor organizations.<br>6.1.1.2. The SEMP must describe how technical effort will be coordinated to meet cost, schedule, and performance objectives.<br>6.1.1.3. The SEMP must summarise planned personnel needs, applicable to the various phases of the contract, by discipline and level of expertise.<br>6.1.1.4. The SEMP must identify the standards (e.g., IEEE 15288 and ANSI/EIA-649-C) to be utilized by the Contractor and subcontractors to undertake the Systems Engineering, software, Configuration Management (CM), and Verification activities, including the proposed tailoring of those standards to meet requirements of the contract.<br>6.1.1.5. The SEMP Management/Organization portion must describe the Contractor's systems engineering organization, responsibilities, terms of reference, internal operating relationships within the company, external working relationships with subcontractors, management relationships, management procedures, and supporting and tracking system. |   |

## **6.1.2. Systems Engineering Process**

6.1.2.1. The SEMP must define the tailored application of the Contractor's Systems Engineering process to the activities of the contract, including:

6.1.2.1.1. the major products and increments to be delivered;

6.1.2.1.2. the major outcomes to be achieved;

6.1.2.1.3. the major Systems Engineering tools that will be used for the Contract;

6.1.2.1.4. the methods for documentation and control of engineering and technical information, including expected specifications and Configuration Baselines;

6.1.2.1.5. the methods and tools for analysis and validation of system requirements;

6.1.2.1.6. the required implementation tasks, including the integration and assembly of the system; and

6.1.2.1.7. the approach, methods, procedures, and tools for systems analysis and control, including establishing and maintaining requirements traceability.

## **6.1.3. Technical Risk Management**

6.1.3.1. The SEMP must describe the risk-management strategies associated with any global, engineering-related risks.

## **6.1.4. Software Development and Management**

6.1.4.1. The SEMP must define the tailored application of the Contractor's software processes to the activities of the Contract, including:

6.1.4.1.1. the management of software development activities undertaken by subcontractors; and

6.1.4.1.2. the development of software being undertaken by the Contractor.

## **6.1.5. System Reviews**

6.1.5.1. The SEMP must describe the approach planned to establish and conduct all System Reviews (i.e., Mandated System Reviews and Internal System Reviews) required under the contract.

6.1.5.2. For each engineering-related System Review, the SEMP must describe the relationship between the System Review and other engineering program activities.

6.1.5.3. Based on the SOW requirements for System Reviews and the Contractor's internal processes, the SEMP must detail the following information for each of the engineering-related System Reviews:



- 6.1.5.3.1. organizations and individuals involved in the review and their specific review responsibilities;
- 6.1.5.3.2. proposed review venue;
- 6.1.5.3.3. review objectives;
- 6.1.5.3.4. pre-requisites for the conduct of the review (i.e., entry criteria);
- 6.1.5.3.5. actions to be addressed during the System Review, including the documentation to be reviewed;
- 6.1.5.3.6. essential review completion criteria (i.e., exit criteria); and
- 6.1.5.3.7. applicable Milestone criteria specified in the contract.

#### **6.1.6. Growth, Evolution, and Obsolescence**

- 6.1.6.1. The SEMP must, for the Contractor's growth, evolution, and Obsolescence program:

- 6.1.6.1.1. describe the technical measures and methods to be used to identify and assess candidate elements, including hardware and software items, and the primary candidate elements to be addressed under by program;
- 6.1.6.1.2. describe the application of design aspects (e.g., modularity and 'open architectures') to improve system growth, facilitate evolution, and counter Obsolescence;
- 6.1.6.1.3. identify the steps to be undertaken during the acquisition phase to balance technological maturity and Obsolescence risks, and solutions to minimize the complexity (and cost) of through-life upgrades; and
- 6.1.6.1.4. identify the steps to be undertaken during the support phase to maintain effective and supportable equipment configurations and the expected need for upgrades.

#### **6.1.7. Human Engineering**

- 6.1.7.1. The SEMP must, for the Contractor's Human Engineering program:

- 6.1.7.1.1. identify the standards to be used and that have been used for COTS / MOTS items, and describe the application of those standards to meet the Human Engineering requirements of the system;
- 6.1.7.1.2. the activities, including system functional requirements analysis, equipment design, and procedures development activities, to be undertaken to meet the Human Engineering required under the contract; and
- 6.1.7.1.3. the verification methods to be applied for the Human Engineering program.

#### **6.1.8. Electromagnetic Environmental Effects**

6.1.8.1. The SEMP must, for the Contractor's Electromagnetic Environmental Effects (E3) program:

6.1.8.1.1. identify the standards to be used, and describe the application of those standards to meet the E3 program required under the Contract;

6.1.8.1.2. identify the E3-related requirements applicable to the system, including certification and regulatory requirements, and describe the approach to ensure that the requirements are met and to obtain all applicable certifications; and

6.1.8.1.3. describe the V&V methods to be applied for the E3 program.

**6.1.9. System Security**

6.1.9.1. The SEMP must, for the Contractor's system security program:

6.1.9.1.1. identify the security-related requirements applicable to the system;

6.1.9.1.2. describe the approach to ensure that the security-related requirements are met and to obtain any applicable certifications; and

6.1.9.1.3. describe the method(s) to verify that the system security-related requirements have been met.

**6.1.10. Configuration Management**

6.1.10.1. The SEMP must describe the Contractor's CM methodology, processes, and activities for meeting the CM requirements of the contract, including:

6.1.10.1.1. the approach planned to establish and maintain Configuration Control and audit of identified system products and processes;

6.1.10.1.2. the requirements for establishing Configuration Baselines and the documentation to be used to define each baseline; and

6.1.10.1.3. the approach planned to establish and maintain control of external and internal interfaces.

**6.1.10.2. Configuration Identification**

**6.1.10.2.1. Selection of Configuration Items**

6.1.10.2.1.1. The SEMP must define the procedures for selecting CIs and detail the criteria used for their selection. By inclusion or reference, the SEMP must define the list of CIs and their respective specifications and other defining top-level documentation.

**6.1.10.2.2. Configuration Baselines**

6.1.10.2.2.1. The SEMP must define the requirements for establishing Configuration Baselines and include:

6.1.10.2.2.1.1. the procedures for the establishment of, at least, the Functional, Allocated and Product Baselines; and

6.1.10.2.2.1.2. the documentation to be used to define each Configuration Baseline.

6.1.10.2.3. Engineering Release

6.1.10.2.3.1. The SEMP must define the procedures for issuing approved configuration documentation, and amendments to this documentation, to functional activities (e.g., manufacturing, logistics, and acquisition) within the Contractor's organization.

6.1.10.2.4. Configuration Control

6.1.10.2.4.1. The SEMP must define the procedures, including DND involvement, and associated documentation for processing the following:

6.1.10.2.4.1.1. classification of changes, and the level of authority for change approval/concurrence;

6.1.10.2.4.1.2. Contractual change requests;

6.1.10.2.4.1.3. Major Changes;

6.1.10.2.4.1.4. Minor Changes;

6.1.10.2.4.1.5. requests for Deviations/Waivers; and

6.1.10.2.4.1.6. Specification Change Notices.

6.1.10.3. Configuration Status Accounting (CSA)

6.1.10.3.1. The SEMP must define the procedures for CSA, including:

6.1.10.3.1.1. methods for collecting, recording, processing, and maintaining the data required to provide accounting information status through reports on the CSA database.

6.1.10.3.1.2. a complete description of the CSA database for the areas related to:

6.1.10.3.1.2.1. the identification of the currently approved configuration documentation and configuration identifiers associated with each CI;

6.1.10.3.1.2.2. the status of proposed engineering changes from initiation to implementation;

6.1.10.3.1.2.3. the results of configuration audits, and the status and disposition of discrepancies;

6.1.10.3.1.2.4. the status of requests for deviations;

6.1.10.3.1.2.5. the ability to trace changes from the baseline documentation of each CI; and

6.1.10.3.1.2.6. the effectiveness and installation status of configuration changes to all CI's.

#### 6.1.10.4. Configuration Audits

6.1.10.4.1. The SEMP must:

6.1.10.4.1.1. describe the Contractor's methodology and processes to establish and conduct Physical Configuration Audits (PCA);

6.1.10.4.1.2. describe the plans, procedures, documentation, and schedules for the audits; and

6.1.10.4.1.3. describe the format for reporting results of in-process audits.

#### 6.1.10.5. Subcontractor Control

6.1.10.5.1. The SEMP must define the methods used to ensure that subcontractors comply with the contract's Configuration Management requirements.

#### 6.1.11. Verification

6.1.11.1. The SEMP must, for the Contractor's Verification program:

6.1.11.1.1. describe the overall Verification program objectives, activities, and schedule;

6.1.11.1.2. describe the use of the RTVM and the extent to which previous Verification results are proposed to be used for Acceptance Verification purposes;

6.1.11.1.3. describe the process for recording Failure reporting and analysis and the approach to regression testing; and

6.1.11.1.4. identify the requirements for DND Personnel and other resources to conduct the Verification program.

#### 6.1.11.2. Verification Activities

6.1.11.2.1. The SEMP must describe the verification activities to demonstrate that the system offered for acceptance complies with the contract requirements.

6.1.11.2.2. The SEMP must describe all test activities to be included in the verification of the system.

6.1.11.2.3. The SEMP must detail requirements and procedures for the DND provision of resources for and involvement in or witness verification activities.

6.1.11.2.4. Where the Contractor proposes to claim previous verification results as precluding the need for specific verification activities within the Verification program, the SEMP must summarise:

- 6.1.11.2.4.1. the scope and context of the previous verification activities;
- 6.1.11.2.4.2. the reasons why the previous results preclude the need for specific verification activities, including how the previous results are valid for the configuration of the system and the intended operational role and environment; and
- 6.1.11.2.4.3. how the previous verification results will be integrated into the planned verification activities and the RTVM.

#### 6.1.11.3. Flow Diagram

6.1.11.3.1. The SEMP must include an overall flow diagram of the verification program for the system; this flow must be sequentially arranged to include:

- 6.1.11.3.1.1. all significant verification milestones and efforts in the development phase associated with each class of verification;
- 6.1.11.3.1.2. hardware and software integration schedules;
- 6.1.11.3.1.3. requirements for concurrency of verification activities;
- 6.1.11.3.1.4. the Contractor/subcontractor or group responsible for each verification event; and
- 6.1.11.3.1.5. any additional information that clarifies the description of the test program.

6.1.11.3.2. The flow diagram must reflect predicted dates for significant milestones.

#### 6.1.11.4. Verification Objectives

6.1.11.4.1. The SEMP must specify the broad objective for each verification phase for the system, and objectives must be specified to verify part or all the system or lower-level specifications (e.g., subsystem specifications).

#### 6.1.11.5. Test Readiness Reviews

6.1.11.5.1. The SEMP must outline the procedures for conducting Test Readiness Reviews (TRRs).

#### 6.1.11.6. Failure and Corrective Action Management

6.1.11.6.1. The SEMP must describe the Problem Resolution System used to collect Failure data for the system and identify when it will be established.

6.1.11.6.2. The SEMP must identify the process used to, analyze failures and track the corrective action taken due to a failure and the interaction with the engineering development groups, logistic organization, subcontractors, and the DND.

6.1.11.6.3. The SEMP must identify how regression testing for the system will be managed following test failure or design change throughout the Verification program.

## 6.2. **SOFT COPY FORMAT**

6.2.1. The SEMP must be submitted as a PDF file type.

6.2.2. **Soft Copy format submission size below 7MB** – The SEMP may be submitted via email as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-SE-101 – SEMP – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The SEMP must be submitted on a USB A USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. SEMP;

6.2.3.3. JTAC VTS-SE-101;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.

### A3.13 DID – Mandated System Review Package

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Mandated System Review (MSR) Package</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-102</b>  |
| 3. DESCRIPTION<br>The purpose of the MSR Package is to allow the Contractor and DND Representatives to prepare for MSRs to gain maximum value from the reviews.  |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.2.5.4 (pg. 18)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The MSR Package must include information to be reviewed and discussed at the specific MSR, including:<br>6.1.1.1. documentation that is necessary to show that the objectives of the MSR have been satisfied;<br>6.1.1.2. presentation material on the topics of discussion as described in the SOW;<br>6.1.1.3. all relevant documents not previously delivered and needed to meet the objectives and entry criteria of the MSR;<br>6.1.1.4. where applicable to the MSR, status of technical performance measures against expectations; and<br>6.1.1.5. where applicable to the MSR, current configuration status along with any identified discrepancies in Configuration Baselines.<br>6.2. <b>SOFT COPY FORMAT</b><br>6.2.1. The MSR Package must be submitted as a PDF file type.<br>6.2.2. <b>Soft Copy format submission size below 7MB</b> – The MSR Package may be submitted via email as follows:<br>6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract. |   |

6.2.2.2. Subject Field: JTAC VTS-SE-102 – MSR Package – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The MSR Package must be submitted on a USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. MSR Package;

6.2.3.3. JTAC VTS-SE-102;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.



### A3.14 DID – Equipment Specification

| DATA ITEM DESCRIPTION  |  |
|--|--|
| 1. TITLE<br><b>Equipment Specification</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-103</b>   |
| 3. DESCRIPTION<br>The Equipment Specification describes the overall system, its subsystems, and major assemblies while providing performance and design traceability to the System Requirements Specification (SRS).   |  |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.2.7.1(pg. 20)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. The subject matter section of the Equipment Specification must include, but not be limited to, the following:<br>6.1.1.1. A detailed description of the total system and each of its subsystems and major assemblies.<br>6.1.1.2. The description must be consistent with the anticipated Equipment Breakdown Structure;<br>6.1.1.3. A detailed description of the integration of the system/subsystems/major assemblies and their relationships.<br>6.1.1.4. The description must include the use of system block diagrams, where applicable;<br>6.1.1.5. A detailed performance and design requirements of the system that are traceable back to the SRS;<br>6.1.1.6. A detailed description of the integration and upgrade activities to meet all the requirements of the SRS;<br>6.1.1.7. A cross-reference matrix that:<br>6.1.1.7.1. shows the traceability of each requirement in the Equipment Specification to the applicable requirement(s) of the SRS;<br>6.1.1.7.2. identifies at least one traceable requirement from the Equipment Specification to every requirement of the SRS; |  |

6.1.1.7.3. identifies the requirements of the SRS that are not satisfied; and

6.1.1.7.4. describes or references (9.2 f. above) the integration and upgrades to satisfy each of the requirements of Section 2 of the SRS; and

6.1.1.8. Vendor specification sheets for installed, or to be installed, off-the-shelf equipment other than the Government Supplied Materiel (GSM).  
(MANDATORY – must be filled in).

## 6.2. GENERAL FORMAT

6.2.1. The Equipment Specification must be prepared as a PDF in the Contractors format.

## 6.3. SOFT COPY FORMAT

6.3.1. The Equipment Specification must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The Equipment Specification PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-103 – Equipment Specification – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Equipment Specification PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Equipment Specification;

6.3.3.3. JTAC VTS-SE-103;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.15 DID – Requirements Traceability Verification Matrix

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Requirements Traceability Verification Matrix (RTVM)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-104</b>  |
| 3. DESCRIPTION<br><p>The RTVM provides bidirectional traceability from high-level system performance requirements to the lowest-level requirements. The RTVM shows the traceability and allocation of the specification tree requirements (i.e., performance specification, detailed specification, subsystem specification, software requirements specification, interface specification, and design documentation). The RTVM is also used to verify how each requirement is verified.</p>  |   |
| 4. RELATED DOCUMENTS<br>Technical Specification at Appendix A1.0 to ANNEX A  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.2.7.1 (pg. 20)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The RTVM must provide backwards and forward traceability through multiple levels of design hierarchy (i.e., the RTVM must document each requirement from its source through analysis, design, testing, and acceptance) to assess the impact of potential specification changes.<br>6.1.2. The RTVM must include the verification criteria for each requirement for testing purposes.<br>6.1.3. <u>For the PDR and CDR</u> , the RTVM must contain the following:<br>6.1.3.1. <b>Architecture Description Page:</b> Include a detailed description of the RTVM, show relationships, and define all the terms, acronyms used in the RTVM fields.<br>6.1.3.2. <b>Unique Identification:</b> A unique identifier for each requirement;<br>6.1.3.3. <b>Requirement Source &amp; Reference:</b> The paragraph number and requirement statement (or a summary of the requirement to provide context);<br>6.1.3.4. <b>Requirement Allocation:</b> Enter the specific system, subsystem, hardware item, component, Computer Software Configuration Item, Computer Software Component, and Computer Software Unit that each |   |

requirement has been allocated. System-level requirements must be allocated to all Configuration Items defined for the system.

6.1.3.5. **Form of End Product:** Enter the form and maturity level of the end product used for verification. For example, the form can be the system, subsystem, unit level, software configuration item, and the maturity level can be the prototype, first production article, or final configuration item.

6.1.3.6. **Verification Method:** For each requirement, enter the verification method as follows:

6.1.3.6.1. "Certification" – Two forms of Certification are possible: - the first would be from a 3rd party recognized association of technical knowledge and expertise in the functional area being sought, and the second from an "in house" qualified expert that would certify that the standards are met IAW their testing or investigation and is attesting to their professional opinion.

6.1.3.6.2. "Analysis" – An element of verification that uses established technical or mathematical models or simulations, algorithms, charts, graphs, circuit diagrams, or other scientific principles and procedures to provide evidence that stated requirements were met.

6.1.3.6.3. "Inspection" – An element of verification that is generally non-destructive and typically includes the use of sight, hearing, smell, touch, and taste; simple physical manipulation; and mechanical and electrical gauging and measurement.

6.1.3.6.4. "Demonstration" – An element of verification that involves the actual operation of an item to provide evidence that the required functions were accomplished under specific scenarios. The items may be instrumented, and performance monitored.

6.1.3.6.5. "Test" – An element of verification in which scientific principles and procedures are applied to determine the properties or functional capabilities of items.

6.1.3.7. **Description of Verification:** A brief description of the verification method, intended as a vehicle for early agreement by both parties to define the scope of the verification activities.

6.1.3.8. **Comments:** Enter explanatory notes as required.

6.1.4. For the TRR and after completion of the Acceptance Verification (and ATRs), the RTVM must contain the following:

6.1.4.1. **Verification Document:** Enter the document number, title, and date of the verification document that contains the verification method.

6.1.4.2. **Verification Document Paragraph:** Enter the verification document paragraph number that provides the verification method.

6.1.4.3. **Verification Procedure:** Enter the verification procedure section and verification procedure step(s) that provides the verification method for each requirement.

6.1.4.4. **Other Tests:** Enter the names of other tests conducted before verification of the requirement, where the requirement is being tested.

6.1.4.5. **Verification Results:** Enter the results of the verification for each requirement. Did the system under test conform to the requirement? (Yes, No).

6.1.4.6. **Corrective Actions:** Enter all corrective actions that are taken and the results of the corrective actions.

6.1.4.7. **Comments:** Enter explanatory notes as required.

## 6.2. **SOFT COPY FORMAT**

6.2.1. The RTVM must be in an electronic relational database DOORS 9.5 format that can be manipulated to show bidirectional requirements traceability and track the verification of each requirement.

6.2.2. **Soft Copy format submission size below 7MB** – The RTVM may be submitted via email as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-SE-104 – RTVM – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The RTVM must be submitted on a USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. RTVM;

6.2.3.3. JTAC VTS-SE-104;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.

### A3.16 DID – Reliability and Maintainability (R&M) Predictions Data

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Reliability and Maintainability (R&amp;M) Predictions Data</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-105</b>  |
| 3. DESCRIPTION<br>The R&M Predictions Data provides the baseline reliability and maintainability data for the equipment/system.   |   |
| 4. RELATED DOCUMENTS<br>GEIA-STD-0007-B, Logistics Product Data   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.3.1.2.1.5 (pg. 21)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Contractor must propose the R&M Predictions Data format for approval by DND.<br>6.1.2. The Contractor must include the following within the R&M Predictions Data:<br>6.1.2.1. Inherent Availability (GEIA 2560)<br>6.1.2.2. Failure Rate (GEIA 2240)<br>6.1.2.3. Means of Detection (GEIA 3370)<br>6.1.2.4. Built-In-Test Detectability Level Percentage (GEIA 1360)<br>6.1.2.5. Fault Isolation (concerning Ambiguity Groups) (GEIA 2260)<br>6.1.2.6. Maximum Time to Repair (GEIA 3170)<br>6.1.2.7. Percentile (Maximum time to repair achieved) (GEIA 3880)<br>6.1.2.8. Mean Time To Repair (GEIA 3360)<br>6.1.2.9. Mean Time Between Failures (GEIA 3270)<br>6.1.2.10. Mean Time Between Maintenance Actions (GEIA 3280)<br>6.1.2.11. Mean Time Between Maintenance Induced (GEIA 3290)<br>6.1.2.12. Mean Time Between Maintenance No Defect (GEIA 3310)<br>6.1.2.13. Mean Time Between Preventive Maintenance (GEIA 3300)<br>6.1.2.14. Measurement Base (GEIA 3380) |   |

6.1.2.15. Mean Time Between Removals (GEIA 3340)

6.1.2.16. Wear out Life (GEIA 5820)

6.1.3. The encoding of the data elements must be IAW GEIA-STD-0007-B; the information within parenthesis is the Data Type number for the particular data element.

6.1.4. The quality of the data, i.e., predicted, measured, or actual, must be indicated for the R&M Predictions Data provided.

**6.2. GENERAL FORMAT**

6.2.1. The Reliability and Maintainability (R&M) Predictions Data must be prepared as a PDF.

**6.3. SOFT COPY FORMAT**

6.3.1. The Reliability and Maintainability (R&M) Predictions Data must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The Reliability and Maintainability (R&M) Predictions Data PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-105 – Reliability and Maintainability (R&M) Predictions Data – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Reliability and Maintainability (R&M) Predictions Data PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Reliability and Maintainability (R&M) Predictions Data;

6.3.3.3. JTAC VTS-SE-105;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.17 DID – System Data Packages & Equipment Lists

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>System Data Packages &amp; Equipment Lists</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-106</b>  |
| 3. DESCRIPTION<br>The System Data Packages and Equipment List must be comprised of all the technical details for hardware, software and data to be delivered for the JTAC VTS and a full list of all equipment procured for the JTAC VTS as a matter of record denoting which items in the equipment list are sensitive or controlled items as well as which are consumables.   |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.4.3.1 (pg. 26)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The System Data Packages must contain all information required to develop NATO Stock Numbers (NSN) for entry into the Canadian Forces Supply System (CFSS) for cataloguing. The exact information required will be determined by the Life Cycle Materiel Manager (LCMM) during the design and will include, at a minimum, the following information for each item / equipment:<br><br>6.1.2. 6.1.1.1. Sensitive or Controlled Good;<br>6.1.3. 6.1.1.2. Item Name;<br>6.1.4. 6.1.1.3. Manufacturer;<br>6.1.5. 6.1.1.4. CAGE Code<br>6.1.6. 6.1.1.5. Model Number;<br>6.1.7. 6.1.1.6. Part Number;<br>6.1.8. 6.1.1.7. Serial Number;<br>6.1.9. 6.1.1.8. Options associated with the equipment;<br>6.1.10. 6.1.1.9. Description;<br>6.1.11. 6.1.1.10. Physical dimensions (H x W x L);<br>6.1.12. 6.1.1.11. Weight; |   |



- 6.1.13. 6.1.1.12. Physical location;
- 6.1.14. 6.1.1.13. Replacement Cost;
- 6.1.15. 6.1.1.14. Drawings and/or photographs; and
- 6.1.16. 6.1.1.15. High-level assembly drawings.

## 6.2. **SOFT COPY FORMAT**

- 6.2.1. 6.2.1. The System Data Packages & Equipment List may be in the Contractor's preferred format acceptable to DND.
- 6.2.2. **Soft Copy format submission size below 7MB** – The Engineering Drawings and Associated Lists may be submitted via email as follows:
  - 6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.
  - 6.2.2.2. Subject Field: JTAC VTS-SE-106 – Engineering Drawings and Associated Lists – [Rev #] – [Date of Issue]
- 6.2.3. **Soft Copy format submission size at or above 7MB** - The Engineering Drawings and Associated Lists must be submitted on a USB media and be labelled as follows:
  - 6.2.3.1. Joint Terminal Attack Controller Virtual Training System
  - 6.2.3.2. Engineering Drawings and Associated Lists;
  - 6.2.3.3. JTAC VTS-SE-106;
  - 6.2.3.4. The Revision number, and
  - 6.2.3.5. The date of issue.

### A3.18 DID – Cybersecurity Architecture Description

| DATA ITEM DESCRIPTION   |  |
|---|--|
| 1. TITLE<br><b>Cybersecurity Architecture Description (CSAD)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-107</b>   |
| 3. DESCRIPTION<br>The purpose of the Cybersecurity Architecture Description (CSAD) is to describe the Cybersecurity Architecture required to meet the System Cybersecurity Requirements for the JTAC VTS.   |  |
| 4. RELATED DOCUMENTS<br>A) NIST 800-160 Vol 1 version 2<br>B) DNDAFv1.8.1<br>C) UAFv1.1<br>D) NAFv4<br>E) ISO/IEC/IEEE 42010:2011 Systems and software engineering — Architecture description<br>F) ISO/IEC/IEEE 15288.1:2014 Standard for Application of Systems Engineering on Defense Programs<br>G) ISO/IEC/IEEE 15288.2:2014 Standard for Technical Reviews and Audits on Defense Programs<br>Additional information to assist in the application of the data item and potential interdependencies with other DIDs.<br>System Architecture, views and viewpoints (where available)<br>Architecture, views and viewpoints (where available)<br>System Requirements<br>System Cybersecurity Requirements | 5. CONTRACT REFERENCE<br><b>SOW: Para. 4.5.6.1 (pg.29)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Cybersecurity Architecture Description (CSAD) document describes the representative cybersecurity architecture of the system. The CSAD may be included as part of the SEMP DID - JTAC VTS-SE-117.<br>6.1.2. The CSAD must include an overview with a summary of the purpose of this document including security or privacy considerations.<br>6.1.3. System Scope  |  |

6.1.3.1. The CSAD must refer to or include system identification information which may include:

- 6.1.3.1.1. Identification numbers;
- 6.1.3.1.2. Titles;
- 6.1.3.1.3. Version numbers; and
- 6.1.3.1.4. Release numbers.

6.1.3.2. The CSAD must refer to or include the following content as applicable:

- 6.1.3.2.1. conceptual and logical System Breakdown Structure identifying functional elements needing protection;
- 6.1.3.2.2. threat model used in defining CS threat context;
- 6.1.3.2.3. system context diagram clearly identifying external connections and interfaces, and considerations for related vulnerability mitigations;
- 6.1.3.2.4. System Internal Interfaces Description;
- 6.1.3.2.5. HW/Network diagram;
- 6.1.3.2.6. SW to HW host allocation;
- 6.1.3.2.7. Communications Links (description and diagram);
- 6.1.3.2.8. functional flow block diagram; end-to-end data flow or ICD;
- 6.1.3.2.9. data schemas for messaging and persistence and identification of data needing to be protected, partitioned or segregated;
- 6.1.3.2.10. system use cases to illustrate the behavioural aspects of the System;
- 6.1.3.2.11. state models identifying, when applicable, secure modes of the system and where applicable the need to isolate parts of the system in different runtime elements;
- 6.1.3.2.12. the trust relationships between system elements and between the system and external systems as may be applicable; and
- 6.1.3.2.13. CS Architectural Views and Models at the logical level.

6.1.3.3. System Overview

- 6.1.3.3.1. The CSAD must specify which Architectural Frameworks and Architecture Description Languages (e.g. UML, SysML) will be used to specify the Security Architecture Views and Models. The Architectural Frameworks selected may be a hybrid of more than one framework such as DNDAF, UAF, NAF, etc.
- 6.1.3.3.2. The CSAD must specify which Architectural tool(s) and reporting format will be used to maintain the CSAD views and models.

6.1.3.3.3. In the development of the CSAD, the output from ref A, section 3.4.4 Architecture Definition Process activities and tasks must be considered and tailored to the level of details that System Architecture is performed on the project.

6.1.3.3.4. The CSAD must include consideration of cybersecurity concerns listed at Ref. A, Table F-1: Taxonomy of Security Design Principles.

6.1.3.3.5. The CSAD must identify additional Cybersecurity System Requirements resulting from the architecture definition process.

## 6.2. GENERAL FORMAT

6.2.1. The Cybersecurity Architecture Description may be prepared in the Contractor's format following a Cybersecurity Architecture Definition process as defined in NIST 800-160 v1.

### 6.2.2. Change History

6.2.2.1. Cybersecurity Architecture Description must include a change history summary section which contains the following:

6.2.2.1.1. a clear and unique version/revision identifier for each submission or resubmission CSAD;

6.2.2.1.2. clear identification of revisions or amendments within the document from its previous submission; and

6.2.2.1.3. rationale for the revisions and amendments.

6.2.2.2. All the above revisions / amendments must be clearly identified within the document by using suitable change tracking features or configuration management such as "Track Changes", side bars, etc.

## 6.3. SOFT COPY FORMAT

6.3.1. The CSAD must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The CSAD PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-107 – CSAD – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The CSAD PDF must be submitted on CD or DVD media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. CSAD;

6.3.3.3. JTAC VTS-SE-107;

6.3.3.4. The Revision number, and

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

#### 6.3.3.5. The date of issue.

### A3.19 DID – Configuration Management Plan

| DATA ITEM DESCRIPTION  |  |
|--|--|
| 1. TITLE<br><b>Configuration Management Plan</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-108</b>   |
| 3. DESCRIPTION<br>The CMP describes the configuration management (CM) program, including the methods, procedures, and controls used to assure effective configuration identification, change control, status accounting, and audits of the configuration.  |  |
| 4. RELATED DOCUMENTS<br>ACMP-2009-SRD-41 Examples of CM Plan Requirements<br>GEIA-HB-649 CM Standard Implementation Guide<br>Standard Report Format DID  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 5.2.1.1(pg. 29)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. The Contractor must prepare the CMP IAW the related documents at para 4 of this DID.<br>6.1.2. General defence system definition and scope;<br>6.1.3. Description of activities and procedures for each major CM function;<br>6.1.4. Organization, roles, responsibilities, and resources;<br>6.1.5. Definition of terms;<br>6.1.6. Programmatic and organizational interfaces;<br>6.1.7. Deliverables, milestones, and schedules; and<br>6.1.8. Subcontract flow-down requirements.<br><b>6.2. GENERAL FORMAT</b><br>6.2.1. The Configuration Management Plan must be prepared as a PDF.<br><b>6.3. SOFT COPY FORMAT</b><br>6.3.1. The Configuration Management Plan must be submitted as a PDF file type.<br>6.3.2. <b>Soft Copy format submission size below 7MB</b> – The Configuration Management Plan PDF may be submitted via email as follows:<br>6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract. |  |

6.3.2.2. Subject Field: JTAC VTS-SE-108 – Configuration Management Plan –  
[Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Configuration Management Plan PDF must be submitted on a USB media and be labelled as follows:

- 6.3.3.1. Joint Terminal Attack Controller Virtual Training System
- 6.3.3.2. Configuration Management Plan;
- 6.3.3.3. JTAC VTS-SE-108;
- 6.3.3.4. The Revision number, and
- 6.3.3.5. The date of issue.

## A3.20 DID – Software Version Description Document (SVDD)

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Software Version Description Document (SVDD)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-109</b>  |
| 3. DESCRIPTION<br><p>The Software Version Description Document (SVDD) identifies and describes a software version comprising one or more CSCIs. It is used to release, track and control software versions. The SVDD applies to the software's initial release, subsequent Block Changes or releases, and any site-specific variants of the software.</p>  |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 5.3.2.1 (pg. 30)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><b>6.1.1.</b> This DID is not meant to be restrictive and may be tailored by the Contractor with the Technical Authority's agreement. The resulting document may be prepared in Contractor's format and must contain sufficient detail to address the following subjects fully:<br><b>6.1.2. Identification</b><br><b>6.1.2.1.</b> Software system title<br><b>6.1.2.2.</b> Variant ID – Identify the applicable software system variant or adaptation (e.g., French or English)<br><b>6.1.2.3.</b> Block Change or release number – Identify the software Block Change or release number applicable to the above variant<br><b>6.1.2.4.</b> Release date<br><b>6.1.3. Security Classification</b> – State the security level of the software version.<br><b>6.1.4. Applicability</b> – Identify the system to which the software version applies.<br><b>6.1.4.1.</b> Applicable System – Copy the System Abstract paragraph from the System Overview (SOV) document to establish the system context and applicability<br><b>6.1.4.2.</b> Target platform – Identify the specific computing platform or class of platforms to which the relevant Block Change or version is applicable |   |



### 6.1.5. Version Description

- 6.1.5.1. Inventory of materials released – List all physical distribution media and associated documentation for the software being released. Use titles, identifying numbers, dates, version numbers, and release numbers, as applicable. Indicate any applicable restrictions regarding licensing, duplication, and security considerations
- 6.1.5.2. Inventory of software contents – For each physical distribution medium, list the computer files contained thereon. Include the file names, versions, dates, and any other pertinent information
- 6.1.5.3. Target platform configuration – Specify the required configuration of the target platform before this software version can be installed and executed, or reference a hardware specification document
- 6.1.5.4. Adaptation data – For the initial software release, describe the site-specific data or customizations featured in this software version, corresponding to the target platform above. For subsequent releases, describe any changes to the site-specific data
- 6.1.5.5. Installation and check-out instructions – Give detailed instructions on:
  - 6.1.5.5.1. How to install this software release on the target platform
  - 6.1.5.5.2. How to determine whether the installed software is working properly
  - 6.1.5.5.3. Point-of-contact in case difficulties are encountered with the software installation
  - 6.1.5.5.4. Applicable security, privacy, or safety precautions
- 6.1.5.6. Disposal instructions – What to do with the previously released software version after this version has been successfully installed. Include security considerations if applicable
- 6.1.5.7. Changes installed – Describe the changes, which have been implemented in the current software version as compared to the previous one. These software changes may include both enhancements as well as fault fixes. This paragraph does not apply to the initial release of the software
- 6.1.5.8. Possible problems and known errors – Identify any possible problems or known errors in the software version, including:
  - 6.1.5.8.1. How to avoid the relevant errors
  - 6.1.5.8.2. How to recognize and recover from the consequences of the errors
  - 6.1.5.8.3. What is being done to correct the problems permanently, and when a resolution can be expected
- 6.1.5.9. Related documents – List any other documents, which apply to the software version being released, but which are physically not included in this

release. Indicate the document titles, document numbers, version numbers, version dates, and publication source

6.1.6. **Supplementary Notes** – Any additional information about the software version, which may facilitate installer or user understanding (e.g. acronyms, definitions, background information, and rationale).

## 6.2. GENERAL FORMAT

6.2.1. The Software Version Description Document (SVDD) must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The Software Version Description Document (SVDD) must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The Software Version Description Document (SVDD) PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-109 – Software Version Description Document (SVDD) – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Software Version Description Document (SVDD)PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Software Version Description Document (SVDD);

6.3.3.3. JTAC VTS-SE-109;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.21 DID – Equipment Breakdown Structure (EBS)

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Equipment Breakdown Structure (EBS)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-110</b>  |
| 3. DESCRIPTION<br>The EBS decomposes a system into discrete elements for purposes of; <ul style="list-style-type: none"><li>identifying candidates for logistics analysis as detailed in the Logistics Support Analysis (LSA) Plan;</li><li>identifying configuration items as detailed in the CM Plan; and</li><li>identifying those items used within another system. This common item list will be used by the Technical Authority to rationalize test requirements and to identify common repair parts.</li></ul>   |   |
| 4. RELATED DOCUMENTS<br>Standard Report Format DID JTAC VTS-PM-009  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 5.3.3.1 (pg. 30)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Contractor must structure the EBS Report IAW the format specified by the Standard Report Format DID JTAC VTS-PM-009.<br>6.1.2. The Contractor must list the following under the Subject Matter part of the EBS Report: <ul style="list-style-type: none"><li>6.1.2.1. The EBS in a family tree format;</li><li>6.1.2.2. The relationship of items which combine to perform the same function; and</li><li>6.1.2.3. Items used in other systems.</li></ul> 6.2. <b>GENERAL FORMAT</b><br>6.2.1. The Equipment Breakdown Structure (EBS)] must be prepared as a PDF.<br>6.3. <b>SOFT COPY FORMAT</b><br>6.3.1. The Equipment Breakdown Structure (EBS) must be submitted as a PDF file type. |   |

**6.3.2. Soft Copy format submission size below 7MB** – The Equipment Breakdown Structure (EBS)] PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-110 – Equipment Breakdown Structure (EBS) – [Rev #] – [Date of Issue]

**6.3.3. Soft Copy format submission size at or above 7MB** - The Equipment Breakdown Structure (EBS) PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Equipment Breakdown Structure (EBS);

6.3.3.3. JTAC VTS-SE-110;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

## A3.22 DID – Engineering Change Proposal

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Engineering Change Proposal (ECP)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-111</b>  |
| 3. DESCRIPTION<br>An ECP is a request for authorization to make changes to an approved baseline. An ECP includes the documentation both to describe and to substantiate the engineering change.   |   |
| 4. RELATED DOCUMENTS<br><b>ACMP-2009 – Guidance on Configuration Management</b>   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 5.4.2 (pg. 30)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The following refers to the ECP form following this DID.<br>6.1.2. <b>Block 1.</b> The Contractor must enter the submittal date of the ECP.<br>6.1.3. <b>Block 2.</b> The Contractor must enter the originating organization's name, address and contact information.<br>6.1.4. <b>Block 3.</b> The Contractor must classify the ECP IAW ACMP-2009 and enter the class of ECP as either "Class I" or "Class II".<br>6.1.5. <b>Block 4.</b> The Contractor must use at least one of the following codes to classify the ECP:<br>6.1.5.1. B – Functional Baseline, Allocated Baseline or Product Baseline changed from established baseline;<br>6.1.5.2. C – Compatibility with interfacing items;<br>6.1.5.3. D – Delivered operational or maintenance manuals require change;<br>6.1.5.4. G – Government Furnished Equipment affected;<br>6.1.5.5. I – Interchangeability or replaceability affected;<br>6.1.5.6. O – Operational or logistics support change;<br>6.1.5.7. P – Personnel skills, manning, training or human factors engineering;<br>6.1.5.8. S – Safety or security; or<br>6.1.5.9. Z – Contractual item such as cost or schedule. |   |

6.1.6. **Block 5.** The Contractor must recommend the priority for processing the ECP from the following:

- 6.1.6.1. E - Emergency. Vital modification is required to rectify a condition that may result in a serious hazard to personnel or equipment or seriously compromise national security. ECP to be actioned within 24 hours.
- 6.1.6.2. U - Urgent. Urgent modification is required to rectify a condition that results in degraded mission effectiveness. ECP to be actioned within five (5) days.
- 6.1.6.3. R - Routine. ECP to be actioned within 30 days.

6.1.7. **Block 6.** The Contractor must describe the ECP with the following:

- 6.1.7.1. No. A unique number consisting of "ECP-Y-NNN", where:
  - 6.1.7.1.1. Y – C (Contractor) or P (Project Office – DND) indicating ECP originator, and
  - 6.1.7.1.2. NNN - Unique serial number for the ECP;
- 6.1.7.2. Type – P (Preliminary) or F (Final);
- 6.1.7.3. Revision – Enter revision indicator to identify version; and
- 6.1.7.4. SYSTEM DESIGNATION – Identify and describe the system/sub-system affected by the ECP. Include reference to affected configuration identifier(s).

6.1.8. **Block 7.**

- 6.1.8.1. The Contractor must list all specifications affected by the ECP.
- 6.1.8.2. The Contractor must list all documents affected by the ECP.
- 6.1.8.3. The Contractor must submit copies of the affected specifications and documents with the ECP.

6.1.9. **Block 8.**

- 6.1.9.1. The Contractor must list all drawings affected by the change.
- 6.1.9.2. The Contractor must submit copies of the affected drawings with the ECP.

6.1.10. **Block 9.** The Contractor must enter a brief title that identifies the ECP.

6.1.11. **Block 10.**

- 6.1.11.1. The Contractor must describe the engineering change.
- 6.1.11.2. Supplementary information may be attached to the ECP to describe the proposed change.

6.1.12. **Block 11.**

- 6.1.12.1. The Contractor must explain the need for the engineering change.

6.1.12.2. The Contractor must explain the benefit to Canada, such as enhanced performance, range, reliability, or maintainability.

6.1.13. **Block 12.**

6.1.13.1. The Contractor must state the contract number affected by the ECP.

6.1.13.2. The Contractor must identify the contract line item number affected by the proposed engineering change.

6.1.14. **Block 13.**

6.1.14.1. The Contractor must indicate the estimated date when change can be incorporated into the production.

6.1.14.2. The Contractor must indicate the planned serial number or lot number upon which the change will be implemented.

6.1.15. **Block 14.**

6.1.15.1. The Contractor must provide the delivery schedule of items incorporating the engineering change.

6.1.15.2. The Contractor must identify if the change is a variance from the current established production and delivery schedule.

6.1.16. **Block 15.**

6.1.16.1. Block 15a. The Contractor must indicate the lot numbers or serial numbers to be retrofitted due to the change.

6.1.16.2. Block 15b. The Contractor must enter details of delivery schedule, quantities, and locations for completing the retrofit due to the change.

6.1.17. **Block 16.** The Contractor must estimate the total cost or savings that results if the ECP is approved.

6.1.18. **Block 17.** The Contractor must identify which configuration items (CI) will change due to the ECP's approval.

6.1.19. **Block 18.** The Contractor must indicate which other CI will be affected by the ECP's approval.

6.1.20. **Block 19.** The Contractor must state whether other Contractors or Government activities will be affected by the ECP.

6.1.21. **Block 20.**

6.1.21.1. The Contractor must describe the performance change that results if the ECP is approved.

6.1.21.2. The Contractor must describe the impact upon performance specifications, including the defined functional and physical interfaces, which would be affected by the ECP.

6.1.22. **Block 21.** The Contractor must describe other effects, such as the effect upon health and safety if the ECP is approved.

6.1.23. **Block 22.** The Contractor must describe the effects of the proposed change upon performance in quantitative terms related to the defence system and CI specifications.

6.1.24. **Block 23.**

6.1.24.1. The Contractor must print the name of the individual authorized to submit the ECP.

6.1.24.2. The Contractors' authorized individual must sign and date the ECP.

6.1.25. **Block 24.**

6.1.25.1. The Contractor must indicate the effects of the proposed engineering change upon configuration identification and contract reference by checking the corresponding box at 24a through 24e.

6.1.25.2. The Contractor must describe the effects upon the product configuration identification and contract specifications with reference to Specification Change Notices (SCNs), Notices of Revision (NORs), or other enclosure(s).

6.1.25.3. The Contractor must identify the enclosures and their relevant paragraph numbers within the space adjacent to blocks 24a through 24e.

6.1.26. **Block 25.**

6.1.26.1. The Contractor must indicate the effects of the proposed engineering change upon operational employment by checking the corresponding boxes at blocks 25a through 26j.

6.1.26.2. The Contractor must explain these effects within enclosures.

6.1.26.3. The Contractor must identify the enclosures and their relevant paragraph numbers within the space adjacent to blocks 25a through 25j.

6.1.26.4. The Contractor must use quantitative values when reliability and service life are affected. Survivability includes nuclear survivability.

6.1.27. **Block 26.**

6.1.27.1. The Contractor must indicate the effects of the proposed engineering change upon Integrated Logistics Support (ILS) by checking the corresponding boxes at blocks 26a through 26n.

6.1.27.2. The Contractor must explain these effects within enclosures.

6.1.27.3. The Contractor must identify the enclosures and their relevant paragraph numbers within the space adjacent to blocks 26a through 26n.

6.1.27.4. The Contractor must indicate the method used to determine ILS plans and items required to support the new configuration.



**6.1.28. Block 27.**

6.1.28.1. The Contractor must indicate other considerations of the proposed engineering change by checking the boxes at blocks 27a through 27i.

6.1.28.2. The Contractor must explain the effects within enclosures.

6.1.28.3. The Contractor must identify the enclosures and their relevant paragraph numbers within the space adjacent to blocks 27a through 27i.

**6.1.29. Block 28.**

6.1.29.1. The Contractor must summarize the alternative solutions considered, such as revisions of operation, maintenance procedures, inspections, servicing requirements, or part replacement schedules.

6.1.29.2. The Contractor must analyze the alternatives and identify the advantages and disadvantages inherent to each alternative.

6.1.29.3. The Contractor must present supporting data with the proposal to authenticate the trade-off analysis if the analysis addresses new concepts or new technology.

6.1.29.4. The Contractor shows the reasons for adopting the alternative proposed by the ECP.

**6.1.30. Block 29.**

6.1.30.1. The Contractor must recommend additional tests, trials, installations, prototypes, fit checks, or other verification that proves the proposed engineering change performs as expected.

6.1.30.2. The Contractor must recommend the test objective, test vehicle(s), and GFE to be used for the verification.

**6.1.31. Block 30.**

6.1.31.1. The Contractor must recommend whether to retrofit the engineering change into accepted items.

6.1.31.2. The Contractor must substantiate the retrofit recommendation with data and a brief description of the action required.

**6.1.32. Block 31.** The Contractor must show the work hours, material costs, and subcontract costs to retrofit the defence system.

**6.1.33. Block 32.** The Contractor must show the work hours required to test the defence system following retrofit.

**6.1.34. Block 33.** The Contractor must state whether to incorporate the proposed change before, after, or concurrently with other approved engineering changes.

**6.1.35. Block 34.**

6.1.35.1. The Contractor must indicate whether one or more Contractor field service representatives (FSR) are required for the retrofit.

6.1.35.2. If "yes" to FSR, then the Contractor must attach a proposed program for Contractor participation.

6.1.36. **Block 35.** The Contractor must estimate the total time period a defence system must be removed from operational service for the retrofit.

6.1.37. **Block 36.**

6.1.37.1. The Contractor must summarize the cumulative effect upon this ECP's performance and previously approved ECPs when design limitations are being approached or exceeded.

6.1.37.2. Consequences of ECP disapproval may be stated within Block 36 or a referenced enclosure.

6.1.38. **Block 37.** The Contractor must request a date for approval by the contracting authority to implement the change.

## 6.2. **SOFT COPY FORMAT**

6.2.1. The ECP must be submitted as a PDF file type.

6.2.2. **Soft Copy format submission size below 7MB** - The ECP must be submitted via email (submission size not to exceed 7MB) as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-SE-111 – ECP – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The ECP PDF must be submitted on a USB media and be labelled as follows:

6.2.3.1. Joint Terminal Air Controller Virtual Training System

6.2.3.2. ECP;

6.2.3.3. JTAC VTS-SE-116;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.

### A3.23 DID – Software Change Request

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Software Change Request</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-112</b>  |
| 3. DESCRIPTION<br>This DID provides guidance on how to prepare and use a Software Change Request (SCR) form.   |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 5.4.5.1 (pg. 31)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. This DID is not meant to be restrictive and may be tailored by the Contractor with the Technical Authority's agreement. The resultant document may be prepared in the Contractor's format but must be consistent with the organization's applicable Configuration Management (CM) processes.<br>6.1.2. <b>Change Identification</b> – Record the essential administrative information about the proposed change, such as:<br>6.1.2.1. SCR identification number allocated;<br>6.1.2.2. SCR initiation date;<br>6.1.2.3. SCR title – A descriptive title identifying the objective of the SCR;<br>6.1.2.4. The SCR originator's name, organization, phone number, and e-mail address;<br>6.1.2.5. SCR status – This is dependent on the applicable CM process and may have values such as Initiated, Authorized, Implemented, Tested, and Closed Out. The SCR status will change with time;<br>6.1.2.6. STR identifier – References the System Trouble Report (STR) or similar document, which spawned the relevant SCR;<br>6.1.2.7. Affected software application name;<br>6.1.2.8. Affected component name(s) – Identifies all the software components, which may change if the SCR is approved and implemented; |   |

6.1.2.9. **SCR type** – Identifies the aspects of the system which may be affected by the proposed changes: Requirements, Software, Hardware, Documentation, System;

6.1.2.10. **Priority** – Indicates the operational importance of the proposed changes. Values can be: Emergency, High, Medium, Low; and

6.1.2.11. **The number of attached sheets** – Gives the number of attached sheets containing information for which there was insufficient room on the SCR form.

6.1.3. **Requested Change and Justification** – Describes the proposed change and the underlying reasons. Attach additional sheets if required.

6.1.4. **Logged by Change Control** – Identifies the Change Control person who received and logged the relevant SCR.

6.1.5. **Impact Analysis**

6.1.5.1. Assessment of technical impacts of implementing the proposed changes;

6.1.5.2. Assessment of managerial impacts of implementing the proposed changes (i.e., project schedule, cost, and risk); and

6.1.5.3. Summarizes the above impacts as Minor, Moderate, Major.

6.1.6. **CCB Decision** – Records the Configuration Control Board (CCB) decision on how to proceed with the relevant SCR.

6.1.6.1. Possible values can be: Reject, Authorized, Temporary Fix, Defer

6.1.6.2. Decision maker's signature and date

6.1.7. **Record of Software Change Request Implementation**

6.1.7.1. Records the software release in which the proposed change was implemented

6.1.7.2. Describes the implemented changes in detail

6.1.7.3. Developer's signature and date

6.1.8. **Test and Evaluation Verification**

6.1.8.1. Records and describes the results of testing the implemented SCR (i.e., pass or fail)

6.1.8.2. Test Engineer's signature and date

6.1.9. **Closeout by Configuration Management**

6.1.9.1. CM authorized signature and date

6.1.9.2. A controlled electronic equivalent of the signature is acceptable to facilitate full automation

## 6.2. GENERAL FORMAT

6.2.1. The Software Change Request must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The Software Change Request must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The Software Change Request PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-112 – Software Change Request – [Rev #]  
– [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The Software Change Request PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Software Change Request;

6.3.3.3. JTAC VTS-SE-112;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

## A3.24 DID – Configuration Status Accounting Report

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Configuration Status Accounting (CSA) Report</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-113</b>  |
| 3. DESCRIPTION<br>The CSA report provides details about the current Configuration Items (CIs), including existing CIs and those being developed under the Contract; documentation and identification numbers relating to those CIs; and changes to the items and their configuration documentation.   |   |
| 4. RELATED DOCUMENTS<br><b>ANSI/EIA-649-C – Configuration Management Standard</b>   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 5.5.2 (pg. 32)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The CSA report must include data from the CSA system, including:<br>6.1.1.1. the identification of the currently approved configuration documentation and configuration identifiers associated with each CI;<br>6.1.1.2. the status of proposed engineering changes from initiation to implementation;<br>6.1.1.3. the status and disposition of discrepancies from configuration audits;<br>6.1.1.4. the status of applications/requests for deviations and waivers;<br>6.1.1.5. the ability to trace changes from the baseline documentation of each CI; and<br>6.1.1.6. The effectiveness and installation status of configuration changes to all CIs at all locations.<br>6.1.2. <b>Indentured Item List</b><br>6.1.2.1. For each CI, the CSA Report must include an Indentured Item List that illustrates the breakdown structure of subordinate CIs, parts, assemblies, sub-assemblies, and Software, such that the relationships (e.g., where used, next higher assembly) within the product breakdown structure can be clearly understood. |   |

6.1.2.2. The Indentured Item List must, for each item in the product breakdown structure, include:

6.1.2.2.1. the configuration identifier / product identifier / Unique Item Identifier (UII);

6.1.2.2.2. the nature of the CI (i.e., system, hardware, software);

6.1.2.2.3. the manufacturer's Enterprise Identifier (e.g., Commercial and Government Entity (CAGE) code);

6.1.2.2.4. the manufacturer's reference number/part number for the item;

6.1.2.2.5. an Effectivity identifier, such as a version number, useable on code or other, used to designate that a CI is useable on one or more higher-level CIs or end items; and

6.1.2.2.6. the name of the CI, part, component, assembly, or Software item, as applicable.

6.1.2.3. The product hierarchy in the Indentured Item List must be described to a level of detail that provides the DND with sufficient understanding of the evolving solution and meets life cycle support concepts, supportability, and other goals under the Contact.

#### **6.1.3. Functional Baseline Report**

6.1.3.1. The CSA Report must include Functional Baseline Reports that list the configuration documentation used to define the FBL for each CI, including:

6.1.3.1.1. requirements specifications (functional, interoperability and interface characteristics and design constraints);

6.1.3.1.2. external interface definition documentation; and

6.1.3.1.3. agreed Verification documentation required to demonstrate the CI's characteristics.

#### **6.1.4. Product Baseline Report**

6.1.4.1. The CSA Report must include Product Baseline Reports that list the configuration documentation or other information artefacts used to define the PBL for each CI, and which include the following types of documentation:

6.1.4.1.1. specifications for the system and subordinate CIs, including both hardware and software CIs;

6.1.4.1.2. interface control documents;

6.1.4.1.3. engineering and manufacturing drawings and associated lists (e.g., bill of materials, wiring lists, assembly drawings, item quantities);

6.1.4.1.4. design documentation (including, as applicable, software and firmware source code and system, hardware, software, and firmware design documentation);

- 6.1.4.1.5. computer-aided design, simulation, and modelling files;
- 6.1.4.1.6. Verification plans, procedures, and reports;
- 6.1.4.1.7. audit reports, certifications, and associated action items;
- 6.1.4.1.8. Engineering Change Proposals (ECPs) and requests for deviations/waivers ;
- 6.1.4.1.9. operation and maintenance manuals;
- 6.1.4.1.10. recommended spares and support and test equipment; and
- 6.1.4.1.11. associated training materials.

6.1.4.2. Configuration documentation for the Product Baseline Report must be identified to a level of detail commensurate with the expected Defence activities and support strategy for the product.

## 6.2. **SOFT COPY FORMAT**

6.2.1. The CSA Report must be submitted as a PDF file type.

6.2.2. **Soft Copy format submission size below 7MB** – The CSA Report may be submitted via email as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-SE-113 – CSA Report – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The CSA Report must be submitted on a USB A USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. CSA Report;

6.2.3.3. JTAC VTS-SE-113;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.



### A3.25 DID – System Verification Plan (SVP)

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>System Verification Plan</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-114</b>  |
| 3. DESCRIPTION<br>The SVP describes the testing, evaluation, and support provided by the Contractor for all aspects of the equipment/system verification requirements.  |   |
| 4. RELATED DOCUMENTS<br>Standard Report Format DID JTAC VTS-PM-009<br>Contractor Master Schedule DID JTAC VTS-PM-009  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 6.1.1.3 (pg. 36)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Contractor must structure the SVP IAW the format specified by the Standard Report Format DID JTAC VTS-PM-009.<br>6.1.2. The Contractor must include the following sections under the Subject Matter part of the SVP:<br>6.1.3. Section I - General.<br>6.1.3.1. Section I must define the scope, purpose, and application of the SVP and related documents.<br>6.1.3.2. Section I must describe how all system verification efforts will be controlled by the System Verification Manager and the plans to ensure that each equipment/system type is tested and evaluated as an integrated system(s).<br>6.1.3.3. Section I must include a description of how the following tasks will be accomplished:<br>6.1.3.3.1. Qualification;<br>6.1.3.3.2. Stowage Trial;<br>6.1.3.3.3. First Production Article Testing (FPAT) or First Production Article Inspection (FPAI) ;<br>6.1.3.3.4. Control Tests;<br>6.1.3.3.5. User Trial. |   |

6.1.3.4. Each of the descriptions from 9.2.1.3 should be attached as separate appendices or sub-plans.

6.1.4. Section II - Elements In Place.

6.1.4.1. Section II must describe which elements and resources of the system verification program are already in place and any additional requirements.

6.1.5. Section III - Major subcontractors.

6.1.5.1. Section III must identify the subcontractors involved in major testing activities and tasks.

6.1.5.2. As a guide, a major activity should be one of those listed within Section I above.

6.1.5.3. Section III must include a description of each subcontractor's area of responsibility and to whom the subcontractor is accountable.

6.1.6. Section IV - Management/Organization.

6.1.6.1. Section IV must describe the Contractor's system verification organization, subcontractor's testing organization (if applicable), management procedures, interfaces, and reporting and tracking systems established to control system verification activities.

6.1.6.2. The organization breakdown must include, but not necessarily be limited to, the management of the activities listed in Section I above.

6.1.6.3. Section IV must identify the Contractor's System Verification Manager, name, and other key personnel.

6.1.6.4. Section IV must provide a statement of project duties for the System Verification Manager.

6.1.7. Section V - Work Breakdown Structure, Schedule of Activities, and Milestones.

6.1.7.1. Section V must include summary tasks and milestone events extracted from the Project Master Schedule DID JTAC VTS-PM-009 to show the time-phased workflow of the system verification tasks, events, deliverables and key inter-dependencies with non-verification areas of the project.

6.1.7.2. Section V must identify the following activities:

6.1.7.2.1. Canada is witnessing testing conducted by the Contractor.

6.1.7.2.2. Canada-conducted tests and user trials supported by the Contractor.

6.1.8. Section VI - Relationships.

6.1.8.1. Section VI must include a description of the following relationships:

6.1.8.1.1. Between the Contractor's various system verification elements and the System Verification Manager.

6.1.8.1.2. Between the Contractor's System Verification Manager and the Project Management, Systems Engineering, and subcontractors (if applicable) programs.

6.1.8.1.3. Between the Contractor's and Canada's test teams.

## 6.2. **GENERAL FORMAT**

6.2.1. The System Verification Plan must be prepared as a PDF.

## 6.3. **SOFT COPY FORMAT**

6.3.1. The System Verification Plan must be submitted as a PDF file type.

6.3.2. **Soft Copy format submission size below 7MB** – The System Verification Plan PDF may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-SE-114 – System Verification Plan – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** - The System Verification Plan PDF must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. System Verification Plan;

6.3.3.3. JTAC VTS-SE-114;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.26 DID – Acceptance Test Plan and Procedures

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Acceptance Test Plan and Procedures (ATP&amp;P)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-115</b>  |
| 3. DESCRIPTION<br><p>The ATP&amp;P describes the organization, schedule, responsibilities, procedures, and other details necessary for the conduct of the test program, as required under the contract and the approved governing plan for Verification. The activities defined by the ATP&amp;P are used to confirm the quality of the Supplies and that the Contract requirements have been met.</p>  |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 6.2.3 (pg. 40)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><b>6.1.1. Detailed Requirements – Plan</b><br><b>6.1.1.1. The ATP&amp;P must separately identify each requirement, and in respect of each requirement:</b><br><b>6.1.1.1.1. provide a summary description of the test, including the organization(s) involved in the test and the responsibilities of key individuals;</b><br><b>6.1.1.1.2. reference the RTVM entries that detail which requirements are being tested and whether the test will establish verification of a requirement;</b><br><b>6.1.1.1.3. describe the test article, including test configuration identification;</b><br><b>6.1.1.1.4. detail system configuration and initial conditions for the test;</b><br><b>6.1.1.1.5. identify any limitations, assumptions, and constraints associated with the Verification activity, including any measurements that need to be taken at the time of the Verification activity to record uncontrollable conditions (e.g., ambient temperature);</b><br><b>6.1.1.1.6. identify any location or environmental considerations for the conduct of the Verification activities;</b> |   |

6.1.1.1.7. state the means, or combination of means, which will be used to verify compliance with the requirement, for example, stand-alone system, integration test;

6.1.1.1.8. identify, with respect to the means stated in 6.1.1.1.7 above, whether the Verification of the requirement will be fully established by either a discrete test, as part of a test of the complete functioning system, or both;

6.1.1.1.9. identify the precursor test activities and the immediate successor test activities covered by a separate ATP&P, as applicable;

6.1.1.1.10. identify the subordinate test procedures that describe the test steps for each test case listed in the ATP&P; and

6.1.1.1.11. include details of the test organization and the significant test equipment, documentation, and facilities required for the conduct of the Verification activity, with cross-references to the applicable test procedures for additional detail.

6.1.1.2. The ATP&P must define the procedures to be undertaken when a test result indicates that the test article has failed and to provide traceability of any investigation or technical follow-up, corrective actions, and retest/regression testing to maintain the integrity of the final results and reports.

6.1.1.3. The ATP&P must list those Acceptance Test Reports (ATRs) that the ATP&P generates.

6.1.1.4. The ATP&P must reference the RTVM that provides traceability of each requirement to test item and test procedures to verify satisfactory compliance.

#### **6.1.2. Detailed Requirements – Procedures**

6.1.2.1. For each test procedure identified under 6.1.1.1.10 above, the ATP&P must include, using separate annexes for each procedure:

6.1.2.1.1. a description of the scope of the test, including a test method, which must provide a general description of the test activity;

6.1.2.1.2. a description of the configuration of the item(s) under test and initial conditions for the test, including any preparatory requirements or other pre-test activities;

6.1.2.1.3. a description of the test equipment (including the configuration of test equipment), documentation (including details of calibration and certification of test equipment if required), venue and personnel required for the conduct of the test;

6.1.2.1.4. all safety precautions necessary for the performance of the test procedure;

6.1.2.1.5. a description of any data inputs or data files required for the conduct of the test; and

6.1.2.1.6. step-by-step procedures for the performance of the test, in sufficient detail, to identify every action necessary for the conduct of the test, including:

6.1.2.1.6.1. pre-test actions;

6.1.2.1.6.2. any notes, cautions, or warnings that are necessary at each stage of the test procedure;

6.1.2.1.6.3. required operator test input;

6.1.2.1.6.4. expected outcomes or results;

6.1.2.1.6.5. space for recording actual results;

6.1.2.1.6.6. space for comments;

6.1.2.1.6.7. a block for sign-off signatures for all parties present at the test;

6.1.2.1.6.8. a space for recording the configuration of the item(s) under test, including all major hardware and software Configuration Items;

6.1.2.1.6.9. a space for recording all test equipment utilized and the calibration date of the equipment;

6.1.2.1.6.10. if applicable, a space for recording details of test-recording media that will support test analysis; and

6.1.2.1.6.11. a space for recording any post-test actions.

6.1.2.2. In conjunction with each test step, the test procedure must define what measurements, readings, or observations are required for a correct response.

6.1.2.3. As part of the test assessment data, PASS/FAIL criteria or the expected qualitative or quantitative result must also be defined.

6.1.2.4. Where a quantitative result is declared, this must include the allowable tolerance.

6.1.2.5. Where a qualitative result is declared, this must include a description of the expected results of the test.

## 6.2. **SOFT COPY FORMAT**

6.2.1. The ATP&P must be submitted as a PDF file type.

6.2.2. **Soft Copy format submission size below 7MB** – The ATP&P may be submitted via email as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-SE-115 – ATP&P – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The ATP&P must be submitted on a USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. ATP&P;

6.2.3.3. JTAC VTS-SE-115;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.

### A3.27 DID – Acceptance Test Report

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Acceptance Test Report (ATR)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-116</b>  |
| 3. DESCRIPTION<br><p>The ATR is used to document the results of the system test activity. In particular, the ATR formally documents the results, conclusions, and recommendations of testing conducted according to the governing plan for Verification (e.g., SEMP) and associated Acceptance Test Plan and Procedures (ATP&amp;Ps).</p>  |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 6.2.4 (pg. 40)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. The ATR must include:<br>6.1.1.1. data to uniquely identify the Supplies being Verified, which may include:<br>6.1.1.1.1. item names;<br>6.1.1.1.2. stock numbers;<br>6.1.1.1.3. part numbers;<br>6.1.1.1.4. item quantity;<br>6.1.1.1.5. serial numbers; and<br>6.1.1.1.6. configuration status;<br>6.1.2. references to relevant ATP&P and details of any differences between the ATP&P and the 'as run' test procedure;<br>6.1.3. reports of the relevant verification results, supported by the applicable raw results/measurement data, calculations, etc., as attachments;<br>6.1.4. reports on any corrective action found necessary as a result of verification activities and any subsequent re-verification activities required; and<br>6.1.5. names of the DND representative(s) who witnessed the verification activities, or reference to the authority given to conduct the verification activities without a DND presence. |   |



## 6.2. SOFT COPY FORMAT

6.2.1. The ATR must be submitted as a PDF file type.

6.2.2. **Soft Copy format submission size below 7MB** – The ATR may be submitted via email as follows:

6.2.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.2.2.2. Subject Field: JTAC VTS-SE-116 – ATR – [Rev #] – [Date of Issue]

6.2.3. **Soft Copy format submission size at or above 7MB** - The ATR must be submitted on a USB media and be labelled as follows:

6.2.3.1. Joint Terminal Attack Controller Virtual Training System

6.2.3.2. ATR;

6.2.3.3. JTAC VTS-SE-116;

6.2.3.4. The Revision number, and

6.2.3.5. The date of issue.

### A3.28 DID – Request for Deviation (RFD) / Request for Waiver (RFW)

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Request for Deviation (RFD) / Request for Waiver (RFW)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-SE-117</b>  |
| 3. DESCRIPTION<br>An RFD and an RFW describe a proposed departure from configuration documentation for a specific number of units or for a specified period of time. The RFD and RFW differ from an engineering change since neither a deviation nor a waiver requires a change to configuration documents.  |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 7.3.2 (pg. 41)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The Contractor must prepare RFD and RFW IAW D-02-006-008/SG-001.<br>6.2. <b>GENERAL FORMAT</b><br>6.2.1. The RFD and RFW must be submitted using DND Form 675.<br>6.3. <b>SOFT COPY FORMAT</b><br>6.3.1. The RFD and RFW must be submitted as a PDF file type.<br>6.3.2. <b>Soft Copy format submission size below 7MB</b> – The RFD and RFW PDF may be submitted via email as follows:<br>6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.<br>6.3.2.2. Subject Field: JTAC VTS-SE-117 – RFD and RFW – [Rev #] – [Date of Issue]<br>6.3.3. <b>Soft Copy format submission size at or above 7MB</b> - The RFD and RFW PDF must be submitted on A USB media and be labelled as follows:<br>6.3.3.1. Joint Terminal Attack Controller Virtual Training System<br>6.3.3.2. RFD and RFW;<br>6.3.3.3. JTAC VTS-SE-117; |   |

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.29 DID – In-Service Support Plan (ISSP)

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>In-Service Support Plan (ISSP)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-201</b>                                       |
| 3. DESCRIPTION<br>The JTAC VTS ISSP must define the policies and procedures required to provide in-service support for the JTAC VTS.   |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.2.3 (pg. 44)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><br>6.1. <b>CONTENT</b><br><br>6.1.1. The JTAC VTS In-Service Support Plan must include, at a minimum, the following information:<br><br>6.1.1.1. System ISS requirements;<br>6.1.1.2. System ISS tasks;<br>6.1.1.3. System ISS management;<br>6.1.1.4. System Maintenance plan;<br>6.1.1.5. Controlled Goods management;<br>6.1.1.6. Warranty expiry information;<br>6.1.1.7. Routine maintenance roles and responsibilities with Standard Operating Procedure (SOPs);<br>6.1.1.8. System refresh plan System assuming 10 years of operations;<br>6.1.1.9. Supplies and spares management;<br>6.1.1.10. Response and resolution timelines;<br>6.1.1.11. Configuration Control and Configuration Control Board<br>6.1.1.12. Hazardous material (HazMat) management;<br>6.1.1.13. System disposal plan; and<br>6.1.1.14. Health and safety during performance of work.<br><br>6.2. <b>GENERAL FORMAT</b><br><br>6.2.1. The ISSP must be prepared as a PDF. |   |

### 6.3. **SOFT COPY FORMAT**

6.3.1. The ISSP must be provided as

6.3.2. **Soft Copy format submission size below 7MB** – The ISSP may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-201 – ISSP – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The ISSP file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. ISSP

6.3.3.3. JTAC VTS-ILS-201;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.30 DID – Material Change Notice

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Material Change Notice</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-202</b>                                       |
| 3. DESCRIPTION<br>The Material Change Notice (MCN) provides the information required whenever there is a change to provisioning documentation.   |   |
| 4. RELATED DOCUMENTS<br>DND 2357   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.4.1 (pg. 44)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><br>6.1. <b>CONTENT</b><br><br>6.1.1. The MCN must be completed IAW DND 2357.<br><br>6.1.2. Note: In the table above, for each data element, the information within parenthesis is the Data Element Type number as per MIL-STD-1388- B and GEIA-STD-0007-B.<br><br>6.2. <b>GENERAL FORMAT</b><br><br>6.2.1.1. The Material Change Notice must be prepared using DND 2357 as a PDF.<br><br>6.3. <b>SOFT COPY FORMAT</b><br><br>6.3.1. The Material Change Notice must be provided as<br><br>6.3.2. <b>Soft Copy format submission size below 7MB</b> – The Material Change Notice may be submitted via email as follows:<br><br>6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.<br><br>6.3.2.2. Subject Field: JTAC VTS-ILS-202 – Material Change Notice – [Rev #] – [Date of Issue]<br><br>6.3.3. <b>Soft Copy format submission size at or above 7MB</b> – The Material Change Notice file must be submitted on a USB media and be labelled as follows:<br><br>6.3.3.1. Joint Terminal Attack Controller Virtual Training System<br><br>6.3.3.2. Material Change Notice<br><br>6.3.3.3. JTAC VTS-ILS-202;<br><br>6.3.3.4. The Revision number, and |   |

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

#### 6.3.3.5. The date of issue.

### A3.31 DID – Safety Data Sheet (SDS)

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Safety Data Sheet</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-203</b>                                       |
| 3. DESCRIPTION<br><p>A Safety Data Sheet (SDS) provides information and instructions on the chemical and physical characteristics of a substance, its hazards and risks, the safe handling requirements, and actions to be taken in the event of a fire, spill, overexposure, or other risks.</p>   |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.5.1 (pg. 44)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><p>6.1.1. The SDS is a document containing data relative to a specific product.</p> <p>6.1.2. The SDS must contain the types of information detailed in the Hazardous Products Act, Hazardous Products Regulations (HPR);</p> <p>6.1.3. The Hazardous Products Regulations (HPR) specifies 16 sections and their content for the SDS. Schedule 1 within the HPR outlines the section number and heading that must be presented in the specified order.</p> <p>6.1.4. NOTE: The Canadian Center for Occupational Health and Safety web site provided below<br/>(<a href="https://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/sds.html">https://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/sds.html</a>) explains and outlines the requirements for the WHMIS – Safety Data Sheet (SDS)</p> <b>6.2. GENERAL FORMAT</b><br><p>6.2.1.1. The Safety Data Sheet must be prepared as a PDF.</p> <b>6.3. SOFT COPY FORMAT</b><br><p>6.3.1. The Safety Data Sheet must be provided as</p> <p>6.3.2. <b>Soft Copy format submission size below 7MB</b> – The Safety Data Sheet may be submitted via email as follows:</p> <p>6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.</p> <p>6.3.2.2. Subject Field: JTAC VTS-ILS-203 – Safety Data Sheet – [Rev #] – [Date of Issue]</p> |   |



**6.3.3. Soft Copy format submission size at or above 7MB – The Safety Data Sheet file must be submitted on a USB media and be labelled as follows:**

- 6.3.3.1. Joint Terminal Attack Controller Virtual Training System
- 6.3.3.2. Safety Data Sheet
- 6.3.3.3. JTAC VTS-ILS-203;
- 6.3.3.4. The Revision number, and
- 6.3.3.5. The date of issue.

### A3.32 DID – Sparing Analysis Report

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Sparing Analysis Report</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-204</b>                                       |
| 3. DESCRIPTION<br>Sparing Analysis is performed to determine the optimum selection, quantity, and distribution of spares. This report documents the results of the Sparing Analysis.  |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.6.1 (pg. 44)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. The Sparing Analysis Report may be prepared in the Contractor's preferred format containing sufficient detail to address the information requirements that are acceptable to DND fully.<br>6.1.2. The Sparing Analysis Report must include the following sections.<br>6.1.2.1. Introduction<br>6.1.2.1.1. Purpose<br>6.1.2.1.2. Applicable References<br>6.1.2.1.3. Definitions and Acronyms<br>6.1.2.2. Method and Rationale<br>6.1.2.2.1. Description of Sparing Analysis Model<br>6.1.2.2.2. Sparing Analysis Procedure For Repairables<br>6.1.2.2.3. Sparing Analysis Procedure For Consumables<br>6.1.2.3. Sparing Analysis Results<br>6.1.2.3.1. Note: Rather than submitting the extensive data identified in this chapter, the Contractor may provide the DND with access to these data.<br>6.1.2.3.2. Maintenance Scenario Data<br>6.1.2.3.3. For Repairables in each Line Replaceable Unit<br>6.1.2.3.3.1. Item Input Data<br>6.1.2.3.3.2. Results of Sparing Analysis<br>6.1.2.3.4. For Consumables in each Line Replaceable Unit |   |

6.1.2.3.4.1. Item Input Data

6.1.2.3.4.2. Results of Calculations

6.1.2.4. Conclusions and Recommendations

6.1.2.4.1. For each Line Replaceable Unit

6.1.2.4.1.1. Recommended buy of Repairables

6.1.2.4.1.2. Recommended buy of Consumables

## 6.2. GENERAL FORMAT

6.2.1.1. The Sparing Analysis Report must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The Sparing Analysis Report must be provided as

6.3.2. **Soft Copy format submission size below 7MB** – The Sparing Analysis Report may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-204 – Sparing Analysis Report – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The Sparing Analysis Report file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System;

6.3.3.2. Sparing Analysis Report;

6.3.3.3. JTAC VTS-ILS-204;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.33 DID – Supplementary Provisioning Technical Documentation (SPTD)

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Supplementary Provisioning Technical Documentation</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-205</b>                                       |
| 3. DESCRIPTION<br>Supplementary Provisioning Technical Documentation (SPTD) uniquely identifies, for cataloguing purposes, each item in each provisioning list that has not already been assigned a NATO Stock Number.  |   |
| 4. RELATED DOCUMENTS<br>D-01-100-214/SF-000 - SPECIFICATION FOR PREPARATION OF PROVISIONING DOCUMENTATION FOR CANADIAN FORCES EQUIPMENT<br><br>STANAG 2290 ED. 2, 18 NOV 2010, NATO UNIQUE IDENTIFICATION OF ITEMS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.7.1 (pg. 44)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><br>6.1. <b>CONTENT</b><br><br>6.1.1. The SPTD must include sufficient data to define each item for cataloguing clearly.<br><br>6.1.2. The SPTD must include:<br>6.1.2.1. Item Name (DED 201 or GEIA 2790);<br>6.1.2.2. Reference (Manufacturer's Part) No. (DED 337 or GEIA 4400); and<br>6.1.2.3. CAGE Code (DED 046 or GEIA 1520).<br><br>6.1.3. The SPTD must include as applicable:<br>6.1.3.1. Configuration - drawing of an item; assembly, wiring, or schematic drawing; illustrated parts list<br>6.1.3.2. Technical specification, including relevant standards<br>6.1.3.3. Physical characteristics, such as dimensions, tolerances, materials, mandatory processes, surface finish, protective coating;<br>6.1.3.4. Electrical characteristics;<br>6.1.3.5. Performance data, including the environmental and operating conditions under which the item must perform;<br>6.1.3.6. Mounting requirements; |   |

6.1.3.7. Special features which contribute to the uniqueness of the item; and

6.1.3.8. Commercial catalogue data

6.1.4. The SPTD must be sequenced in the same order as the provisioning list that it supplements.

6.1.5. The SPTD must include identification of any limitations on the use or publication of any data provided.

## 6.2. GENERAL FORMAT

6.2.1.1. The SPTD] must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The SPTD must be provided as

6.3.2. **Soft Copy format submission size below 7MB** – The SPTD may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-205 – SPTD – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The SPTD file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System;

6.3.3.2. SPTD;

6.3.3.3. JTAC VTS-ILS-205;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.34 DID – Technical Data Deliverables List

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Technical Data Deliverables List</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-206</b>                                       |
| 3. DESCRIPTION<br>The Technical Data Deliverables List is a document that lists all Technical Data items required to acquire, operate, manage and support the System/Equipment.  |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.8.1 (pg. 44)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. This DID is not meant to be restrictive and may be tailored by the Contractor with the DND Technical Authority's agreement.<br>6.1.2. The Technical Data Deliverables List may be prepared in the Contractor's format and must contain sufficient detail to fully address the information requirements.<br>6.1.3. The Contractor's Technical Data Deliverables List must be prepared in the Contractor's format, acceptable to the technical authority.<br>6.1.4. The Technical Data Deliverables List must provide a reference index with a description of all Technical Data items required to acquire, operate, manage and support the System/Equipment.<br>6.1.5. The Technical Data Deliverables List must include for each data item:<br>6.1.5.1. An identification number and title.<br>6.1.5.2. A brief description of the data item's intended purpose, delineating its scope and explaining the interfaces and overlaps with other data items.<br>6.1.5.3. Describe any copyrights, proprietary rights, or translation rights that apply to the item.<br>6.1.5.4. Ownership of the data item.<br>6.1.5.5. Estimated delivery date.<br><b>6.2. GENERAL FORMAT</b><br>6.2.1.1. The Technical Data Deliverables List must be prepared as a PDF.<br><b>6.3. SOFT COPY FORMAT</b><br>6.3.1. The Technical Data Deliverables List must be provided as a PDF |   |

**6.3.2. Soft Copy format submission size below 7MB** – The Technical Data Deliverables List may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-206 – Technical Data Deliverables List – [Rev #] – [Date of Issue]

**6.3.3. Soft Copy format submission size at or above 7MB** – The Technical Data Deliverables List file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Technical Data Deliverables List

6.3.3.3. JTAC VTS-ILS-206;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.35 DID – Technical Publications Requirements List (TPRL)

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Technical Publications Requirements List (TPRL)</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-207</b>                                       |
| 3. DESCRIPTION<br>The Technical Publications Requirements List (TPRL) provides the required data needed to identify, procure and manage Technical Publications  |   |
| 4. RELATED DOCUMENTS<br>STANAG 2290 ED. 2, 18 NOV 2010, NATO UNIQUE IDENTIFICATION OF ITEMS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 8.9.1 (pg. 45)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The TPRL must identify required publications in two categories:<br>6.1.1.1. Existing Publications (that can be used as-is or modified); and<br>6.1.1.2. New Publications (that must be developed).<br>6.1.2. The TPRL must contain the following information for each Technical Publication:<br>6.1.2.1. Technical Manual Title;<br>6.1.2.2. Technical Manual Number (DED 440 or GEIA );<br>6.1.2.3. Technical Manual Change Number (DED 436 or GEIA);<br>6.1.2.4. NSCM/NCAGE Code (DED 046 or GEIA 1520);<br>6.1.2.5. Line(s) of Maintenance Applicable;<br>6.1.2.6. Status (use as is, modify, develop);<br>6.1.2.7. Current Language (English, bilingual, other) (for existing Technical Publications);<br>6.1.2.8. Media (hard copy, microfiche, electronic) (for existing publications)<br>6.1.2.9. Owner of Proprietary Right/Copyright;<br>6.1.2.10. Procurement Lead Time;<br>6.1.2.11. Technical Manual Development Cost;<br>6.1.2.12. Translation Cost; and<br>6.1.2.13. Price Per Book (excluding development cost and translation cost). |   |



**Note:** In the listings above, for each data element, the information within parenthesis is the Data Element Type number as per MIL-STD-1388- B and GEIA-STD-0007-B.

## 6.2. GENERAL FORMAT

6.2.1. The Technical Publications Requirements List (TPRL) must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The Technical Publications Requirements List (TPRL) must be provided as a PDF.

6.3.2. **Soft Copy format submission size below 7MB** – The Technical Publications Requirements List (TPRL) may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-207 – Technical Publications Requirements List (TPRL)– [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The Technical Publications Requirements List (TPRL) file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Technical Publications Requirements List (TPRL)

6.3.3.3. JTAC VTS-ILS-207;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.36 DID – JTAC VTS JTAC-I Train-the-Trainer Training Package

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>JTAC VTS JTAC-I Train-the-Trainer Training Package</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-208</b>                                       |
| 3. DESCRIPTION<br><p>JTAC-I will be the unit subject matter experts on the use and maintenance of the JTAC VTS. The JTAC VTS JTAC-I Train-the-Trainer Training Package will provide the supporting material for the JTAC-I initial training and then subsequently as the reference material to be used by the trained JTAC-I to conduct training at unit level. Individuals completing the JTAC VTS JTAC-I Train-the-Trainer course must be able to:</p> <ul style="list-style-type: none"><li>• Train unit personnel to conduct all JTAC VTS user maintenance tasks, prepare the system for use and conduct basic system diagnosis and fault finding.</li><li>• Train qualified JTAC to build scenarios and conduct the full range training operations available at the Instructor Station.</li></ul>   |   |
| 4. RELATED DOCUMENTS<br>C-01-100-100/AG-008 Writer's Guide for Technical Documentation   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 9.2.1 (pg. 45)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><p>6.1.1. The JTAC VTS JTAC-I Train-the-Trainer Training Package course material must include, in the order judged most appropriate by the Contractor, the following subjects:</p> <ul style="list-style-type: none"><li>6.1.1.1. General Description/Equipment Overview;</li><li>6.1.1.2. Pre-use testing/inspection;</li><li>6.1.1.3. Preparation and set up for use;</li><li>6.1.1.4. Use and operation including scenario construction;</li><li>6.1.1.5. Safety and Hazardous material issues;</li><li>6.1.1.6. Troubleshooting and testing;</li><li>6.1.1.7. Basic diagnosis and fault finding; and,</li><li>6.1.1.8. Maintenance.</li></ul> <p>6.1.2. The JTAC VTS JTAC-I Train-the-Trainer Training Package course material must be amplified where appropriate, with colour illustrations, line drawings, good quality colour pictures and supporting "how to" videos.</p> |   |

- 6.1.3. The JTAC VTS JTAC-I Train-the-Trainer Training Package course material subjects must be approached from the perspective that the Trainee experience with this equipment is low.
- 6.1.4. The JTAC VTS JTAC-I Train-the-Trainer Training Package course material must not present any information that cannot also be found in the Technical Publication Package documents; those documents remain the primary reference for the equipment.
- 6.1.5. The JTAC VTS JTAC-I Train-the-Trainer Training Package must include a Trainee Handout that includes the course material described above.
- 6.1.6. The JTAC VTS JTAC-I Train-the-Trainer Training Package must include an Instructor Lesson Plan that includes the course material described above, speaker's notes, and outlines the following:
  - 6.1.6.1. Classroom's physical and functional requirements;
  - 6.1.6.2. Training Session schedule, divided by course material subjects;
  - 6.1.6.3. Instructor/Trainee ratio for the course material subjects;
  - 6.1.6.4. Training material to be supplied by the Contractor;
  - 6.1.6.5. Training material to be supplied by Canada.

## 6.2. GENERAL FORMAT

- 6.2.1. The JTAC VTS JTAC-I Train-the-Trainer Training Package can be prepared in the Contractor's format while using C-01-100-100/AG-008 as guidance.
- 6.2.2. No Contractor or sub-Contractor logo, name, trademark, or other wording or device that may be interpreted as advertising must appear in the publication.
- 6.2.3. The JTAC VTS JTAC-I Train-the-Trainer Training Package Trainee Handout must have no more than three (3) slides per page of the course material and have additional space and lines for note taking.
- 6.2.4. The JTAC VTS JTAC-I Train-the-Trainer Training Package Instructor Lesson Plan must have one (1) slide per page of the course material, with the speaker's notes below it.

## 6.3. SOFT COPY FORMAT

- 6.3.1. The JTAC VTS JTAC-I Train-the-Trainer Training Package must be provided as a PDF.
- 6.3.2. **Soft Copy format submission size below 7MB** – The JTAC VTS JTAC-I Train-the-Trainer Training Package may be submitted via email as follows:
  - 6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.
  - 6.3.2.2. Subject Field: JTAC VTS-ILS-208 – JTAC VTS JTAC-I Train-the-Trainer Training Package – [Rev #] – [Date of Issue]

**6.3.3. Soft Copy format submission size at or above 7MB** – The JTAC VTS JTAC-I Train-the-Trainer Training Package file must be submitted on a USB media and be labelled as follows:

- 6.3.3.1. Joint Terminal Attack Controller Virtual Training System;
- 6.3.3.2. JTAC VTS JTAC-I Train-the-Trainer Training Package;
- 6.3.3.3. JTAC VTS-ILS-208;
- 6.3.3.4. The Revision number, and
- 6.3.3.5. The date of issue.

### A3.37 DID – System Manuals

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><br><b>System Manuals</b>  | 2. IDENTIFICATION NUMBER<br><br><b>DID JTAC VTS-ILS-209</b>   |
| 3. DESCRIPTION<br><br>The System Manual must describe the tasks necessary for installation, configuration, operation and maintenance as well as methods to maintain, repair or replace the hardware for each JTAC VTS sub-system.  |   |
| 4. RELATED DOCUMENTS<br><br>C-01-100-100/AG-008 - Writer's Guide for Technical Documentation<br><br>D-01-100-204/SF-000 - Specification - Preparation Of Preventive Maintenance Instructions<br><br>D-01-100-205/SF-000 - Specification - Preparation Of Corrective Maintenance Instruction  | 5. CONTRACT REFERENCE<br><br><b>SOW: Para. 10.1.2(pg. 46)</b><br><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><br>6.1. <b>CONTENT</b><br><br>6.1.1.1. The System Manuals must cover, at a minimum, the following information:<br><br>6.1.1.2. System overview;<br><br>6.1.1.3. Subsystem configuration;<br><br>6.1.1.4. Sub-system Operation;<br><br>6.1.1.5. Maintenance tasks and procedures;<br><br>6.1.1.6. Software and hardware maintenance and troubleshooting;<br><br>6.1.1.7. Preventive maintenance (PM) including the PM schedule;<br><br>6.1.1.8. Corrective maintenance;<br><br>6.1.1.9. Escalation model; and |   |

## 6.2. System administration tasks.

### 6.3. GENERAL FORMAT

6.3.1. The System Manuals must be prepared in the Contractor's format while being in full conformance with the above-stated references in para 4 Related Documents as a PDF.

6.3.2. The System Manuals must include the National Defence Index of Documentation (NDID) number, provided to the Contractor by DND, which must be placed on the top right corner of all the pages of the manual.

### 6.4. SOFT COPY FORMAT

6.4.1. The System Manuals must be provided as a PDF.

6.4.2. **Soft Copy format submission size below 7MB** – The System Manuals may be submitted via email as follows:

6.4.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.4.2.2. Subject Field: JTAC VTS-ILS-209 – System Manuals – [Rev #] – [Date of Issue]

6.4.3. **Soft Copy format submission size at or above 7MB** – The System Manuals file must be submitted on a USB media and be labelled as follows:

6.4.3.1. Joint Terminal Attack Controller Virtual Training System;

6.4.3.2. System Manuals;

6.4.3.3. JTAC VTS-ILS-209;

6.4.3.4. The Revision number, and

6.4.3.5. The date of issue.

### A3.38 DID – Vendor Manuals

| DATA ITEM DESCRIPTION  |   |
|--|---|
| 1. TITLE<br><b>Vendor Manuals</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-210</b>   |
| 3. DESCRIPTION<br>The Vendor Manuals must be provided for all Commercial Off-The Shelf (COTS) items purchased for the JTAC VTS and must describe at a high level the technical specifications, user instructions and system requirements for the item.   |   |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 10.2.2 (pg. 46 )</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br>6.1.1. The Vendor Manuals must provide at a minimum:<br>6.1.1.1. all information required to generate a NATO Stock Number (NSN) for hardware;<br>6.1.1.2. operating system requirements for software (CDRL)<br>6.1.1.3. .user instructions<br>6.1.1.4. .maintenance instructions;<br>6.1.1.5. .Safety instructions.<br><b>6.2. GENERAL FORMAT</b><br>6.2.1. The Vendor Manuals must be the in the Vendor's preferred format acceptable to DND.<br><b>6.3. SOFT COPY FORMAT</b><br>6.3.1. The Vendor Manuals must be provided as a PDF<br>6.3.2. <b>Soft Copy format submission size below 7MB</b> – The Vendor Manuals may be submitted via email as follows:<br>6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.<br>6.3.2.2. Subject Field: JTAC VTS-ILS-210 – Vendor Manuals – [Rev #] – [Date of Issue]<br>6.3.3. <b>Soft Copy format submission size at or above 7MB</b> – The Vendor Manuals file must be submitted on CD or DVD media and be labelled as follows: |   |

- 6.3.3.1. Joint Terminal Attack Controller Virtual Training System
- 6.3.3.2. Vendor Manuals
- 6.3.3.3. JTAC VTS-ILS-210;
- 6.3.3.4. The Revision number, and
- 6.3.3.5. The date of issue.



### A3.39 DID – Government Property Report

| DATA ITEM DESCRIPTION  |  |
|--|--|
| 1. TITLE<br><b>Government Property Report</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-211</b>  |
| 3. DESCRIPTION<br><p>The Government Property Report provides records and tracks all Government Furnished Equipment (GFE) and Government Furnish Information (GFI) within the Contractors' possession. The report also details the management of disposition and disposal of the Government Property on Closure of the Contract.</p>  |  |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 10.4.1 (pg. 47)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><b>6.1. CONTENT</b><br><p>6.1.1. The Government Property Report may be prepared in the Contractor's preferred format containing sufficient detail to fully address the acceptable information requirements to DND.</p> <p>6.1.2. The report must provide an inventory of GFE and GFI.</p> <p>6.1.3. The report must include the following information for Government Property in the Contractor's possession:</p> <p>6.1.3.1. For each item of GFE:</p> <p>6.1.3.1.1. GFE item number;</p> <p>6.1.3.1.2. The Contractor's assigned serial number (if applicable);</p> <p>6.1.3.1.3. A narrative description of the item;</p> <p>6.1.3.1.4. Manufacturer's Part Number / Manufacturer's Reference Number;</p> <p>6.1.3.1.5. NSCM;</p> <p>6.1.3.1.6. NSN;</p> <p>6.1.3.1.7. Nomenclature;</p> <p>6.1.3.1.8. The estimated value of the item;</p> <p>6.1.3.1.9. Location of the item;</p> <p>6.1.3.1.10. The status and condition of the item; and</p> <p>6.1.3.1.11. The expected date of the next required re-calibration or overhaul (if required).</p> |  |

6.1.4. For each item of GFI:

6.1.4.1. GFI item number; and

6.1.4.2. A narrative description of the item.

6.1.5. The report must provide a listing of any shortages in the supply of Government Property. The listing must include Government Property type and item number, quantity short or overdue, and due date.

6.2. **GENERAL FORMAT**

6.2.1.1. The Government Property Report must be prepared as a PDF.

6.3. **SOFT COPY FORMAT**

6.3.1. The Government Property Report must be provided as a PDF.

6.3.2. **Soft Copy format submission size below 7MB** – The Government Property Report may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-211 – Government Property Report – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The Government Property Report file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Government Property Report

6.3.3.3. JTAC VTS-ILS-211;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.40 DID – Government Delivery Schedule

| DATA ITEM DESCRIPTION   |   |
|---|---|
| 1. TITLE<br><b>Government Delivery Schedule</b>   | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-212</b>                                       |
| 3. DESCRIPTION<br>The Government Delivery Schedule includes all material supplied by the Government to the Contractor for incorporation into a deliverable end item. The Government Delivery Schedule is used to advise DND when Government Supplied Material (GSM) is needed.  |   |
| 4. RELATED DOCUMENTS  | 5. CONTRACT REFERENCE<br><b>SOW: Para. 10.5.1(pg. 47)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The GSM Delivery Schedule must include the following data:<br>6.1.1.1. INTRODUCTION<br>6.1.1.1.1. Contractor;<br>6.1.1.1.2. Contact person;<br>6.1.1.1.3. Telephone number; and<br>6.1.1.1.4. The contract for which the GSM is required.<br>6.1.2. GSM REQUIREMENTS LIST Indicate for each item of GSM:<br>6.1.2.1. Item Number (unique sequence no. for each list);<br>6.1.2.2. Item Name (DED 182 or GEIA 2970);<br>6.1.2.3. NSCM/CAGE Code (DED 046 or GEIA 1520);<br>6.1.2.4. NATO Stock Number (DED 253 or GEIA 2280);<br>6.1.2.5. Reference (Manufacturer's Part) Number (DED 337 or GEIA 4400);<br>6.1.2.6. Quantity Per End Item (DED 317 or GEIA 4210); and<br>6.1.2.7. GSM Total Quantity Required.<br>6.1.3. REQUIRED DELIVERY SCHEDULE<br>6.1.3.1. Required Delivery Schedule<br>6.1.3.2. Delivery Instructions<br><br>Note: In the listings above, for each data element, the information within parenthesis is the Data Element Type number as per MIL-STD-1388- B and GEIA-STD-0007-B. |   |

## 6.2. GENERAL FORMAT

6.2.1.1. The Government Delivery Schedule must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The Government Delivery Schedule] must be provided as a PDF.

6.3.2. **Soft Copy format submission size below 7MB** – The Government Delivery Schedule may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-212 – Government Delivery Schedule – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The Government Delivery Schedule file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System;

6.3.3.2. Government Delivery Schedule;

6.3.3.3. JTAC VTS-ILS-212;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.41 DID – Identification Shipping and Packaging Data

| DATA ITEM DESCRIPTION  |  |
|--|--|
| 1. TITLE<br><b>Identification Shipping and Packaging Data</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-213</b>  |
| 3. DESCRIPTION<br>To identify packaging requirements for items to be shipped to or stored at a DND facility (such as spare parts, bulk items, special tools, support equipment, test equipment, and training equipment.  |  |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 10.6.1 (pg. 47)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br>6.1. <b>CONTENT</b><br>6.1.1. The MCN must contain the following information:<br>6.1.2. Item Identification;<br>6.1.3. Item Name (DED 182 or GEIA 2790);<br>6.1.4. Reference (Manufacturer's Part) Number (DED 337 or GEIA 4400);<br>6.1.5. NSCM/NCAGE code (DED 046 or GEIA 1520);<br>6.1.6. NATO Stock Number (if assigned) (DED 253 or GEIA 2280);<br>6.1.7. Packaging Data;<br>6.1.8. Unit Pack Size (length, width, depth) (inches) (DED 496 or GEIA 2890);<br>6.1.9. Unit Pack Weight (pounds) (DED 497 or GEIA 3190);<br>6.1.10. Packing Code (A, B, C) (DED 283 or GEIA 3410);<br>6.1.11. Hazardous Code (Regulated/Non-regulated) (DED 154 or GEIA 2370); and<br>6.1.12. Special packaging instruction (for items on Special PHST Consideration Items List) (DED 396 or GEIA 4920)<br>6.1.13. Notes:<br>6.1.14. In the listings above, for each data element, the information within parenthesis is the Data Element Type number as per MIL-STD-1388- B and GEIA-STD-0007-B.<br>6.1.15. To reduce the need for redundant data, similar items may be grouped with the same packaging data applying to the group |  |

6.1.16. The Canadian Forces Supply System requires size in meters and weight in kilograms.

6.1.17. To use the special packaging instruction number, the Contractor will need to prepare an enumerated list of instructions, consistent as possible with MIL-STD-2073-1 and -2.

6.1.18. The Equipment Identification Plate Data must be prepared IAW Canadian Forces specification D-02-002-001/SG-001, Identification Marking of Canadian Military Property.

## 6.2. GENERAL FORMAT

6.2.1.1. The Identification Shipping and Packaging Data must be prepared as a PDF.

## 6.3. SOFT COPY FORMAT

6.3.1. The Identification Shipping and Packaging Data must be provided as a PDF.

6.3.2. **Soft Copy format submission size below 7MB** – The Identification Shipping and Packaging Data may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-213 – Identification Shipping and Packaging Data – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The Identification Shipping and Packaging Data file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. Identification Shipping and Packaging Data

6.3.3.3. JTAC VTS-ILS-213;

6.3.3.4. The Revision number, and

6.3.3.5. The date of issue.

### A3.42 DID – Environmental Equipment Assessment (EEA)

| DATA ITEM DESCRIPTION  |  |
|--|--|
| 1. TITLE<br><b>Environmental Equipment Assessment</b>  | 2. IDENTIFICATION NUMBER<br><b>DID JTAC VTS-ILS-214</b>  |
| 3. DESCRIPTION<br>The EEA identifies and documents all integrated hazardous substances and hazardous chemical products in the equipment design.  |  |
| 4. RELATED DOCUMENTS   | 5. CONTRACT REFERENCE<br><b>SOW: Para. 11.4.1 (pg. 49)</b><br><b>CDRL: App. A2.2 (pg. 100)</b> |
| 6. PREPARATION INSTRUCTIONS<br><br>6.1. <b>CONTENT</b><br><br>6.1.1. This DID is not meant to be restrictive and may be tailored by the Contractor with the Technical Authority's agreement. The resultant document may be prepared in the Contractor's format. When proposing and implementing any tailoring or alternative formatting, the Contractor must ensure that sufficient content and detail are provided to address the requirements contained herein fully.<br><br>6.1.2. As a minimum, the EEA must contain the following sections and information:<br><br>6.1.2.1. Title Page:<br><br>6.1.2.2. Equipment Name and NSN (if available)<br><br>6.1.2.3. Originating Directorate: Director Combat Support Equipment Management<br><br>6.1.2.4. Director General Land Equipment Program Management (DGLEPM)<br>EEA Registration Number: TBD<br><br>6.1.2.5. Assessment Contact: Name, title, and company name of the author of the EEA<br><br>6.1.2.6. Executive Summary<br><br>6.1.2.6.1. Provide a summary of potential environmental impacts and recommended mitigation measures for each life cycle (test and evaluation following production, operation and maintenance, and demilitarization and disposal).<br><br>6.1.2.7. Equipment Description |  |

6.1.2.7.1. Equipment description: Provide an overview of the equipment and identify each major sub-system IAW A3.21 DID - Equipment Breakdown Structure.

6.1.2.7.2. For each major sub-system, identify the following:

6.1.2.7.2.1. Ionizing radiation sources (radioisotopes and x-ray). E.g., Uranium, Radon, plutonium and tritium, etc.

6.1.2.7.2.2. Non-ionizing radiation sources (radiofrequency and lasers); and

6.1.2.7.2.3. Identify hazardous substances that are incorporated into the equipment design. Provide additional information in tabular form.

6.1.2.7.3. Identify hazardous products that are:

6.1.2.7.3.1. Used during manufacturing (i.e., paints/surface treatments, adhesives, lubricants, consumables such as batteries, etc.);

6.1.2.7.3.2. Recommended by the Contractor during the in-service life-cycle phase (i.e., lubricants, cleaners, decontaminants, etc.) or included in the Technical Documentation; and

6.1.2.7.3.3. Provide information in tabular form.

6.1.2.7.4. Provide Safety Data Sheets SDS that is less than three years old for all Chemical Products IAW WHMIS 2015 requirements and A3.31 DID – Safety Data Sheet (SDS) for all hazardous products.

6.1.2.8. Environmental Assessment

6.1.2.8.1. For each lifecycle phase (test and evaluation following production, operation and maintenance, and demilitarization and disposal), discuss the following:

6.1.2.8.1.1. Lifecycle activities: Describe anticipated activities (including operator and maintenance tasks that are detailed in Contractor provided Technical Documentation) and identify if any of these activities have the potential to release a polluting substance to air, water, or land (e.g., exhaust emissions, hazardous waste, spills, etc.); affect human health; noise or vibration; and alter landscape features. Note: The scope of the EEA excludes activities related to the use of munitions.

6.1.2.8.1.2. Environmental impacts: Describe the potential environmental impacts identified above.



6.1.2.8.1.3. Mitigation Measures: Describe mitigation measures to eliminate or reduce identified potential environmental impacts, including those that are part of the design, any warning devices, emission control equipment, spill response, safe handling and disposal procedures, training, PPE, labels on equipment, cautions and warnings in the Technical Documentation, monitoring or inspections, etc.

6.1.2.9. Conclusions and Recommendations

6.1.2.9.1. Summarize the major environmental impacts and recommended mitigation measures.

6.1.2.10. References

6.1.2.10.1. List references consulted in the completion of the EEA (such as Canadian legislation, DND policies, and procedures, technical documentation, etc.)

\* Note: Provide information on the presence of other metals, metal coatings, surface treatments, etc., if available and even if regulations are not in existence at the time of the assessment.

6.1.3. Identify the system/sub-system where these items are located. Controls: Identify if the substance is regulated under the Canadian Environmental Protection Act, 1999; targeted in Schedule 1, Toxic Substance List under CEPA and subject to the reporting requirements under the National Pollutant Release Inventory (NPRI).

6.2. **GENERAL FORMAT**

6.2.1. The Environmental Equipment Assessment must be prepared as a PDF.

6.3. **SOFT COPY FORMAT**

6.3.1. The EEA must be provided as

6.3.2. **Soft Copy format submission size below 7MB** – The EEA may be submitted via email as follows:

6.3.2.1. To Field: As per the related CDRL section 9.A. Addressee, as identified in the contract.

6.3.2.2. Subject Field: JTAC VTS-ILS-214 – EEA – [Rev #] – [Date of Issue]

6.3.3. **Soft Copy format submission size at or above 7MB** – The EEA file must be submitted on a USB media and be labelled as follows:

6.3.3.1. Joint Terminal Attack Controller Virtual Training System

6.3.3.2. EEA

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

- 6.3.3.3. JTAC VTS-ILS-214;
- 6.3.3.4. The Revision number, and
- 6.3.3.5. The date of issue.

## A4.0 APPENDIX 4: REFERENCE AND GLOSSARY

### A4.1 General

### A4.2 GOVERNMENT FURNISHED INFORMATION

| REFERENCE NUMBER     | DATED      | REFERENCE TITLE   |
|----------------------|------------|---|
| A-FD-005-000/AG-001  | 2019-08-01 | Future Integrated Training Environment Concept Paper (FITE)                                 |
| A-SJ-100-001/AS-000  | 2020-02-20 | National Defence Security Orders and Directives Chapter 6: Security of Information          |
| B-GL-300-008/FP-001  | 2010-07-20 | Training for Land Operations.   |
| B-GL-371-002/FP-001- | 1998-11-30 | Duties of the Battery Commander and the Observer  |
| B-GL-371-004/FP-001  | 1998-12-30 | The Duties at the Regimental Headquarters and Gun Position                                  |
| CAO 24-05            | 2020-09-11 | Canadian Army Order (CAO) 24-05 - Joint Terminal Attack Controller.                         |
| C-01-100-100/AG-008  | 2018-08-31 | Writer's Guide For Technical Documentation  |
| C-02-007-000/AG-001  | 2016-01-01 | Controlled Technology Access And Transfer (CTAT) Manual                                     |
| D-01-100-204/SF-000  | 2018-08-31 | Specification - Preparation Of Preventive Maintenance Instructions                          |
| D-01-100-205/SF-000  | 2000-10-31 | Specification - Preparation Of Corrective Maintenance Instruction                           |
| D-01-100-207/SF-002  | 1996-07-12 | Specification - Preparation Of Interim Illustrated Parts Manuals For Land Equipment         |
| D-01-100-211/SF-000  | 1988-12-07 | Specification – Preservation, Storage And Handling Instruction                              |
| D-01-100-214/SF-000  | 2020-09-30 | Specification - For Preparation Of Provisioning Documentation For Canadian Forces Equipment |
| D-01-400-001/SG-000  | 2020-02-28 | Standard - Engineering Drawing Practices  |

| REFERENCE NUMBER    | DATED      | REFERENCE TITLE   |
|---------------------|------------|---|
| D-01-400-002/SF-000 | 2018-07-31 | Specification Levels Of Engineering Drawings  |
| D-02-002-001/SG-001 | 2003-04-01 | Canadian Forces Standard Identification Marking Of Canadian Military Property   |
| D-02-006-008/SG-001 | 2020-06-08 | The Design Change, Deviation And Waiver Procedure   |
| D-LM-008-001/SF-001 | 1986-06-30 | Methods Of Packaging  |
| D-LM-008-002/SF-001 | 1991-08-01 | Specification For Marking For Storage And Shipment  |
| D-LM-008-011/SF-001 | 1988-11-10 | Preparation And Use Of Packaging Requirements Codes   |
| D-LM-008-036/SF-000 | 2013-12-01 | DND Minimum Requirement For Manufacturer's Standard Pack  |
| DACAS JT TTP        | 2018-06-   | Digitally Aided Close Air Support (DACAS) Joint Test (JT) Tactics, Techniques and Procedures (TTP)  |
|                     |            | RCAS Naval Fire Support (NFS) Précis ATP-4E Allied Naval Gunfire Support.   |
|                     | 2017-08-09 | Simulation System Accreditation for CAF Indirect Fires and Forward Air Control (FAC) Training System that is used by the Royal Canadian Artillery School (RCAS) Joint Terminal Attack Controller (JTAC) Cell for JTAC Training. |

#### A4.3 COMMERCIALY AVAILABLE

| REFERENCE NUMBER | PROMULGATION DATE | REFERENCE TITLE                                |
|------------------|-------------------|--|
| ACMP-2009        | 2017-03-06        | Guidance On Configuration Management           |
| ANSI/EIA-649-C   | 2019-02-07        | Configuration Management Standard              |
| ASME Y14.100     | 2017              | Engineering Drawing Practices                  |
| ASME Y14.24      | 2020              | Types And Applications Of Engineering Drawings |

| REFERENCE NUMBER               | PROMULGATION DATE | REFERENCE TITLE   |
|--------------------------------|-------------------|---|
| ASME Y14.34M                   | 1996              | Associated Lists  |
| ASTM SI10                      | 2017              | American National Standard For Metric Practice  |
| ATP 3-09.3                     | 10 June 2019      | Joint Publication Close Air Support   |
| ATP 3-09.32                    | 2019-10-01        | JFIRE - Multi-Service Tactics, Techniques, And Procedures For Joint Application Of Firepower                                    |
| ATP-3.3.2.2                    | 2018 -01          | Joint Terminal Attack Controller Program  |
| ATP-4F                         | 2014-10-10        | Allied Naval Fire Support   |
| DoD T&E V2                     | 2020-02-10        | Department of Defense Cybersecurity Test & Evaluation Guidebook   |
| GEIA-STD-0007-B                | 2013              | Logistics Product Data  |
| HQ AIRCOM FAC FST SOP          | 2017-01-17        | HQ AIRCOM FAC Standardization Team (FST} Standard Operating Procedure (SOP)   |
| IEEE 1012                      | 2016              | Standard for System, Software, and Hardware Verification and Validation   |
| IEEE 15288.1                   | 2014-12-10        | IEEE Standard For Application Of Systems Engineering On Defense Programs  |
| IEEE 15288.2                   | 2014-12-10        | IEEE Standard For Technical Reviews And Audits On Defense Programs  |
| IEEE 15288: [4], Section 6.4.3 | 2015              | System requirements definition process."  |
| IEEE 29148                     | 2018              | International Standard - Systems and software engineering -- Life cycle processes -- Requirements engineering                   |
| ISO/IEC 25021                  | 2016              | Systems and software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Quality measure elements |

| REFERENCE NUMBER      | PROMULGATION DATE | REFERENCE TITLE   |
|-----------------------|-------------------|---|
| ISO/IEC 25022         |                   | Systems and software engineering - Systems and software quality requirements and evaluation (SQuaRE) - Measurement of quality in use      |
| ISO/IEC 25023         |                   | Software engineering - Software product Quality Requirements and Evaluation (SQuaRE) - Measurement of system and software Product Quality |
| ISO/IEC 25024         | 2015              | Systems and software engineering. Systems and software Quality Requirements and Evaluation (SQuaRE). Measurement of data quality          |
| JTAC MOA              | 2021-03-04        | Joint Terminal Attack Controller (JTAC) (Ground) Memorandum Of Agreement (MOA) 2020   |
| MIL-STD-2045-47001D1. |                   | Connectionless Data Transfer Application Layer Standard   |
| MIL-STD-188-220D1.    |                   | Digital Message Transfer Device Subsystems  |
| Mil-HDBK 759C         |                   | Department of Defense Design Criteria Standard: Design Guidelines. (Notice-2).  |
| MIL-STD-1472G         |                   | Department of Defense - Design Criteria Standard - Human Engineering.   |
| MIL-STD-1472G         |                   | Department of Defense - Design Criteria Standard - Noise Limits.  |
| MIL-STD-1472G         |                   | Department of Defense Human Engineering Design Guidelines.  |
| MIL-STD-461G          |                   | Department of Defense Interface Standard Requirements for the Control Of Electromagnetic Interference.                                    |
| MIL-STD-6017B.        |                   | Variable Message Format (VMF)   |

| REFERENCE NUMBER          | PROMULGATION DATE | REFERENCE TITLE  |
|---------------------------|-------------------|--|
| SH/OPI/J3/SAO/16-310996/1 | 2016-01-18        | NATO Joint Terminal Attack Controller Accreditation Programme  |
| NEMA IEC 60529            | 2021-01-01        | Degrees Of Protection Provided By Enclosures - IP Code   |
| R.S.C., 1985, C. H-3      | 1985              | Hazardous Products Act   |
| SOR/2003-289              | 2003              | Federal Halocarbon Regulations   |
| SOR/2008-273              | 2008              | PCB Regulations  |
| SOR/2012-285              | 2012              | Prohibition Of Certain Toxic Substances Regulations  |
| SOR/2014-254              | 2014              | Products Containing Mercury Regulations  |
| SOR/2016-137              | 2016              | Ozone-Depleting Substances And Halocarbon Alternatives Regulations   |
| SOR/2018-196              | 2018              | Prohibition Of Asbestos And Products Containing Asbestos Regulations   |
| STANAG 2290 ED. 2         | 2010-11-18        | NATO Unique Identification Of Items  |
|                           |                   | NATO HQ AIRCOM FAC Standardization Team (FST} Standard Operating Procedure (SOP) Simulator Assessment Checklist.   |
|                           | 2011-01-01        | United States Joint Fire Support (JFS) Executive Steering Committee (ESC) Coordinated Implementation (CI) Change Control Board (CCB) Engineering Change Proposals (ECP) 1. |
|                           | 2011-01-01        | United States Joint Fire Support (JFS) Executive Steering Committee (ESC) Coordinated Implementation (CI) Change Control Board (CCB) Engineering Change Proposals (ECP) 2. |

#### A4.4 Acronyms and Abbreviations

| Acronym | Definition  |
|---------|---|
| 2D      | Two-Dimensional   |
| 3D      | Three-Dimensional   |
| AAR     | After-Action Review   |
| ABCANZ  | American, British, Canadian, Australian, and New Zealand Armies Program |
| ABL     | Allocated Baseline  |
| AGL     | Automatic Grenade Launcher  |
| AH      | Attack Helicopter   |
| ASCM    | Airspace Coordination Measures  |
| ATACMS  | Army Tactical Missile System  |
| ATP&P   | Acceptance Test Plan and Procedure                                      |
| ATR     | Acceptance Test Report  |
| AV&V    | Acceptance Verification and Validation                                  |
| BIT     | Built In Test   |
| BOC     | Bombs on Coordinate   |
| CA      | Contracting Authority   |
| CADTC   | Canadian Army Doctrine and Training Centre                              |
| CAF     | Canadian Armed Forces   |
| CAGE    | Commercial and Government Entity  |
| CAS     | Close Air Support   |
| CCA     | Close Combat Attack   |
| CDR     | Critical Design Review  |
| CDRL    | Contract Data Requirements List   |
| CDSB    | Canadian Division Support Base  |
| CFB     | Canadian Forces Base  |
| CFF     | Call for Fire   |
| CFTO    | Canadian Forces Technical Order   |
| CI      | Configuration Item  |
| CM      | Configuration Management  |
| CMS     | Contract Master Schedule  |
| COT     | Cursor on Target  |
| COTS    | Commercial Off-the-shelf  |
| CSA     | Configuration Status Accounting   |
| CSAD    | Cybersecurity Architecture Description                                  |
| DACAS   | Digitally Aided Close Air Support                                       |
| DAGR    | Defence Advanced GPS Receiver   |
| DCSEM   | Director Combat Support Equipment Management                            |
| DGLEPM  | Director General Land Equipment Program Management                      |



| Acronym | Definition  |
|---------|---|
| DID     | Data Item Description                                       |
| DLCSPM  | Director Land Command Systems Program Management            |
| DND     | Department of National Defence                              |
| DPICM   | Dual-Purpose Improved Conventional Munition                 |
| DQA     | Directorate of Quality Assurance                            |
| E3      | Electromagnetic Environmental Effects                       |
| EBS     | Equipment Breakdown Structure                               |
| ECP     | Engineering Change Proposal                                 |
| EEA     | Environmental Equipment Assessment                          |
| EHS     | Environmental Health and Safety                             |
| ESC     | Executive Steering Committee                                |
| FAC     | Forward Air Controller                                      |
| FAC(A)  | Forward Air Controller (Airborne)                           |
| FPAI    | First Production Article Inspection                         |
| FPAT    | First Production Article Test                               |
| FBL     | Functional Baseline   |
| FCA     | Functional Configuration Audit                              |
| FITE    | Future Integrated Training Environment                      |
| FOC     | Full Operational Capability                                 |
| FOO     | Forward Observation Officer                                 |
| FOW     | Family of Weapons   |
| FSCM    | Fire Support Coordination Measure                           |
| FST     | FAC Standardization Team                                    |
| FVEY    | Five Eyes Intelligence Alliance (AUS, CAN, NZ, UK, and USA) |
| GBA+    | Gender Based Analysis Plus                                  |
| GFE     | Government Furnished Equipment                              |
| GFI     | Government Furnish Information                              |
| GoC     | Government of Canada  |
| GPMG    | General Purpose Machine Gun                                 |
| GPS     | Global Positioning System                                   |
| GSM     | Government Supplied Material                                |
| GURF    | Guns Up Ready to Fire                                       |
| HazMat  | Hazardous material  |
| HE      | High Explosive  |
| HOTAS   | Hands On Throttle and Stick                                 |
| IAW     | In Accordance With  |
| ICM     | Improved Conventional Munitions                             |

| Acronym  | Definition   |
|----------|--|
| IED      | Improvised Explosive Device                                    |
| IFFS     | Interim Forward Observer Officer/Forward Air Controller System |
| ILS      | Integrated Logistics Support                                   |
| IOC      | Initial Operational Capability                                 |
| IP       | Intellectual Property  |
| IPMPL    | Intellectual Property Management Plan & List                   |
| IR       | Infrared   |
| ISO      | International Organization for Standardization                 |
| ISS      | In-Service Support   |
| ISSP     | In-Service Support Plan  |
| IUT      | Item Under Test  |
| JFS      | Joint Fires Support  |
| JFS ESC  | Joint Fire Support Executive Steering Committee                |
| JTAC     | Joint Terminal Attack Controller                               |
| JTAC VTS | Joint Terminal Attack Controller Virtual Training System       |
| JTAC - I | Joint Terminal Attack Controller - Instructor                  |
| LAV      | Light Armoured Vehicle   |
| LAW      | Light Anti-Armour Weapon                                       |
| LMG      | Light Machine Gun  |
| LRF      | Laser Range Finder   |
| LRU      | Line Replacement Unit  |
| LSA      | Logistics Support Analysis                                     |
| LTL      | Laser-Target-Line  |
| MCN      | Material Change Notice   |
| MGRS     | Military Grid Reference System                                 |
| MLRS     | Multiple Launch Rocket System                                  |
| MOA      | Memorandum of Agreement  |
| MOTS     | Military off the Shelf   |
| MSR      | Mandated System Review   |
| NATO     | North Atlantic Treaty Organization                             |
| NCAGE    | NATO Commercial and Government Entity                          |
| NDID     | NATO Defence Index of Documentation                            |
| NEW      | Network Enable Weapon  |
| NFS      | Naval Fire Support   |
| NSFS     | Naval Surface Fire Support                                     |
| NSN      | NATO Stock Number  |
| NVD      | Night Vision Device  |

| Acronym | Definition   |
|---------|--|
| OEM     | Original Equipment Manufacturer                    |
| PA      | Procurement Authority                              |
| PBL     | Product Baseline                                   |
| PCA     | Physical Configuration Audit                       |
| PDR     | Preliminary Design Review                          |
| PGM     | Precision Guided Munition                          |
| PMP     | Project Management Plan                            |
| PSPC    | Public Service and Procurement Canada              |
| PW      | Personal Weapon                                    |
| QAR     | Quality Assurance Representative                   |
| QMS     | Quality Management System                          |
| R&M     | Reliability and Maintainability                    |
| R&O     | Repair & Overhaul                                  |
| RAAMS   | Remote Anti-Armor Mine System                      |
| RCA     | Royal Canadian Artillery                           |
| RCAF    | Royal Canadian Air Force                           |
| RCAS    | Royal Canadian Artillery School                    |
| RCHA    | Royal Canadian Horse Artillery                     |
| RCN     | Royal Canadian Navy                                |
| Reg F   | Regular Force                                      |
| RFD     | Request for Deviation                              |
| RFP     | Request for Proposal                               |
| RPAS    | Remotely Piloted Aerial System                     |
| RTVM    | Requirements Traceability Verification Matrix      |
| RFW     | Request for Waiver                                 |
| SCR     | Software Change Request                            |
| SDS     | Safety Data Sheet                                  |
| SE      | Systems Engineering                                |
| SEAD    | Suppression of Enemy Air Defence                   |
| SEMP    | System Engineering Management Plan                 |
| SME     | Simulated Military Equipment                       |
| SOP     | Standard Operating Procedure                       |
| SOV     | System Overview                                    |
| SOW     | Statement of Work                                  |
| SPTD    | Supplementary Provisioning Technical Documentation |
| STR     | System Trouble Report                              |
| STTE    | Special Tools and Test Equipment                   |

| Acronym | Definition                               |
|---------|--|
| SVDD    | Software Version Description Document    |
| SVP     | System Verification Plan                 |
| TA      | Technical Authority                      |
| TAPV    | Tactical Armoured Patrol Vehicle)        |
| TDWG    | Training Development Working Group       |
| TIO     | Thermal Imaging Optic                    |
| TOT     | Time on Target                           |
| TPRL    | Technical Publications Requirements List |
| TRR     | Test Readiness Review                    |
| TTP     | Tactics, Techniques, and Procedures      |
| TTT     | Time to Target                           |
| V&V     | Verification and Validation              |
| VDL     | Video Downlink                           |
| VMF     | Variable Message Format                  |
| WinTAK  | Windows Tactical Assault Kit             |
| WP      | White Phosphorus                         |

## ANNEX B

### BASIS OF PAYMENT

### SCHEDULE A

#### Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Pricing

1. In consideration of the Contractor satisfactorily completing all of its obligations under this contract, the Contractor will be paid the following firm prices, applicable taxes excluded.
2. **Acquisition Pricing**
  - 2.1 General – Shipment terms are Delivered Duty Paid (DDP), customs duties are included and Goods and Services Tax (GST) or Harmonized Sales Tax (HST), if applicable, is extra. In the event of a discrepancy between the unit and extended unit prices, the unit prices will apply.
  - 2.2 Currency- All prices provided in Schedule A, Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Pricing, are provided in the following currency: ***To be entered by Canada.***

**Table 1- Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Requirements Pricing**

| Item Number | Description  | Quantity | Unit of Issue | Firm Unit Price | Extended Unit Price |
|-------------|--|----------|---------------|-----------------|---------------------|
| 1           | <b><u>Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Static</u></b><br>One (1) Static Joint Terminal Attack Controller Virtual Training Systems as defined in Annex A Acquisition Statement of Work and appendices  | 1        | Each          | \$              | \$                  |
| 2           | <b><u>Project Management, System Engineering, Configuration Management, Integrated Logistic Support, Environmental Management (not including Training)</u></b><br>Generate, deliver and execute all aspects of Project Management, Systems Engineering, Configuration Management, Integrated Logistics Support, Environmental Management, Conduct Meetings and Provide Minutes in accordance with Annex A Acquisition Statement of Work and appendices | 1        | Lot           | \$              | \$                  |
| 3           | <b><u>Manuals, Publications, Contract Data Requirements List and Data Item Descriptions</u></b><br>Provide Publications, provide Operator, Maintenance, Vendor, Instruments, Decals, Data Plates and Warnings Manuals, provide Contract Data Requirements List and Data Item Deliverables as defined in Annex A Acquisition Statement of Work and appendices.  | 1        | Lot           | \$              | \$                  |
| 4           | <b><u>Installation</u></b>   | 1        | Lot           | \$              | \$                  |

| Item Number | Description   | Quantity | Unit of Issue | Firm Unit Price | Extended Unit Price |
|-------------|---|----------|---------------|-----------------|---------------------|
|             | Delivery and Installation of JTAC VTS to the delivery locations in accordance with Annex A Acquisition Statement of Work  |          |               |                 |                     |
| 5           | <b><u>Training</u></b><br>Generate Train-the-Trainer Training Package and provide initial training in accordance with Annex A Acquisition Statement of Work and appendices. | 1        | Lot           | \$              | \$                  |

#### 4. Optional Acquisition

The Government of Canada reserves the right to purchase up to three additional Static Joint Terminal Attack Controller Virtual Training System (JTAC VTS) in accordance with the price outlined in table 2 for delivery to any of the following locations:

- i. 5 CDSB Gagetown
- ii. 2 CDSB Valcartier
- iii. 3 CDSB Shilo
- iv. 4 CDSB Petawawa

Options will be exercised within two (2) years after contract award, with delivery to be completed within six (6) months after exercising the options.

**Table 2- Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Optional Acquisition Requirements Pricing**

| Item Number | Description   | Quantity | Unit of Issue | Firm Unit Price | Extended Unit Price |
|-------------|---|----------|---------------|-----------------|---------------------|
| 1           | <b><u>Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Static</u></b><br>One (1) Static Joint Terminal Attack Controller Virtual Training Systems as defined in Annex A Acquisition Statement of Work and appendices       | 1        | Each          | \$              | \$                  |
| 2           | <b><u>Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Portable</u></b><br>Three (3) Portable Joint Terminal Attack Controller Virtual Training Systems as defined in Annex A Acquisition Statement of Work and appendices | 3        | Each          | \$              | \$                  |
| 3           | <b><u>Manuals and Publications</u></b><br>Provide Publications, provide Operator, Maintenance, Vendor, Instruments, Decals, Data Plates and Warnings Manuals as defined in Annex A Acquisition Statement of Work and appendices.              | 1        | Lot           | \$              | \$                  |

| Item Number | Description  | Quantity | Unit of Issue | Firm Unit Price | Extended Unit Price |
|-------------|--|----------|---------------|-----------------|---------------------|
| 4           | <b><u>Installation</u></b><br>Delivery and Installation of JTAC VTS to the delivery locations in accordance with Annex A Acquisition Statement of Work | 1        | Lot           | \$              | \$                  |
| 5           | <b><u>Training</u></b><br>Provide additional initial training in accordance with Annex A Statement of Work and appendices.                             | 1        | Lot           | \$              | \$                  |

## 5. Additional Work Requests (AWRs) via Task Authorization

- 5.1** If and when requested by Canada, Additional Work Requests will only be authorized by the Procurement Authority (PA) on an “as and when requested basis”, utilizing a DND 626 Task Authorization form.
- 5.2** For all authorized Technical Investigation and Engineering Support (TIES) and Field Services Representatives (FSR), the Contractor personnel will be paid the latest relevant hourly rates for the actual direct hours worked during the periods below as specified in Table 3.

No premium for overtime rates will be considered.

**Table 3- Additional Work Request (AWR) Pricing Rates**

| Labour Category                      | Firm Ceiling Hourly Rate |        |        |
|--------------------------------------|--------------------------|--------|--------|
|                                      | Year 1                   | Year 2 | Year 3 |
| Senior Engineer                      | \$                       | \$     | \$     |
| Junior Engineer                      | \$                       | \$     | \$     |
| Systems Engineer                     | \$                       | \$     | \$     |
| Software Engineer                    | \$                       | \$     | \$     |
| Field Services Representatives (FSR) | \$                       | \$     | \$     |
| Training Instructor                  | \$                       | \$     | \$     |
| Other <sup>1</sup>                   | \$                       | \$     | \$     |

<sup>1</sup> Note 1:

Other category is for labour categories that are not captured above but are required to perform the tasks. Other category must be a function of the categories above and cannot exceed the rate of a Junior Engineer. Any additional Other labour categories proposed should not encompass functions included within the Statement of Work (SOW) that is captured as part of other contract line items within the basis of payment.

Should options be exercised the rates used will be from the completed installation date.

## 5.4 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, and private vehicle allowances specified in Appendices B, C and D of the [National Joint Council Travel Directive](#), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel and living expenses must be authorized in advance by DND Procurement Authority, must be supported by receipts and are subject to government audits and verifications.

## 6. Firm Mark-up Rates

- 6.1** Mark-up on Materials for Additional Work Requests - the Contractor will be paid at the actual laid down cost plus applicable percentage as identified in Table 4.

**Laid-down cost:** 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 Sales Tax.

**Table 4- Material Mark-up**

| Material              | Year 1<br>Mark-up (%) | Year 2<br>Mark-up (%) | Year 3<br>Mark- up (%) |
|-----------------------|-----------------------|-----------------------|------------------------|
| Material Mark-up rate |                       |                       |                        |

## 7. Spare Parts

- 7.1** Spare parts pricing will be negotiated after contract award.
- 7.2** Once the initial spare parts list has been approved and accepted at the Initial Provisioning Conference, a formal purchase of the spares will be initiated through a Task Authorization process.

### 7.3 Price Certification Commercial Goods and/or Services

The Contractor certifies that the price proposed:

- a) is not in excess of the lowest price charged anyone else, including the Contractor's most favoured customer, for the like quality and quantity of the goods, services or both; and
- b) does not include an element of profit on the sale in excess of that normally obtained by the Contractor on the sale of goods, services or both of like quality and quantity.

### 7.4 Price Justification

The Contractor must provide, on Canada's request, one or more of the following price justification:

- a) Current published price list indicating the percentage discount available to Canada; Or a copy of paid invoices for the like quality and quantity of the goods, services or both sold to other customers, or
- b) a price breakdown showing the cost of direct labour, direct materials, purchased items, engineering and plant overheads, general and administrative overhead, transportation, etc., and profit; or
- c) any other supporting documentation as requested by Canada.



## SCHEDULE B

### Joint Terminal Attack Controller Virtual Training System (JTAC VTS)

#### Acquisition Milestone Payments

#### 1. Acquisition Requirements

- 1.1** Payment for the completion of Milestones for the JTAC VTS Acquisition contract will be a firm price based on the percentage of the overall contract value as detailed below in Schedule B; Table 1 - Acquisition Milestone Payment Schedule.
- 1.2** Individual numbered milestones will be paid to the Contractor based on their percentage of total contract value as defined in table 1- Acquisition Milestone Payment Schedule, upon satisfactory completion and acceptance by the DND Technical Authority.
- 1.3** The schedule of milestones payments which claims must be made on Schedule A, Joint Terminal Attack Controller Virtual Training System (JTAC VTS) Acquisition Pricing items N°1 through N°12, are as follows:

**Table 1 - Acquisition Milestone Payment Schedule**

| Milestone Number | Milestone                 | Deliverable   | Percentage of Total Contract Value | Milestone/Progress Value (populated at Contract Award) |
|------------------|---------------------------|---|------------------------------------|--|
| 1                | Meetings                  | Kick-off Meeting<br><br>Completion of the Kick-off Meeting and approval of the final copy of Meeting Minutes in accordance with Annex A Acquisition SOW Article 3.9 and Article 3.9.2   | 5%                                 | \$   |
|                  |                           | Systems Engineering Meeting<br><br>Completion of the Systems Engineering Meeting and approval of the final copy of Meeting Minutes in accordance with Annex A Acquisition SOW Article 3.9 and Article 3.9.3. Delivery and acceptance of the following CDRLs and DIDs (SE-101, SE-102, SE-103, SE-104, SE-107, SE-108, SE-109, ILS-201 and ILS-208) in accordance with Annex A Acquisition SOW and appendices. | 10%                                | \$   |
| 2                | Project Management Plan   | Completion of the Project Management Plan in accordance with Annex A Acquisition SOW Article 3.2  | 10%                                | \$   |
| 3                | Preliminary Design Review | Completion and acceptance of the Mandated System Review and Preliminary Design Review including required action plans and resolutions and final copy of Meeting Minutes in accordance with Annex A Acquisition SOW Article 4.2.5 and Article 4.3.1. Delivery and acceptance of the following CDRL and DID (SE-105)  | 5%                                 | \$   |
| 4                | Critical Design Review    | Completion and acceptance of the Mandated System Review and Critical Design Review including required action plans and resolutions and final copy of Meeting Minutes in accordance with Annex A Acquisition SOW   | 5%                                 | \$   |

| Milestone Number | Milestone   | Deliverable   | Percentage of Total Contract Value | Milestone/Progress Value (populated at Contract Award) |
|------------------|---|---|------------------------------------|--|
|                  |   | Article 4.2.5 and Article 4.3.2. Delivery and acceptance of the following CDRLs and DIDs (SE-106, SE-110 and SE-113)  |                                    |  |
| 5                | Integrated Logistics Support                                      | Completion of Integrated Logistics Support Meeting and the Initial Provisioning Conference. Approval of the final copy of Meeting Minutes in accordance with Annex A Acquisition SOW Article 3.9, Article 3.9.4 and Article 3.9.5. Delivery and acceptance of CDRLs and DIDs (ILS-208, ILS-209)                     | 5%                                 | \$   |
| 6                | Configuration Audits  | Completion of the Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA). Approval of test procedures, reports. Approval of the final copy of Meeting Minutes and all other FCA and PCA entry and exit requirements in accordance with Annex A Acquisition SOW Article 5.6.4 and Article 5.6.5 | 5%                                 | \$   |
| 7                | Test Readiness Review   | Completion and approval of the Test Readiness Review including action items and plans successfully addressed and approved in accordance with Annex A Acquisition SOW Article 6.1.3. Delivery and acceptance of the following CDRLs and DIDs (SE-114, SE-115)  | 5%                                 | \$   |
| 8                | Acceptance Verification and Validation, Delivery and Installation | Completion of Acceptance Verification and Validation. Delivery and Installation of quantity 2 JTAC VTS to 5 CDSB Gagetown including approval of all test reports and Operator, Maintenance and Vendor Manuals in accordance with Annex A Acquisition SOW Article 6.2 and Article 10                                 | 15%                                | \$   |
| 9                | Training Package  | Completion and approval of Train-the-Trainer Training Package in accordance with Annex A Acquisition SOW and appendices.  | 5%                                 | \$   |
| 10               | Initial Training  | Completion and approval of the Initial Training in accordance with Annex A Acquisition SOW and appendices.  | 5%                                 | \$   |
| 11               | Technical Publications  | Completion and delivery of all Technical Publications Data in accordance with Annex A Acquisition SOW and appendices.   | 15%                                | \$   |
| 12               | Hold back   | Completion of the final review of the system to ensure all requirements have been met and all deliverables have been accepted in accordance with Annex A Acquisition SOW and appendices   | 10%                                | \$   |

## 2. JTAC VTS Optional Acquisition Requirements

Should items N°1, N°2, N°3, N°4, and N°5 of Schedule A, Article 4 Table 2 JTAC VTS Optional Acquisition Requirements be exercised, the schedule of milestones which claims must be made, are as follows:

*(To be negotiated if options are exercised)*

## **Appendix 1 to Annex B - Schedule A**

### **ECONOMIC PRICE ADJUSTMENT**

Optional Contract Extensions for Joint Terminal  
Attack Controller Virtual Training System (JTAC  
VTS) In-Service Support (ISS) and Repair and  
Overhaul (R&O)

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## ECONOMIC PRICE ADJUSTMENT

### 1.0 GENERAL INFORMATION

In the 6th year or third option year each of the rates in the basis of payment Tables 1, 2 and 3 will be adjusted, subject to annual economic price adjustment in accordance with a set of blended escalation indices. The process for calculating the blended escalation indices price adjustment is indicated in Article 2.0 below.

No Economic Price Adjustment will be considered to any markup percentages applied to the direct material.

### 2.0 BLENDED ESCALATION INDICES ADJUSTMENT METHODOLOGY

**2.1** The blended escalation indices adjustment will be based on the following composite:

60% of Statistics Canada, Table: 18-10-0061-01 (formerly CANSIM 331-0009) Commercial Software Price Index, change in the annual average index for the 12 months ended 4 months immediately prior to the new contract year

Commercial software price index, monthly  
Frequency: Monthly  
Table: 18-10-0061-01 (formerly CANSIM 331-0009)  
Release date: 2021-04-28  
Geography: Canada

40% of Statistics Canada, Table: 18-10-0266-01 Industrial Product Price Indexes, Electronic and electrical parts [371] by North American Product Classification System (NAPCS) change in the annual average index for the 12 months ended 4 months immediately prior to the new contract year

Electronic and electrical parts [371]

Industrial product price index, by product, monthly  
Frequency: Monthly  
Table: 18-10-0266-01  
Release date: 2021-11-29  
Geography: Canada

**2.2** The following methodology will be used to calculate the blended rate:  
Blended Escalation Indices Adjustment Formula:

$$R = \frac{60\% \left( \frac{A_o - A}{A} \right) + 40\% \left( \frac{B_o - B}{B} \right)}{\left( \right)} \times 100$$

Where,

R = Escalation percentage from a 12 month period commencing 16 months immediately prior to the new year start date and ending 4 months prior to the new year start date. (The new year start date represents the year for which prices/rates are being revised.)

A = Annual Average Index for the 12 months ended 16 months immediately prior to the new contract year start date based on Statistics Canada, Table: 18-10-0061-01 (formerly CANSIM 331-0009) Commercial Software Price Index, Commercial Software monthly (Index, 2007=100)

Ao = Annual Average Index for the 12 months ended 4 months immediately prior to the new contract year start date based on Statistics Canada, Table: 18-10-0061-01 (formerly CANSIM 331-0009) Commercial Software

B = Annual Average Index for the 12 months ended 16 months immediately prior to the new contract year start date based on Statistics Canada, Table: 18-10-0266-01 Industrial Product Price Indexes, Electronic and electrical parts [371] by North American Product Classification System (NAPCS)

Bo = Annual Average Index for the 12 months ended 4 months immediately prior to the new contract year start date based on Statistics Canada, Table: 18-10-0266-01 Industrial Product Price Indexes, Electronic and electrical parts [371] by North American Product Classification System (NAPCS)

The applicable year (new contract year ) Prices, on an annual basis, will be determined by multiplying the percentage increase in the EPA escalation (R), using the EPA Escalation Formula provided above, by all applicable Prices as stated in Annex B – Basis of Payment.

For each 12 month period, applicable Prices will be adjusted commencing (START DATE OF CONTRACT YEAR) each new year.

The Offeror must notify the Contracting Authority in writing of the applicable calculated escalation percentage, and the Contracting Authority will in turn verify the calculated escalated prices and rates and amend the contract accordingly to reflect the revised Prices.

Until such time as the price adjustments are made through a contract amendment, the prices valid for the last 12 month period will be used on an interim basis.

If any of the Statistics Canada Economic Price Adjustment indexes set out in the contract are discontinued, the parties shall immediately thereafter negotiate in good faith to agree on replacement indexes consistent with those set forth in the standing offer.

The Contractor and Canada are entitled to adjustments for any retroactive change to the published values of any index used to determine rate(s) beyond the first year of the Contract. Notification of, and retroactive adjustments are to be made in a timely manner.

Only changes to already established firm rate(s) resulting from retroactive changes to any index value occurring within a period of twelve (12) months from its 'first published date' are allowable. In such case, one Party to the Contract is to advise the other Party of the revised index and the resulting revised rate(s). The Contractor shall then use the revised rate(s) for invoicing and promptly settle, within three (3) months from the date the revised rates are accepted by the second Party, any amount(s) previously invoiced if applicable.

All calculations shall be performed to the limits of the computer (i.e., no limit on the number of significant decimals).

EPA Example: (Amounts and dates are not actual)

In the year commencing January 1, 2021, the 6<sup>th</sup> year of program delivery, the Prices subject to escalation, as stated in Annex A Basis of Payment would be adjusted as follows:

Assumptions:

R = Escalation percentage from a 12 month period commencing 16 months immediately prior to the new contract year start date (September 2019) and ending 4 months immediately prior to the contract year start date (September 2020).

A= Annual Average Index for the 12 months ended 16 months immediately prior to the new Contract year start date (September 2019) based on Statistics Canada, Table 18-10-0061-01 (formerly CANSIM 331-0009) Commercial Software Price Index, -Commercial Software monthly (Index, 2007=100)

|        |       |         |         |
|--------|-------|---------|---------|
| Oct-18 | 115.2 |         |         |
| Nov-18 | 115.8 |         |         |
| Dec-18 | 116.7 |         |         |
| Jan-19 | 116.5 |         |         |
| Feb-19 | 116.4 |         |         |
| Mar-19 | 116.6 |         |         |
| Apr-19 | 116.7 |         |         |
| May-19 | 117.7 |         |         |
| Jun-19 | 116.9 |         |         |
| Jul-19 | 116.4 |         |         |
| Aug-19 | 116.5 |         |         |
| Sep-19 | 116.3 | Average | 116.475 |

Ao = Annual Average Index for the 12 months ended 4 months immediately prior to the new contract year start date (September 2020) based on Statistics Canada, Table 18-10-0061-01 (formerly CANSIM 331-0009) Commercial Software Price Index, -Commercial Software monthly (Index, 2007=100)

|        |       |         |          |
|--------|-------|---------|----------|
| Oct-19 | 115.6 |         |          |
| Nov-19 | 116.1 |         |          |
| Dec-19 | 115.9 |         |          |
| Jan-20 | 115.5 |         |          |
| Feb-20 | 115.9 |         |          |
| Mar-20 | 119.3 |         |          |
| Apr-20 | 119.4 |         |          |
| May-20 | 119.3 |         |          |
| Jun-20 | 117.3 |         |          |
| Jul-20 | 117.4 |         |          |
| Aug-20 | 116.4 |         |          |
| Sep-20 | 119.3 | Average | 117.2833 |

B = Annual Average Index for the 12 months ended 16 months immediately prior to the new Contract year start date (September 2019) based on Statistics Canada, Table 18-10-0266-01 Industrial Product Price Indexes, Electronic and electrical parts [371] by North American Product Classification System (NAPCS)

|        |       |         |        |
|--------|-------|---------|--------|
| 18-Oct | 101.9 |         |        |
| 18-Nov | 103.4 |         |        |
| 18-Dec | 104.5 |         |        |
| 19-Jan | 102.9 |         |        |
| 19-Feb | 102.2 |         |        |
| 19-Mar | 103.4 |         |        |
| 19-Apr | 103.7 |         |        |
| 19-May | 102.7 |         |        |
| 19-Jun | 101.4 |         |        |
| 19-Jul | 100   |         |        |
| 19-Aug | 101.5 |         |        |
| 19-Sep | 101.3 | Average | 102.41 |

Bo = Annual Average Index for the 12 months ended 4 months immediately prior to the new contract year start date (September 2020) based on Statistics Canada, Table 18-10-0266-01 Industrial Product Price Indexes, Electronic and electrical parts [371] by North American Product Classification System (NAPCS)

|        |       |         |        |
|--------|-------|---------|--------|
| 19-Oct | 101.4 |         |        |
| 19-Nov | 101.7 |         |        |
| 19-Dec | 102.2 |         |        |
| 20-Jan | 100   |         |        |
| 20-Feb | 101.3 |         |        |
| 20-Mar | 108   |         |        |
| 20-Apr | 107.4 |         |        |
| 20-May | 106.7 |         |        |
| 20-Jun | 103.8 |         |        |
| 20-Jul | 103.6 |         |        |
| 20-Aug | 101.4 |         |        |
| 20-Sep | 101.6 | Average | 103.26 |

|    |   |      |   |                                  |   |        |      |   |                                  |   |   |   |     |
|----|---|------|---|----------------------------------|---|--------|------|---|----------------------------------|---|---|---|-----|
| R= | ( | 60%  | ( | $\frac{(Ao-A)}{A}$               | ) | +      | 40%  | ( | $\frac{(Bo-B)}{B}$               | ) | ) | x | 100 |
| R= | ( | 0.60 | ( | $\frac{(117.28-116.48)}{116.48}$ | ) | +      | 0.40 | ( | $\frac{(103.26-102.41)}{102.41}$ | ) | ) | x | 100 |
| R= | ( | 0.60 | ( | 0.0069                           | ) | +      | 0.40 | ( | 0.0083                           | ) | ) | x | 100 |
| R= |   |      | ( | 0.0041                           | ) | +      |      | ( | 0.0033                           | ) |   | x | 100 |
| R= |   |      |   |                                  |   | 0.0074 |      |   |                                  |   |   | x | 100 |
| R= |   |      |   |                                  |   | 0.74%  |      |   |                                  |   |   |   |     |

The annual increase to the applicable prices would be 0.74% effective the first day of the next contract year.





## ANNEX C

### SECURITY REQUIREMENTS CHECK LIST (SRCL)

### LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

| PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE  |  |   |  |
|---|--|---|--|
| 1. Originating Government Department or Organization /<br>Ministère ou organisme gouvernemental d'origine<br><b>Department of National Defence</b>  |  | 2. Branch or Directorate / Direction générale ou Direction<br><b>DGLEPM/DCSEM 7</b> |  |
| 3. a) Subcontract Number / Numéro du contrat de sous-traitance  |  | 3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant<br>N/A    |  |
| 4. Brief Description of Work / Brève description du travail<br>Acquisition and In-service support of the Joint Terminal Attack Controller Virtual Training System.  |  |   |  |
| 5. a) Will the supplier require access to Controlled Goods?<br>Le fournisseur aura-t-il accès à des marchandises contrôlées?  |  | <input checked="" type="checkbox"/> No<br>Non                                       | <input type="checkbox"/> Yes<br>Oui  |
| 5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations?<br>Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?  |  | <input checked="" type="checkbox"/> No<br>Non                                       | <input type="checkbox"/> Yes<br>Oui  |
| 6. Indicate the type of access required / Indiquer le type d'accès requis   |  |   |  |
| 6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets?<br>Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS?<br>(Specify the level of access using the chart in Question 7. c)<br>(Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)                                |  | <input type="checkbox"/> No<br>Non  | <input checked="" type="checkbox"/> Yes<br>Oui   |
| 6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted.<br>Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé. |  | <input checked="" type="checkbox"/> No<br>Non                                       | <input type="checkbox"/> Yes<br>Oui  |
| 6. c) Is this a commercial courier or delivery requirement with no overnight storage?<br>S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?   |  | <input checked="" type="checkbox"/> No<br>Non                                       | <input type="checkbox"/> Yes<br>Oui  |
| 7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès  |  |   |  |
| Canada <input checked="" type="checkbox"/>  |  | NATO / OTAN <input type="checkbox"/>  | Foreign / Étranger <input type="checkbox"/>  |
| 7. b) Release restrictions / Restrictions relatives à la diffusion  |  |   |  |
| No release restrictions<br>Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>   |  | All NATO countries<br>Tous les pays de l'OTAN <input type="checkbox"/>              | No release restrictions<br>Aucune restriction relative à la diffusion <input type="checkbox"/> |
| Not releasable<br>À ne pas diffuser <input type="checkbox"/>  |  |   |  |
| Restricted to: / Limité à: <input type="checkbox"/>   |  | Restricted to: / Limité à: <input type="checkbox"/>                                 | Restricted to: / Limité à: <input type="checkbox"/>  |
| Specify country(ies): / Préciser le(s) pays:  |  | Specify country(ies): / Préciser le(s) pays:  | Specify country(ies): / Préciser le(s) pays:   |
| 7. c) Level of information / Niveau d'information   |  |   |  |
| PROTECTED A<br>PROTÉGÉ A <input type="checkbox"/>   |  | NATO UNCLASSIFIED <input type="checkbox"/>  | PROTECTED A<br>PROTÉGÉ A <input type="checkbox"/>  |
| PROTECTED B<br>PROTÉGÉ B <input checked="" type="checkbox"/>  |  | NATO NON CLASSIFIÉ <input type="checkbox"/>   | PROTECTED B<br>PROTÉGÉ B <input type="checkbox"/>  |
| PROTECTED C<br>PROTÉGÉ C <input type="checkbox"/>   |  | NATO RESTRICTED <input type="checkbox"/>  | PROTECTED C<br>PROTÉGÉ C <input type="checkbox"/>  |
| CONFIDENTIAL<br>CONFIDENTIEL <input type="checkbox"/>   |  | NATO DIFFUSION RESTREINTE <input type="checkbox"/>                                  | CONFIDENTIAL<br>CONFIDENTIEL <input type="checkbox"/>  |
| SECRET<br>SECRET <input type="checkbox"/>   |  | NATO CONFIDENTIAL <input type="checkbox"/>  | SECRET<br>SECRET <input type="checkbox"/>  |
| TOP SECRET<br>TRÈS SECRET <input type="checkbox"/>  |  | NATO SECRET <input type="checkbox"/>  | TOP SECRET<br>TRÈS SECRET <input type="checkbox"/>   |
| TOP SECRET (SIGINT)<br>TRÈS SECRET (SIGINT) <input type="checkbox"/>  |  | NATO SECRET <input type="checkbox"/>  | TOP SECRET (SIGINT)<br>TRÈS SECRET (SIGINT) <input type="checkbox"/>                           |
|   |  | COSMIC TOP SECRET <input type="checkbox"/>  |  |
|   |  | COSMIC TRÈS SECRET <input type="checkbox"/>   |  |



**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes  
Non Oui

If Yes, indicate the level of sensitivity:

Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? ☒ No ☐ Yes  
Non Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

|   |   |   |  |
|---|---|---|--|
| <input checked="" type="checkbox"/> RELIABILITY STATUS<br>COTE DE FIABILITÉ | <input type="checkbox"/> CONFIDENTIAL<br>CONFIDENTIEL           | <input type="checkbox"/> SECRET<br>SECRET           | <input type="checkbox"/> TOP SECRET<br>TRÈS SECRET               |
| <input type="checkbox"/> TOP SECRET - SIGINT<br>TRÈS SECRET - SIGINT        | <input type="checkbox"/> NATO CONFIDENTIAL<br>NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET<br>NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET<br>COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS<br>ACCÈS AUX EMPLACEMENTS              |   |   |  |

Special comments:

Commentaires spéciaux : \_\_\_\_\_

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.

REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? ☒ No ☐ Yes  
Non Oui

If Yes, will unscreened personnel be escorted?

Dans l'affirmative, le personnel en question sera-t-il escorté?

☐ No ☐ Yes  
Non Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)**

**INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS**

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes  
Non Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? ☒ No ☐ Yes  
Non Oui

**PRODUCTION**

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? ☒ No ☐ Yes  
Non Oui

**INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)**

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? ☒ No ☐ Yes  
Non Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? ☒ No ☐ Yes  
Non Oui



**PART C - (continued) / PARTIE C - (suite)**

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

| Category<br>Catégorie  | PROTECTED<br>PROTÉGÉ |   |   | CLASSIFIED<br>CLASSIFIÉ |        |                | NATO                            |                      |                |                                    | COMSEC               |   |   |              |        |                |
|--|----------------------|---|---|-------------------------|--------|----------------|---------------------------------|----------------------|----------------|------------------------------------|----------------------|---|---|--------------|--------|----------------|
|  | A                    | B | C | CONFIDENTIAL            | SECRET | TOP<br>SECRET  | NATO<br>RESTRICTED              | NATO<br>CONFIDENTIAL | NATO<br>SECRET | COSMIC<br>TOP<br>SECRET            | PROTECTED<br>PROTÉGÉ |   |   | CONFIDENTIAL | SECRET | TOP<br>SECRET  |
|  |                      |   |   | CONFIDENTIEL            |        | TRÈS<br>SECRET | NATO<br>DIFFUSION<br>RESTREINTE | NATO<br>CONFIDENTIEL |                | COSMIC<br>COSMIC<br>TRÈS<br>SECRET | A                    | B | C | CONFIDENTIEL |        | TRÈS<br>SECRET |
|  |                      |   |   |                         |        |                |                                 |                      |                |                                    |                      |   |   |              |        |                |
| Information / Assets<br>Renseignements / Biens<br>Production |                      |   |   |                         |        |                |                                 |                      |                |                                    |                      |   |   |              |        |                |
| IT Media /<br>Support TI                                     |                      |   |   |                         |        |                |                                 |                      |                |                                    |                      |   |   |              |        |                |
| IT Link /<br>Lien électronique                               |                      |   |   |                         |        |                |                                 |                      |                |                                    |                      |   |   |              |        |                |

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?

La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☒ No  
Non

☐ Yes  
Oui

**If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".**

**Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.**

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?

La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☒ No  
Non

☐ Yes  
Oui

**If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).**

**Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).**

## **ANNEX D**

### **ELECTRONIC PAYMENT INSTRUMENTS**

As indicated in Part 3, clause 3.3.3 of the bid solicitation, the Bidder must complete the information requested below, to identify which electronic payment instruments are accepted for the payment of invoices.

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

- ☐ ( ) VISA Acquisition Card;
- ☐ ( ) MasterCard Acquisition Card;
- ☐ ( ) Direct Deposit (Domestic and International);
- ☐ ( ) Electronic Data Interchange (EDI);
- ☐ ( ) Wire Transfer (International Only);
- ☐ ( ) Large Value Transfer System (LVTS) (Over \$25M)

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## ANNEX E to VOLUME 1 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 F

### COVID-19 VACCINATION REQUIREMENT CERTIFICATION

I, \_\_\_\_\_ (*first and last name*), as the representative of  
\_\_\_\_\_ (*name of business*) pursuant to  
\_\_\_\_\_ (*insert solicitation number*), warrant and certify that all  
personnel that \_\_\_\_\_ (*name of business*) will provide on the  
resulting Contract who access federal government workplaces where they may come into contact with  
public servants will be:

- (a) fully vaccinated against COVID-19 with Health Canada-approved COVID-19 vaccine(s); or
  - (b) for personnel that are unable to be vaccinated due to a certified medical contraindication or a disability, religious grounds, or other prohibited grounds of discrimination as defined in applicable human rights legislation only, subject to accommodation and mitigation measures that have been presented to and approved by Canada;
- until such time that Canada indicates that the vaccination requirements of the COVID-19 Vaccination Policy for Supplier Personnel are no longer in effect.

I certify that all personnel provided by \_\_\_\_\_ (*name of business*) have been notified of the vaccination requirements of the Government of Canada's COVID-19 Vaccination Policy for Supplier Personnel, and that the \_\_\_\_\_ (*name of business*) has certified to their compliance with this requirement.

I certify that the information provided is true as of the date indicated below and will continue to be true for the duration of the Contract. I understand that the certifications provided to Canada are subject to verification at all times. I also understand that Canada will declare a contractor in default, if a certification is found to be untrue, whether made knowingly or unknowingly, during the bid or contract period. Canada reserves the right to ask for additional information to verify the certifications. Failure to comply with any request or requirement imposed by Canada will constitute a default under the Contract.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

---

Optional

For data purposes only, initial below if your business already has its own mandatory vaccination policy or requirements for employees in place. Initialing below **is not** a substitute for completing the mandatory certification above.

Initials: \_\_\_\_\_

Information you provide on this Certification Form and in accordance with the Government of Canada's COVID-19 Vaccination Policy for Supplier Personnel will be protected, used, stored and disclosed in accordance with the Privacy Act. Please note that you have a right to access and correct any information on your file, and you have a right to file a complaint with the Office of the Privacy Commissioner regarding the handling of your personal information. These rights also apply to all individuals who are deemed to be personnel for the purpose for the Contract and who require access to federal government workplaces where they may come into contact with public servants.

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.

| Contract item no.<br>N° d'article<br>du contrat | Services           | Cost<br>Prix |
|---|--------------------|--------------|
|   |                    |              |
|   | GST/HST<br>TPS/TVH |              |
|   | Total              |              |

**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.

for the Department of Public Works and Government Services  
pour le ministère des Travaux publics et services gouvernementaux



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 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.

Solicitation No. - N° de l'invitation  
W8486-228446/A  
Client Ref. No. - N° de réf. du client  
W8486-228446

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

Buyer ID - Id de l'acheteur  
017QT  
CCC No./N° CCC - FMS No./N° VME

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## ANNEX H - NON-DISCLOSURE AGREEMENT

I, \_\_\_\_\_, recognize that in the course of my work as an employee or subcontractor of \_\_\_\_\_, I may be given access to information by or on behalf of Canada in connection with the Work, pursuant to Contract Serial No. **W8486-228446/A** between Her Majesty the Queen in right of Canada, represented by the Minister of Public Works and Government Services and \_\_\_\_\_, including any information that is confidential or proprietary to third parties, and information conceived, developed or produced by the Contractor as part of the Work. For the purposes of this agreement, information includes but not limited to: any documents, instructions, guidelines, data, material, advice or any other information whether received orally, in printed form, recorded electronically, or otherwise and whether or not labeled as proprietary or sensitive, that is disclosed to a person or that a person becomes aware of during the performance of the Contract.

I agree that I will not reproduce, copy, use, divulge, release or disclose, in whole or in part, in whatever way or form any information described above to any person other than a person employed by Canada on a need to know basis. I undertake to safeguard the same and take all necessary and appropriate measures, including those set out in any written or oral instructions issued by Canada, to prevent the disclosure of or access to such information in contravention of this agreement.

I also acknowledge that any information provided to the Contractor by or on behalf of Canada must be used solely for the purpose of the Contract and must remain the property of Canada or a third party, as the case may be.

I agree that the obligation of this agreement will survive the completion of the Contract Serial No.: **W8486-228446/A**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date