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

**Bid Receiving - PWGSC / Réception des soumissions - TPSGC**
**11 Laurier St. / 11, rue Laurier**
**Place du Portage , Phase III**
**Core 0B2 / Noyau 0B2**
**Gatineau, Québec K1A 0S5**
**Bid Fax: (819) 997-9776**

# SOLICITATION AMENDMENT
# MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**
**Raison sociale et adresse du fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**
Defence Communications Division. (QD)
11 Laurier St./11, rue Laurier
Place du Portage, Phase III, 8C2
Gatineau, Québec K1A 0S5

| | |
|---|---|
| **Title - Sujet**<br>LEISC | |
| **Solicitation No. - N° de l'invitation**<br>W8486-184104/C | **Amendment No. - N° modif.**<br>009 |
| **Client Reference No. - N° de référence du client**<br>W8486-184104 | **Date**<br>2018-02-05 |
| **GETS Reference No. - N° de référence de SEAG**<br>PW-$$QD-038-26555 | |
| **File No. - N° de dossier**<br>038qd.W8486-184104 | **CCC No./N° CCC - FMS No./N° VME** |
| **Solicitation Closes - L'invitation prend fin**<br>**at - à 02:00 PM**<br>**on - le 2018-03-02** | **Time Zone**<br>**Fuseau horaire**<br>Eastern Standard Time EST |
| **F.O.B. - F.A.B.**<br>**Plant-Usine:** ☐ **Destination:** ☐ **Other-Autre:** ☐ | |
| **Address Enquiries to: - Adresser toutes questions à:**<br>Weronski, Radek | **Buyer Id - Id de l'acheteur**<br>038qd |
| **Telephone No. - N° de téléphone**<br>(819) 420-1774 ( ) | **FAX No. - N° de FAX**<br>( ) - |
| **Destination - of Goods, Services, and Construction:**<br>**Destination - des biens, services et construction:** | |

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

The amendment 009 is raised to answer questions from potential bidders and update the RFP if necessary.

**1 - Questions from Potential Bidders and Answers from Canada:**

**Q85**

Reference: Annex A to Contract W8486-184104, E&I Support Contract SOW, Paragraph 4.1.2, page 54/311.

This section states:

4.1.2 Systems Engineering Schedule

The Contractor must prepare, submit and maintain the Systems Engineering Schedule in Contractor format.

The purpose of the Engineering Schedule is to describe and synchronize the Security Engineering program of work.

Can you clarify the need for an engineering schedule independent of project schedules, for which the singular purpose, seems to be to, “synchronize the Security Engineering program of work.” Can you identify an area of the RFP that details this “Security Engineering program”?

**A85**

Please see amended Annex A.

**Q86**

Reference: Annex A to Contract W8486-184104, E&I Support Contract SOW, Paragraph 4.1.3 page 54/311.

This paragraph states that the Lead TacCOMS architect, “…must have the requisite authority within the Contractor’s organization for all Engineering Program matters related to the TacCOMS engineering work of the SOW.”

Can you clarify the scope of “all Engineering Program matters”, because as worded this seems to be reaching into the Project Management domain, but we expect the authority of the Lead TacCOMS architect relates to the perimeter of the TacCOMS work conducted in accordance with the SEMP. Please clarify.

Can you also confirm that any clarification you may provide here is also applicable to the Lead SoS Architect, paragraph 4.1.4?

**A86**

The SoS Lead Architect and the TacCom Lead Architect authority is related engineering matters defined in the SEMP unless further authorities are also delegated by the bidder in their proposed PMP.

**Q87**

Reference: Annex A to Contract W8486-184104, E&I Support Contract SOW, Paragraph 4.4 page 56/311.

This Section concludes with:

“SoS Integration and Testing Core Work relates to the planning and reporting of the SoS test and integration activities. The execution of specific test evens is task based work.”

The statements above provide a clear separation of core and task work. Other sections of Paragraph 4.4 describe the need for management of facility baselines and the harmonized and efficient integration of CIs from various sources. In this regard:

1. Can you confirm if changes to SoS facilities or the ‘equipment-baseline-under-test’ fall within core work?

2. Can you confirm if aspects of integration of CIs from external sources, beyond planning and reporting, is within core work?

**A87**

Management of the facilities and testing program are core work. Specific baseline changes required for tasked testing is to be considered task-based work. Management of the Integrated Project Team is core work. Integration of CIs for specific test events will be tasked based work.

**Q88**

Reference: Annex A (SOW)

In the RFP Annex A (SOW), bidders are asked to identify several important leadership roles such as the Lead Tac Comms Architect (Section 4.1.3) and the Lead System of System Architect (Section 4.1.4). These sections begin with the language "The LEISC Contractor must designate..." We assume this means that the individual will be designated after contract award. Please confirm this is correct.

**A88**

They must be identified in the bid to demonstrate that the bidder has the necessary resources to execute the core work. They will be nominated by the contractor at contract award.

**Q89**

As the current LEISC program has been underway with a single Contractor for a significant period of time, it is requested that Canada release the current LEISC Systems Engineering Management Plan (SEMP) CDRL, to all LCSS E&I bidders. The nature of this request is to ensure that the playing field for all bidders is level and that the incumbent is not afforded an unfair advantage. (We believe that this aligns with para 2.6 of the Bidders Instructions). More

importantly, it is felt that by understanding the existing SEMP, LEISC bidders will be able to understand the positive and negative aspects of the existing LEISC engineering program in order to identify improvements that would be an advantage for Canada.

**A89**

In accordance with Access to Information Act Article 20(1)- Third Party Information. This information cannot be divulged.

**Q90**

Section 4.1.2 of the SOW (Annex A) for the LEISC, LTSSC and CSES RFPs all state the same text:

“4.1.2 Systems Engineering Schedule

The Contractor must prepare, submit and maintain the System Engineering Schedule in contractor format.

The purpose of the Engineering Schedule is to describe and synchronize the Security Engineering program of work.”

Whereas section 4.1.2 of the ISTAR RFP SOW (Annex A) states:

“4.1.2 Systems Engineering Schedule

The Contractor must prepare, submit and maintain the System Engineering Schedule in contractor format.

The purpose of the Engineering Schedule is to describe and synchronize the Engineering program of work.”

Please confirm that the text for section 4.1.2 for the LEISC and LTSSC SOWs should read as per the ISTAR SOW.

**A90**

Please see amended Annex A.

**Q91**

Reference: ATTACHMENT 3 to PART 4 of the RFP

The rightmost column of Table A3-9 is entitled “3 Year Cost”. Please clarify.

**A91**

See Amended Attachment 3 to Part 4 of the RFP.

**Q92**

Reference: APPENDIX 5 to ANNEX A

Section 2.5 addresses the utilization of contractor format for data items. This section applies to all DIDs provided in the RFP, since each DID states a variant of “Contractor format is acceptable” in Section 10.1 of the DID. We interpret Section 3 General Format Requirements provides mandatory guidance to data items which arise under contract for which Canada specifies the format, or for which no DID exists permitting the use of contractor format. Can Canada confirm this interpretation is acceptable?

**A92**

Section 3 is a guide to remind bidders of some of the critical aspects associated with Defence documentation deliverables. It is provided to help bidders develop their own format. It is not meant to enforce mandatory content.

**Q93**

Reference: ANNEX A

Section 5.7.3 refers to a grouping of CIs as “integration only”. This raises the following questions:

1. We note that Section 1.2 states in part “Appendix 3 identifies the Land C4ISR System hardware and software components as either requiring a SoS or Full level of support”, indicating that there are only two types of support. Are “integration only” CIs those for which the LEISC Contractor will provide SoS level of support as defined in SOW Section 1.2? Is it correct to assume that “integration only” is the same as “SoS level of support”.

2. If the answer to the previous question is affirmative, is it correct to assume that the LEISC Contractor responsibility for CIs receiving SoS level of support is to integrate such CIs as required?

3. If the answer to question 2 is affirmative, is it also correct to assume that any change to integration will result from a change in the SoS and will be controlled though an appropriate Task?

**A93**

1. Canada confirms that “integration only” is the same as “SoS level of support”.

2. Canada confirms that the LEISC Contractor is responsible for integrating CIs receiving SoS level of support as required.

3. Canada confirms that any change to integration resulting from change imposed by external factors to the LEISC SoS will be controlled though an appropriate Task. The correction to SoS integration problem resulting from internal LEISC SoS integration decision is core work.

**Q94**

Reference: ANNEX A

Section 4.1.5 states: “The Contractor as a Core Engineering Support Work must provide Requirements Management (RM) Services for the Land C4ISR SoS, at the SoS level, as well as for all Land C4ISR component systems which are designated in Appendix 3 as receiving “full support” (including ISS) from the LEISC.” We have the following questions:

1. Section 4.1.5 appears to draw a distinction between RM ‘at the SoS level’ and RM for ‘Land C4ISR component systems which are designated in Appendix 3 as receiving “full support” (including ISS) from the LEISC’. Is it correct to interpret that the LEISC Contractor will perform complete RM for those component systems designated to receive “full support” but only high level and interface requirements for other component systems within the Land C4ISR SoS? For example if System A is designated to receive full support and Systems B and C are not, then the LEISC Contractor will perform all RM for System A, another party (whether Canada or another Contractor) will provide RM for Systems B and C, and the LEISC Contractor will provide RM at the SoS level for requirements defining Systems B and C and for the interfaces between Systems A, B and C?

2. If the answer to the previous question is affirmative, the first paragraph in Section 4.1.6 indicates that the LEISC Contractor has overall responsibility for RM in the Land C4ISR SoS. This interpretation is supported by Section 1.3 which states in part “The E&I Support Contractor will be responsible for technical support of the overall Land C4ISR SoS by documenting the system architecture, supporting operational analysis, performing system engineering design and performing integration and supporting system level configuration management.” Please confirm.

**A94**

This interpretation is correct.

**Q95**

Reference: ANNEX A

Section 1.3 alludes to IPT terms of reference which are not included in the RFP. In order to estimate the scope of work and determine a fixed price for the Core Work, is it correct for the purpose of assembling a Proposal to assume that all work in support of the IPT is fully described in Section 4?

**A95**

This interpretation is correct.

**Q96**

Reference: APPENDIX 5 to ANNEX A

Section 10.2 of DID 400.002 for the QAP states in part: “The QA Plan shall conform to requirements of ISO/IEC 15288 clauses 5.3.6.3 e), 5.4.2.3 l), 5.4.3.3 b).” These clauses are not found in the current version of the referenced standard. Please clarify.

**A96**

Please see amended Appendix 5 to Annex A.

**Q97**

Reference: ATTACHMENT 3 to PART 4 of the RFP

Section 1.4.5 refers to “Appendix 6 to Annex A, item No. 2 within the table for each individual resource category”. There is no such item found in Section 2.18 of Appendix 6 to Annex A. Please advise how to interpret Section 1.4.5 of ATTACHMENT 3 to PART 4 of the RFP for this resource.

**A97**

Please see amended Appendix 6 to Annex A.

**Q98**

Reference: ANNEX A

Section 4.11.2 Obsolescence Management states, “As Core Work, the Contractor must notify the TA when CI elements, both hardware and software are approaching their end of life. In addition, the Contractor must advise the TA of all high-risk components.” Can Canada confirm that the software and hardware CI elements that the Contractor must perform obsolescence management on as Core work are only those items identified as “full” in the column titled “LEISC Scope” (column G) of the respective SBS spreadsheets?

**A98**

This interpretation is correct.

**Q99**

Reference: ATTACHMENT 3 to PART 4 of the RFP

We are attempting to identify the appropriate reference project to satisfy Section 1.4.2. Does “performed in Canada” mean performed “for” Canada? If it does not, then a performance based contract which performed the work in Canada for a customer outside of Canada under the contract law of another country would score higher than work performed outside of Canada but on a contract for Canada, through which the Contractor has gained relevant experience of performance based contracting for Canada.

**A99**

Performed in Canada does not mean performed for Canada. Work performed for Canada outside of Canada does score lower as the expertise is not in Canada.

**All other terms and conditions remain unchanged.**

National Défense
Defence nationale

# ANNEX A

# TO CONTRACT

# W8486-184104

# LAND C4ISR

# ENGINEERING AND INTEGRATION SUPPORT CONTRACT

# STATEMENT OF WORK

## 29 January 2018

# Table of Contents

# List of Appendices

# 1 INTRODUCTION

## 1.1 Aim

The objective of this SOW is to define the scope of work to be undertaken under a Support Contract (SC) to provide Engineering and Integration (E&I) services for the in-service support of the Land Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance System (Land C4ISR System). The method for accomplishing this work is to be proposed by the Contractor in its bid.

## 1.2 Scope

This Statement of Work (SOW) specifies the required activities to provide E&I support for the Land C4ISR System. The scope is based on items identified in SOW appendix 3. As the elements of C4ISR are part of a continuously evolving system, it is expected the items in appendix 3 will change throughout the contract.

The principle role of E&I support is to provide:

- System of Systems (SoS) architecting, engineering, integration and testing, including baseline and interface management;
- Integration and testing of the Land C4ISR System in various platforms;
- Design and development of installation configurations and related installation items;
- Systems engineering, integration, testing and support for Tactical Communication Systems (hardware, firmware and software);
- The conduct of Technical Investigations and Engineering Studies; and
- Life Cycle maintenance of Land C4ISR System components, including continuous improvement through integrated teaming processes.

Further E&I support will include on a more limited basis:

- Development of tactical hardware and software configuration items (CI); and
- Resolution of field and mission-specific domain problems.

Appendix 3 identifies the Land C4ISR System hardware and software components as either requiring a SoS or Full level of support. It is anticipated that this list of Land C4ISR System components will change over time as the system evolves. In addition, the level of support may change over time. Canada reserves the right to amend the level of support and list of supported systems from time to time as necessary as determined by the Technical Authority.

The SoS level of support means that the Contractor must have an understanding of the Configuration Item, interfaces (subsystem, equipment, application, hardware or software/firmware, etc.) at the SoS level, including understanding its use in the Land C4ISR System and its interfaces, and be capable of performing systems of systems engineering, integration and testing.

The Full level of support means that the Contractor must have in-depth knowledge of the

Configuration Item over and above that required for SoS Support. The Contractor may be tasked to recommend and/or perform *Corrective, Perfective, Adaptive* and *Emergency* maintenance on the CI and when tasked provide additional in-service support (ISS) beyond that provided for in Core Work for these items to the extent requested by the TA. In the case of software and firmware the Contractor will be provided with source code and detailed design documentation as appropriate. In the case of hardware, the Contractor will be provided with a technical data package, including design documentation where applicable. In all cases DND will provide the appropriate licenses or rights to use technical data or source code.

### 1.3 Background and Land C4ISR High Level Description

The Government of Canada has given the Canadian Armed Forces (CAF) clear direction concerning its vision for defence, in which Canada is:

- **Strong at home**, its sovereignty well-defended by a Canadian Armed Forces also ready to assist in times of natural disaster, other emergencies, and search and rescue;
- **Secure in North America**, active in a renewed defence partnership in NORAD and with the United States; and
- **Engaged in the world**, with the Canadian Armed Forces doing its part in Canada's contributions to a more stable, peaceful world, including through peace support operations and peacekeeping.

In order to meet these objectives, Canada needs an agile, multi-purpose, combat-ready military, operated by highly trained, well-equipped women and men. At any given time, the Government of Canada can call upon the Canadian Armed Forces to undertake missions for the protection of Canada and Canadians and the maintenance of international peace and stability. The Canadian Armed Forces must be prepared to:

- Detect, deter and defend against threats to or attacks on Canada;
- Detect, deter and defend against threats to or attacks on North America in partnership with the United States, including through NORAD;
- Lead and/or contribute forces to NATO and coalition efforts to deter and defeat adversaries, including terrorists, to support global stability;
- Lead and/or contribute to international peace operations and stabilization missions with the United Nations, NATO and other multilateral partners;
- Engage in capacity building to support the security of other nations and their ability to contribute to security abroad;
- Provide assistance to civil authorities and law enforcement, including counter-terrorism, in support of national security and the security of Canadians abroad;
- Provide assistance to civil authorities and nongovernmental partners in responding to international and domestic disasters or major emergencies; and
- Conduct search and rescue operations.

Further, the Canadian Armed Forces will be prepared to *simultaneously*:

- Defend Canada, including responding concurrently to multiple domestic emergencies in support of civilian authorities;

- Meet its NORAD obligations;
- Meet commitments to NATO Allies under Article 5 of the North Atlantic Treaty;
- Contribute to international peace and stability through:
    - Two sustained deployments of ~500-1500 personnel, including one as a lead nation;
    - One time-limited deployment of ~500-1500 personnel (6-9 months duration);
    - Two sustained deployments of ~100-500 personnel;
    - Two time-limited deployments (6-9 months) of ~100-500 personnel;
    - One Disaster Assistance Response Team (DART) deployment, with scalable additional support; and
    - One Non-Combatant Evacuation Operation, with scalable additional support.

To carry out these missions, the CAF requires a fully integrated tactical network, capable of providing, flexible, multi-role and combat-capable communications to the military. It also requires connectivity to other federal government departments, to the governments of other countries, to international organizations, to non-governmental organizations, to private volunteer organizations, and to private business ventures.

The Land Command Support System (Land C4ISR System) is the SoS that primarily supports Canadian Armyoperations by providing commanders with the information and information services required to make effective and timely Command and Control (C2) decisions about their forces. As such, it enables the Canadian Army to:

- Plan and direct operations;
- Manage operational information;
- Achieve situational awareness; and
- Exchange information.

The Land C4ISR System is an interconnected network of digital Communications and Information Systems by which the data needed to plan, direct and control tactical land operations is communicated, stored, processed and displayed. Figure 2 shows a high-level diagram of Land C4ISR System depicting the installations, vehicles, and dismounted soldiers and the subnetworks that interconnect them. It should be noted that the Land C4ISR System comprises equipment and systems to provide the services, but does not include the platforms themselves – these are the responsibility of specific platform projects within the Department of National Defence (DND) distinct from the Directorate, Land Command System Program Management (DLCSPM), as the Departmental authority for the Land C4ISR System has Total System Responsibility (TSR) and is responsible for the life cycle of the Land C4ISR System from Architectural Development to Systems Engineering and Integration to Fielding to In-Service Support and finally Disposal.

In order to support its TSR responsibilities DLCSPM will manage support of the Land C4ISR System within an integrated environment led by an Integrated Product Team (IPT). The IPT will be a working level body, DLCSPM led and jointly managed with the Land C4ISR Engineering and Integration (E&I) Support Contractor. Stakeholders will include the operational community,

the joint community and all major equipment/component providers to the Land C4ISR system. The IPT will operate in a cooperative and collaborative manner, with members working in good faith under the framework of a relational contract and under the guidance of the IPT lead to ensure the needs of the Land C4ISR are met.

The IPT will be the champion of the Agile development teams and will establish the Capability Intent for the outcomes of each capability development component Sprint Grouping. Canada will maintain TSR while the E&I Support Contractor must provide the core of the IPT as defined in the terms of reference to be provided by DLCSPM. That is, the IPT will operate in a collaborative manner forming the bridge between government and army stakeholders and industry partners. Ultimate responsibly for the relationships up and out to government and Army stakeholders will be held by DLCSPM. The E&I Support Contractor will be responsible for technical support of the overall Land C4ISR SoS by documenting the system architecture, supporting operational analysis, performing system engineering design and performing integration and supporting system level configuration management.

DLCSPM will be responsible for ensuring that the right system is being built while the support contractors must be responsible for ensuring the system is being "built right". The proposed System Engineering process is depicted at Figure 5.

Doctrinally the Land C4ISR System is divided into the following sub-systems:

- **Tactical Command, Control and Information System (TacC2IS)**: TacC2IS employs an integrated network of computers with specific software applications that provide automation support for the commander and staff at formation and unit levels.
- **Tactical Communications (TacCOMS)**: TacCOMS is the physical Communications System (CS) that enables commanders at all levels to have access to a fully integrated, secure communications system that gives the capability to carry out tasks through voice and/or data communications. TacC2IS services are transported over TacCOMS.
- **Intelligence Surveillance and Reconnaissance (ISR):** ISR are the sensors and analysis used to gather tactical information.

The operational concept is based on Land Ops 2021 (ISBN: 978-0-662-44742-9) and the evolving Signals in Land Operations (B-GL-351-002/FP-001). This is also at times referred to the Land C4ISR context, which is represented in Figure 1 and Figure 2.

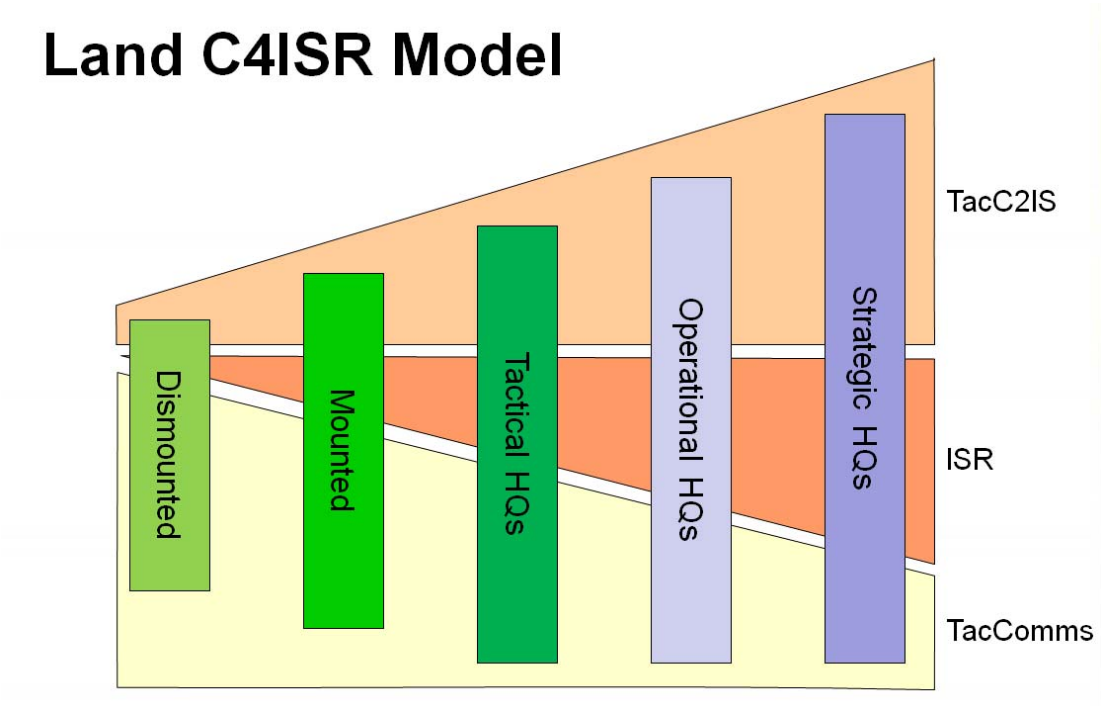


Figure 1 Land C4ISR Model

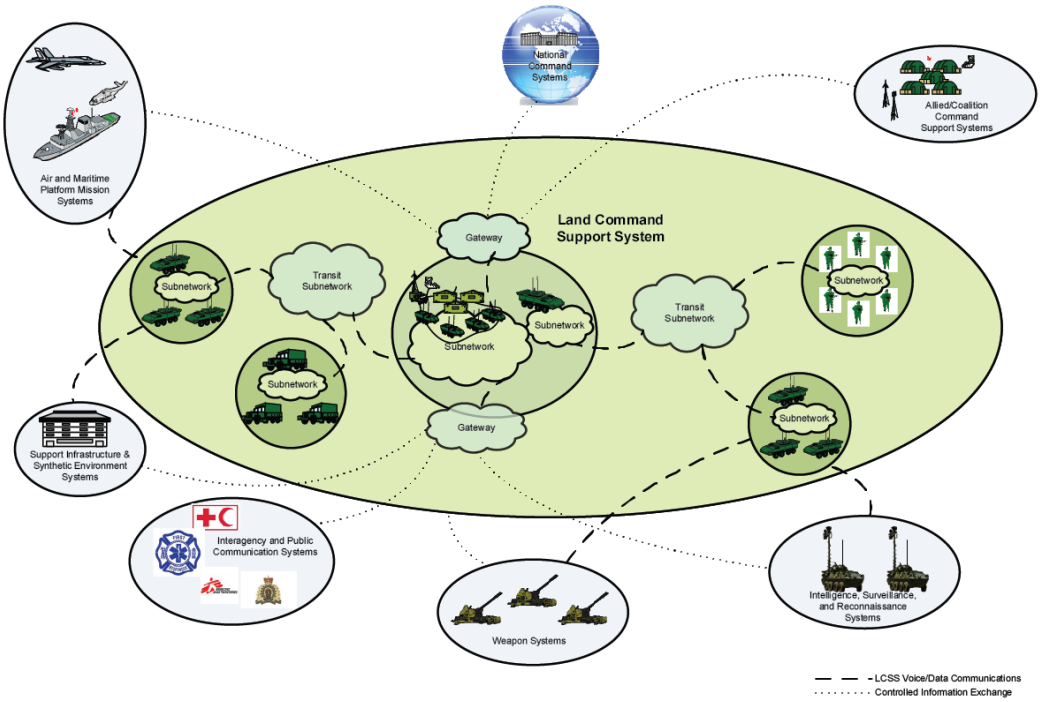


*Figure 2 Land C4ISR System Conceptual Diagram*

TacCOMS, TacC2IS and ISR collectively make up the Land C4ISR technical model as shown in Figure 3. Figure 4 depicts Land C4ISR in the battle space.

# Land C4ISR Technical Model

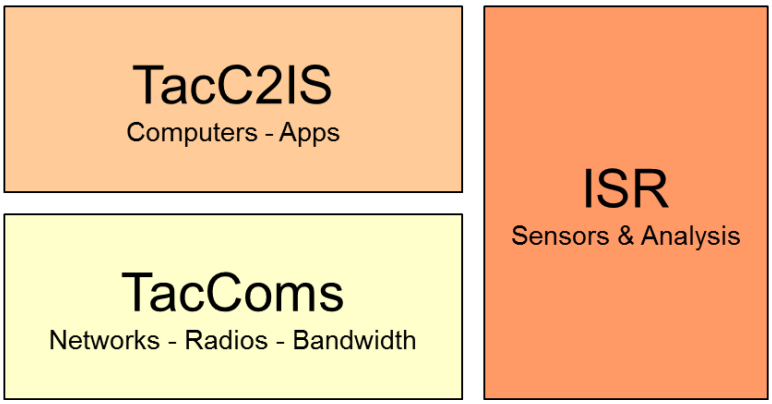


*Figure 3 Land C4ISR Technical Model*

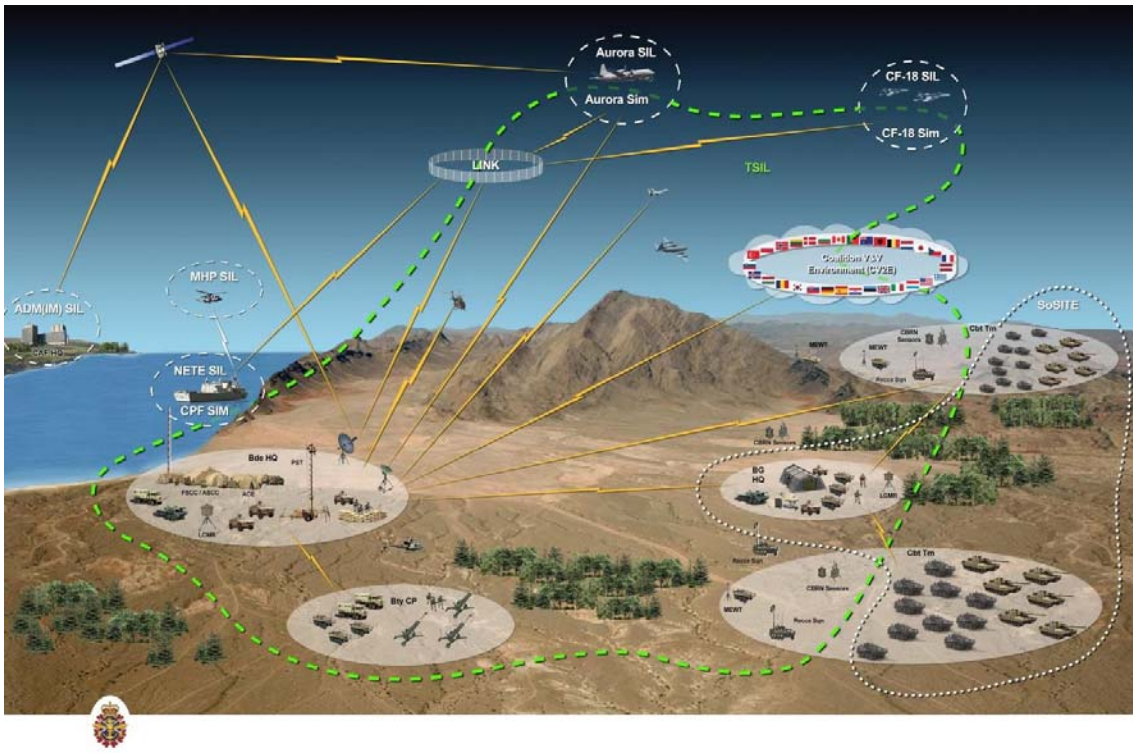


*Figure 4 Land C4ISR in the Battle Space*

For the purpose of this overview the Land C4ISR System is considered to be the Army/Land Force provided CIS hardware and software that is used to provide commanders with C2 services required. This is essentially a system and hardware view. In the context of the Land C4ISR, the Army operates jointly and seamlessly with all other environments and to meet the operational requirement synergistically, DLCSPM jointly supports a number of applications, services and standards.

## 1.4 Electronic Document Format

All documents requested in electronic format, with the exception of Portable Document Format (PDF) files, must be delivered in a format that can be imported, read, edited, printed and saved. PDF files are only acceptable for those documents that the Technical Authority (TA) has no requirement to insert comments, to amend the text or data, to extract text or data, or to use the content of the document for other action.

Documents submitted with security settings or document protection settings that prevent DND from printing and editing the document must be re-submitted in an appropriate format.

## 1.5 Applicable Documents

### 1.5.1 Applicability

The information provided in this section support this SOW and must be considered as supplemental information only.

### 1.5.2 Glossary and Definitions

The glossary and definitions that support this SOW are identified at Appendix 1.

### 1.5.3 Standards, Specifications and Publications

The standards, specifications and publications that support this SOW are identified at Appendix 2. The latest edition of the document is in effect unless specifically specified otherwise.

## 1.6 SOW Structure and Content

The SOW is structured in the following sections:

Section 1: Introduction;

Section 2: General Requirements;

Section 3: Core Management Services;

Section 4: Core Engineering Support Services; and

Section 5: Task Based Services.

The SOW is supported by several appendices:

Appendix 1, Glossary and Definitions;

Appendix 2, Standards and Reference Documents;

Appendix 3, System Description;

Appendix 4, Logistic SOW;

Appendix 5, Contract Data Requirements List (CDRL) and Data Item Descriptions (DIDs);

Appendix 6, Labour Categories; and

Appendix 7, Engineering and Integration Facilities.

## 1.7 Roles, Authorities and Responsibilities

In addition to the Authorities defined in the terms and conditions of this contract, this SOW defines the following roles, authorities, responsibilities.

### 1.7.1 Technical Office of Primary Interest

The Technical Office of Primary Interest (Tech OPI) is a DND employee delegated by the TA to exercise certain authorities on his behalf in accordance with this SOW (see Appendix 1), and scope as may be provided for in any additional task-based SOWs that may be provided under this contract. Tech OPIs have specific scopes and there may be many with differing areas of responsibility at any given time, however, each task issued under this SOW will have a single Tech OPI.

### 1.7.2 Contractor's Lead Systems-of-Systems Engineering Manager

The Contractor must designate an individual as its Lead System of Systems Engineering Manager (Lead SoS SEM).

The Lead SoS SEM must have the requisite authority within the Contractor's organization for all Engineering Program matters related to the engineering work of the SOW.

### 1.7.3 Contractor's Lead Tactical Communication Engineering Manager

The Contractor must designate an individual as its Lead Tactical communication Engineering Manager (Lead TacCOMS SEM).

The Lead TacCOMS SEM must have the requisite authority within the Contractor's organization for all Engineering Program matters related to the engineering work of the SOW.

### 1.7.4 Integrated Product Team

Canada, which includes DND and other government departments, manages support of the Land C4ISR System within an Integrated Product Team (IPT) environment. Therefore, Canada anticipates that core Engineering Services will be conducted in an environment, consisting of Canada, the E&I Contractor and other support contractors. The E&I Contractor must provide the core of the IPT where work is performed in a collaborative and cooperative manner in order to achieve the agreed objectives. The roles and responsibilities of all parties will be discussed and formalized in the IPT Terms of Reference.

The Contractor must explain as part of their Program Management Plan (PMP) and System Engineering Management Plan (SEMP) how they will support the DND-led Integrated Project Team and manage its day-to-day activities with DND and other IPT members.

### 1.7.5 Design Authority

As described in Section 1.3, DLCSPM retains Total System Responsibility for the Land C4ISR SoS. For task work, the TA may delegate Design Authority to a Contractor for a portion of the design work being undertaken (see figure 5). Design Authority for the purpose of this SOW, is the authority to make design decisions regarding a system element or elements under design or modification within the boundaries defined by stated requirements and constraints, including resource limitations, placed upon the person or organization exercising Design Authority. It includes the responsibility to produce a design responsive to the requirements for the system element under consideration, responsive to the need to be integrated into the higher level SoS, consistent to established interfaces, and to prove the sufficiency and completeness of the design produced against the requirements to the standards provided by the Canada through the IPT process.

Canada retains overall Design Authority over all work done under this SOW unless Design Authority is specifically assigned by Canada to a member of the IPT for a defined scope of tasked work being undertaken (see figure 5).

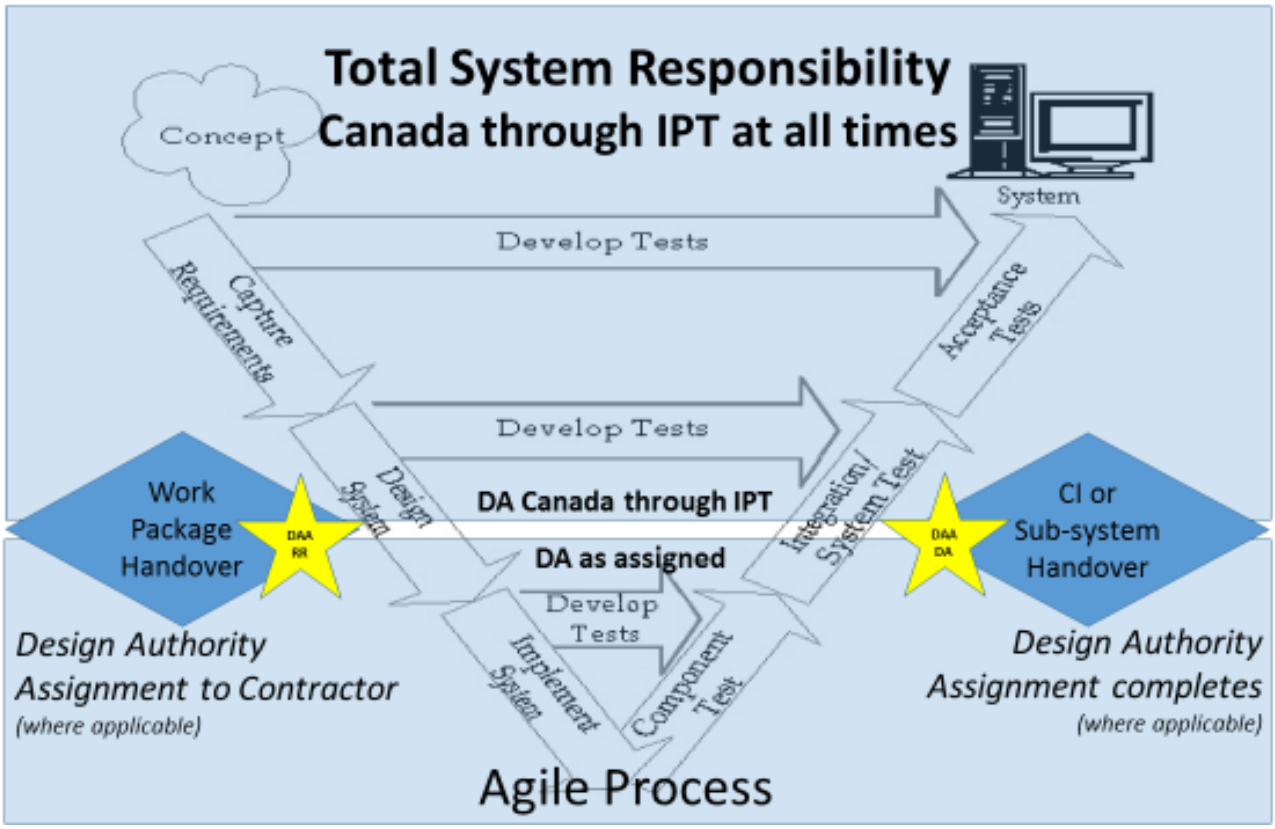


*Figure 5: Land C4ISR Design Authority Assignment*

For work tasked through a DND 626 Task Authorization (see section 2.2 and section 5), the Task SOW may define an explicit assignment of the Design Authority to the Contractor for defined portions of the work. The portion of the work subject to the Contractor's Design Authority will be defined a Task. At a minimum assignment may occur only at a defined point in the system design process that must be after the requirements for the system element for which Design Authority is being assigned are agreed to, and after the test plan and expected results to conduct design verification have been produced and agreed to. Tech OPI acceptance of successful completion of this system element testing constitutes the return of Design Authority to Canada.

In each case, a Design Authority Assignment Readiness Review gate will occur prior to assignment of Design Authority to the Contractor to ensure expectations are clear and the system element requirements, test requirements, schedule, costs and work requirements are well defined. This Review can, for tasks that include a handover point, be combined with the System Requirements Review meeting, or for standalone Tasks with a Task Kick-Off meeting. In all cases, the Design Authority Assignment Readiness Review meeting is to be used as a mechanism for DND to determine whether or not to move forward with work on the Task and will be at

Canada's sole discretion.

Similarly, a Design Authority Assignment Deliverables Audit will occur prior to return of Design Authority to the Canada to ensure that the system element requirements have been met and are tested and documented, where applicable any waivers or deviations that were acceptable to the TA are in place and all specified deliverable have been accepted by Canada. This review will be modeled on a Functional Configuration Audit with scope defined by the system element and work that was subject to the assignment of Design Authority.

Approval authority for the Design Authority Assignment Readiness Review and the Design Authority Assignment Deliverables Audit rests solely with Canada.

The proposed separation of System Integration and Test responsibility between the IPT level and the OEM level is depicted at Figure 6.

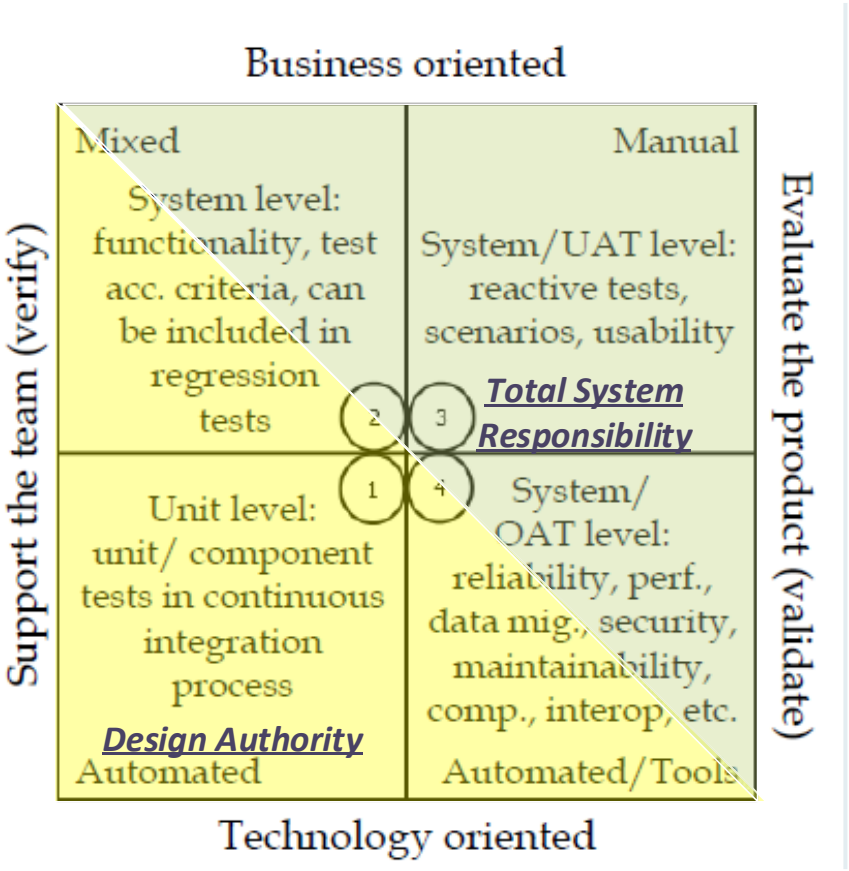


*Figure 6 Land C4ISR System Integration and Test*

# 2 GENERAL REQUIREMENTS

## 2.1 Core Work

Core work comprises those elements of the work that must be conducted by the Contractor within the firm fixed price element of the contract established at contract award.

Core work is comprised of the activities described in Section 3 and Section 4 of this SOW that occur on a regular ongoing basis over the duration of the contract period, separate from but including support for task based work. Therefore, core work is not initiated through a Task.

The Contractor must perform the following core services as explained in this SOW:

a. Core Management and Infrastructure Work (Section 3); and

b. Core Engineering Support Work (Section 4).

## 2.2 Task Based Work

The Contractor may be tasked with the performance of work relating to the Engineering, Integration and In-service Support of the Land C4ISR SoS, including but not limited to the following work:

a. System Engineering;

b. Software and Firmware Engineering;

c. Hardware Engineering;

d. CAF Platforms – Land C4ISR SoS Installation Integration Work

e. Speciality Engineering Support

f. Field Support;

g. Integrated Logistic Support; and

h. Change Management

This does not constitute a commitment on the part of Canada to implement these or any other Tasks.

Individual Tasks may provide additional details of the work to be performed including, but not limited to, data item requirements, personnel skill sets, procedures and processes relevant to the work etc.

# 3 Core Management and Infrastructure Work

## 3.1 General

The Contractor is responsible to preform program management work as core work at a fixed monthly fee.

This core management work does not require a separate DND 626 Task Authorization.

## 3.2 Program Management Core Work

The Contractor must implement and maintain a Program Management Plan (PMP) in accordance with the approved PMP. The Program Management Program is considered core work under this contract, meaning that it will not be initiated through a Task.

The Contractor must plan, organize and control all work described in this SOW and any subsequent Tasks.

The Contractor must maintain scheduling and management control for all activities carried out under the Contract, including Task based work.

The Contractor must be ready, using their identified core management resources, to manage multiple concurrent Tasks. To meet the expected core task workload, Canada estimates that approximately 6 to 7 FTE are required to perform the work identified below. It is the Contractor's responsibility to identify in the PMP how this work is distributed among the full time and part-time core resources being offered.

The Contractor's overall Program Management activity must adhere to the provisions of the approved PMP.

Program Management activities include but are not limited to:

a. Program Monitoring and Control;

b. Task Estimation;

c. Task and budget Management;

d. Progress reporting and billing;

e. Performance Management and Continuous Improvement Process;

f. Canada Owned Resource Management;

g. Risk Management; and

h. Configuration and Data Management

## 3.3 Program Management Plans

The Contractor must prepare, deliver, update and maintain a PMP in accordance with CDRL/DID 100.001. The PMP defines how the work and teams will be organized and the processes by which work will be executed.

Management plans created under the Land C4ISR E&I SC bid solicitation and approved by Canada, must be the source for scope definition documents and must be maintained and used for the duration of this support Contract.

## 3.4 Monitoring and Control

The Contractor must implement monitoring and control as follows.

### 3.4.1 Monthly Progress Reports

The Contractor must prepare and submit Monthly Progress Reports in accordance with CDRL/DID 100.002.

### 3.4.2 Progress Review Meetings.

Progress Review Meetings (PRMs) must be conducted at least semi-annually. These PRMs must encompass the total program status as of the review date, and must present, for resolution, all known problems as of that date. In addition, the Contractor must present a summary of overall program progress, including the status of tasks and R&O. This review must also serve to prioritize all outstanding tasks and problem reports.

### 3.4.3 Progress Review Agenda and Minutes

The Contractor must prepare, submit for approval and update the agenda for the Progress Review Meeting in accordance with CDRL/DID 100.003.

The Contractor must prepare, submit for approval and update minutes of the Progress Review Meeting in accordance with CDRL/DID 100.004.

### 3.4.4 Other Meetings and Reviews

Working level meetings can be held to review the status of individual tasks, their progress, and relative priorities. No action affecting task cost or task duration limits may be taken as a result of these meetings.

For all meetings (including reviews) the Contractor must prepare and submit an agenda for approval.

For all meetings (including Reviews), the Contractor must prepare minutes and submit for approval upon request. Minutes must include a record of decisions (ROD) and action items (AIs).

## 3.5 Task Management

The TA will establish the priority of Tasks. Should a change be made to the priority of an existing Task, the Contractor must inform the TA of the impact that this change will have on other current Tasks. Impacts may involve the adjustment of priority, cost, schedule and scope of current Tasks.

Irrespective of the nature of the work tasked or DND processes to approve a Task, the Contractor must manage tasks as outlined in the following subsections.

### 3.5.1 Task Initiation and Planning

The TA will manage task requirements.

The TA will issue requests to the Contractor to provide proposals for all tasks.

When the Contractor is requested to provide a proposal, such a request will typically include a SOW and any other requirements necessary to define the task. The Contractor's proposal, unless otherwise specified in the request, must contain:

1. An Implementation Plan;
2. A Work Breakdown Structure if not provided with the task definition;
3. A schedule; and
4. A price, including a breakdown of the required resources, for the agreed payment methodology options.

Quotations or Task definition assistance requested from the Contractor must not be construed as authority to proceed with any work.

Subject to internal approval of the proposal, Canada will issue an approved *DND 626* Task Authorization.

### 3.5.2 Task Execution and Control

When a DND 626 task authorization is issued, the Contractor must:

- Assign a Task Lead responsible to oversee the Task and maintain status;
- Assign resources in accordance with Task requirements and budgetary estimates;
- Implement any special reporting or metric requirements;
- Initiate risk management for any identified risk elements; and
- Commence work on the Task in accordance with the approved schedule.

The Contractor must demonstrate/manage all pertinent information related to the Task, including the original DND 626 Task Authorization and subsequent revisions and any relevant data or documents.

On an ongoing basis during the execution of the task, the Contractor must:

- Track and report tasks based on the serial numbers on the *DND 626* Task Authorizations;
- Monitor tasks to ensure that the task progress and financial expenditures are in line with approved tasking and report status to the CA, PA & TA on a regular basis;
- Maintain project time scheduling and tracking; and
- Implement a performance monitoring and continuous improvement process.

### 3.5.3 Task Closure

When the Work identified in the *DND 626* Task Authorization and associated Statement of Work is complete the Contractor must:

- Prepare a final report in accordance with CDRL 100.006 as a deliverable for every task;
- Formally close out the Task to ensure that there are no further charges accumulated against the Task in accordance with the Project Management Plan; and
- Update final Task performance metrics and present them in the monthly progress report.

## 3.6 Risk Management

The Contractor must implement a risk management program to conduct the Work, in accordance with the PMP. Risk management must encompass the following:

a. Risk identification including risk quantification;

b. Analysis;

c. Planning; and

d. Tracking and Control.

The Contractor must perform Risk Management in accordance with the approved PMP.

## 3.7 Canada Owned Resources Management

Canada will make available to the Contractor Government Furnished Assets (GFA), including Government Furnished Equipment (GFE), Government Furnished Vehicles (GFV), Government Furnished Information (GFI) and Government Supplied Material (GSM), to be used to support the work.

The GFI will include Commercial Off-the-shelf (COTS) software, Military Off-the-shelf (MOTS) software, Government Off-the-shelf (GOTS) software licenses, media and associated documentation and other technical documentation.

The GFE will include MOTS and COTS hardware to enable the Contractor to engineer, integrate and test.

The Contractor must implement a Canada Owned Resource Management program in accordance with the process identified in Appendix 4 of this SOW - Logistic SOW.

The Contractor must prepare a Canada Owned Resource Management Report in accordance with CDRL 100.005.

### 3.8 Configuration and Data Management (CM-DM) services

The Contractor must perform CM-DM of its own deliverables as a part of Core Management work.

The Contractor must perform the CM-DM work as follows:

a. Configuration Management Planning and Management;

b. Configuration Identification;

c. Configuration Change Management;

d. Configuration Status Accounting;

e. Configuration Verification and Audit;

f. Documentation Management; and

g. Software Release Management and Delivery.

The Contractor must prepare a Configuration Management and Data Management (CM-DM) Plan IAW CDRL/DID 400.001.

### 3.9 Security

The Contractor must as Core Program Management Work establish and implement a Security Program to conduct the work and maintain the Security Program for the duration of the Contract, in accordance with contract Security Requirements Checklist (SRCL).

### 3.10 Travel

It is anticipated that Contractor personnel will be required to travel to TA specified locations in support of the work. The Contractor must manage travel for their personnel. The Contractor must obtain approval from DND for all travel, prior to incurring any expense.

## 3.11 Contractor Infrastructure

All Infrastructure required by the Contractor in order to deliver the Core work under this SOW must be included in fixed monthly fee for Core Management and Infrastructure Work delivery.

### 3.11.1 Facility Security Clearance

All work associated with the Contractor obtaining, maintaining and administering a Facility Security Clearance from Public Services Procurement Canada (PSPC) Canadian Industrial Security Directorate (CISD) is Core Work. Facility Security Clearance for the System of System Integration and Test Environment (SoSITE) and the Tactical System Integration Laboratory (TSIL) facilities must be in place at contract award.

### 3.11.2 COMSEC Sub-Account

All work associated with the Contractor establishing, maintaining and administering a Government of Canada COMSEC Sub-Account is Core Work.

### 3.11.3 Engineering and Integration Facilities

The Contractor must provide the following Engineering and Integration Facilities to support the Land C4ISR SoS, as described in Appendix 7:

a. System of System Integration and Test Environment (SoSITE)

b. Tactical System Integration Laboratory (TSIL);

c. Vehicle Installation, Integration and Test (VIIT) Lab;

d. Land C4ISR System Equipment and Vehicle Platform Emission Security (EMSEC) and Electro-Magnetic Environment Effects (E3) Test Labs and Site.

The SoSITE Infrastructure will be used at the appropriate level by all Land C4ISR System IPT participants. The SoSITE must be capable of enabling engineering, integration, installation and testing on actual Land C4ISR System elements, both in controlled lab environments and on various CAF vehicles and platforms. The SoSITE must support multiple Land C4ISR System baselines including the fielded baseline, (for which it acts as the reference implementation), and simultaneously support other engineering baselines that are being integrated or tested.

Land C4ISR IPT participants must be able to add, optimize and/or improve designs including equipment, applications, services and platforms.

The TSIL must have the capability to perform testing including but not limited to:

a. Land C4ISR system element interoperability, integration and test;

b. Coalition systems interoperability, integration and test;

c. National integration and test;

d. National and coalition Tactical Data Link integration and test;

e. ISR integration and test; and

f. TacNet integration and test.

The Contractor's VIIT Lab and the Land C4ISR Vehicle Platform EMSEC and E3 Test site locations must support the integration and verification of Army Platform-Land C4ISR integration solutions on a variety of Army Vehicle Platforms conforming to size and weight limits identified in Appendix 7. The Contractor must support testing of larger vehicles in DND Lab facilities.

The Contractor must provide all infrastructure necessary to support the Engineering and Integration Facilities in accordance with Appendix 7, to include management of these Facilities, as Core Infrastructure and Management Services.

# 4 Core Engineering Support Work

The Contractor must provide Core Engineering Support Work at a fixed monthly fee.

This Core Engineering Support work does not require a separate DND 626 task authorization.

The Contractor must be ready, using their identified core engineering resources, to provide the System of Systems Architecture, Engineering and test management support to the IPT, and TacCOMS Architecture, Engineering and test management support to the IPT. To meet the expected core task workload Canada estimates that approximately 23 to 24 FTEs are required to perform the SoS core work identified below and Canada estimates that approximately 10 to 11 FTEs are required to perform the TacCOMS core work identified below. It is the Contractor's responsibility to identify in the SEMP how this work is distributed among the full time and part-time core resources being offered.

This section describes the elements of the Work that must be delivered as Core Engineering Support Work, including:

a. System of Systems Architecture;

b. System of Systems Engineering Management (SEM);

c. SoS Systems Integration and Test;

d. TacCOMS Architecture;

e. TacCOMS Engineering Management (SEM);

f. TacCOMS Integration and Test;

g. Safety;

h. Problem Resolution Support;

i. Incident Management;

j. Quality Assurance;

k. Integrated Logistics support; and

l. Change Management.

## 4.1 System Engineering Management

The Contractor must establish and manage the System Engineering Program.

The Contractor must gather and track engineering performance measures on all engineering tasks. The Contractor must identify and implement continuous process improvements to the core

and task based Engineering Program.

### 4.1.1 Systems Engineering Management Plan

The Contractor must prepare, submit and maintain the SEMP in accordance with CDRL 200.001.

The purpose of the SEMP is to describe the Engineering Program intended for use on performing the engineering work of this SOW.

### 4.1.2 Systems Engineering Schedule

The Contractor must prepare, submit and maintain the Systems Engineering Schedule in contractor format.

The purpose of the Engineering Schedule is to describe and synchronize the Engineering program of work.

### 4.1.3 Lead TacCOMS Architect

The LEISC Contractor must designate an individual as its Lead TacCOMS Architect/Engineer to advice on TacCOMS architecture, design and interfaces by acting as the architecture focal point for the IPT.

The Lead TacCOMS Architect/Engineering must have the requisite authority within the Contractor's organization for all Engineering Program matters related to the TacCOMS engineering work of the SOW.

### 4.1.4 Lead System of Systems Architect

The LEISC Contractor must designate an individual as its Lead System of Systems Architect/Engineer to advise on Land C4ISR Architecture, Design and interfaces by acting as the architecture focal point for the IPT.

The Lead System of Systems Architect must have the requisite authority within the Contractor's organization for all Engineering Program matters related to the System of Systems engineering work of the SOW.

### 4.1.5 Maintain Land C4ISR SoS and System Requirements Specifications

The Contractor as a Core Engineering Support Work must provide Requirements Management (RM) Services for the Land C4ISR SoS, at the SoS level, as well as for all Land C4ISR component systems which are designated in Appendix 3 as receiving "full support" (including ISS) from the LEISC.

Requirements Management will include:

a. Provision of a requirements Change Request review and Approval Process that includes IPT member external to the Contractor where applicable and includes final approval via

Canada's CCB processes in all cases (as defined by the TA);

b. Development of the content of requirement change requests where the need for the proposal arises from Core Engineering Work; and

c. Provision of a Contractor Requirements Repository interoperable with the Canada's RM Repositories as defined by the TA. The current tool used by the TA for RM is DOORS.

RM Process effort is Core Work where the effort is in support of work defined as Core Work. Where the RM Process effort is executed in support of tasked work, the RM Process effort is to be part of that task.

### 4.1.6 Artifact, Configuration & Interface Management

As a part of the Core Engineering Support Services the Contractor will identify the components, interfaces, and other artifacts to be documented (in, for example, interface control documents, product specifications, design documents, etc.) and recommended for work as a result of performing the system engineering activities, to extent necessary to allow a system-of-systems that is maintainable, extensible, integrated through a formal interface management approach and documented to the product level.

The System Breakdown Structure presented at Appendix 3 will act as the initial reference model used to document the artifact and interfaces, and must be kept up to date as the Land C4ISR System evolves. It is also the basis for the System of Systems Configuration Management.

### 4.1.7 Decision Analysis and Resolution (DAR)

The Contractor must establish a formal evaluation process that involves the following actions:

a. Establishing the criteria for evaluating alternatives;

b. Identifying alternative solutions;

c. Selecting methods for evaluating alternatives;

d. Evaluating the alternative solutions using the established criteria and methods;

e. Performing Technical Investigations and Engineering Support (TIES); and

f. Selecting recommended solutions from the alternatives based on the evaluation criteria.

The Contractor must perform DARs in accordance with the SEMP.

## 4.2 System of Systems Architecture

The Contractor must develop, maintain and deliver the Land C4ISR SoS Architecture as a part of the IPT work.

The Contractor must maintain the System Breakdown Structure (see Appendix 3) as part of the IPT work.

Canada retains Total System Responsibility and Design Authority for the Land C4ISR Architecture and System Breakdown Structure at all times.

The Contractor must describe the proposed adapted Architecture Design process in the SEMP.

### 4.3 TacCOMS Architecture

The Contractor must develop, maintain and deliver the Land C4ISR TacCOMS architecture as a part of the IPT work.

The Contractor must maintain the System Breakdown Structure (see Appendix 3) as part of the IPT work.

Canada retains Total System Responsibility and Design Authority for the Land C4ISR Architecture and System Breakdown Structure at all times.

The Contractor must describe the proposed adapted Architecture Design process in the SEMP.

### 4.4 System of Systems Integration and Testing

The Contractor must implement a Systems Engineering Integration and Test Program for the complete Land C4ISR system at the SoS level.

The Contractor must maintain the configuration of the SoS Engineering and Integration facilities at appendix 7 for each build of the system release as directed by the Technical Authority in order to support SoS Testing.

SoS Integration and Test involves integrating and testing of Land C4ISR elements that may be engineered by other long-term support contractors, DND, OEMs and other organizations, including COTS and MOTS items for which ISS capacity may be limited. The Contractor must work cooperatively with these other entities to ensure the timely and satisfactory integration and release of the Land C4ISR system.

SoS Integration and Testing Core Work must also provide for inclusion of any specific Army platform systems that may be present at the Contractor's Vehicle Installation, Integration and Test Lab by interconnection with the Engineering and Integration Facilities.

SoS Integration and Testing Core Work relates to the planning and reporting of the SoS test and integration activities. The execution of specific test events is task based work.

### 4.5 TacCOMS Integration and Testing

The Contractor must implement a TacCOMS Integration and Test Program.

The Contractor must maintain the configuration of the contractor TacCOMS Integration facility.

TacCOMS Integration and Testing Core Work relate to the planning and reporting of the TacCOMS test and Integration activities. The execution of specific test event is task based work

### 4.6 Emission Security (EMSEC) and Electromagnetic Environmental Effects (E3)

In support of the continuing integration and certification of the Land C4ISR SoS with other tactical systems in Canadian Army Platforms, the contractor must conduct testing to ensure that all system elements are electromagnetically compatible with collocated equipment. EMSEC and E3 requirements primarily include the following:

a. Electromagnetic Compatibility (EMC);

b. External RF Electromagnetic Environment (EME);

c. Electromagnetic Interference (EMI);

d. Emission Control (EMCON);

e. Radio Performance and Co-site evaluation;

f. Power Quality;

g. Grounding and Bonding;

h. Electrostatic Discharge;

i. TEMPEST; and

j. NONSTOP.

The Contractor must implement an EMSEC & E3 Program to control, investigate and improve the System E3 and EMSEC performance and to qualify new hardware to the system E3 and EMSEC requirements.

The Contractor must establish and maintain EMSEC & E3 Test Facility and Capability in accordance with Appendix 7;

As Core Work the Contractor must develop, maintain and deliver the E3 Test Plan and a database of E3 test results of components and subsystems to provide inputs on impact analysis studies to determine E3 degradation with respect to any modifications.

The Contractor must appoint an Electro-Magnetic Environment (EME) Control Engineer to review system modifications and EME related data that have the potential to affect the System's baseline characteristics. E3 and EMSEC requirements must be qualified and maintained across the Land C4ISR SoS and all system elements subject to TA direction.

The Contractor must designate a Company Appointed TEMPEST Authority (CATA) to review

Land C4ISR system element modifications, engineering change requests, specification change notices, material change notices and parts substitutions and TEMPEST related data that have the potential to affect the EMSEC Qualification Baseline. The CATA must hold a valid Certified TEMPEST Professional, Level II qualification provided by Canada's Communications Security Establishment (CSE) or the US National Security Agency (NSA);

The Contractor must monitor the System and subsystem E3 and EMSEC degradation with respect to changes in configuration, time and usage.

The Contractor must provide the following security engineering services:

a. Provide technical assistance to designers and maintainers to ensure that the concepts and design practices of E3 engineering are thoroughly understood;

b. Provide technical assistance to designers and maintainers to ensure they understand EMSEC requirements, procedures and methodologies (e.g. Preventative Maintenance Critical Features Reports); and

c. Review all engineering change requests, specification change notices, notice of revisions, material change notices, and part substitutions to determine impact on the E3 and/or EMSEC performance of the Land C4ISR SoS and system elements.

The maintenance of the EMSEC & E3 Program documentation including test plans is Core Work Execution of specific EMSEC & E3 test activity is Task Work.

### 4.7 Safety

The Contractor must ensure that all work considers Safety as a principle concern in the development and implementation of the Land C4ISR SoS and Configuration Items.

Provision of safety advice and oversight must be delivered as Core Work.

Any specific safety analysis and tests necessary to ensure that the potential for hazardous conditions during operation must be mitigated in accordance with MIL-STD-882E and is task based work.

#### 4.7.1 Radio Frequency Safety (RFS) Engineering Services

The Contractor must support DND's Radio Frequency Safety Program, including:

a. Provision of technical assistance to designers and maintainers to ensure that the concepts and design practices of RFS are thoroughly understood;

b. Provision of RFS engineering analyses and provide assessments;

c. Provision of RFS developmental testing IAW DND standards;

d. Provision of developmental RFS Test Plans, Procedures and Reports; and

e. Conduct of developmental equipment and vehicle RFS testing and perform RFS troubleshooting on non-compliant systems or platforms.

The RFS Program advice, planning and test plan maintenance is Core Work. Conduct of assessments and tests are task based work.

### 4.8 Problem Resolution Support

The Contractor must investigate System Problem Reports (SPR), Unsatisfactory Condition Reports (UCR) and Technical Failure Reports (TFR).

The Contractor must respond with a technical assessment of the SPRs, UCRs and TFRs in accordance with the priorities defined below in **Error! Reference source not found.**, Problem Report Priority.

**Table 1 – Problem Report Priority**

| Priority | Definition | Contractor Service Level Agreement from Receipt of SPR, UCR, TFR |
|---|---|---|
| 1 | Any Problem that prevents the accomplishment of an operational or mission essential capability, jeopardize safety, security, or any other requirement designated critical. This can be further defined as any problem that causes or has the potential to cause a failure that results in a complete denial of a capability (robustness and reliability). | 24 hours |
| 2 | Any problem that causes the loss of or denies the use of a particular function of a capability and there is, at the time, no reasonable work around. | 5 working days |
| 3 | Any problem that causes the loss of or denies the use of a particular function of a capability and there is a reasonable work around. | 10 working days |
| 4 | Any problem that results in user/operator inconvenience or annoyance but does not prevent the user/operator from performing any function. | 20 working days |
| 5 | Any other problems/defects or documentation issue. | 20 working days |

The Contractor must investigate, perform impact analysis, and make recommendations as a result of SPRs, UCRs and TFRs based on the Service Level Agreement identified in the table 4-1. Once this analysis is complete, the decision to proceed with any remediation activities will be upon the purview of Canada.

### 4.9 Incident Management Support

The Contractor must respond to detected incidents.

The Contractor must provide initial verification and disposition of incidents, as defined under Information Technology Infrastructure Library (ITIL) framework, in accordance with the level of impact defined below in **Error! Reference source not found.**, Incident Impact.

**Table 4-2 – Incident Impact**

| **Severity** | **Definition** | **Contractor Service Level Agreement from detection or reporting of incidents.** |
|---|---|---|
| Critical | Any incident detected by the NOC or user that impact the Mission Assurance posture and therefore affects the accomplishment of a mission essential capability, jeopardize safety or operational security. | 24 hours |
| High | Any incident reported by the NOC or users that cannot be mitigated using current capability but that requires resolution. | 2 working days |
| Medium | Any incident reported by the NOC or users that can be mitigated using current capability but that requires resolution. | 5 working days |
| Low | Any incident identified as a part of routine System Health Assessment of in service operational systems. | 10 working days |
| Trivial | Incident with no operational, safety or security impact. | 20 working days |

The Contractor must verify and propose incident responses based on the Service Level Agreement identified in the table 4-2 above.

### 4.10 Quality Assurance Program

The Contractor must establish and maintain a Quality Assurance (QA) Program in order to perform the Process QA.

The Contractor must prepare and submit a QA Plan (QAP) in accordance with CDRL 400.002.

The Contractor must perform QA in accordance with the QAP.

QA Program effort is Core Work where the effort is in support of work defined as Core Work.

Where QA Program effort is executed in support of tasked work the QA Program effort is to be part of that task.

## 4.11 Integrated Logistics Support

Integrated Logistic Support includes but is not limited to:

a. Repair and Overhaul Services;

b. Obsolescence Management Support Services;

c. Sparing Services including Parts Provisioning, Packaging, Handling, Storage and Transportation;

d. Training Support;

e. ILS Documentation; and

f. Maintenance support.

ILS Program effort Core Work entails the development and maintenance of the ILS Plan and Schedule of work.

### 4.11.1 Integrated Logistics Support Plan (ILSP)

The Contractor must, as core work, prepare, submit and maintain ILSP in accordance with CDRL/DID 300.001 as Core Work.

### 4.11.2 Obsolescence Management

The Contractor must provide obsolescence management support. The intent is to assist the TA with resolving Land C4ISR Obsolescence issues in a proactive manner.

As Core Work, the Contractor must notify the TA when CI elements, both hardware and software are approaching their end of life. In addition, the Contractor must advise the TA of all high-risk components. Components are considered high-risk if the OEM has publicly disclosed that the component in question will be obsolete within one year. For high-risk components the Contractor must advise the TA within one month and provide recommendations and feasibility of available alternatives, or, should no alternative be available, of developmental approaches to mitigating the obsolescence gap.

As Core Work, the Contractor must prepare and submit an Obsolescence Report to the TA, which identifies for current and intended Land C4ISR elements, obsolescence related issues. The Obsolescence Report must be prepared and submitted in accordance with CDRL 200.002. The Contractor must advise the TA of potential or actual obsolescence with recommended solutions to allow the TA to make an informed decision. Corrective work resulting from identified obsolescence management deficiencies will be task based.

### 4.11.3 Government-Industry Data Exchange Program (GIDEP) Participation

As Core Work, the Contractor must actively participate in the GIDEP in accordance with the GIDEP Operations Manual, SO300-BT-PRO-010.

### 4.11.4 Diminishing Manufacturing Sources and Material Shortages

As Core Work, the Contractor must review, through the period of performance of the Contract, the GIDEP Diminishing Manufacturing Source (DMS) notices and other supplier notifications for applicability to system components for all Land C4ISR Configuration Items for which Appendix 3 includes "full support" under the LEISC. The Contractor must notify the TA within 5 days of any DMS situation that affects equipment maintenance and repair for all Land C4ISR Configuration Items for which Appendix 3 includes full support under the LEISC.

## 4.12 Change Management

### 4.12.1 Baseline Configuration Control

The Contractor must maintain and deliver Baseline Configuration Control for the Land C4ISR SoS. Canada may require multiple baselined instances of the Land C4ISR SoS at any particular time, for example, maintenance of an in-service configuration controlled baseline simultaneous with maintenance of a development stream and/or test event configuration controlled baseline.

The Contractor must maintain Baseline Configuration Control in a format interoperable with Canada's Configuration Control tools as part of the IPT, consistent with the Land C4ISR System Breakdown Structure (SBS) as Core Work.

The Contractor must conduct Baseline Configuration Control IAW the approved SEMP.

Canada will host the master copy of approved and delivered configuration baselines through the designated System of Record owned by Canada.

### 4.12.2 Configuration Change Management

The Contractor must perform Configuration Change Management in accordance with the approved SEMP, and the CM-DM Program as Core Engineering Support Work.

The Configuration Change Management Core Work must include the engineering baseline used in the LEISC Integration and test facilities as well the operational baseline for all CI the Contractor is providing full Support.

The Contractor must therefore work within the IPT context to deliver this Change Management including Canada (DND and OGDs), other Industry participants, identified by the TA, in the IPT.

# 5 Task-based Services

This section describes the capabilities and services that the Contractor must be prepared to deliver on and as-and-when tasked basis. The Contractor must preserve the capability to provide and/or generate capacity to execute tasks in these areas in an economic, efficient, scalable and responsive manner.

## 5.1 Systems Engineering

The Contractor may be tasked to perform Systems Engineering Work for any part or parts of the Systems Engineering Life Cycle including:

a. Business or Mission Analysis;

b. Stakeholder Needs & Requirements Definition;

c. System Requirements Definition;

d. Architecture Definition;

e. Design Definition;

f. System Analysis;

g. Prototyping;

h. Modeling;

i. Simulation;

j. Implementation;

k. Integration;

l. Verification;

m. Transition;

n. Validation;

o. Operation;

p. Maintenance; and

q. Disposal.

Within the context of Systems Engineering, the Contractor, may be tasked to provide support to DND to facilitate the effective evaluation, design, development, prototyping, production,

qualification and incorporation of changes, modifications and updates to the Land C4ISR SoS to maintain or improve system fitness, and *system elements*' reliability, manufacturability and maintainability.

### 5.1.1 Task Documentation and Data

Each task will identify the life cycle information items and data the Contractor must produce and deliver as a result of performing the tasked system engineering activities.

### 5.1.2 Technical Reviews and Audits

The Contractor must hold Technical Reviews and Audits to evaluate the outcomes of activities, and services performed of this SOW in accordance the Contractor's SEMP, which may include but is not limited to:

a. System Requirements Review;

b. Preliminary Design Review;

c. Critical Design Review;

d. Test Readiness Review;

e. Functional Configuration Audit; and

f. Physical Configuration Audit.

The Contractor must prepare and submit meeting agendas and minutes in accordance with CDRL/DID 100.003 and 100.004 respectively (see Appendix 5).

The Contractor must provide objective evidence, at all Reviews and Audits, that the activity activities under review:

a. Are complete;

b. Comply with standards and specifications;

c. Are under change controls for any changes implemented;

d. Adhere to the approved schedules and costs;

e. Are ready for the next activity; and

f. Are consistent with the requirements of this SOW.

## 5.2 Software & Firmware Engineering

The Contractor may be tasked to provide software (and firmware) engineering support services including but not limited to:

a. Recommend and evaluate software engineering changes and perform a system impact analysis thereto;

b. Software Requirements Analysis;

c. Software Architectural Design;

d. Design, develop and integrate software modifications;

e. Design, develop and integrate new software system elements;

f. Software Qualification Testing;

g. Support to System & SoS Integration; and

h. Support to System & SoS Verification and Validation Testing.

The activities must be conducted in accordance with the associated process defined in the SEMP.

### 5.3 Hardware Engineering

The Contractor may be tasked to provide hardware engineering support services including but not limited to:

a. Recommend and evaluate hardware engineering changes and perform a system and component impact analysis thereto;

b. Design, develop and integrate prototypes;

c. Hardware Architecture and Hardware CI and System Element Design;

d. Prototyping;

e. System Integration;

f. Technical Data Package Production and Delivery including to Level 3 (sufficient to support 3rd party manufacturing);

g. Hardware Testing and Qualification activities;

h. Production of pre-production equipment from Engineering drawings; and

i. Production of limited quantities of Land C4ISR system elements from manufacturing drawings to meet Immediate Operational Requirements.

Hardware engineering services consists of electrical, electronic and mechanical engineering activities performed on Land C4ISR products, and on the platforms upon which they are installed.

Hardware Engineering also includes the necessary manufacturing and pre-production of equipment configurations, modification and installation kits. These are primarily to verify and validate system deployment concepts, and to develop the installation and modification instructions.

### 5.4 Canadian Armed Forces (CAF) Platforms – Land C4ISR SoS Installation Integration Services

The Platform Subsystem is a Land C4ISR Subsystem which consists of all of the items necessary to mount, power and interconnect each item of equipment in an Army platform which requires communication connectivity. A Platform Subsystem Baseline is defined for each Platform and communication suite type. Each Platform Baseline is defined by a Platform System Diagram (PSD), an Installation Kit Electronic Equipment (IKEE), an Adaptor Kit Electronic Equipment (AKEE), Vehicle Preparation Instructions (VPI), Installation Instructions (II) and a Bill of Material (BoM). Each Platform Subsystem Baseline is designed, prototyped and qualified before it is considered frozen and delivered as a Technical Data Package (TDP).

The Contractor may be tasked to provide platform integration engineering support services including but not limited to:

The Land C4ISR SoS connects to other Vehicle Platform Systems including but not limited to:

a. Tactical Vehicle Sensors;

b. Vehicle Navigation Systems;

c. Turret Systems;

d. Weapons Systems;

e. Video Systems; and

f. Automotive Systems.

The Contractor may be tasked to provide platform integration engineering support services including but not limited to:

a. Generate and maintain Land C4ISR SoS Platform Installation Requirements documents;

b. Generate and maintain Land C4ISR Installation PSDs;

c. Develop Land C4ISR Platform Installation Designs;

d. Design and develop modification and installation kits and instructions;

e. Prototype Land C4ISR Platform Installations kits including E3 and EMSEC solutions;

f. Conduct integration, testing and qualification activities, including Platform level E3 and

EMSEC testing;

g. Develop VPIs and Platform IIs;

h. Develop and Maintain Land C4ISR Platform Installation TDPs; and

i. Develop and maintain content for Land C4ISR sections of Platform Manuals.

## 5.5 Speciality Engineering Support Services

Speciality Engineering Support Services are those associated with Non Functional Requirements.

The Contractor may be tasked to provide Speciality Engineering Support Services including but not limited Work as follows:

a. Reliability, Availability and Maintainability and Durability (RAMD);

b. Human Factors Engineering;

c. Electromagnetic Environmental Effects (E3); and

d. Emissions Security.

### 5.5.1 Reliability, Availability and Maintainability and Durability

Reliability, Availability and Maintainability and Durability (RAMD) may include but is not limited to:

a. Failure monitoring and analysis of components sent to the Contractor for Repair and Overhaul;

b. RAMD analysis (such as Failure Reporting and Corrective Action System (FRACAS)) to investigate failures and develop corrective action;

c. Assessment of the effectiveness of Built In Test features and related procedures in the identification of failures;

d. Identification of training needs, where such training will enhance the reliability, availability and maintainability of the system; and

e. Conduct of component life and R&O business case studies.

### 5.5.2 Human Factors Engineering

Human Factors Engineering includes but it not limited to:

a. Human Factors Analysis;

b. Safety Analysis;

c. Task analysis/Man Machine Interface; and

d. Application of HFE standards (e.g. MIL-STF-46855A/MIL-STD-1472G /MIL-HDBK-454A).

### 5.5.3 Electromagnetic Environmental Effects (E3) and Emission Security (EMSEC)

The Contractor may be tasked to conduct E3 and EMSEC testing.

EMSEC and E3 testing includes but is not limited to:

a. Conducted Emissions Tests in accordance with MIL-STD-461 (version as specified by TA), CE101, CE102, CE103;

b. Conducted Susceptibility Tests in accordance with MIL-STD-461 (version as specified by TA), CS101, CS103, CS104, CS105, CS114, CS115, CS116;

c. Radiated Emissions Tests in accordance with MIL-STD-461 (version as specified by TA), RE102, RE103;

d. Radiated Susceptibility Tests in accordance with MIL-STD-461 (version as specified by TA), RS103, RS105;

e. Radio Performance and Co-site evaluation including Source-Victim testing to evaluate range, receive sensitivity and other radio performance and platform compatibility indicators and impacts in accordance with MIL-STD-464 (version as specified by TA);

f. Power Quality Tests in accordance with MIL-STD-1275 (version as specified by TA);

g. Electrostatic Discharge (ESD) Tests in accordance with MIL-STD-1686 (version as specified by TA);

h. Bonding and grounding tests IAW MIL-STD-464 (version as specified by TA);

i. Perform security engineering analyses including security fault analyses, RED signal analyses for TEMPEST and NONSTOP testing;

j. Conduct/supervise equipment and subsystem security testing including TEMPEST and NONSTOP qualification and acceptance testing, product integration testing; and

k. Prepare and review test plans, procedures and reports.

All tests above may be required to be executed to the full spectrum as specified in the standards referenced.

## 5.6 Field Support

Land C4ISR elements are used operationally by the Land Forces. Field Support involves a variety of activities, both within and outside of Canada in support of the ongoing deployment and

use of the Land C4ISR SoS in the field.

The Contractor may be tasked to provide fully qualified personnel to perform work at location(s) as required by the TA. Travel and accommodations are the responsibilities of the Contractor or as specified in the tasking. All travel must be authorised in accordance with Section 3.8.

### 5.6.1 Field Service Representative (FSR)

The Contractor may be tasked to provide expert technical assistance on the Land C4ISR SoS as directed by the TA.

FSR tasks may include but are not limited to the following:

a. Reporting, diagnosing and developing workarounds for problems with the System, and all of the System's functionality, hardware, software, firmware, operating manuals, training and usage, and assisting in repairs of any aspect of the System and its use;

b. Assessing the usage of the System and recommending changes to training and standard operating procedures as required; and

c. Assisting with field upgrades, installation, re-installation and modification.

When notified of a requirement, the Contractor must dispatch a FSR to appropriate/affected locations anywhere in the North America within 14 calendar days of receipt of notification.

When notified of a requirement, the Contractor must dispatch a FSR to appropriate/affected locations anywhere in the world outside of North America within 30 calendar days of receipt of notification.

### 5.6.2 Operational Test and Evaluation

The Contractor may be tasked to provide support for operational exercises:

a. Field engineering exercises; and

b. Field validation exercises.

Support for operational exercises may include but is not limited to:

a. Conduct and evaluation of tests;

b. Analysis of test results;

c. Provision of expert technical assistance on any aspect of the Land C4ISR SoS; and

d. Providing Operational Test and Evaluation (OT&E) planning, definition, scheduling and coordination services.

## 5.7 Integrated Logistics Support

The Contractor may be tasked to provide a variety of Integrated Logistics Support services to support DND's Life Cycle Material Management (LCMM) function in accordance with Appendix 4 (Logistics SOW). These services include but are not limited to:

a. Repair and Overhaul Services;

b. Obsolescence Management Support Services;

c. Sparing Services including Parts Provisioning, Packaging, Handling, Storage and Transportation;

d. Training Support; and

e. ILS Documentation.

### 5.7.1 Repair and Overhaul (R&O) Services

The Contractor may be tasked to perform R&O Services in accordance with the requirements specified in Appendix 4, Logistic SOW.

### 5.7.2 Material Change Notices

Whenever the Contractor makes any Engineering Changes that affect end items such as part numbers, drawing numbers, manufacturer's code, quantities and applicability changes made to component parts, the Contractor must prepare and deliver Material Change Notices (MCNs) in accordance with D-012-100-215/SF-000.

### 5.7.3 Obsolescence Management Support Services

The Contractor may be tasked to assist the TA with developing obsolescence strategies that maximize operational availability while minimizing life cycle costs.

The Contractor may be tasked to deliver Obsolescence Management Engineering Support Services at the Repairable Item level for all Land C4ISR Configuration Items for which Appendix 3 includes "full support" (including ISS) under the LEISC.

The Contractor may be tasked deliver Obsolescence Management Engineering Support Services at the Configuration Item level for all Land C4ISR Configuration Items for which Appendix 3 includes "integration only" (excludes ISS) under the LEISC.

### 5.7.4 Sparing Services

The Contractor may be tasked produce and/or supply those system components including subassemblies and parts thereto for which they are responsible for providing "full support" (including ISS) under this SOW, in accordance with the requirements specified in Appendix 4, Logistic SOW. The spares provisioned must be new, unused and of current manufacture

conforming to the latest issue of the applicable drawing, specification and part number at the time the order is placed.

The Contractor must also be prepared to source spare parts required for the general life-cycle management of Land C4ISR System in-service components as directed by Canada in a competitive manner, as-and-when tasked.

The Contractor may be tasked to provide complete ILS spares management services including but not limited to:

a. Provisioning;

b. Inventory Management;

c. Packaging;

d. Handling;

e. Storage; and

f. Transportation.

### 5.7.5 Training Support

The Contractor may be tasked to provide training support services and training of personnel. These services include but are not limited to:

a. Conducting training needs analysis;

b. Providing training material including courseware;

c. Developing training plans and syllabuses; and,

d. Deliver initial cadre training.

### 5.7.6 ILS Documentation

The Contractor may be tasked to produce and deliver and ILS data and documentation such as System element ILS Plans, Logistics Support Analyses, Recommended Spare Parts Lists, Initial Provisioning Conferences, etc.

The Contractor may be tasked to provide documentation services including:

a. Preparing and updating User Manuals; and

b. Preparing and updating Technical Data Packages.

The specific requirements for documentation will be included in the tasking.

## 5.8 Change Management

### 5.8.1 Baseline Configuration Control

The Contractor must maintain and deliver Baseline Configuration Control for the Land C4ISR SoS. Canada may require multiple baselined instances of the Land C4ISR SoS at any particular time, for example, maintenance of an in-service configuration controlled baseline simultaneous with maintenance of a development stream and/or test event configuration controlled baseline.

The Contractor must maintain Baseline Configuration Control in a format interoperable with Canada's Configuration Control tools (as defined by the TA) as part of the IPT, consistent with the Land C4ISR System Breakdown Structure (SBS) and in accordance with the direction of the TA as Core Work. The Contractor must maintain Baseline Configuration Control IAW the approved SEMP.

The Contractor must develop and maintain Baseline Configuration Control to the CI level (both hardware and software) for all Land C4ISR Configuration Items for which Appendix 3 includes "full support" (including ISS) under the LEISC. The Contractor must integrate CI level Baseline Configuration Control information provided by other IPT participants into all Land C4ISR baselines for any Land C4ISR Configuration Items for which Appendix 3 includes "integration only" under the LEISC.

Canada will host the master copy of approved and delivered configuration baselines in a Canada-owned, TA-designated System of Record.

National Défense
Defence nationale

# APPENDIX 5
# TO ANNEX A

# TO CONTRACT
# W8486-184104

# LAND C4ISR

# ENGINEERING AND INTEGRATION

# SUPPORT CONTRACT

# CONTRACT DATA

# REQUIREMENTS LIST AND DATA

# ITEM DESCRIPTIONS

**29 January 2018**

# Table of Contents

# 1 Scope

This document identifies the requirements for each data item required by DND and provides an explanation of the forms used to define those requirements.

The main body of the document provides explanations of both the CDRL and DID forms and provides general submission instructions.

## 1.1 Introduction

Each data item is specified in two parts: an entry in the Contract Data Requirements List (CDRL) and a Data Item Description (DID).

The specific requirements detailed in each CDRL item, and its associated DID, are contractual requirements.

Because the CDRL and DIDs have been prepared using standard forms, some blocks on the form are not applicable to this contract or not included.

Additional data requirements pertinent to a specific task may be called up in the tasking and the requirements for that data stated in the tasking SOW, including CDRL information and DID information.

# 2 General Submission Requirements

## 2.1 Precedence

The requirements in Blocks 7 through 16 of the CDRL line items take precedence over any such requirements that may be specified in the associated DIDs.

## 2.2 Inspection and Data Acceptance

Receipt of data does not constitute acceptance.

## 2.3 Submission Schedule

a. Unless otherwise specified, all numbers of days expressed herein are calendar days; and

b. Date of submission means date of receipt of covering letter at PSPC.

## 2.4 Abbreviations

The following is a list of acronyms that may be found in the CDRL:

| | |
|---|---|
| ANNLY | Once every year |
| ASGEN | As generated |
| ASREQ | As required |
| BI-MO | Once every two months |
| EOC | End of Contract |
| EOM | End of Month |
| EPAR | End-Product Acceptance Review |
| FAU | First Article Unit |
| MTHLY | Monthly |
| n DAC | Number of days after contract start |
| n MAC | Number of months after contract start |
| OTIME | One time only |
| R/ASR | Revised as required |
| SEMIA | Once every six months |

## 2.5 Format

Where a data item specifies that the contractor's own format is acceptable, Canada reserves the right to approve the format. Once the format has been approved, the Contractor shall not change the format without Canada's approval. Format in this context applies to the format of the contents, rather than the file structure or media.

# 3 General Format Requirements

a. These general formatting and content instructions apply to all data items.

b. The format and contents instructions apply to all data items and are not repeated in the DIDs provided for specific CDRL items.

c. Cover Page. In contractor's format, but shall be consistent with every other CDRL Item delivered under the contract and shall contain the following data elements:

1) Document identification number;

2) Title of document;

3) Version/revision number;

4) Date of Issue;

5) Identification of Addressee;

6) Identification of contractor responsible for the delivery of the data item;

7) Contract number; and

8) CDRL Item number.

The cover page shall contain Intellectual Property markings shall be in accordance with the Terms and Conditions.

d. Page Header. Applies to every page in the data item, except the Cover Page, and shall contain the following data elements:

1) document identification number;

2) page number;

3) volume number (if more than one volume in the data item); and

4) Security classification.

e. Page Footer. Applies to every page in the data item, except the Cover Page, and shall contain the following data elements:

1) horizontal line delineating the boundary between the main body of the page and the footer;

2) the caveat "USE OR DISCLOSURE OF THIS DATA IS SUBJECT TO THE RESTRICTION OF THE TITLE PAGE OF THIS DOCUMENT";

3) document name;

4) security classification;

5) Task/Core program identification;

6) Version/Revision number; and

7) Date of issue.

f. Authorization and Approval Page. In contractor's format, consistent with every other data item delivered under the contract and shall contain the following data elements:

1) an entry for each authorizing contractor signature including, name, project position (responsibility title), signature, and date signed; and

2) as a minimum the following personnel must sign on behalf of the contractor: manager responsible for creation and maintenance of the document, quality assurance manager, project manager. Other contractor personnel may also sign off on the document at the discretion of the contractor.

g. Table of Contents. In contractor's format, consistent with every other data item delivered under the contract and shall contain the following data elements for each section and subsection in the document:

1) section/subsection number;

2) section/subsection title; and

3) page number.

h. List of Figures. In contractor's format, consistent with every other data item delivered under the contract and shall contain the following data elements for each figure in the document:

1) figure number;

2) figure title; and

3) page number.

i. List of Tables. In contractor's format, consistent with every other data item delivered under the contract and shall contain the following data elements for each table in the document:

1) table number;

2) table title; and

3) page number.

j. Body.

1) Each section and paragraph shall be numbered using a standard convention (e.g. legal) for all data items to be delivered under the contract;

2) Pages shall be sequentially numbered;

3) use of full colour when such use aids clarity and understanding of the information being presented, is desirable;

4) All attachments shall be identified and referenced in the text and the table of contents;

5) Each section and paragraph shall be numbered;

6) Classified data shall be separated and cross-referenced to the applicable portion of the main CDRL item; and

7) In the event that a required section or subsection has been tailored out, a statement to that effect shall be added directly following the heading of each such subsection. If a section and all of its subsections are tailored out, only the highest level section heading needs to be included.

k. Media. Unless otherwise specified by a specific CDRL or DID, all data items shall be delivered electronically. Documents shall be printable, on standard 8 1/2 by 11 inch paper, suitable for reproduction. As necessary, tables, graphs, figures etc. may be formatted for printing on larger (e.g. 11 by 17 inch) paper. If larger pages are required to clearly present the required material, they shall be clearly identified with header and footer information consistent with their parent document and may use separate and applicable document formats (e.g. for large charts, diagrams, spreadsheets, etc.) provided the electronic delivery package clearly groups all related parts of any given document together and their place within the parent document remains clear. Documents shall be delivered in a format free of Digital Rights Management systems and with full edit, search, select and clipboard functionality enabled. Documents shall not contain embedded passwords.

l. Date Format. Where dates form a component of electronic metadata or filenames they shall be in ISO 8601 format.

# 4 CDRL Items

The following section provides a description of each of the fields of the CDRL.

The E&I LTSC CDRL items have been prepared in accordance with the DND standard for the preparation of CDRL items. The specific CDRL item for each data item identifies the requirements for the data item. Each CDRL item contains the following information:

a. Identification of the CDRL item and reference to the SOW;
b. Responsible office in DND;
c. Location for submission and acceptance of data by DND;
d. Review Cycle for submission(s);
e. Identification of addressees and number of copies; and
f. DND preparation and acceptance block.

## 4.1 CDRL FORMAT

A description of each block of the CDRL as it is used on this contract is as follows

a) SYSTEM/ITEM

This block contains the system name – Land C4ISR E&I Support.

b) CONTRACT / RFP No.

W8486-184104

c) SOW IDENTIFIER

Not applicable for the Land C4ISR LTSC program as there is only one SOW.

d) DATA CATEGORY

This block defines the category of the data for which the CDRL item has been prepared. The following categories can be used: Management Data, Systems Engineering, Configuration Management, and Quality Assurance.

e) CONTRACTOR

Identifies the Contractor responsible for the delivery of the CDRL. To be determined.

f) Block 1

ITEM NUMBER - A six-digit number uniquely identifying the Data Item.

g) Block 2

TITLE OR DESCRIPTION OF DATA - The title of the Data Item.

h) Block 3

SUBTITLE - A subtitle may be used if the title requires further identification.

i) Block 4

DATA ITEM NUMBER - The number used to identify the associated Data Item Description(s).

j) Block 5

CONTRACT REFERENCE - The specific paragraph number of the Contract Demand, Statement of Work, Request for Proposal, Specification, or other applicable document which will assist in identifying the effort associated with the data item.

k) Block 6

TECHNICAL OFFICE - The technical office of primary interest. This is the technical authority responsible for ensuring the adequacy of the data.

l) Block 7

INSPECTION AND ACCEPTANCE METHOD - This block indicates the requirement for inspection and acceptance of the data. Contains the appropriate code, if applicable:

| Code | Inspection | Acceptance |
|---|---|---|
| SS | Source | Source |
| DD | Destination | Destination |
| SD | Source | Destination |
| DS | Destination | Source |

m) Block 8

APPROVAL CODE - Data requiring approval are identified by placing an "A" in this field. When a preliminary draft is required, Block 16 shall show length of time for Canada approval or disapproval and when the final document is to be delivered. Block 16 will also indicate the extent of the approval requirements, i.e., approval of technical content and format. If advanced approval is not required, this block states N/A.

Approval or Acceptance of CDRLs and Reviews by Canada means that the Contractual requirement for the particular deliverable has been fully satisfied. Approval of any deliverable does not relieve the Contractor of its responsibility to meet all of the other requirements of the Contract. However approval of "Test Description and Procedures" indicates that if the item to be tested successfully passes the test defined with the procedure and test equipment indicated then the item has achieved its Qualification baseline.

n) Block 9

INPUT FROM INTEGRATING ASSOCIATE CONTRACTOR – If data is the integrated results of specific inputs from associated contractors, an "X" is placed in this block. In all other cases, this block is blank.

o) Block 10

FREQUENCY - This block indicates the frequency of delivery of the data, using the appropriate frequency code from the following:

| | |
|---|---|
| ANNLY | Annually |
| ASGEN | As generated |
| ASREQ | As required |
| BI-MO | Each 2 months |

| | |
|---|---|
| BI-WE | Each 2 weeks |
| DAILY | Daily |
| DFDEL | Deferred delivery DFREQ Deferred requisitioning |
| MNTHY | Monthly |
| ONE/R | One time with revisions |
| OTIME | One time |
| QRTLY | Quarterly |
| R/ASR | Revision as required |
| SEMIA | Every six months |
| WKLY | Weekly |

p) Block 11

'AS OF' DATE - If the data are submitted only once on a date that may be specified, this block contains the "as of" date in ISO 8601 format (e.g., 2017-06-14). If submission is associated with a specific event or milestone, this constraint is stated. If there is insufficient space in Block 11, this block states "See Block 16" and Block 16 will state "11. [followed by description of the driving event]" (e.g. "11. 15 days before SDR"). If an "as of" date, or specified delivery constraint is not applicable, this block is left blank.

q) Block 12

DATE OF FIRST SUBMISSION - If the initial submission date may be specified, entered as follows: day/month/year (e.g. "14 June 07"). If submission is associated with a specific event or milestone, this constraint is stated using one of the following:

| | |
|---|---|
| ATBID | At bid time |
| ASGEN | As generated |
| ASREQ | As required |
| DACA/MACA | Days/Months after Contract Award (Note that in this contract, in the context of tasked work, Contract Award means the date when the contractor has been tasked to provide the data item.) |
| DFDEL | Deferred delivery |
| DFREQ | Deferred requisitioning |
| EOC | End of contract |
| EOM | End of Month |
| EOQ | End of quarter |
| nDPCC | number of Days Prior to Course Commencement |
| nDACC | number of Days After Course Completion |

If there is insufficient space in Block 12 to enter the full text, this block will state "See Block 16" and Block 16 will state "12. [followed by the constraint]" (e.g. "12. 60 days after test").

r) Block 13

DATE OF SUBSEQUENT SUBMISSION/EVENT - If data are submitted more than once, the date(s) of subsequent submission(s) are stated. If submission is constrained by a specific

event or milestone, this constraint is stated (e.g., “15 days after EOQ”).

Abbreviation after the identification of a re-submission will have the following meaning:

Pg: only change page(s) need be re-submitted along with a sign-off sheet.

Add: only addendum supplement need be re-submitted along with a sign-off sheet.

Rv: complete re-submission shall be required.

s) Block 14

DISTRIBUTION AND ADDRESSEES - Indicates the addressees and the respective number of copies (hard copies and soft copies separately), for both the initial submission (Sub-Block “Initial”), and for the final submission (Sub-Block “Final”), for which the data item is required. Initial submission requirements are only identified if a Review Cycle is detailed in Block 16.

If reproducible copies are required, Block 16 is used to explain. If the data are not actually to be delivered to the government or associate contractors, this is explained in Block 16.

t) Block 15

TOTAL - The total number of regular/reproducible copies required by Block 14 is entered here.

u) Block 16

REMARKS - This block is used to provide additional or clarifying information for Block 1 through 15. This block is also used to tailor the documents listed in Block 4. Tailoring may be accomplished by stating the deletions (e.g., “delete paragraph 10.4”) or by stating which requirements apply (e.g. “only paragraph 10.4 and 10.5 apply”), whichever is the more efficient. Block 16 may also be used to specify “Contractor format is acceptable”, or to indicate the desired medium for delivery of data.

v) Blocks 17 – 20

These blocks are not applicable.

## 4.2 List of CDRL Items

The following list identifies the CDRL Items to be provided in the E&I LTSC by its CDRL item number (Block 1), its Title (Block A), and it's DID number (Block 4):

| CDRL Number | DID Number | Title |
|---|---|---|
| 100.001 | 100.001 | Program Management Plan (PMP) |
| 100.002 | 100.002 | Monthly Progress Report (MPR) |
| 100.003 | 100.003 | Meeting Agenda |
| 100.004 | 100.004 | Meeting Minutes |
| 100.005 | 100.005 | Canada Owned Resources Management Report |
| 100.006 | 100.006 | Task Closure Report |
| 200.001 | 200.001 | Systems Engineering Management Plan (SEMP) |
| 200.002 | 200.002 | Obsolescence Report |
| 300.001 | 300.001 | Integrated Logistics Support Plan (ILSP) |
| 400.001 | 400.001 | Configuration Management and Data Management (CM-DM) Plan |
| 400.002 | 400.002 | Quality Assurance Plan (QAP) |

# 5 DIDs

## 5.1 DID Format

The DID associated with the CDRL item details the content and the format to be included in the submission of the data.

A description of each block of information follows:

a) Block 1 - Title

This is the title of the DID and usually corresponds to the associated CDRL item title, except where a DID is reference by more than one CDRL item.

b) Block 2 - Identification Number

This is the number assigned by the Office of Primary Interest (OPI) to the DID and identifies the area of activity to which the DID is applied. These areas include Project Management (100 series), Systems Engineering (200 series), Integrated Logistics Support (300 series), and Configuration Management – Document Management and QA (400 series).

c) Block 3 - Description

This provides general information on how the data detailed in the DID is to be used.

d) Block 4 - Approval Date

This is the date that the OPI has approved the content of the DID.

e) Block 5 - Office of Primary Interest

This identifies the DND responsibility center for review, acceptance and approval of the DID.

f) Block 6 – GIDEP Applicable

The GIDEP Applicable block will contain an X when copies of the data are required to be submitted by the contractor to the Government/Industry Data Exchange Program. Otherwise it will be blank.

g) Block 7 - Application /Interrelationship

This block identifies the scope of the DID and where the DID requirement is defined (i.e.) the applicable portion of the Contract.

h) Block 8 - Originator

This identifies the originator of the DID on behalf of the OPI in Block 5.

i) Block 9 - Applicable Forms

This identifies a published form or template to be used in the completion of the DID if applicable.

j) Block 10 - Preparation Instructions

This provides the preparation details for the format and for the content in the completion of the DID. This item forms the contractual requirement for the Contractor.

## 5.2 List of DIDs

The list of DIDs sorted by DID number is shown in Table 1. The actual DIDs are attached at section 7 of this volume.

# 6 Detailed CDRLs

<table>
<tr><td colspan="7">CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)</td></tr>
<tr><td colspan="4">A. SYSTEM / ITEM<br>Land C4ISR LTSC E&I Support</td><td colspan="3">B. CONTRACT / RFP NUMBER<br>W8486-184104</td></tr>
<tr><td colspan="2">C. SOW IDENTIFIER</td><td colspan="2">D. DATA CATEGORY<br>Management Data</td><td colspan="3">E. CONTRACTOR</td></tr>
<tr><td colspan="2">1. ITEM NUMBER<br>100.001</td><td colspan="2">2. TITLE OR DESCRIPTION OF DATA<br>Program Management Plan (PMP)</td><td colspan="3">3. SUBTITLE</td></tr>
<tr><td colspan="2">4. AUTHORITY (DID Number)<br>100.001</td><td colspan="2">5. CONTRACT REFERENCE</td><td colspan="3">6. REQUIRING OFFICE<br>DLCSPM</td></tr>
<tr><td>7. INSPECTION<br>DD</td><td rowspan="2">9. INPUT</td><td>10. FREQUENCY<br>ONE/R</td><td>12. DATE OF 1st SUBMISSION<br>ATBID<br>See Block 16</td><td colspan="3">14. DISTRIBUTION and ADDRESSEES</td></tr>
<tr><td>8. APP CODE<br>A</td><td>11. AS OF DATE</td><td>13. DATE OF SUBSEQUENT SUBMISSION / EVENT<br>See Block 16</td><td>a. ADDRESS</td><td>b. COPIES<br>INITIAL<br>Soft Copy</td><td>FINAL<br>Soft Copy</td></tr>
<tr><td colspan="4" rowspan="9">16. REMARKS<br>Block 12. The initial PMP shall be the PMP delivered with the Contractor's proposal.<br>Block 13. Canada may provide comments on the PMP for update. The contractor shall update the PMP within 10 working days after receipt of comments.<br>Further updates (to reflect changes to the project) shall be reviewed at a PRM; such proposed updates shall be provided to Canada at least 10 working days before the PRM where they will be reviewed. Canada may at its sole discretion accept, reject or direct changes to the PMP.</td><td>PSPC</td><td></td><td>1</td></tr>
<tr><td>DLCSPM</td><td></td><td>1</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>PREPARED BY</td><td>DATE</td><td>APPROVED BY</td><td></td><td></td><td></td></tr>
<tr><td colspan="2">17. CONTRACT FILE / DOCUMENT NUMBER</td><td>18. ESTIMATED NO OF PAGES</td><td>19. ESTIMATED PRICE</td><td>15. TOTAL</td><td>0</td><td>2</td></tr>
</table>

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| A. SYSTEM / ITEM | | | | B. CONTRACT / RFP NUMBER | | |
|---|---|---|---|---|---|---|
| Land C4ISR LTSC E&I Support | | | | W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY | | E. CONTRACTOR | | |
| | | Management Data | | | | |
| 1. ITEM NUMBER | | 2. TITLE OR DESCRIPTION OF DATA | | 3. SUBTITLE | | |
| 100.002 | | Monthly Progress Report (MPR) | | | | |
| 4. AUTHORITY (DID Number) | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE | | |
| 100.002 | | | | DLCSPM | | |
| 7. INSPECTION | 9. INPUT | 10. FREQUENCY | 12. DATE OF 1st SUBMISSION | 14. DISTRIBUTION and ADDRESSEES | | |
| N/A | | MNTHLY | See Block 16 | a. ADDRESS | b. COPIES | |
| 8. APP CODE | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT | | INITIAL | FINAL |
| N/A | | | | | Soft Copy | Soft Copy |
| 16. REMARKS | | | | PSPC | | 1 |
| Block 12: The Progress Report shall be delivered no later than five working days after the end of each calendar month. | | | | DLCSPM | | 1 |
| Remarks: All Progress Reports shall cover the period from the last report up to the end of the month being reported. | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | DATE | APPROVED BY | | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | | 15. TOTAL | | 2 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| A. SYSTEM / ITEM | | | | B. CONTRACT / RFP NUMBER | | |
|---|---|---|---|---|---|---|
| Land C4ISR LTSC E&I Support | | | | W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY | | E. CONTRACTOR | | |
| | | Management Data | | | | |
| 1. ITEM NUMBER | | 2. TITLE OR DESCRIPTION OF DATA | | 3. SUBTITLE | | |
| 100.003 | | Meeting Agenda | | | | |
| 4. AUTHORITY (DID Number) | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE | | |
| 100.003 | | | | DLCSPM | | |
| 7. INSPECTION | 9. INPUT | 10. FREQUENCY | 12. DATE OF 1st SUBMISSION | 14. DISTRIBUTION and ADDRESSEES | | |
| DD | | ASREQ | See Block 16 | a. ADDRESS | b. COPIES | |
| 8. APP CODE | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT | | INITIAL | FINAL |
| A | | | | | Soft Copy | Soft Copy |

16. REMARKS

Block 12. The Meeting Agenda shall be submitted for review no later than five working days prior to each meeting.

Comments on the Meeting Agenda, including additions or deletions of discussion items, may be provided by Canada.

Block 13. The revised Meeting Agenda addressing Canada's comments shall be submitted for acceptance within three working days of receipt of comments.

| a. ADDRESS | b. COPIES INITIAL (Soft Copy) | FINAL (Soft Copy) |
|---|---|---|
| PSPC | 1 | 1 |
| DLCSPM | 1 | 1 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| PREPARED BY | DATE | APPROVED BY | | | |
|---|---|---|---|---|---|
| | | | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | 15. TOTAL | 2 | 2 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| A. SYSTEM / ITEM | | | | B. CONTRACT / RFP NUMBER | | |
|---|---|---|---|---|---|---|
| Land C4ISR LTSC E&I Support | | | | W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY | | E. CONTRACTOR | | |
| | | Management Data | | | | |
| 1. ITEM NUMBER | | 2. TITLE OR DESCRIPTION OF DATA | | 3. SUBTITLE | | |
| 100.004 | | Meeting Minutes | | | | |
| 4. AUTHORITY (DID Number) | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE | | |
| 100.004 | | | | DLCSPM | | |
| 7. INSPECTION | 9. INPUT | 10. FREQUENCY | 12. DATE OF 1st SUBMISSION | 14. DISTRIBUTION and ADDRESSEES | | |
| DD | | ASREQ | See Block 16 | a. ADDRESS | b. COPIES | |
| 8. APP CODE | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT | | INITIAL | FINAL |
| A | | | | | Soft Copy | Soft Copy |
| 16. REMARKS | | | | PSPC | 1 | 1 |
| Block 12. Minutes shall be submitted for review within five working days following each meeting. | | | | DLCSPM | 1 | 1 |
| Comments on the Meeting Minutes may be provided by Canada. | | | | | | |
| Block 13. Revised meeting minutes addressing Canada's comments shall be submitted for approval within three working days of receipt of comments. | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | DATE | APPROVED BY | | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | | 15. TOTAL | 2 | 2 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | |
|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM<br>Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER<br>W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY<br>Management Data | | E. CONTRACTOR | | |
| 1. ITEM NUMBER<br>100.005 | | 2. TITLE OR DESCRIPTION OF DATA<br>Canada Owned Resources Management Report | | 3. SUBTITLE | | |
| 4. AUTHORITY (DID Number)<br>100.005 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE<br>DLCSPM | | |
| 7. INSPECTION<br>DD | 9. INPUT | 10. FREQUENCY<br>ASREQ | 12. DATE OF 1st SUBMISSION<br>1 MACA | 14. DISTRIBUTION and ADDRESSEES | | |
| | | | | a. ADDRESS | b. COPIES | |
| | | | | | INITIAL | FINAL |
| 8. APP CODE<br>A<br>See Block 16 | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT<br>EOM Rv | | Soft Copy | Soft Copy |
| 16. REMARKS<br>Block 8: The Contractor's format is subject to approval by Canada. The contractor shall submit the format to Canada for approval 15 working days before the first report is due. Canada may provide direction on the format for incorporation by the contractor. Changes to the format shall apply to all deliveries at least 15 working days after Canada provides such direction. | | | | DLCSPM | | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | | DATE | APPROVED BY | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | 15. TOTAL | 0 | 1 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | |
|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM<br>Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER<br>W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY<br>Management Data | | E. CONTRACTOR | | |
| 1. ITEM NUMBER<br>100.006 | | 2. TITLE OR DESCRIPTION OF DATA<br>Task closure Report | | 3. SUBTITLE | | |
| 4. AUTHORITY (DID Number)<br>100.006 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE<br>DLCSPM | | |
| 7. INSPECTION<br>DD | 9. INPUT | 10. FREQUENCY<br>ONE/R | 12. DATE OF 1st SUBMISSION<br>ASREQ<br>See Block 16 | 14. DISTRIBUTION and ADDRESSEES<br>a. ADDRESS | b. COPIES<br>INITIAL<br>Soft Copy | <br>FINAL<br>Soft Copy |
| 8. APP CODE<br>A | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT | | | |
| 16. REMARKS<br>Block 8: The Contractor's format is subject to approval by Canada. The contractor shall submit the format to Canada for approval 15 working days before the first report is due. Canada may provide direction on the format for incorporation by the contractor. Changes to the format shall apply to all deliveries at least 15 working days after Canada provides such direction.<br><br>Block 12. The initial report shall be delivered at task closure unless otherwise specified in the tasking.<br><br>Canada's comments will typically be provided within 15 working days of receipt of the initial report.<br><br>Block 13. The Contractor shall update the report within 10 working days of receipt of comments. | | | | DLCSPM | 1 | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | DATE | APPROVED BY | | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | | 15. TOTAL | 1 | 1 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | |
|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM<br>Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER<br>W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY<br>Engineering Management Data | | E. CONTRACTOR | | |
| 1. ITEM NUMBER<br>200.001 | | 2. TITLE OR DESCRIPTION OF DATA<br>Systems Engineering Management Plan (SEMP) | | 3. SUBTITLE | | |
| 4. AUTHORITY (DID Number)<br>200.001 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE<br>DLCSPM | | |
| 7. INSPECTION<br>DD | 9. INPUT | 10. FREQUENCY<br>ONE/R | 12. DATE OF 1st SUBMISSION<br>ATBID<br>See Block 16 | 14. DISTRIBUTION and ADDRESSEES | | |
| | | | | a. ADDRESS | b. COPIES | |
| 8. APP CODE<br>A | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT<br>See Block 16 | | INITIAL<br>Soft Copy | FINAL<br>Soft Copy |
| 16. REMARKS<br>Block 12. The initial SEMP shall be the SEMP delivered with the Contractor's proposal.<br>Block 13. The contractor shall update the SEMP within 10 working days after receipt of comments.<br>Further updates (to reflect changes to the project) shall be reviewed at a PRM; such proposed updates shall be provided to DND at least 10 working days before the PRM where they will be reviewed. | | | | DLCSPM | | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | | DATE | APPROVED BY | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | 15. TOTAL | | 1 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM<br>Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER<br>W8486-184104 | | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY<br>Systems Engineering | | E. CONTRACTOR | | | |
| 1. ITEM NUMBER<br>200.002 | | 2. TITLE OR DESCRIPTION OF DATA<br>Obsolescence Report | | 3. SUBTITLE | | | |
| 4. AUTHORITY (DID Number)<br>200.002 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE<br>DLCSPM | | | |
| 7. INSPECTION<br>N/A | 9. INPUT | 10. FREQUENCY<br>ASGEN | 12. DATE OF 1st SUBMISSION | 14. DISTRIBUTION and ADDRESSEES | | | |
| | | | | a. ADDRESS | b. COPIES | | |
| 8. APP CODE<br>A<br>See Block 16 | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT | | INITIAL<br>Soft Copy | FINAL<br>Soft Copy | |
| 16. REMARKS<br>Block 8: The Contractor's format is subject to approval by Canada. The contractor shall submit the format to Canada for approval 15 working days before the first report is due. Canada may provide direction on the format for incorporation by the contractor. Changes to the format shall apply to all deliveries at least 15 working days after Canada provides such direction. | | | | DLCSPM | | 1 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| PREPARED BY | DATE | APPROVED BY | | | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | | 15. TOTAL | 0 | 1 | |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | |
|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM: Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER: W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY: Management Data | | E. CONTRACTOR | | |
| 1. ITEM NUMBER: 300.001 | | 2. TITLE OR DESCRIPTION OF DATA: Integrated Logistics Support Plan (ILSP) | | 3. SUBTITLE | | |
| 4. AUTHORITY (DID Number): 300.001 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE: DLCSPM | | |
| 7. INSPECTION: DD | 9. INPUT | 10. FREQUENCY: ONE/R | 12. DATE OF 1st SUBMISSION: ATBID<br>See Block 16 | 14. DISTRIBUTION and ADDRESSEES | | |
| | | | | a. ADDRESS | b. COPIES | |
| 8. APP CODE: A | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT: See Block 16 | | INITIAL<br>Soft Copy | FINAL<br>Soft Copy |
| 16. REMARKS<br>Block 12. The initial ILSP shall be the ILSP delivered with the Contractor's proposal.<br>Block 13. Canada may provide comments on the ILSP for update. The contractor shall update the ILSP within 10 working days after receipt of comments.<br>Further updates (to reflect changes to the project) shall be reviewed at a PRM; such proposed updates shall be provided to Canada at least 10 working days before the PRM where they will be reviewed. Canada may at its sole discretion accept, reject or direct changes to the ILSP. | | | | PSPC | | 1 |
| | | | | DLCSPM | | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | | DATE | APPROVED BY | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | 15. TOTAL | 0 | 2 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | |
|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM: Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER: W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY: Management Data | | E. CONTRACTOR | | |
| 1. ITEM NUMBER: 400.001 | | 2. TITLE OR DESCRIPTION OF DATA: Configuration Management and Data Management Plan (CM-DM Plan) | | 3. SUBTITLE | | |
| 4. AUTHORITY (DID Number): 400.001 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE: DLCSPM | | |
| 7. INSPECTION: DD | 9. INPUT | 10. FREQUENCY: ONE/R | 12. DATE OF 1st SUBMISSION: ATBID<br>See Block 16 | 14. DISTRIBUTION and ADDRESSEES | | |
| | | | | a. ADDRESS | b. COPIES | |
| 8. APP CODE: A | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT: See Block 16 | | INITIAL: Soft Copy | FINAL: Soft Copy |
| 16. REMARKS<br>Block 12. The initial CM-DM Plan shall be the CM-DM Plan delivered with the Contractor's proposal.<br>Block 13. Canada may provide comments on the CM-DM Plan for update. The contractor shall update the CM-DM Plan within 10 working days after receipt of comments.<br>Further updates (to reflect changes to the project) shall be reviewed at a PRM; such proposed updates shall be provided to Canada at least 10 working days before the PRM where they will be reviewed. Canada may at its sole discretion accept, reject or direct changes to the CM-DM Plan. | | | | PSPC | | 1 |
| | | | | DLCSPM | | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | | DATE | APPROVED BY | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | 15. TOTAL | 0 | 2 |

**CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)**

| | | | | | | |
|---|---|---|---|---|---|---|
| A. SYSTEM / ITEM: Land C4ISR LTSC E&I Support | | | | B. CONTRACT / RFP NUMBER: W8486-184104 | | |
| C. SOW IDENTIFIER | | D. DATA CATEGORY: Management Data | | E. CONTRACTOR | | |
| 1. ITEM NUMBER: 400.002 | | 2. TITLE OR DESCRIPTION OF DATA: Quality Assurance Plan (QAP) | | 3. SUBTITLE | | |
| 4. AUTHORITY (DID Number): 400.002 | | 5. CONTRACT REFERENCE | | 6. REQUIRING OFFICE: DLCSPM | | |
| 7. INSPECTION: DD | 9. INPUT | 10. FREQUENCY: ONE/R | 12. DATE OF 1st SUBMISSION: ATBID<br>See Block 16 | 14. DISTRIBUTION and ADDRESSEES | | |
| | | | | a. ADDRESS | b. COPIES | |
| 8. APP CODE: A | | 11. AS OF DATE | 13. DATE OF SUBSEQUENT SUBMISSION / EVENT: See Block 16 | | INITIAL | FINAL |
| | | | | | Soft Copy | Soft Copy |
| 16. REMARKS<br>Block 12. The initial QAP shall be the QAP delivered with the Contractor's proposal.<br>Block 13. Canada may provide comments on the QAP for update. The contractor shall update the QAP within 10 working days after receipt of comments.<br>Further updates (to reflect changes to the project) shall be reviewed at a PRM; such proposed updates shall be provided to Canada at least 10 working days before the PRM where they will be reviewed. Canada may at its sole discretion accept, reject or direct changes to the QAP. | | | | PSPC | | 1 |
| | | | | DLCSPM | | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| PREPARED BY | | DATE | APPROVED BY | | | |
| 17. CONTRACT FILE / DOCUMENT NUMBER | | 18. ESTIMATED NO OF PAGES | 19. ESTIMATED PRICE | 15. TOTAL | 0 | 2 |

# 7 Data Item Descriptions

## DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Program Management Plan (PMP) | 100.001 |

3. DESCRIPTION

The PMP describes how the contractor will structure his organization, and implement and employ the integrated project management practices, processes, procedures and tools required to successfully manage the Land C4ISR E&I Support Contract and meet contractual obligations.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM | |

7. APPLICATION / INTERRELATIONSHIP

7.1 The PMP is the highest level plan for the project. All other plans are subordinate to the PMP.

7.2 The plan has interrelationships with the System Engineering Management plan.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| | |

10. PREPARATION INSTRUCTIONS

10.1 Format.

The Contractor's own format is acceptable.

10.2 General

The plan shall be an all-encompassing plan for the project. Where further detail for a section of the PMP is covered by a subordinate plan, the PMP will present an overview in the PMP section of the material specified in these preparation instructions and reference the subordinate plan.

10.3 Content

The plan shall include the following information:

a. Introduction. Introduces the plan including scope, purpose, and maintenance of the plan.

b. Applicable Documents. Identifies all documents applicable to this plan including, as a minimum, other CDRL items, MIL-STDs, CFTO's, etc, including identifier, title, version number and date of issue.

c. Approach. Presents an overview of the project management organization, methodology and processes

that integrates project planning, directing, monitoring and reporting. As a minimum, this plan shall contain the following:

(1) Organization breakdown structure and interfaces;

(2) Establishment and maintenance of program management monitoring and control;

(3) Establishment and maintenance of task management control;

(4) Establishment and maintenance of risk management control;

(5) Establishment and maintenance of a quality management system;

(6) Establishment and maintenance of Canada owned resource (including controlled goods) management control;

(7) Establishment of a resource and facilities activation plan;

(8) Establishment and maintenance of security management control;

(9) Establishment and maintenance of system & software engineering management control;

(10) Establishment and maintenance of configuration management control;

(11) Establishment and maintenance of data management control; and

(12) Establishment and maintenance of quality assurance control.

10.4 Organizational Breakdown Structure (OBS) and Interfaces.

The PMP shall provide a hierarchical diagram of the Contractor Land C4ISR E&I Support program organization to the cost account manager level. As a minimum the OBS must be decomposed to the Land C4ISR E&I Support core service and task managers.

The PMP shall describe the Contractor's approach, processes and procedures to interface with Canada and the Contractor's Subcontractors.

10.5 Program Management Monitoring & Control

10.5.1 General

This subsection refers to the description of the organization, management and procedures of the Contractor's Management Control System (MCS) that the contractor has, or will have, in place to manage the Contract, in accordance with this DID.

The Contractor shall describe how their Management Control System (MCS) is used to coordinate and integrate project data and information that relates to the planned performance of the work, the actual performance and the variances. The Contractor shall explain how it spans issues of schedule, cost and performance and defines the vehicle, which will allow Canada visibility into approved LAND C4ISR E&I Support information.
The MCS description shall incorporate the following:

10.5.2 Subcontractor Flow-Down.

This subsection describes the Contractor's plans for flow down of MCS reporting requirements to subcontractors, including the process for analyzing and incorporating subcontractor problem and risk management data.

10.5.3 Project Management Problem Reporting and Resolution.

This subsection shall describe the tools, processes and procedures proposed to identify, record, analyze and resolve problems both internal and external to the Contractor's project office. The proposed level of access to be provided to Canada, including entry of new problems or resolution to existing problems, shall be addressed. The interface and interaction with the risk management processes, as defined hereunder shall be described.

10.5.4 Directing, Monitoring, Controlling and Reporting.

This section shall discuss the Contractor's proposed approach for external and internal reviews.

As a minimum, the following topics shall be addressed:

a. Formal progress reporting;

b. Progress review meetings; and

10.6 Task Management

This subsection shall present the Contractor's processes and procedures to support the initiation, planning, estimating, executing, controlling, reviewing, evaluating and closing & delivering LAND C4ISR E&I support tasks in accordance with Canada's DND 626 task authorization procedure.

The Contractor's task authorization procedures shall be described for work authorization within the Contractor's organization and for subcontracted work.

10.7 Risk Management Control

This subsection shall: define the procedures and methods to be used in identifying, analyzing and evaluating extraordinary risk, describe the processes to be used in the early prediction of potential problem areas, and describe the procedures and assigned responsibilities for risk mitigation and problem resolution.

Risks may be controllable or uncontrollable within the project work; however, it is essential that all extraordinary risks, whether controllable or uncontrollable, be identified and tracked. Controllable risks must be managed. Contingency Plans must be made for dealing with uncontrollable risk.

10.8 Quality Management

This subsection shall explain how the quality aspects of programs, products and services are managed in the Contractor's organization and shall include the following:

a. A definition of the organizational quality management policies and procedures;

b. A definition of the organizational quality goals and objectives;

c. A definition of the accountability and authority for quality management;

d. Identification of how the status of customer satisfaction is monitored; and

e. Identification of the action taken when quality goals are not achieved.

10.9 Canada Owned Resource Management

This subsection shall identify the procedures and methods employed by the Contractor to accept, track and manage internally and through their subcontractors, Government property made available to the Contractor by Canada for use on the LAND C4ISR E&I Support Contract.

The description shall explain how the controlled goods aspect of the program will be managed and shall include the following:

a. Identification of how the Contractor will ensure that all staff, including that of any Subcontractor, is qualified to carry out the work in compliance with all applicable international and federal controlled goods laws and regulations;

b. Identification of how the Contractor will ensure that all Work, including the Work of any Subcontractor, is performed in compliance with all applicable international, and federal controlled goods laws and regulations; and

c. Describe how the Contractor acquires and maintains software licenses of Land C4ISR system elements.

10.10 Resource and Facility Activation Plan

This subsection shall identify the approach to establishing and certifying all elements of the required facilities and critical resources in order to ensure the timely execution of work at contract award and to support the timely certification and commissioning of proposed facilities.

This should include:

a. A detailed description of proposed facility including their ownership and availability at contract award and during the duration of the contract;

b. The plan for certification and commissioning of facilities;

c. A description of onboarding of critical resources; and

d. The process and key performance indicators that will be used to report on and monitor progress of mobilization and availability of facilities and resources over time.

10.11 Security Management

This subsection shall define the procedures and methods employed by the Contractor to manage the security aspects of the contract including:

a. Gaining necessary security clearance for new employees;

b. Physical security of the facilities under Contractor management; and

c. Electronic security of data, computers and networked resources.

10.11 Overview of Subordinate Plans

This section shall provide an overview of the plans identified hereunder. The overview shall highlight the major aspects of the plans and explain their interrelationships and dependencies with each other and this Project Management Plan.

Subordinate Plans include:

a. System Engineering Management Plan;

b. Configuration and Data Management Plan;

c. ILS Plan;

d. Quality Assurance Plan

10.12 Performance Management

The Contractor shall describe the Performance Measures and the associated Measurement and Analysis process that will be used in the conduct of the Work of the SOW.

# DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Monthly Progress Report | 100.002 |

3. DESCRIPTION

The purpose of the report is to:

a. Monitor overall Land C4ISR E&I Support Contract performance and task activities;

b. Provide the customer (Contract Authority (CA), Procurement Authority (PA), and Technical Authority (TA)) with the information necessary to evaluate the progress of the activities; and

c. Communicate to the customer any contract or task related concerns and risks identified by the Contractor that might affect either meeting the contract requirements or the performance and system integrity of the Land C4ISR SoS.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM | N/A |

7. APPLICATION / INTERRELATIONSHIP

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor's own format is acceptable.

10.2 Content

Progress Reports shall include the following information:

An executive summary that describes significant elements of the report.

Progress Status. An update of progress status for Management Services, Engineering Services and tasks.

Program Invoice Status report, which identifies for each element of core work and tasks;

a. Task Number;
b. Task Title;
c. Total Task Value;
d. Billing for this reporting period;
e. Previous Total Billing;
f. Total Billing to Date; and
g. Remaining % LOE.

Program Management Status

a. Planned Expenditure
b. Earned Value Statistics.
c. Key performance Indicator status report
d. System Health Indicator status report
e. risk status report.

## DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Meeting Agenda | 100.003 |

3. DESCRIPTION

Meeting Agendas set forth the venue and identify the discussion items to be covered at meetings

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM | N/A |

7. APPLICATION / INTERRELATIONSHIP

This DID integrates with the DID - Meeting Minutes.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCSPM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format. The Contractor's own format is acceptable

10.2 The agenda shall address the following:

a. The scope, purpose and objectives of the meeting;

b. Time, date and location;

c. Suggested attendees (Contractor, Canada and others);

d. Need for any Canada documentation to be presented at the meeting; and

e. Security classification of the meeting.

10.3 The following shall be the standard agenda items with appropriate details relevant to the specific meeting:

a. Agenda review;

b. Review report items;

c. Review meeting action item status;

d. Other agenda items;

e. New subjects introduced by members of the meeting; and

f. Action item generation.

10.4 Special requirements. This section shall detail the requirement for visit clearances, security arrangements, facilities, and any other pertinent information.

Note: Additional items unique to the meeting may be identified in the SOW tasking the contractor.

# DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Meeting Minutes | 100.004 |

3. DESCRIPTION

Meeting Minutes consist of the detailed records of proceedings, discussions, decisions and action items from a meeting.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | | |

7. APPLICATION / INTERRELATIONSHIP

7.1 This DID contains instructions for the preparation of Meeting Minutes as required by the SOW

7.2 This DID integrates with DID 100.003 - Meeting Agenda.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCSPM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor's own format is acceptable.

10.2 Content

The minutes of meetings shall be presented in the following sections:

a. General - including meeting identification number, purpose, date, time and location;
b. Attendees, including their title and responsibility;
c. Discussion Items - Including a summary record of proceedings, discussions, decisions, information addressees, action addressees and action completion date, for each item. All agenda items shall be covered;
d. Next Venue (if applicable); and
e. Signatures of the Contractor Authority, PSPC Contracting Authority (CA) and/or DND Technical Authority (TA) or their delegates as may be appropriate for the specific meeting.

Note: Any additional requirements specific to a meeting may be specified in the SOW for the Task.

# DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Canada Owned Resource Utilization & Status Report | 100.005 |

3. DESCRIPTION

The Canada Owned Resource Utilization Status Report provides the status of Government Furnished Information (GFI), Government Furnished Equipment (GFE) and Government furnished Vehicles (GFV) that are provided by Canada to the Contractor, for use on the Contract.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM | N/A |

7. APPLICATION / INTERRELATIONSHIP

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCSPM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Canada Owned Resource Utilization Report shall be prepared in the Contractor's format.

10.2 Content

The report shall provide an inventory of GFI, GFE and GFV issued to the Contractor and to Subcontractors.

The report shall include, as a minimum, the following information for each item in the Contractor's (and Subcontractor's) possession:

a. Item name – e.g. Land C4ISR Checkout Cell Laptop;
b. Item Description – e.g. Toshiba Tecra S3 Laptop (Model PTS30C-MT501E) w/power transformer;
c. Serial / Registration / License Key or Media Number;
d. Contractor/Subcontractor assigned Asset Number;
e. NATO Stock Number (where applicable);
f. Location (Present location of item);
g. Cost (if purchased by the Contractor/Subcontractor on DNDs behalf); and
h. Use/Comments.

## DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Task Closure Report | 100.006 |

3. DESCRIPTION

This report is the final deliverable for all tasks and documents activity, results and lessons learned.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCPSM Program Control Office | N/A |

7. APPLICATION / INTERRELATIONSHIP

The task closure report is delivered when the task is closed.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCPSM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor's own format is acceptable.

10.2 Content

The task closure report shall contain the following as a minimum:

a. Timeline – start and finish dates for the task including major milestones;
b. Costs – Actual task cost and forecast at task initiation, achieved KPI rational for variance;
c. Work Summary – a brief description of the work;
d. Accomplishments – major accomplishment of the task;
e. Lessons Learned; and
f. Issues/outstanding items.

**DATA ITEM DESCRIPTION**

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Systems Engineering Management Plan (SEMP) | 200.001 |

3. DESCRIPTION

The Systems Engineering Management Plan (SEMP) describes the Contractor's plans and processes for scheduling, planning, organizing, directing, conducting, controlling and coordinating all Engineering effort under the contract and sets forth the Contractor's Engineering Program.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCPSM | |

7. APPLICATION / INTERRELATIONSHIP

The SEMP is a subordinate plan of the PMP.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| | |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor's own format is acceptable.

10.2 Content

The SEMP shall contain sufficient detail to allow DND to assess the Contractor's ability to carry out and manage the engineering of the contract.

The SEMP shall address the methods, techniques and process employed by the Contractor in support of resolution of System Problem Reports (SPR) resolution

The SEMP shall contain as a minimum the following information:

a. Organisation;
b. Roles and Responsibilities;
c. Detailed description of the Contractor's Engineering Program as tailored to the LEISC work, to include a detailed description of the Contractor's Core Program Delivery approach for each Core Engineering SOW item
d. Detailed process descriptions for all Engineering Processes including process flow diagrams;
e. Detailed approach descriptions for Incident Management Process;
f. Detailed approach descriptions for Problem Management Process;
g. Detailed approach descriptions for Engineering Review Processes;
h. Detailed approach description for how the LEISC contractor proposes to integrate their engineering processes with other members of the IPT.

## DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Obsolescence Management Report | 200.002 |

3. DESCRIPTION

The Obsolescence report identifies for current and intended Land C4ISR elements, obsolescence related issues.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM Technical Authority | N/A |

7. APPLICATION / INTERRELATIONSHIP

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCSPM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The contractor's own format is acceptable.

10.2 Content

The Obsolescence Management Report shall identify the obsolescence issue for current and intended Land C4ISR elements.

The report shall identify options to respond to the issue. Each option shall present a complete analysis of the implications of proceeding with that option. Options can include lifetime purchases. The analysis shall include (as applicable):

a. An assessment of the current technology capabilities and their suitability;
b. Proposed obsolescence related technology insertion strategies which comply with the Land C4ISR Concept of Operations and minimize total life cycle costs;
c. Identification, for each item and the system as a whole, optimal sparing and replacement predictions;
d. A description of the processes that the Contractor will use to identify/forecast, track, mitigate and correct the impact of obsolescence on the Land C4ISR elements;
e. The proposed processes that will be followed for the replacement of obsolete and unsupportable components;
f. Identification of new personnel skill sets required;
g. Identification of new process and maintenance requirements; and
h. Costs.

The cost included with each option shall include all costs including Engineering, Configuration Management, Procurement, Technical Publications, Logistical Support and any other items identified in the analysis.

# DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Integrated Logistics Support Plan (ILSP) | 300.001 |

3. DESCRIPTION

This plan describes the Contractor's program for providing integrated logistics support services.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM ILS | N/A |

7. APPLICATION / INTERRELATIONSHIP

7.1 The ILSP Plan supports the PMP.

7.2 The Quality of the process and outcomes resulting from performing the activities described in the ILSP are assured by the process described in the QA Plan.

7.3 ILS activities in many cases provide the initial input into engineering investigations.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCPSM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor’s own format is acceptable.

10.2 General

The ILSP shall describe how the contractor will conduct the Life-Cycle Materiel Management Support Services identified in the SOW.

The ILSP shall as a minimum cover the following:

a. Repair and Overhaul Services;
b. Obsolescence Management Support Services;
c. Sparing Services including Parts Provisioning, Packaging, Handling, Storage and Transportation;
d. Training Support;
e. ILS Documentation; and
f. Maintenance support.

## DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Configuration Management and Data Management (CM-DM) Plan | 400.001 |

3. DESCRIPTION

3.1 This plan describes the Contractor's CM-DM Program.

3.2 The CM-DM Plan describes how the Contractor will perform the CM-DM work specified in the SOW.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM Technical Authority | N/A |

7. APPLICATION / INTERRELATIONSHIP

7.1 The CM-DM Plan supports the PMP, SEMP is supported by the QAP.

7.2 The Quality of the process and outcomes resulting from performing the activities described in the CM-DM Plan, are assured by the process described in the QA Plan.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCPSM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor's own format is acceptable.

10.2 General

The CM-DM Plan shall comply with the CM plan requirements of ANSI/EIA 649 paragraph 5.1.2.

The Contractor shall consider the guidance of ISO 15846 for software configuration management in the preparation of the plan.

The CM-DM Plan shall conform to the information items content requirements as follows:

a. Configuration Management Plan IAW ISO/IEC 15289 section 10.10.
b. Documentation Plan IAW ISO/IEC 15289 section 10.19.

The CM-DM Plan shall conform with planning requirements of ISO/IEC 12207 clause 6.2.1.1, AMD1 7.5.3.9, and 6.1.1.1.

The CM-DM Plan shall conform with life cycle data and information items formats of ISO 15289 as specified in section 10 of this DID.

10.3 Specific content

The CM-DM PLAN shall define the policies and procedures to be used to configuration manage the functional and physical characteristics of Land C4ISR SoS Configuration Items (CIs), including interfaces and configuration identification documents, for the duration of Contract.

# DATA ITEM DESCRIPTION

| 1. TITLE | 2. IDENTIFICATION NUMBER |
|---|---|
| Quality Assurance (QA) Plan | 400.002 |

4. DESCRIPTION

4.1 This plan describes the Contractor's Quality Assurance Program.

4.2 The QA Plan describes how the Contractor will perform the QA work specified in the SOW.

| 4. APPROVAL DATE | 5. OFFICE OF PRIMARY INTEREST | 6. GIDEP APPLICABLE |
|---|---|---|
| | DLCSPM Technical Authority | N/A |

8. APPLICATION / INTERRELATIONSHIP

8.1 The QA Plan supports the PMP, SEMP and the CM-DM Plan.

8.2 The Quality of the process and outcomes resulting from performing the activities described in the QA Plan, are assured by the process described in the QA Plan.

| 8. ORIGINATOR | 9. APPLICABLE FORMS |
|---|---|
| DLCPSM | N/A |

10. PREPARATION INSTRUCTIONS

10.1 Format

The Contractor’s own format is acceptable.

10.2 General

The QA Plan shall conform to the generic content guidelines for plansof ISO/IEC 15289.

The process descriptions described in, or referenced by, the QA Plan shall conform to the generic content guidelines for procedures of ISO/IEC 15289.

The QAP shall be prepared using the guidance of Annex A to ISO 15289 in the selection of information items to be included.

10.3 Specific content

The QA Plan shall describe the organizational structure, the training, roles and responsibilities assigned to perform product and process QA work in all areas of work of the SOW.

The QA Plan shall describe the processes, the tools and techniques used to perform QA on Land C4ISR product and processes.

The QA Plan shall describe how the Contractor will support DQA, including reference to the Support Infrastructure services provided.

The QA Plan shall describe how the Contractor will support IV&V.

The QA Plan shall describe the processes, tools and techniques for performing Joint Technical Reviews.

National Defence Défense nationale

# APPENDIX 6
# TO ANNEX A

# TO CONTRACT
# W8486-184104

# LAND C4ISR
# LAND C4ISR ENGINEERING INTEGRATION SUPPORT CONTRACT

# TASK RESOURCE CATEGORIES

**29 January 2018**

# 1 Personnel Requirements Summary

## 1.1 Qualification and Skills

The Contractor must be capable of providing personnel with the needed capability and experience to perform the work at the contracted rates for the particular skill set.

## 1.2 Depth of Knowledge

In order to evaluate Level of a resource the Webb (1997) Degree of Knowledge (DoK) model is used as a basis for this contract. The DoK model is a process and criteria for systematically analyzing the alignment between standards and standardized assessments. The model assumes that work elements are categorized based upon the cognitive demands to produce the expected result. Each level reflects a different level of cognitive expectation, or depth of knowledge, required to complete the task.

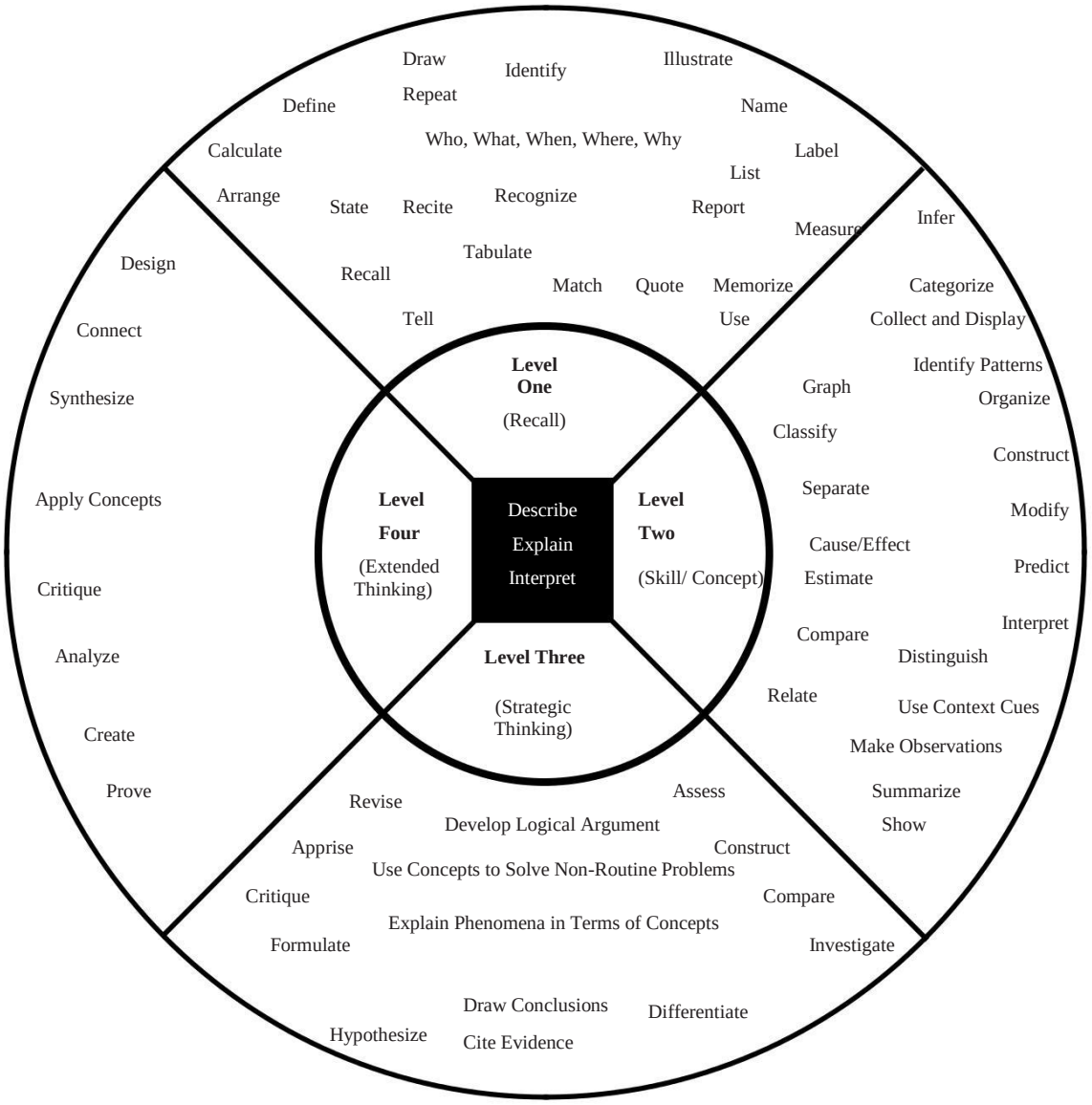


Figure 1 Depth of Knowledge Model

| Depth of Knowledge | | | |
|---|---|---|---|
| **Level 1** | **Level 2** | **Level 3** | **Level 4** |
| Recall elements and details of assigned work.<br><br>Conduct basic tasks.<br><br>Represent in words or diagrams the behaviour or its relationship.<br><br>Perform routine procedures.<br><br>Describe the behaviour or issue at hand. | Identify, plan and summarize work.<br><br>Use context to explain an event/requirement.<br><br>Solve routine problems.<br><br>Describe cause/effect given data/conditions.<br><br>Identify patterns in events or behavior.<br><br>Organize, represent and interpret data. | Support ideas with details and examples.<br><br>Communicate with appropriate language to the purpose and audience.<br><br>Design investigations for a problem.<br><br>Develop a model for complex situation.<br><br>Apply a concept in other contexts. | Conduct a project that requires specification, design, implementation and reporting results.<br><br>Apply model to illustrate uses, problems or situations.<br><br>Analyze and synthesize information from multiple sources.<br><br>Design model to inform and solve uses, problems or situations. |

Table A6-1 Depth of Knowledge Evaluation Criteria

## 1.3 **Personnel Labour Category Assignments**

Table A6-1 below summarizes the categories to be assigned by the Contractor to personnel allocated by the Contractor to provide the support for work described in the SOW and authorized by individual task.

| Serial | Short Title | Personnel Position Description |
|---|---|---|
| 1 | PM | Project Manager |
| 2 | PA | Project Administrator |
| 3 | SA/SEM | Systems Architect / Systems Engineering Manager |
| 4 | SE | System Engineer |
| 5 | HWE | Hardware Engineer |
| 6 | HTC | Hardware Technician |
| 7 | SWA | Software/Firmware Architect/Engineer |
| 8 | SWD | Software/Firmware Developer |

| Serial | Short Title | Personnel Position Description |
|---|---|---|
| 9 | ILS | Integrated Logistics Support Specialist |
| 10 | TE | Test Engineer |
| 11 | TT | Test Technician |
| 12 | CMS | Configuration Management Specialist |
| 13 | QMS | Quality Management Specialist |
| 14 | HFS | Human Factors Specialist |
| 15 | TW | Technical Writer/Illustrator |
| 16 | FS | Field Support Specialist |
| 17 | CTP | Certified TEMPEST Professional |
| 18 | E3 | Electromagnetic Environment Effects Specialist |

Table A6-2: Personnel Requirements

## 2 Mandatory Personnel Requirements (Qualifications, Skill Sets and Experience)

### 2.1 General

#### 2.1.1 Qualifications and Skills

The qualifications and skill sets specified below are the minimum required for contractor provided personnel. The SOW as a whole states the total breadth of capability and experience required of the contractor personnel to perform all the work required if, as and when tasked. For a specific task and skill set, the experience of tasked personnel in supporting different types of equipment and systems, software languages, applications, frameworks, operating systems, environments and standards will be narrower than the total breadth and will be specified. The Contractor must be capable of providing personnel with the needed capability and experience to perform the work at the contracted rates for the particular skill set. The senior level in each category type must have the demonstrated capability and experience to function as a team leader.

#### 2.1.2 Bilingual Capability

Some tasks are expected to require Contractor personnel who are capable of working with CF personnel in their unit's official language. The Contractor must provide a proportion of personnel that are able to communicate orally and in writing in both official languages of Canada (French and English). This is intended to enable the provision of skilled personnel resource from as broad a spectrum as possible while maintaining access to a critical mass of people with user facing roles to work in both French and English.

## 2.2 **Project Manager (PM)**

Tasks include all aspects of managing a task and/or core work under this SOW and generally require the Project Manager to have:

a. The responsibility and authority to plan, execute, and control the tasked project work on behalf of the Contractor; and

b. The capability and experience to perform project management tasks with the applicable experience and responsibility necessary to successfully complete the work.

All project managers shall have the following minimum level of education, professional certification and experience:

| No. | Criteria |
|---|---|
| 1. | Education.<br>Must have a minimum of a university undergraduate degree in project management, business, engineering, science or information systems.<br>Or,<br>A college diploma (two or three year program) in a business or project management program. |
| 2. | Professional Certification.<br>The Project Management Institute's PMP or equivalent certification must be held in good standing. |
| 3. | Experience.<br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in hardware and product engineering work applicable to the area of work. Level 2 Depth of Knowledge.<br>**Senior**: Seven (7) years of experience within the last ten (10) years in hardware and product engineering work applicable to the area of work. Level 3 Depth of Knowledge. |

## 2.3 **Project Administrator (PA)**

Tasks include all aspects of administrative support to a task and/or core work under this SOW and generally require the Project Support Assistant to:

a. Assist with Process Management activities, for example for the coordination and tracking of files, deliverables, tasks, action items and meetings;

b. Perform clerical duties, including the taking accurate and concise notes, e.g. for the production of meeting minutes, production of correspondence, etc.;

c. Schedule and coordinate meetings and facilities in support of task or core work;

d. Manage equipment assets and supplies needed in support of work, etc.

| No. | Criteria |
|---|---|
| 1. | Education.<br>Must have a college certificate, diploma, or degree in a specific relevant discipline from a post-secondary Canadian institution; or.<br>Three (3) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br>**Junior**: No requirement. Level 1 Depth of Knowledge<br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years project administration and project control. Level 2 Depth of Knowledge.<br>**Senior**: Seven (7) years of experience within the last ten (10) years in project administration and project control. Level 2 Depth of Knowledge. |

### 2.4 **System Architect / System Engineering Manager (SA/SEM)**

There is no junior or intermediate level in this Labour Category.

Systems Architects and System Engineering Managers must be capable of:

a. Understanding System Value - In the problem space (Enterprise and Operational;

b. Understanding Systems Engineering Life Cycles - How systems are built;

c. Understanding System Science - How systems work;

d. Understanding of modelling via Methodologies, Techniques; and Tools;

System Architects and System Engineering Managers must have experience with the following activities:

a. Analyzing, Designing and Implementing system architectures at the System-of-Systems level;

b. Communication engineering and systems including radio systems and network security;

c. Command, Control, Communications Information Systems;

d. Distributed Systems;

e. Interface Control Management and implementation;

f. Data architecture definition, and implementation; and

g. System Integration: hardware and software (commercial off-the-shelf (COTS) and/or custom developed) systems into new or existing systems-of-systems.

All System Architects and System Engineering Managers shall have the following minimum level of education, professional certification and experience:

| No. | Criteria |
|---|---|
| 1. | Education.<br><br>Must have a university postgraduate degree in Systems Engineering, Software Engineering, Computer Engineering, Electrical or Electronic Engineering, Mechanical Engineering, Science or Computer Science; or<br><br>Must have a university in Engineering, Science or Computer Science in combination with a minimum of 10 years' experience in System Architecture or System Engineering Management. |
| 2. | Experience.<br><br>Must have a minimum of seven (7) years of experience within the last ten (10) years in systems engineering and architecture work clearly demonstrating a progression of increasing responsibility in the field of Systems Architecture and/or Systems Engineering Management, including at least four (4) years at the System-of-Systems level. Level 4 Depth of Knowledge. |

2.5 **System Engineer**

There is no junior level in this Labour Category.

System Engineers must be capable of:

a. Understanding System Value

b. Understanding Systems Engineering Life Cycles - How systems are built;

c. Understanding System Science - How systems work;

d. Understanding of modelling via Methodologies, Techniques; and Tools;

System Engineers must have experience with the following activities:

a. Analyzing, Designing and Implementing systems at the System level;

b. Communications systems;

c. Interface Control Management and implementation; and

d. System Integration: hardware and software (commercial off-the-shelf (COTS) and/or custom developed) components into new or existing systems.

| No. | Criteria |
|---|---|
| 1. | Education.<br><br>Must have a university degree in software engineering, computer engineering, Electrical or Electronic Engineering, Mechanical Engineering, Science or Computer Science. |
| 2. | Experience.<br><br>**Intermediate Level**: Must have a minimum of three (3) years of experience within the last six (6) years in systems or product engineering work. Level 2/3 depth of knowledge.<br><br>**Senior Level**: Seven (7) years of experience within the last ten (10) years in systems and product engineering work, at least four (4) years of which is in systems engineering. |

| | |
|---|---|
| | Level 3/4 Depth of Knowledge. |

## 2.6 **Hardware Engineers**

Hardware Engineers must be capable of working on a system that has a broad variety of hardware including radios, antennas, network and optical equipment, computers, displays, general communications and sensor systems, in addition to specialized Canadian Army mission equipment. Tasks will include work requiring knowledge and skills in at least the following areas: electronics, radio frequency (RF) engineering, electro-magnetic environment, RF/data/electrical cabling, equipment installations in vehicles and human factors layouts of equipment in vehicles.

| **No.** | **Criteria** |
|---|---|
| 1. | Education.<br><br>Must have a university degree in Computer Engineering, Electrical or Electronic Engineering, Mechanical Engineering, Science or Computer Science. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in hardware and product engineering work applicable to the area of work. Level 2 Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in hardware and product engineering work applicable to the area of work. Level 3 Depth of Knowledge. |

## 2.7 **Hardware Technicians**

Hardware Technicians must be capable of working on a system that has a broad variety of hardware including radios, antennas, network and optical equipment, computers, displays, general communications and sensor systems, in addition to specialized Canadian Army mission equipment. Tasks will include work requiring knowledge and skills in at least the following areas: electronics, radio frequency (RF) testing and characterization, electro-magnetic environment, RF/data/electrical cabling, equipment installations in vehicles and human factors layouts of equipment in vehicles.

| **No.** | **Criteria** |
|---|---|
| 1. | Education.<br><br>Must have a college certificate, diploma, or degree in a specific relevant discipline from a post-secondary Canadian institution; or.<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in hardware and product technical work applicable to the area of work. Level 2 |

| | |
|---|---|
| | Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in hardware and product technical work applicable to the area of work. Level 3 Depth of Knowledge. |

## 2.8 **Software/Firmware Architect**

There is no junior level in this Labour Category.

The Software/Firmware Architect must be capable of designing, developing, and implementing software solutions to address complex systems of systems issues. The Software/Firmware Architect must be capable of working with different software languages tools including but not limited to Java, C++/object oriented programs, SQL, web application development, and security. Experience with working on all levels of hardware stacks of embedded systems. Tasks may include but not limited to:

a. Activities in Client /Server architecture and related systems:

1) Client /Server architecture and related technologies;

2) Analyzing, Designing and Implementing system architectures;

3) Communication engineering and systems and network security;

4) Command, Control, Communications Information Systems;

5) Real-Time or Distributed Systems;

6) Data architecture definition, and implementation;

7) System Integration: hardware and software, (commercial off-the-shelf (COTS) and/or custom developed) components into new or existing systems; and

8) System life-cycle management for hardware and software systems.

| **No.** | **Criteria** |
|---|---|
| 1. | Education.<br><br>Must have a university degree in Engineering, Science or Computer science. |
| 2. | Experience.<br><br>**Intermediate:** Must have a minimum of three (3) years of experience within the last seven (7) years in software or firmware development or software engineering/architecture work. Must have experience in process frameworks and applicable standards (e.g. ISO/IEC 12207, ISO/IEC 15288, ISO 9001, Personal Software Process, CMMI, IEEE 1471, DODAF, and MODAF). Level 3 Depth of Knowledge.<br><br>**Senior Level**: Must have a minimum of seven (7) years of experience within the last ten (10) years in software/firmware development and software engineering/architecture work, including at least four (4) years of software engineering/architecture experience. Must have experience in process frameworks and |

| | |
|---|---|
| | applicable standards (e.g. ISO/IEC 12207, ISO/IEC 15288, ISO 9001, Personal Software Process, CMMI, IEEE 1471, DODAF, and MODAF). Level 4 Depth of Knowledge. |

## 2.9 **Software/Firmware Developer**

The Software/Firmware Developer must be capable of working on a complex system that may include interfaces to a broad variety of software, firmware, applications, operating systems and environments. Must be familiar with programming languages (e.g. C, C++) and paradigms (e.g. Object Oriented, Functional, Procedural) applicable to the products under development, and coding best practices including rapid development processes (e.g. Agile), formal version management approaches (e.g. Subversion), code commenting, formal interface definition and management etc.

| No. | Criteria |
|---|---|
| 1. | Education.<br>A university degree in Engineering, Science or Computer Science; or<br>A college diploma as an Electronic Technician, Computer Science, or other equivalent science diploma; or<br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in software/firmware development work. Level 2 Depth of Knowledge.<br>**Senior Level**: Must have a minimum of (7) seven years within the last (10) ten years in software/firmware development work. Level 3 Depth of Knowledge. |

## 2.10 **Integrated Logistic Support Specialist**

The Integrated Logistics Support Specialist (ILS) must be capable of providing comprehensive support to complex systems and systems-of-systems with diverse requirements and elements. ILSS tasks include but are not limited to:

a. Maintaining Integrated Logistics Support Plans (ILSP). The ILSP serves as the master logistics planning document that describes necessary logistic activities, assigns responsibility for those activities, and establishes a schedule for completion.
b. Influencing Design. Integrated Logistic Support will provide important means to identify as early as possible RAMD (Reliability, Availability, Maintainability and Durability) criteria and optimization approaches. ILSS personnel participate in the design and support processes including contributing to and initiating proposals for system or part design improvements based on reliability, maintainability, testability or system availability analysis.
c. Designing the Support Solution to achieve supportability requirements and value

optimization within cost constraints. Ensuring that the Support Solution integrates the elements considered by ILS.

d. Develop training material to support in service use of system elements, including participating in training needs analysis work, developing and delivering initial cadre training, and providing training materials.
e. Identifying Initial Support Package. These tasks include calculation of requirements for spare parts, special tools, and documentation in response to Canada's requirements. Support and develop plans and documents for initial provisioning including scaling calculations, procurement support, and delivery support.

The ILS specialist facilitates specification, design, development, acquisition, test, fielding, and support of systems.

| No. | Criteria |
|---|---|
| 1. | Education.<br><br>Must have a minimum of a college diploma or higher level degree in Asset Management, Logistics Support or Business Intelligence; or<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in ILS work. Level 2 Depth of Knowledge.<br><br>**Senior Level**: Must have a minimum of (7) seven years within the last (10) ten years in ILS work. Level 3 Depth of Knowledge. |

### 2.11 **Test Engineer**

Test Engineer (TE) must have the requisite experience in managing tests, directly supervising other test personnel and developing, performing and reviewing manual and automated testing, including investigative testing in support of debugging and system problem report resolution. The TE must also have experience in developing and implementing test strategies in conjunction with the development team to perform identified test program and tasks.

| No. | Criteria |
|---|---|
| 1. | Education.<br><br>Must have a university degree in Engineering, Science or Computer Science. |
| And 3. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in test and product engineering work at the product and system levels. Level 3 Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in test and product engineering work at the product, system and system-of-systems levels. At least four |

| | |
|---|---|
| | (4) years of system-of-system test engineering experience is required. Level 4 Depth of Knowledge. |

## 2.12 **Test Technician**

The Test Technician must be capable of performing various tasks to ensure products meet the specified standards and function properly. Typical testing methods include monitoring, assembling, improving and manipulating products to ensure it is in no way defective. The test technician must be capable of using Automated Test Equipment and other test, RF analysis, network analysis and similar test equipment as may be required for the tasks.

| **No.** | **Criteria** |
|---|---|
| 1. | Education.<br><br>Must have a college certificate, diploma, or degree in a specific relevant discipline from a post-secondary Canadian institution; or.<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in test and evaluation work at the product and system levels. Level 2 Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in in test and evaluation work at the product, system and system-of-systems levels. At least four (4) years of system-of-system testing experience is required. Level 3 Depth of Knowledge. |

## 2.13 **Configuration and Data Management Specialist**

The Configuration and Data Management Specialist must be capable maintaining product and system baselines throughout the engineering and support life cycle. Tasks will include but not limited to:

a) Preparing and implementing CM plans, processes and procedures;
b) Defining configuration management tools and techniques;
c) Defining configuration identification requirements;
d) Establishing a configuration change control process;
e) Performing configuration status accounting;
f) Managing a configuration - data management cell;
g) Establishing configuration audit procedures;
h) Performing Release planning;
i) Software, Firmware and Document release process management and delivery; and
j) Identifying CM requirements in SOWs, CDRLs and DIDs.

| **No.** | **Criteria** |
|---|---|

| | |
|---|---|
| 1. | Education.<br><br>Must have a minimum of a college diploma in a configuration and/or data management program or similar directly applicable field of study; or<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in Configuration and/or Data Management work at the product and system levels. Level 2 Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in Configuration and/or Data Management work at the product, system and system-of-systems levels. At least four (4) years of system-of-system level Configuration and/or Data Management experience is required. Level 2 Depth of Knowledge. |

### 2.14 **Quality Management Specialist**

The Quality Management Specialist must be capable of ensuring projects are in compliance with requirements, standards, policies and procedures. QM Specialists provide internal Quality Assurance oversight and guidance. Tasks include but are not limited to:

a. Implementing quality improvement programs;
b. Employing quality assurance tools and techniques;
c. Preparation of Quality Assurance plans and procedures;
d. Conducting quality assurance measurements;
e. Employing release planning techniques;
f. Auditing requirements compliance, including the implementation of standards, plans and procedures;
g. Auditing verification testing and processes; and
h. Auditing the implementation of quality assurance standards, plans and procedures.

| **No.** | **Criteria** |
|---|---|
| 1. | Education.<br><br>Must have a minimum of a college diploma in a quality management program or similar directly applicable field of study; or<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in Quality Management and/or Quality Assurance work at the product and system levels. Level 2 Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in Quality |

| | |
|---|---|
| | Management and/or Quality Assurance work at the product, system and system-of-systems levels. At least four (4) years of system-of-system level Quality Management and/or Quality Assurance experience is required. Level 3 Depth of Knowledge. |

## 2.15 **Human Factors Specialist**

Human Factors Specialists must be capable providing expert advice to system and product design teams on ergonomic and human-design issues, principles and approaches in order to optimize human performance, safety and usability. Investigate and analyze characteristics of system element behavior and performance as it relates to human interfaces. Human Factors Specialist tasks include but are not limited to:

a. Advocate for end users in collaboration with other professionals including engineers, designers, managers, or customers.
b. Collect data through direct observation of work activities or witnessing the conduct of tests.
c. Conduct research to evaluate potential solutions related to changes in equipment design, procedures, personnel, or training.
d. Design or evaluate human work systems, using human factors engineering and ergonomic principles to optimize usability, cost, quality, safety, or performance.
e. Establish system operating or training requirements to ensure optimized human-machine interfaces.
f. Prepare reports or presentations summarizing results or conclusions of human factors engineering or ergonomics activities, such as testing, investigation, or validation.
g. Assess the user-interface or usability characteristics of products.
h. Integrate human factors requirements into operational hardware.
i. Provide human factors technical expertise on topics such as advanced user-interface technology development or the role of human users in automated or autonomous sub-systems in communications systems.

| **No.** | **Criteria** |
|---|---|
| 1. | Education.<br>Must have a university degree in Engineering, Psychology; or<br>Ergonomic Design diploma or similar diploma directly applicable field of study. |
| 2. | Experience.<br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in Human Factors work. Level 2 Depth of Knowledge.<br>**Senior**: Seven (7) years of experience within the last ten (10) years in Human Factors work. Level 3 Depth of Knowledge. |

## 2.16 **Technical Writer/Illustrator**

The Technical Writer/Illustrator must be capable of producing from diverse source material, any necessary engineering documentation, including interface control documents, system design documentation training and reference material etc. in order to clearly and concisely explain in

writing, diagrams, drawings and other similar visual or text media the interfaces, design, installation, operations and maintenance of software, hardware, and electronic, mechanical and other equipment, at a technical level appropriate to the target audience.

| No. | Criteria |
|---|---|
| 1. | Education.<br><br>Must have a minimum of a college diploma (two or three year program) in a technical writing or graphic design program or similar directly applicable field of study; or<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br><br>**Junior**: No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in Technical writing/illustration work. Level 2 Depth of Knowledge.<br><br>**Senior**: Seven (7) years of experience within the last ten (10) years in Technical Writing/Illustration work. At least four (4) years of Technical Writing experience producing engineering documentation (e.g. technical specifications, interface control documents, design documents) is required. Level 3 Depth of Knowledge. |

### 2.17 **Field Support Specialist (FS)**

The FS must be capable of mentor or provide comprehensive support to users in the field on any supported system element. FS tasks include but not limited to:

a) Provide mentoring and support to users at Canadian Forces bases;
b) Assist with installation and maintenance issues and tasks;
c) Communicate issues between users and members of the IPT;
d) Reporting, diagnosing and developing workarounds for problems with the System, and all of the System's functionality, hardware, software, firmware, operating manuals, training and usage, and assisting in repairs of any aspect of the System and its use;
e) Assessing the usage of the System and recommending changes to training and standard operating procedures as required; and
f) Assisting with field upgrades, installation, re-installation and modification.

| No. | Criteria |
|---|---|
| 1. | Education.<br><br>An university degree as an Engineering, Science or Computer Science; or<br><br>A college diploma as an Electronic Technician, Computer Science, or other equivalent science diploma; or<br><br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience. |

| | |
|---|---|
| | **Junior:** No requirement. Level 1 Depth of Knowledge.<br><br>**Intermediate:** Must have a minimum of three (3) years of relevant demonstrated experience in Field Support work in the last six (6) years. Level 2 Depth of Knowledge.<br><br>**Senior Level**: Must have a minimum of seven (7) years of relevant demonstrated experience in Field Support work in the last ten (10) years. Level 3 Depth of Knowledge. |

## 2.18 **Certified Tempest Professional**

A Certified Tempest Professional holds a valid Certified TEMPEST Professional, Level I or II (as applicable) qualification provided by Canada's Communications Security Establishment (CSE) or the US National Security Agency (NSA). Tasks include but are not limited to:

a. Provide Subject Matter Expertise on TEMPEST and NONSTOP EMSEC engineering issues;
b. Write and execute EMSEC test programs for system elements and Land C4ISR platforms;
c. Monitor the System and subsystem EMSEC degradation with respect to changes in configuration, time and usage and,
d. Review Land C4ISR system element modifications, engineering change requests, specification change notices, material change notices and parts substitutions and TEMPEST related data that have the potential to affect the EMSEC Qualification Baseline.

There is no junior level in this category.

| No. | Criteria |
|---|---|
| 1. | Professional Certification.<br><br>**Intermediate Level:** valid Certified TEMPEST Professional, Level I qualification provided by Canada's Communications Security Establishment (CSE) or the US National Security Agency (NSA); Level 3 Depth of Knowledge.<br><br>**Senior Level**: valid Certified TEMPEST Professional, Level II qualification provided by Canada's Communications Security Establishment (CSE) or the US National Security Agency (NSA). Level 4 Depth of Knowledge. |
| 2. | Experience.<br><br>**Intermediate**: Level 3 Depth of Knowledge.<br><br>**Senior**: Level 4 Depth of Knowledge. |

## 2.19 **Electromagnetic Environment Effects (E3) Specialist**

E3 Specialist must be capable of working as part of the IPT and product and system element development teams to ensure compliance with Canada's E3 related requirements, including development and execution of tests, evaluations and corrective and preventative engineering work related to: Electromagnetic Compatibility (EMC), External RF Electromagnetic Environment (EME), Electromagnetic Interference (EMI), Emission Control (EMCON), Radio

Performance and Co-site evaluation, Power Quality, Grounding, Bonding, and Electrostatic Discharge issues.

E3 Specialist tasks include but are not limited to:

a. Provide Subject Matter Expertise on E3 issues;
b. Write and execute E3 test programs for system elements of the Land C4ISR SoS and Platforms;
c. Monitor the System and subsystem E3 degradation with respect to changes in configuration, time and usage and,
d. Review Land C4ISR system element modifications, engineering change requests, specification change notices, material change notices and parts substitutions and E3 related data that have the potential to affect the E3 Qualification Baseline.

| No. | Criteria |
|---|---|
| 1. | Education.<br>Must have a university degree in Engineering, or Science; or<br>A college diploma as an Electronic Technician, or other equivalent science diploma; or<br>Seven (7) years of directly relevant job experience is an acceptable substitute for the education criteria. |
| 2. | Experience.<br>**Junior**: No requirement. Level 2 Depth of Knowledge.<br>**Intermediate**: Must have a minimum of three (3) years of experience within the last six (6) years in E3 work. Level 3 Depth of Knowledge.<br>**Senior**: Seven (7) years of experience within the last ten (10) years in E3 work. Level 4 Depth of Knowledge. |

# ATTACHMENT 3 TO

# PART 4 OF THE RFP

# BID EVALUATION

# LAND C4ISR ENGINEERING AND INTEGRATION SUPPORT CONTRACT (LEISC)

## 29 January 2018

**Table of Contents**

# 1 TECHNICAL BID EVALUATION

## 1.1 Mandatory Technical Requirement Criteria

a) Core Management Requirement Criteria; and

b) Core Engineering Requirement Criteria.

Any bid that fails to meet even one mandatory requirement will be disqualified and given no further consideration.

## 1.2 Rated Requirement Criteria

a) Program Management Plan Requirements;

b) Performance Based Contracting Experience Requirements;

c) Systems Engineering Management Plan Requirements;

d) Process Experience Requirements; and

e) Personnel Experience Requirements.

See section 2.4 of this annex for further details regarding rated criteria.

## 1.3 Mandatory Technical Bid Evaluation Criteria

### 1.3.1 Core Management Criteria

The Bidder must submit with their bid, a Program Management Plan (PMP) in accordance with Appendix 5, CDRL 100.001 and DID 100.001. The Bidder or Bidder's team must demonstrate how, when and where they have successfully implemented the proposed PMP, or a previous version of their proposed PMP, on an alternate contract or project of similar scope, scale and complexity. If past experience uses a prior version of the PMP, the bidder must provide documentary evidence of the evolution and rational of the implemented changes of the new PMP being proposed. The bidder must provide at least one customer reference, in accordance with the Bid Preparation Instructions in Part 3 of the RFP. The customer reference may be contacted to confirm validity of the information provided. The winning Bidder must implement and execute their proposed PMP.

Definitions for this criterion:

a. Similar Scope, Scale and Complexity means a minimum annual expenditure rate of 3 million per year or having as a minimum, the equivalent of 12 FTE positions throughout the duration of the contract or project and being of a minimum duration of 5 years, within the C4ISR industry.

b. Successfully Implemented means the services were delivered on cost, schedule, service levels and performance agreement.

### 1.3.2 Core Engineering Requirement Criteria

The Bidder must submit with their bid, a Systems Engineering Management Plan (SEMP) in accordance with Appendix 5, CDRL 200.001 and DID 200.001. The Bidder or Bidder's team must demonstrate how, when and where they have successfully implemented the proposed SEMP, or a previous version of their proposed SEMP, on an alternate contract or project of similar scope, scale and complexity. If past experience uses a prior version of the proposed SEMP, the bidder must provide documentary evidence of the evolution and rational of the implemented changes of the new SEMP being proposed. The bidder must provide at least one customer reference, validated as accurate by the customer, with accurate customer contact information. The customer reference may be contacted to confirm validity of the information provided. The winning Bidder must implement and execute their proposed SEMP.

Definitions for this criterion:

a. Similar Scope, Scale and Complexity means a minimum annual expenditure rate of 3 million per year or having as a minimum, the equivalent of 12 FTE positions throughout the duration of the contract or project and being of a minimum duration of 5 years, within the C4ISR industry.

b. Successfully Implemented means the services were delivered on cost, schedule, service levels and performance agreement.

### 1.3.3 Personnel Requirement Criteria

Mandatory Personnel qualifications will be assessed by evaluating resumes of key personnel. Bidders shall provide resumes for the key personnel identified in Appendix 6 to Annex A. As a minimum, the following information should be included in each resume and presented in a tabular form:

a. General: name, company name, location of employee and the employee's government security clearance level status.

b. Education and training: dates, locations, and names of the institutions where the qualification was acquired. Copies of diplomas shall be provided. This section may also include formal company in house or external courses and attendance at pertinent conferences or symposia. For educational requirements for a particular degree, designation or certificate, Canada will only consider educational programs that were completed by the resource by the time of bid closing. If the degree, designation or certification was issued by an educational institution outside of Canada, the Bidder must provide a copy of the results of the academic credential assessment and qualification recognition service issued by an agency or organization recognized by the Canadian Information Centre for International Credentials (CICIC).

c. Employment history: presented in tabular form and include the duration (years and months), employer name and position held, in reverse chronological order. Self-employed consultants shall list major projects and assignments.

d. Experience: presented in tabular form with three columns including experience area, months of experience in that area and dates (month and year) the experience was obtained; and key details of that experience (e.g. project outline, company, specific tasks performed by the person, number of persons supervised).

The Bidder may use identified team members to meet the Personnel requirements. The Bidder shall confirm that all key personnel will be available to perform the work at Contract award. The Bidders shall demonstrate compliance in response to Appendix 6 to Annex A - which provides specific position requirements. Bidders shall provide sufficient information to substantiate that the candidates meet the requirement. Bidders shall provide copies of diplomas for the highest level of educational qualification stated in the resumes to meet the educational requirement. The same individual must not be proposed for more than one Resource Category.

### 1.4 Rated Technical Bid Evaluation Criteria

For purposes of evaluating the rated criteria the following definitions will be used.

Recent: Is defined as on-going or completed work having been completed within the last five (5) years from date of RFP release.

Similar Scope and Scale: Is defined as being within the C4ISR industry, having a minimum annual expenditure rate of 3 million per year or having as a minimum, the equivalent of 12 FTE positions throughout the duration of the contract/project and being of a minimum duration of 5 years.

Significant: is defined as depth and breadth of experience associated with the delivery or support of C4ISR capabilities for a period of a minimum of five (5) years in the last 10 years, calculated from date of RFP release.

Complex: meaning of a multi-million dollar value, multi-stakeholders, and multi-year contract.

a. For each Reference Project submitted for 1.4.1 to 1.4.4 below, the Bidder must provide a customer reference, in accordance with the Bid Preparation Instructions in Part 3 of the RFP. The customer may be contacted to confirm validity of the information provided.

b. For each Reference Project submitted for 1.4.1 to 1.4.4 below, the Bidder should provide a detailed description, including but not limited to the following:
   1. Executive Summary;
   2. Problem statement;
   3. Project Management Strategy that includes at a minimum:

i. Industry standard, best practice or corporate methodology used;
ii. Implementation strategy;
iii. Problem/Issue management;
iv. Communications management;
v. Risk mitigation;
vi. Technologies used or implemented;
vii. Resource management;
viii. Project schedule management (including complete project timeline).

4. Budget management;
5. Performance management, including continuous improvement and performance incentives (if used);
6. Description of users;
7. Volumetrics, including number of internal users, number of transactional requests, and diversity of transactions; and
8. Contract Disputes and Performance Issues

For the purpose of this solicitation, a "Team Member" or "Bidder's Team" is the entity whose experience is being used to meet evaluation criteria of this bid. Where a Bidder cites the experience of a Team Member, Canada will only consider this experience if the experience is accessible to the Bidder and the Bidder can rely upon and use the experience in the performance of any resulting Contract. The Bidder is required to demonstrate this accessibility through the certification that cooperation agreement are in place at the time of bid closure. Experience listed without providing any supporting data to describe where, how and by whom such experience was obtained or failure to demonstrate that the Bidder has a teaming agreement with the Team Member whose experience satisfies the requirement may result in the experience not being considered for evaluation purposes. The experience identified by the Bidder to meet criterion 1.4 a and 1.4 b, identified above, must be for Work for which the Bidder's Team was directly responsible.

### 1.4.1 Program Management Experience

The Bidder's Team program management capability will be evaluated based on actual relevant recent experience. The Bidder's Team should provide documentary evidence of two (2) recent examples in performing work of similar scope and scale for a maximum of 200 points per example. If more than two (2) examples are provided, only the first two (2) examples in the order listed in the bid will be evaluated. The minimum passing score for each example is 20 points. Recent experience is limited to the last five years. The rating scale is based on the following criteria:

a. The work was performed outside of Canada in a Defence and Security context without the ability to perform a reference check by Canada -20 points
b. The work was performed outside of Canada in a Defence and Security context with the ability to perform a reference check by Canada -40 points
c. The work was performed in Canada in a Defence and Security context with an

unsuccessful reference check. -60 points

d. The work was performed outside of Canada in a C4ISR context with a successful reference check. -80 points
e. The work was performed in Canada in a C4ISR context with an unsuccessful reference check. -100 points
f. The work was performed in Canada in a C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement -125 points
g. The work was performed in Canada in a C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -150 points
h. The work was performed in Canada in a Land C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -175 points
i. The work was performed in Canada in Land C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -200 points

**Table A3-1 – Program Management Experience Total**

| Example | Description | Maximum Score | Actual Score | Comments |
|---|---|---|---|---|
| 1 | | 200 | | |
| 2 | | 200 | | |
| Total | | 400 | | |

### 1.4.2 Performance Based Contracting Experience

The Bidder's Team performance based contracting (PBC) capability will be rated based on actual relevant recent experience. The Bidder's Team must provide documentary evidence of two (2) recent examples of work performed under a performance based contracting regime for a maximum of 250 points per example. If more than two (2) examples are provided, only the first two (2) examples in the order listed in the bid will be evaluated. PBC is define as a regime where the contractor's performance is rewarded through incentives based on Key Performance Indicators (KPI) or System Health Indicators (SHI). The minimum passing score for each example is 20 points. Recent experience is limited to the last five years. The rating scale is based on the following criteria:

a. The work was performed outside of Canada in a Defence and Security context with an unsuccessful reference check. -20 points
b. The work was performed outside of Canada in a Defence and Security context with a successful reference check. -40 points
c. The work was performed in Canada in a Defence and Security context with an unsuccessful reference check. -60 points
d. The work was performed outside of Canada in a C4ISR context with a successful reference check. -75 points

e. The work was performed in Canada in a C4ISR context with an unsuccessful reference check. -100 points
f. The work was performed in Canada in a C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -150 points
g. The work was performed in Canada in a C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -175 points
h. The work was performed in Canada in a Land C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -200 points
i. The work was performed in Canada in a Land C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -250 points

**Table A3-2 – Performance Based Contracting Experience Total**

| Example | Description | Maximum Score | Actual Score | Comments |
|---|---|---|---|---|
| 1 | | 250 | | |
| 2 | | 250 | | |
| Total | | 500 | | |

### 1.4.3 System Engineering Management Experience

The Bidder's Team System Engineering Management capability will be rated based on actual relevant recent experience. The Bidder's Team must provide documentary evidence of two (2) recent examples in performing work of similar scope and scale to the proposed Engineering Management Plan for a maximum of 100 points per example. If more than two (2) examples are provided, only the first two (2) examples in the order listed in the bid will be evaluated. The minimum passing score for each example is 10 points. Recent experience is limited to the last five years. The rating scale is based on the following criteria:

a. The work was performed outside of Canada in a Defence and Security context with an unsuccessful reference check. -10 points.
b. The work was performed outside of Canada in a Defence and Security context with a successful reference check. -20 points
c. The work was performed in Canada in a Defence and Security context with an unsuccessful reference check. -30 points
d. The work was performed outside of C4ISR context with a successful reference check. -40 points
e. The work was performed in Canada in a C4ISR context with an unsuccessful reference check. -50 points
f. The work was performed in Canada in a C4ISR Context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -80 points

g. The work was performed in Canada in a C4ISR Context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -100 points
h. The work was performed in Canada in a Land C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -125points
i. The work was performed in Canada in a Land C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -150 points

**Table A3-3 – System Engineering Management Experience Total**

| Example | Description | Maximum Score | Actual Score | Comments |
|---|---|---|---|---|
| 1 | | 150 | | |
| 2 | | 150 | | |
| Total | | 300 | | |

### 1.4.4 Core Engineering Experience

The Bidder's Team core engineering capability will be rated based on actual relevant recent experience. The Bidder's Team should provide documentary evidence of capability in the four (4) core engineering disciplines identified below for a maximum of 150 points per example. The minimum passing score for each example is 10 points. Recent experience is limited to the last five years. The rating scale is based on the following criteria:

a. The work was performed outside of Canada in a defence and security context with an unsuccessful reference check. -10 points
b. The work was performed outside of Canada in a defence and security context with a successful reference check. -20 points
c. The work was performed in Canada in a defence and security context with an unsuccessful reference check. -30 points
d. The work was performed outside of Canada in a C4ISR context with a successful reference check -40 points
e. The work was performed in Canada in a C4ISR context with an unsuccessful reference check. -50 points
f. The work was performed in Canada in a C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -80 points
g. The work was performed in Canada in a C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -100 points
h. The work was performed in Canada in Land C4ISR context with a successful reference check demonstrating the Bidder's Team met the contractual requirement of the example being provided. -125 points

i. The work was performed in Canada in a Land C4ISR context with a successful reference check demonstrating the Bidder's Team exceeded the contractual requirement of the example being provided. -150 points

**Table A3-4 – Core Engineering Experience Total**

| Example | Description | Maximum Score | Actual Score | Comments |
|---|---|---|---|---|
| 1 | System-of-Systems Engineering Architecture, Management, Integration and Testing | 150 | | |
| 2 | Harsh Environment Network/Communication Complex Electronic Product Development, Integration and Testing | 150 | | |
| 3 | Ground Mobile Platform – Electronic Networked Systems Installation Integration Engineering | 150 | | |
| 4 | EMSEC and E3 Engineering | 150 | | |
| Total | | 600 | | |

### 1.4.5 Resource Capability Experience

The Bidder's Team should provide documentary evidence of capability of eight (8) resources available to meet the requirement of task-based work, one for each of the eight (8) resource types listed in table A3-5 below. Canada must have the ability to perform reference checks based on the information provided in the bid. The minimum passing score for each resource type is 20 points. The rating scale is based on an evaluation of breadth and depth of knowledge and experience:

Breadth and depth of knowledge and experience will be evaluate based on 100 points for each resource. The breadth of experience will be marked based on the diversity of experience level when compared to the area identified in Appendix 6 to Annex A, item No. 2 within the table for each individual resource category:

a. The proposed resources has relevant knowledge and experience in one of the areas identified in Appendix 6 - 20 points
b. The proposed resources has relevant knowledge and experience in less than half of the areas identified in Appendix 6 - 40 points
c. The proposed resources has relevant knowledge and experience in more than half but not all of the areas identified in Appendix 6 - 60 points

d. The proposed resources has relevant knowledge and experience in all the areas identified in Appendix 6 - 80 points
e. The proposed resources has relevant knowledge and experience that exceeds the areas identified in Appendix 6 - 100 points

**Table A3-5 – Resource Capability Experience Total**

| Example | Description | Max Score | Breadth | Total | Comments |
|---|---|---|---|---|---|
| 1 | Systems Architect / Systems Engineering Manager (Senior) | 100 | | | |
| 2 | Certified Tempest Professional (Senior) | 100 | | | |
| 3 | Electromagnetic Environment Effects Specialist (Senior) | 100 | | | |
| 4 | System Engineer (Senior) | 100 | | | |
| 5 | Hardware Engineer (Senior) | 100 | | | |
| 6 | Software/Firmware Architect/Engineer (Senior) | 100 | | | |
| 7 | Project Manager (Senior) | 100 | | | |
| 8 | Test Engineer (Senior) | 100 | | | |
| Total | | 800 | | | |

## 1.5 Rated Total Score

**Table A3-6 - Total Rated Criteria Point Summary**

| Rated Criteria Elements | Max Points Available | Total Points |
|---|---|---|
| **Program Management Experience Summary** | 400 | |
| **Performance Based Contracting Experience Summary** | 500 | |
| **Systems Engineering Management Experience Summary** | 300 | |
| **Core Engineering Experience Summary** | 600 | |
| **Resource Capability Experience Summary** | 800 | |

| Rated Criteria Elements | Max Points Available | Total Points |
|---|---|---|
| **Total** | 2,600 | |

## 2 FINANCIAL BID EVALUATION

The evaluated cost will be calculated using the firm all-inclusive rates and mark-ups proposed by the Bidder and the quantities indicated in the financial evaluation tables. The number of persons, units and days are based on "Proxy" usage rates. They are for evaluation purposes only and do not represent any promise or representation by Canada of any particular volume of work.
Bidders shall complete and submit Table A3- through Table 12 with their Financial Bid.

### 2.1 Personnel Costs

#### 2.1.1 Hourly Rates

Bidders shall enter their rates, as defined by the Personnel Rate Category in Appendix 6 of the SOW, into A3-7. If Team Members are used, the hourly rates will also apply to any Work performed by the Team Members personnel during the Contract.

**Table A3-7 – Hourly Rate**

| Personnel (Pers) Rate Category | Qty Pers (A) | Contract Hourly Rate (B) | | | | | Evaluated Cost (AxB x 7.5 hours/day x 235 days) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 1 (C) | Year 2 (D) | Year 3 (E) | Year 4 (F) | Year 5 (G) |
| Senior Project Manager | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Project Manager | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Project Manager | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Project Administrator | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Project Administrator | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Project Administrator | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior System Architect/System Engineering Manager | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior System Engineer | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Intermediate System Engineer | 4 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Hardware Engineer | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Hardware Engineer | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Hardware Engineer | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Hardware Technician | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Hardware Technician | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Hardware Technician | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Software/Firmware Architect | 3 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Software/Firmware Architect | 6 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Software/Firmware Developer | 6 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Software/Firmware Developer | 10 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Software/Firmware Developer | 5 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior ILS Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate ILS Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior ILS Specialist | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Test Engineer | 3 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Test Engineer | 4 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Test Engineer | 4 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Test Technician | 4 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Intermediate Test Technician | 7 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Test Technician | 10 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior CM-DM Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate CM-DM Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior CM-DM Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Quality Management Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Quality Management Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Quality Management Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Human Factor Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Human Factor Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Human Factor Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Tech Writer/Illustrator | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Tech Writer/Illustrator | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Tech Writer/Illustrator | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior Field Support Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate Field Support Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior Field Support Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Certified TEMPEST Professional II | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Certified TEMPEST Professional I | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Senior E3 Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Intermediate E3 Specialist | 2 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| Junior E3 Specialist | 1 | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| **Personnel Sub Totals** | **110** | | | | | | $ | $ | $ | $ | $ |

### 2.1.2 Total Evaluated Personnel Cost Calculation

The total of the Per Diem Rate is calculated at Table A3-8. These are the personnel costs that will be used for the cost per point calculation determined at Table A3-12:

**Table A3-8- Total Evaluated Personnel Cost**

| Personnel (Pers) Category | Year 1 | Year 2 | Year 3 | Year 4 | Year 3 | Sub –Total |
|---|---|---|---|---|---|---|
| **Sub Totals** | $ (C) | $ (D) | $ (E) | $ (F) | $ (G) | $ (C+D+E+F+G) |
| | **Total Evaluated Cost** | | | | | $(Enter Value into Table A3-12) |

## 2.2 Core Work

Bidders shall enter their rates, as defined by the Core Work Category in Annex A - SOW, into Table A3-9. The total value of the Core Work costs will be used for the cost per point calculation determined at Table A3-12. Core Work (combined value of Core Management Work and Core Engineering Work) must not exceed an annual rate of $13 million dollars.

**Table A3-9 - Total Evaluated Core Work Cost**

| Core Work | Monthly Fixed Rate (A) | | | | | Annual Rate (B) (A*12) | | | | | Core Work Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | SUM of B |
| **Core Management Work** | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| **Core Engineering Work** | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ | $ |
| | | | | | | | | **Total:** | | | $(Enter Value into Table A3-12) |

## 2.3 The Facility

The Bidder shall provide their proposed firm monthly rate for The Facility, as defined in Appendix 7 of the SOW, in Table A3-10.

**Table A3-10 - The Facility – Firm Annual Rates Evaluation**

| Facility 5.4 | Monthly Rate (A) | Annual Rate (A*12) |
|---|---|---|
| **Facility rate – Year 1** | $ | $ |
| **Facility rate – Year 2** | $ | $ |
| **Facility rate – Year 3** | $ | $ |
| **Facility rate – Year 4** | **$** | **$** |
| **Facility rate – Year 5** | **$** | **$** |
| | **Total:** | $(Enter Value into Table A3-12) |

## 2.4 Mark-ups

Bidders shall propose firm mark-up rates, including overhead, general and Administration, profit and any other mark-up normally charged, for the acquisition of hardware, system equipment and software (HW/SE/SW), and the services of individuals with specialized knowledge (SK's) and Sub-Contracted services during the contract period utilizing Table A3-11. The mark-up amounts determined in the Table 4-5 below will be evaluated as part of the overall Bid price.

### 2.4.1 Acquisition of hardware, system equipment and software (HW/SE/SW) Mark-Up

For the purposes of bid evaluation only, acquisition costs for hardware, system equipment and software during the Contract period is hypothetically set at $10,000,000.00. Bidders must provide a Mark-up rate for the acquisition of HW/SE/SW in Table A3-11. The Mark-up rate proposed must not exceed 20%.

### 2.4.2 Acquisition of the services of individuals with Specialized Knowledge (SK) and Sub-Contracted Services

For the purposes of bid evaluation only, the acquisition costs for SK and Sub-Contracted Services during the contract period is hypothetically set at $20,000,000.00. Bidders must provide a Mark-up rate for the acquisition of SK and Sub-Contracted Services in Table A3-11. The Mark-up rate proposed must not exceed 20%.

**Table A3-11 - Cost of Mark-ups**

| Activity | Mark-up Rate (%) (A) | Acquisition Costs (Not a Guarantee) (B) | Evaluated Amount ((AxB)+B) |
|---|---|---|---|
| Acquisition of HW/SE/ SW | **(A1)** | $10,000,000.00 | **(C)** |
| Acquisition of SK & Sub-Contractors | **(A2)** | $20,000,000.00 | **(D)** |
| **Total Evaluated Cost of Mark-ups = C+D:** | | | $(Enter Value into Table A3-12) |

### 2.5 Travel and Living Expenses

The cost of travel and living expenses for contractors is not considered in the bid pricing.

### 2.6 Financial Bid Worksheet

Table A3-12 is a summary of all evaluated costs as determined in Tables A3-8 through A3-11. Bidders shall populate this table using the totals determined in Tables A3-8 through A3-11 where indicated by "$Enter Value into Table A3-12".
Bidders shall include Tables A3-7 through A3-12 with their Financial Bid. If there are any discrepancies between the amounts in Table A3-12 and those in Tables A3-8 through A3-11, the cost will be recalculated using the values determined in Tables A3-7 through A3-11.

**Table A3-12 - Total Evaluated Cost of Bid**

| Cost Summaries | Total Evaluated Cost |
|---|---|
| **Personnel Cost Summary** | $ |
| **Core Work Cost Summary** | $ |
| **Cost of Facilities** | $ |
| **Cost of Mark-ups** | $ |
| **Total Evaluated Cost** | $ |

# 3 INDUSTRIAL AND TECHNOLOGICAL BENEFITS AND VALUE PROPOSITIONS

## 1. INTRODUCTION

1.1. The purpose of the Value Proposition (VP) Evaluation Plan (Evaluation Plan) is to describe the methodology that will be used to evaluate the VP Proposal (Bid) submitted by the Bidder.

1.2. The Bid will be evaluated as either responsive or not responsive. The Bid will be deemed responsive if it: i) meets all of the mandatory requirements outlined in Section 2; and, ii) meets the minimum assessment values outlined in Section 3.

1.3. All responsive bids will then be evaluated based on rated criteria, as outlined in Section 4.

1.4. The results of the evaluation will be conveyed to the Contracting Authority. The results will then be integrated into the overall bid evaluation results, as outlined in section 4 of the Land C4ISR Engineering and Integration Support Contract (LEISC) (the Project) Evaluation Plan.

1.5. The Bidder is strongly encouraged to closely review the entire Bidder Instructions document.

1.6. Defined terms not otherwise defined in this document have the meaning given to them in the ITB Terms and Conditions and the Request for Proposal, including appendices, to which this Evaluation Plan is attached.

## 2. MANDATORY REQUIREMENTS

2.1. The chart below details each mandatory requirement and how the ITB Authority will assess whether it has been met. The Bid will be assessed as responsive or not responsive. To be considered responsive, all mandatory requirements must be met.

**Table 2-1, Mandatory Requirements Evaluation Chart**

| Mandatory Requirement | Method to Confirm |
|---|---|
| 1. Bidder commits to achieving Transactions, measured in Canadian content value (CCV), valued at not less than 100 percent of the Contract Price (including options exercised) or the total CCV of identified Transactions, whichever is higher, to be achieved within the Achievement Period. | Mandatory requirements certificate is duly signed and submitted. |
| 2. Commits to achieving Direct Transactions valued at | Mandatory requirements |

| | |
|---|---|
| not less than 70 percent of the Contract Price in CCV, or the total CCV of Direct Transaction Commitments in the Bid, whichever is higher, including options exercised, to be achieved within the Achievement Period. . | certificate is duly signed and submitted |
| 3. Bidder has specified its Total Evaluated Cost of Bid , not including taxes, and not including options, and rounded to the nearest dollar. | Mandatory requirements certificate is duly signed and submitted, with Total Evaluated Cost of Bid provided. |
| 3a. Bidder has identified Transactions which are detailed, fully described and equal in total to not less than 30 percent of the Total Evaluated Cost of Bid in CCV. All Transactions identified in the Bid must align with one or more of the rated criteria specified in Sections 4.1.1 to 4.1.3 of the Evaluation Plan | Alignment of the Transaction with one or more of the rated criteria is confirmed. CCV value of each Transaction in the Bid is totalled, then compared against the Total Evaluated Cost of Bid . Mandatory requirements certificate is duly signed and submitted. |
| 3b. Bidder commits to identifying one (1) year after the Effective Date of Contract, Transactions that are detailed, fully described and bring the cumulative total of identified Transactions to not less than 60 percent of the Contract Price, measured in CCV. | Mandatory requirements certificate is duly signed and submitted. |
| 3c. Bidder commits to identifying three (3) years after Effective Date of Contract, and for each additional contract option year exercised, Transactions that are detailed, fully described and bring the cumulative total of identified Transactions to 100 percent of the Contract Price, measured in CCV | Mandatory requirements certificate is duly signed and submitted. |
| 4. Commits to achieving Small and Medium Business Transactions valued at not less than 10 percent of the Contract Price in CCV, or the total CCV of Small and Medium Business Commitments in the Bid, whichever is higher, including options exercised, to be achieved within the Achievement Period. | Mandatory requirements certificate is duly signed and submitted. |
| 5. Commits to achieving Research and Development Activity Transactions valued at not less than1 percent of the Contract Price in CCV or the total CCV of Research and Development Commitments in the Bid, whichever is higher, including options exercised, to be achieved within the Achievement Period. | Mandatory requirements certificate is duly signed and submitted. |
| 6. Bidder accepts all of the ITB Terms & Conditions. | Mandatory requirements certificate is duly signed and submitted. |
| 7. Bidder submits all the required components in its | Presence of each required |

| | |
|---|---|
| Bid:<br>• Company Business Plan<br>• ITB Management Plan<br>• Regional Development Plan<br>• Small and Medium Business Development Plan<br>• Detailed transaction sheets, accompanied by a summary chart of all Transactions.<br>• Signed Mandatory requirements certificate | component in the Bid and the Mandatory requirements certificate is duly signed and submitted. |

## 3. MINIMUM ASSESSMENT VALUES

3.1. The Plans will be evaluated to determine if they meet the minimum assessment values below.

3.1.1. The Bidder's four Plans will be evaluated to confirm that they are present in the Bid. The Plans are then assessed for quality and for risk, using the assessments in Tables 3-1 and 3-2.

3.1.2. Quality will be assessed as to whether the Plans respond to the requested components outlined in Section 5 of the Bidder Instructions, the level of detail in the component, and how well the content of the Plan meets the ITB Objectives outlined in Section 3 of the Bidder Instructions.

3.1.3. Quality will be assessed on a scale of one (1) to four (4), using the values below in Table 3-1.

**Table 3- 1, Plan Quality Assessments**

| VALUE | 3 PLAN – QUALITY ASSESSMENTS |
|---|---|
| 4 | **SUPERIOR**<br>Plan contains detailed responses to four or more of the requested items in Section 5.4 to 5.7, both inclusive, as applicable, of the Bidder Instructions. The Plan demonstrates that many of Canada's ITB Objectives will be met. |
| 3 | **GOOD**<br>Plan contains detailed responses to three of the requested items in Section 5.4 to 5.7, both inclusive, as applicable,of the Bidder Instructions. The Plan demonstrates that several of Canada's ITB Objectives will be met. |
| 2 | **POOR**<br>Plan contains detailed responses to two of the requested items in Section 5.4 to 5.7, both inclusive, as applicable, of the Bidder Instructions. The Plan demonstrates that some of Canada's ITB Objectives will be met. |
| 1 | **VERY WEAK**<br>Plan contains detailed response to one or less of the requested items in the Section 5.4 to 5.7, both inclusive, as applicable, of the Bidder Instructions. The Plan does not demonstrate that Canada's ITB Objectives will be met. |

3.1.4. Risk will be assessed as to whether the Plans respond to the risk areas outlined in Section 5 of the Bidder Instructions and the level of detail provided.

3.1.5. Risk will be assessed on a scale of one (1) to four (4), using the values below in Table 3-2

**Table 3- 2, Plan Risk Assessments**

| VALUE | PLAN - RISK ASSESSMENTS |
|---|---|
| 4 | **SUPERIOR**<br>Plan contains a detailed response to four or more of the risk areas in Section 5.3 of the Bidder Instructions, such that the probability of failure to achieve is extremely low. |

| VALUE | PLAN - RISK ASSESSMENTS |
|---|---|
| 3 | **GOOD**<br>Plan contains a detailed response to three of the risk areas in Section 5.3 of the Bidder Instructions, such that the probability of failure to achieve is low. |
| 2 | **POOR**<br>Plan contains a detailed response to two of the risk areas in Section 5.3 of the Bidder Instructions, such that the probability of failure to achieve is moderate. |
| 1 | **VERY WEAK**<br>Plan contains a detailed response to one or less of the risk areas in Section 5.3 of the Bidder Instructions, such that the probability of failure to achieve is significant. |

3.1.6. The Quality and Risk assessments agreed to by evaluators will be multiplied together and the sums added together to determine the final Plans assessment value for the Bid.

3.1.7. The Bidder must achieve or exceed a final Plans assessment value of thirty-two (32) (out of a possible sixty-four (64)).

**EXAMPLE**:

**Table 3-3 - Example**

| Plan | Quality (A) | Risk (B) | Assessment Value (C)<br>*(C) = (A) x (B)* |
|---|---|---|---|
| Company Business Plan | 4 | 3 | 12 |
| ITB Management Plan | 2 | 3 | 6 |
| Regional Development Plan | 4 | 4 | 16 |
| SMB Development Plan | 4 | 2 | 8 |
| **Final plans assessment value** | | | **42** |

3.2. Evaluation of proposed Transactions

3.2.1. The Bidder's proposed Transactions will be evaluated to determine whether they comply with the Bidder Instructions and with the ITB Terms and Conditions, with respect to eligibility criteria, valuation, banking and transaction types.

3.2.2. If a proposed Transaction does not meet the criteria outlined in 3.2.1, it will be rejected and will receive no further consideration during the mandatory or rated evaluation, or in the Contract.

3.2.3. If a proposed Transaction meets the criteria outlined in 3.2.1, it will then be assessed in accordance with the Mandatory Requirements in Section 2, specifically paragraph 3a of Table 2-1 Mandatory Requirements Evaluation Chart.

3.2.4. Any Transactions identified in the Bid will be assessed to determine whether they align with one or more of the three rated evaluation criteria identified in sections 4.1.1 through 4.1.3. The Bidder should provide a level of detail sufficient to support the claim that the Transaction fits within a given criteria.

3.2.4.1. Transactions where the Bidder does not demonstrate alignment with the rated evaluation criteria will be rejected and will receive no further consideration during the mandatory or rated evaluation, or in the Contract.

3.2.4.2. Transactions where the Bidder demonstrates alignment with the rated evaluation criteria will be included as part of the Bidder's Commitments in the rated evaluation, outlined in Section 4 of the Evaluation Plan. These Transactions would also be included as an Obligation to be achieved in the Contract.

## 4. RATED EVALUATION

4.1. The Bidder's proposed Commitments will be evaluated against the rated criteria as described below.

| **Land C4ISR – Engineering and Integration Support Contract (LEISC)**<br>**Value Proposition Strategic Objective** |
|---|
| The strategic objective of the Value Proposition (VP) Framework for the Project is to ensure that Canadian capabilities are utilized directly on the procurement, while incentivizing high-quality research and development investments that support innovation and the competitiveness of Canada's Defence Sector, as well as supply chain integration opportunities for Canadian small and medium-sized businesses (SMB). |

4.1.1 Direct Transactions

The Direct Transactions pillar will incentivize high-value work activities in Canada directly related to the Project. The Mandatory Requirement in this area ensures that a minimum amount of Canadian content is used for the provision of goods and services, where Canada has capabilities, while Value Proposition points seek to incentivize bidders to compete on the basis of maximizing Direct Transactions.

**Table 4 – 1, Direct Transactions**

| Criteria | Available Points | Basis of Evaluation |
|---|---|---|
| **Direct Transactions** | | |
| Commitments to undertake Direct Transactions above 70 percent of Contract Price, up to a maximum of 100 percent | 30 | Points will be awarded for Commitments to achieve Direct Transactions based on the following:<br><br>The Bidder with the highest commitment to undertake Direct Transactions above seventy (70) percent of Contract Price up to a maximum of one hundred (100) percent, stated as a percentage of the Bidder's Total Evaluated Cost of Bid , not including options and measured in CCV, will receive thirty (30) points. All other bidders will be pro-rated down.<br><br>Formula: Bidders total Direct Transaction Commitment above 70 percent (up to a maximum of 100 percent) divided by the highest bidder's Direct Transaction Commitment above 70 percent (up to a maximum of 100 percent), multiplied by 30 points. |

4.1.2 Research and Development:

The Research and Development (R&D) pillar will incentivize bidders to identify R&D Transactions with Canadian Companies, Canadian Post-Secondary Institutions, and/or Public Research Institutions that support Canada's high-value Defence Sector research capabilities.

**Table 4 – 2, Research and Development**

| Criteria | Available Points | Basis of Evaluation |
|---|---|---|
| **Research and Development** | | |
| Commitments to undertake R&D Activity Transactions with Canadian Companies and/or Post-Secondary Institutions or Public Research Institutions, above 1 | 50 | Points will be awarded for Commitments to achieve R&D Transactions based on the following:<br><br>Commitments for each category of R&D Activity Transactions should be expressed as a commitment to undertake R&D Activity Transactions above one |

| | | |
|---|---|---|
| percent of Contract Price, up to a maximum of 100 percent | | (1) percent of Contract Price.<br><br>Commitment to R&D Activity Transactions in the Defence Sector with Canadian Post-Secondary Institutions or Public Research Institutions up to a maximum of one hundred (100) percent, stated as a percentage of the Bidder's Total Evaluated Cost of Bid, not including options and measured in CCV, will receive two (2) points for every percentage of Total Evaluated Cost of Bid committed.<br><br>Commitment to R&D Transactions in the Defence Sector with Canadian Companies up to a maximum of one hundred (100) percent, stated as a percentage of the Bidder's Total Evaluated Cost of Bid , not including options and measured in CCV, will receive one (1) point for every percentage of Total Evaluated Cost of Bid committed.<br><br>The R&D point accumulation is calculated by totalingtotaling the points accumulated in R&D Activities in the Defence Sector with Canadian Companies and Post-Secondary Institutions or Public Research Institutions. The Bidder with the highest point accumulation for such commitments above one (1) percent of Contract Price up to a maximum of one hundred (100) percent, will receive fifty (50) points. All other bidders will be pro-rated down.<br><br>Formula: (Bidder'sR&D Activity point accumulation divided by the highest bidder's R&D Activity point accumulation) multiplied by50 points. |

4.1.3. Small and Medium Sized Businesses (SMBs):

The Small and Medium-sized Business (SMB) pillar will incentivize bidders to work with SMB across Canada, to integrate them into supply chains, and invest in developing their skills, capacity, quality and productivity so they can remain competitive in the global market.

**Table 4 – 3, Small and Medium Sized Businesses**

| Criteria | Available Points | Basis of Evaluation |
|---|---|---|
| Small and Medium Sized Businesses | | |
| Commitments to undertake Transactions with SMBs above 10 percent of Contract Price, up to a maximum of 100 percent | 20 | Points will be awarded for Commitments to achieve Transactions based on the following:<br><br>The Bidder with the highest Commitment to undertake Transactions with SMBs above ten (10) percent of Contract Price up to a maximum of one hundred (100) percent, stated as a percentage of the Bidder's Total Evaluated Cost of Bid , not including options and measured in CCV, will receive twenty (20) points. All other bidders will be pro-rated down.<br><br>Formula: Bidders total SMB Commitment above 10 percent (up to a maximum of 100 percent), divided by the highest bidder SMB Commitment above 10 percent (up to a maximum of 100 percent), multiplied by 20 points. |

4.2. In the event that the Bidder identifies Commitments or proposed Transactions in its Bid valued at more than 100 percent of the Total Evaluated Cost of Bid , no additional points will be earned in the rated evaluation, above those outlined in the Evaluation Plan. Additionally in this event, the Obligation values in Article 3.1.1 of the Terms and Conditions (including the sub-obligations) would be increased to match the total value of those

4.3. One identified Transaction may be aligned with multiple criteria and will be scored as such, up to the maximum total points. All Transactions that meet the criteria in Section 3.2 and Commitments identified in the Bid will be included as an Obligation to be achieved in the ensuing Contract.

4.4. In the event that the Bidder's total identified Transactions in the Bid align with any of the three rated VP criteria, expressed as a percentage of Total Evaluated Cost of Bid , is greater than the Bidder's Commitment in the same VP criteria as expressed in the Rated Criteria Certificate, the higher value will both be considered as the Bidder's Commitment in the rated evaluation described in Section 4, and as the Obligation to be achieved in Article 3 of the ensuing Contract.

4.5. Table 4-4 below summarizes the rated evaluation scoring:

**Table 4-4 – Transaction Scoring**

| Criteria | Available Points | Basis of Evaluation |
|---|---|---|
| **Direct Transactions** | **30** | |
| Commitment | | Commitment above 70 percent, expressed as CCV percentage of Total Evaluated Cost of Bid on signed rated criteria certificate (or CCV percentage of identified Direct Transactions, whichever is higher) |
| **Research and Development** | **50** | |
| Commitment | | Commitment above 1 percent, expressed as CCV percentage of Total Evaluated Cost of Bid on signed rated criteria certificate (or CCV percentage of identified Research and Development Transactions, whichever is higher) |
| Portion of commitment involving Canadian Companies | | Commitment expressed as CCV percentage of Total Evaluated Cost of Bid on signed rated criteria certificate (or CCV percentage of identified Research and Development Transactions with Canadian Companies, whichever is higher) |
| Portion of commitment involving Post-Secondary Institutions or Public Research Institutions | | Commitment expressed as CCV percentage of Total Evaluated Cost of Bid on signed rated criteria certificate (or CCV percentage of identified Research and Development Transactions with Post-Secondary Institutions or Public Research Institutions, whichever is higher) |
| **Small and Medium Sized Businesses** | **20** | |
| Commitment | | Commitment above 10 percent, expressed as CCV percentage of Total Evaluated Cost of Bid on signed rated criteria certificate (or CCV percentage of identified SMB Transactions, whichever is higher) |
| | | |
| **Total Points** | **100** | |

4.6. Total VP Score: The Bidder's scores for commitments will be totaled to reach a Total VP Score, which will then be weighted at seventeen (17) percent of the total available score for the Project's overall bid evaluation.

## 5. PROCESS

5.1. The evaluation is led by the ITB Authority, with participation from representatives of the regional development agencies, and, if required, other subject matter experts.

5.2. Evaluation assessments and scoring will be carried out by consensus, wherein the Bid will be read, discussed and each evaluator will agree to a score for each rated element. Consensus on broader issues will be sought, such that evaluators agree on the need for and nature of any clarifying questions or advice sought from outside experts. Where consensus on scoring, issues or other questions cannot be reached following discussion, the ISED Evaluation Lead will make the final decision.

5.3. The ITB Authority will hold overall responsibility for ensuring that the members of the evaluation team carry out their responsibilities. The ITB Authority will act as the liaison between the evaluation team and outside officials.