



National Defence
National Defence Headquarters
Ottawa, Ontario
K1A 0K2

Défense nationale
Quartier général de la Défense nationale
Ottawa (Ontario)
K1A 0K2

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Carolyn Oliver
Dept of National Defence
Carolyn.Oliver@forces.gc.ca

LETTER OF INTEREST /
LETTRE D'INTÉRÊT

Title / Titre: Long Range Telescope	Solicitation No /No de l'invitation: W8476-216466/B
Date of Solicitation / Date de l'invitation:	
Address Enquiries to – Adresser toutes questions à: Carolyn Oliver 101 Colonel By Dr. DGLPDM, DLP 343 343-572-0834 Carolyn.Oliver@forces.gc.ca	
Telephone No. / N° de téléphone: 343-572-0834	FAX No / No de fax: N/A
Destination: Various	

Instructions:
Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.
Instructions:
Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

**Solicitation Closes /
L'invitation prend fin:**

At / à : 14 h 00

On / le : 6 June 2022

Issuing Office - Bureau de distribution
Department of National Defence
101 Colonel By Dr.,
Ottawa, Ontario, K1A 0K2

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



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PART 1 – PURPOSE AND NATURE OF THE RFI

1. Purpose of the RFI

Department of National Defence (DND) is launching this Request for Information (RFI) in order to seek information and feedback from industry for Sniper Long Range Telescope Systems.

The purpose of this Request for Information (RFI) is to achieve the following:

- a) Provide industry with an early opportunity to assess, comment and suggest changes to the RFP;
- b) Determine the capability of industry to satisfy the requirements;
- c) Request indicative costing information from industry in order to allow Canada to prepare its documents for Project Approval. Industry is asked to provide Rough Order of Magnitude (ROM) pricing for as many items as possible.
- d) Obtain industry feedback on any issues that would impact their ability to bid on the resulting solicitation and/or deliver on the department's requirements;
- e) Gather industry knowledge, expertise and recommendations with regard to best practices that would increase the success of the solicitation and/or identify any risks that would impact the solicitation;
- f) Enhance competition, access and fairness of the resulting solicitation; and
- g) Inform industry and the government to ensure that the formal RFP process moves forward efficiently and has a high probability of success.

Respondents are requested to provide answers and feedback.

1.2 Nature of the RFI

This is not a bid solicitation. This RFI will not result in the award of any contract. As a result, potential suppliers of any goods or services described in this RFI should not reserve stock or facilities, nor allocate resources, as a result of any information contained in this RFI. Nor will this RFI result in the creation of any source list. Therefore, whether or not any potential supplier responds to this RFI, this will not preclude that supplier from participating in any future procurement. Also, the procurement of any of the goods and services described in this RFI will not necessarily follow this RFI. This RFI is simply intended to solicit information and feedback from industry with respect to the matters described in this RFI.

Nothing in this RFI will be construed as a commitment from PSPC to issue a solicitation for this requirement. DND may use non-proprietary information provided in this review and/or in the preparation of any formal solicitation document.

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DND will not be bound by anything stated herein and reserves the right to change at any time, any or all parts of the requirement, as it deems necessary. DND also reserves the right to revise its procurement approach, as it considers appropriate, either based upon information submitted in response to this RFI or for any other reason it deems appropriate.

PART 2 – RESPONSE INSTRUCTIONS AND INFORMATION

2.1 Nature and Format of Responses Requested

The department's current view of its requirement for Sniper Long Range Telescope Systems the characteristics of the supply solution it is currently contemplating, and the technical requirements are all detailed in Part 3 and in Attachment 2 of this RFI.

The department is seeking input and responses covering important elements of the requirement prior to proceeding with finalizing its procurement strategy.

Respondents are invited to provide comments regarding the content of Attachment 2 and related requirements included in this RFI. Respondents should explain any assumptions they make in their interpretation of the requirements.

2.2 Response Costs

DND will not reimburse any respondent for expenses incurred in responding to this RFI.

2.3 Treatment of Responses

2.3.1 Use of Responses

Responses will not be formally evaluated. The responses received may be used by DND to develop or modify procurement strategies or any draft documents contained in this RFI. DND will review all responses received by the RFI closing date. DND may, in its discretion, review responses received after the RFI closing date.

2.3.2 Review Team

A review team composed of representatives of DND will review the responses. DND reserves the right to hire any independent consultant, or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.

2.3.3 Confidentiality

Respondents should indicate and mark any portions of their response that they consider proprietary or confidential. DND will handle these portions in a confidential manner in accordance with the Access to Information Act of Canada.

2.3.4 Follow-up Activity

DND may, at its discretion, contact any respondents to follow up with additional questions or for clarification of any aspect of a response. DND may, at its discretion agree to meet with respondents to provide respondents with the opportunity to present and/or demonstrate their capabilities in relation to this RFI.

Respondents' presentations are at no obligation to DND and respondents will be responsible for all costs associated with DND's invitation to make a presentation.

2.4 Contents of this RFI

This RFI contains a draft request for proposal, including draft technical requirements and respondents should anticipate that clauses or requirements may be added to or deleted from any resulting bid solicitation that may be published by DND in the future. Comments regarding any aspect of this RFI are requested. This RFI also contains specific questions (attachment 1) addressed to the industry.

2.4.1 Historical & Volumetric Data

The data contained within this RFI is being provided to respondents purely for information purposes. Although it represents the best information currently available to DND, there is no guarantee that the data is complete or free from error.

2.5 Format of Responses

2.5.1 Response preparation

DND requests that respondents submit their responses electronically in PDF or compatible formats. Responses can be provided by email. Medium such as CD, DVD or USB key are acceptable. Hardcopy responses will also be accepted but is not the preferred option.

2.5.2 Response content

The first page of each document of the response provided should contain:

- a) The RFI number
- b) The name of the company that the respondent's is representing;
- c) The title, the name and the contact information of the respondent's; and,
- d) The date of submission of the documents.

All pages should be identified with the company's name along with page numbers.

2.6 Enquiries

DND will not necessarily respond to enquiries in writing or by circulating answers to all potential suppliers as this is not a solicitation process. However, respondents with questions regarding this RFI may direct their enquiries to the Contracting Authority named below:

Name: Carolyn Oliver
Title: Sr. Procurement & Finance Officer
Division: Dept. of Land Procurement 3-4-3

Telephone: 343-572-0834
Email: carolyn.oliver@forces.gc.ca

2.7 Submission of Responses

2.7.1 Time and Place for Submission of Responses

Suppliers interested in providing a response should deliver it electronically or by mail to the attention of the Contracting Authority by the time and the date on page 1 of the RFI to the address indicated in Part 2 section 2.6.

2.7.2 Responsibility for Timely Delivery

Each respondent should ensure its response is delivered on time to the correct email address or location.

2.8 Security Requirements

There are no security requirements associated with responding to this RFI. Any future procurement actions undertaken in support of this requirement will not require a government security clearance.

2.9 Official Languages

Responses to this RFI are requested to be presented in either of the Official Languages of Canada.

PART 3 – DRAFT PROCUREMENT STRATEGY

3.1 Introduction

The Department of National Defense (DND) has a requirement to procure Long Range Telescope Systems (LRT).

The procurement is for quantity (202) Long Range Telescope Systems and an optional quantity (200) systems.

The delivery locations of the Long Range Telescopes systems will be at the following locations:

Department of National
Defence 25 CFSD Montreal
6363 Rue Notre Dame St
E. Montreal, QC H1N 2E9
Canada

Department of National
Defence 7 Canadian Forces
Supply Depot
Lancaster Park
195 Ave & 82 St, Bldg 236
Edmonton, AB T5J 4J5
Canada

Bidders will have the ability to submit a bid.

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

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3.2 Questions to Industry

Attachment 1: Questions to industry. Respondents are requested to provide answers to the questions in the order that they appear and maintain the same lettering sequence.

3.3 Draft Request for Proposal

The contractual and technical documents that would form part of a future solicitation are included as Attachment 2: Draft Request for Proposal. Respondents are asked to read each document carefully in order to identify potential issues to be addressed, either by answering the related questions or by submitting additional comments.

3.3.1 Technical Documents

Attachment 2 Annex B- Statement of Work (and its appendices) and Annex C- Operational & Technical Requirements outline the technical requirements of the Long Range Telescope systems.

3.3.2 Request for Proposal – Other Annexes

Annex D of Attachment 2- Instructions to bidders and its appendices of Long Range Telescope Systems. This annex outlines the evaluation methodology for this procurement.

Specific instructions on bid submission can be found in the Terms and Conditions of the RFP.

Attachment 1: Questions to Industry

Question 1

Canadian Content: Please state if you are a Canadian manufacturer that can meet the requirements of this product.

Question 2

What is the standard warranty for your company's Long Range Telescope, including, if any, Ancillary equipment?

Question 3

Is your company able to navigate CTAT & ITAR policies that could impact the delivery of the LRT System to the Canadian Forces?

For example: is there any problem obtaining a License (DSP83, or others required) and achieving State Approvals to sell/ship the LRT, including Licensing for Spare Parts, to Canada?

Question 4

Is your company able to obtain an export license to ship samples of the proposed product to Canada, for testing by the Government of Canada in support of bid evaluation, without having a contract in place for the samples?

Question 5

Is your company registered, exempt or excluded under the Controlled Goods Program (CGP)?

Please make a selection: Yes / No

Question 6

Can you provide the Unique Identification (UID) Marking deliverable listed in Annex B, para. 5.2.3, a through f?

Question 7

Do you have any concerns meeting the requirements for DID's (Appendix 2 to Annex B) in general?

Question 8

Do you have any concerns delivering the Test Reports requested in the Compliance Matrix in Appendix 1 to Annex D?

Question 9

How much time would you need to prepare a complete Bid Package as described in the documentation provided and deliver the Pre-Award Samples (PAS) requested by Canada?

Question 10

Please state your experience in delivering the LRT product, ie. years in business manufacturing/assembling/fabricating/servicing such products, major customers, etc.

Question 11

Is the product you are offering currently in production?

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Question 12

Is the product you are offering currently being used by an American, British, Canadian or Australian (ABCA) military organization, North Atlantic Treaty Organization (NATO) or a North American (Canada or United States) civilian police agency? If yes, please identify which countries and/or agencies.

Question 13

Please provide a product sheet of the scope system you are proposing.

Question 14

Is our desired delivery date, identified in this RFI, for all Firm and Option QTYs, realistic for your company?

Question 15

Please provide an estimated price range (FOB) for your product that responds to GOC requirement, in Canadian Dollars. Do you foresee any issues in maintaining your prices should the bid validity period be 180 days?

ANNEX B: Statement of Work

Appendix B1: CDRLs
Appendix B2: DIDs

SCOPE

Objective

The objective of this Statement of Work (SOW) is to describe the tasks and deliverables required of the Contractor by Canada in order to deliver the Long Range Telescope (LRT) System, complete with accessories and initial provisioning, as part of the Sniper Systems Project (SSP).

Intended Use

The LRT System will allow the Canadian Army Snipers to effectively identify and engage targets at long ranges. The dismounted soldier must be capable of operating with the LRT System mounted on a sniper rifle in a wide range of environments and terrain such as jungle, mountains, forests, deserts and urban areas. The LRT System will be used on the in-service sniper rifles of various calibres up to and including the .50 calibre.

Acronyms

ANSI	American National Standards Institute
CAF	Canadian Armed Forces
CDRL	Contract Data Requirements List
CFTO	Canadian Forces Technical Order
CM	Configuration Management
DID	Data Item Description
EEA	Equipment Environmental Assessment
EIA	Electronic Industries Alliance
IAW	In Accordance With
ILS	Integrated Logistics Support
ISO	International Standards Organization
LRT	Long Range Telescope
LS	Logistic Support
NATO	North Atlantic Treaty Organization
NCAGE	NATO Commercial and Government Entity
NSN	NATO Stock Number
OEM	Original Equipment Manufacturer
PM	Project Management
PMS	Project Master Schedule
PPB	Provisioning Parts Breakdown
PRM	Project Review Meeting
QA	Quality Assurance
QAR	Quality Assurance Representative
QC	Quality Control
QCI	Quality Control Inspection
RSPL	Recommended Spare Parts List
SE	System Engineering
SOW	Statement of Work
SPTD	Supplementary Provisioning Technical Documentation
SSP	Sniper Systems Project
TA	Technical Authority

Applicable Documents

The following documents form part of this specification to the extent specified and are supportive of the specification when referenced; all other document references are to be considered supplemental information only. In the event of a conflict between the documents referenced and the contents of the specification, then the contents of the specification must take precedence.

ANSI/EIA-649B: National Consensus Standard for Configuration Management; and

ISO 9000: Family of Quality Management Standards.

3. **General Requirements**

3.1. Overview

The Contractor must establish, implement and maintain the following capabilities:

- a. A Project Management (PM) capability that encompasses the LRT System processes in accordance with (IAW) the work requirements of section 4 of this SOW;
- b. A Systems Engineering capability that encompasses the LRT System technical effort IAW the work requirements of section 5 of this SOW;
- c. An Integrated Logistic Support (ILS) capability IAW the work requirements of section 6 of this SOW;
- d. A Configuration Management (CM) capability IAW the work requirements of section 7 of this SOW; and
- e. A Quality Assurance (QA) capability IAW the work requirements of section 8 of this SOW.

3.2. Contractor Responsibilities

The Contractor must be responsible for meeting all the requirements as identified in the SOW.

3.3. Production and delivery

- 3.3.1. The Contractor must produce and deliver the LRT systems that meet all requirements specified in Annex C, the Operational and Technical Requirements.

4. **Project Management**

4.1. General

The Contractor must conduct PM activities IAW industry best practices.

4.2. Project Master Schedule

- 4.2.1. The Contractor must deliver a Project Master Schedule (PMS) IAW Contract Data Requirements List (CDRL) 001 and Data Item Description (DID) PM-001.

4.3. Meetings

4.3.1. Kick-Off Meeting:

- a. The Contractor must schedule and chair a Kick-off meeting no later than 20 working days following contract award;
- b. The Kick-off meeting must be conducted by video-conference;
- c. The Contractor must prepare and submit a Meeting Agenda IAW CDRL 002 and DID PM-002 for the kick-off meeting; and
- d. The Contractor must prepare and submit Meeting Minutes IAW CDRL 003 and DID PM-003 for the kick-off meeting.

4.3.2. Project Review Meetings:

- a. The Contractor must schedule and chair six monthly (or at an agreed schedule) Project Review Meetings (PRM) with the first meeting occurring 40 working days following contract award;
- b. The PRMs must be conducted by video-conference;
- c. The Contractor must prepare and submit a Meeting Agenda IAW CDRL 002 and DID PM-002 for each PRM; and
- d. The Contractor must prepare and submit Meeting Minutes IAW CDRL 003 and DID PM-003 for each PRM.

5. **Systems Engineering Requirements**

5.1. Introduction

This section describes the requirements for systems engineering work that the Contractor must carry out under this Contract.

5.2. Identification and Markings

5.2.1. Serial Number

- a. The Contractor must permanently mark the LRT body with a unique serial number that is visible when the LRT is mounted in the telescope mount;
- b. Canada will accept the LRT serial number assigned by the Contractor/OEM.

5.2.2. Special Markings

- a. The text "T3" must be engraved on the LRT outer surface near the eyepiece;
- b. The text "T3" must be engraved facing upwards when the LRT is mounted to the sniper rifle and oriented so it can be read from the rear of the LRT;
- c. The text "T3" must be font type Arial or Times New Roman and in a size equal to 14 dpi or alternate size approved by the TA; and
- d. The text "T3" must be visible when the Protective Covers are installed and in the open or closed positions.

5.2.3. Unique Identification (UID) Marking

- a. The Contractor must originate and assign a Unique Item Identifier (UII) or a Recognized UII-Equivalent in accordance with STANAG 2290 to the LRT delivered under the contract.
- b. The Contractor must ensure the assigned UII or Recognized UII-Equivalent.
 - i. Has been originated in accordance with STANAG 2290, using the component data elements as prescribed therein to allow production of a compliant UII Mark;
 - ii. Are not duplicated on any other item marked by the Contractor;
 - iii. Are not duplicated on any other item registered in the DND Item Unique Identification Registry;
 - iv. Comply with the UII construction rules set out in STANAG 2290 Annex A; and
 - v. Do not exceed 50 characters in length in their concatenated form.
- c. The Contractor must prepare and deliver Unique Identification (UID) Marking Specifications in accordance with CDRL 004 and DID SE-001;
- d. The Contractor must prepare and deliver a UID Data Submission in accordance with CDRL 005 and DID SE-002;
- e. Upon approval by Canada of the proposed Unique Item Identifiers, the Contractor must mark the LRT with:
 - i. Its Unique Item Identifier component data elements (as approved in paragraph 5.2.3.d above), using an ECC200 Data Matrix Symbol in accordance with AAITP-09 and STANAG 4329;
 - ii. UII Marks applied in accordance with approved UID Marking Specifications (as described in paragraph 5.2.3.c);
 - iii. UII Marks that conform to the syntax and semantics described in STANAG 2290 Annex B, Para 4;
 - iv. UII Marks having a minimum Symbol Quality as described in STANAG 2290 Annex B Para 5; and
 - v. UII Marks that are accomplished in a manner that will not adversely affect the item's ability to meet its required performance.
- f. The Contractor must prepare and deliver a UID Verification and Validation Report in accordance with CDRL 006 and DID SE-003.

5.2.4. Identification and Marking Presentation:

- a. Any modifications to the Identifications and Markings requirements must be approved by Canada; and

- b. The Contractor must deliver a Identification and Markings Presentation IAW CDRL 007 and DID SE-004.

5.3. Shipping, Packaging and Labelling

5.3.1. The Contractor must package the LRT System using OEM established packaging methods and processes, while respecting the following requirements:

- a. No shipments can be made until the Contractor has received the NSNs from Canada;
- b. Each LRT System package must contain the LRT and the Accessories as described in Figure 1 of Annex C, LRT System Equipment Breakdown Chart;
- c. Items placed in the LRT System package must be placed in such a manner to ensure that they cannot be damaged during shipment;
- d. Each LRT System package must contain two labels and a note as follows:

Label 1 (for the LRT):

- i. Bar coded NSN (Code 39);
- ii. Description;
- iii. Part Number;
- iv. NCAGE;
- v. Unit of Measure;
- vi. Quantity;
- vii. Pack Date;
- viii. Contract Number; and
- ix. Bar coded Serial Number (Code 39).

Label 2 (for the Telescope Accessories):

- i. Bar coded NSN (Code 39);
- ii. Description;
- iii. Part Number;
- iv. NCAGE;
- v. Unit of Measure;
- vi. Quantity;
- vii. Pack Date; and
- viii. Contract Number.

Note:

This box contains the complete Long Range Telescope System which includes 2x NSN. The first NSN is the Long Range Telescope device and this item is serialized tracked in DRMIS. The second NSN is the Telescope Accessories.

- e. Multiple LRT System packages may be placed in a tri-wall;
- f. Each tri-wall must contain a packing slip on the top of the interior that lists the bar coded serial numbers of the LRTs contained in the tri-wall;
- g. Each tri-wall must contain two labels and a note as follows:

Label 1 (for the LRT):

- i. Bar coded NSN (Code 39);
- ii. Description;
- iii. Part Number;
- iv. NCAGE;
- v. Quantity;
- vi. Pack Date; and
- vii. Contract Number.

Label 2 (for the Telescope Accessories):

- i. Bar coded NSN (Code 39);
- ii. Description;
- iii. Part Number;
- iv. NCAGE;
- v. Quantity;
- vi. Pack Date; and
- vii. Contract Number.

Note:

This box contains the complete Long Range Telescope System which includes 2x NSN. The first NSN is the Long Range Telescope device and this item is serialized tracked in DRMIS. The second NSN is the Telescope Accessories.

- 5.3.2. The Contractor must ensure that any UID-subject items that are delivered in unit-level and bulk-level packaging for which said packaging obstructs access to the item UII Marks without opening said package, have UII package labels that:
- a. Have been applied on the outside of the package with UII information in a machine-readable PDF417 bar code symbol which contains the UII (unit-level) and UIIs (bulk-level) contained within said package, as applicable;
 - b. Utilize a PDF417 packaging symbol is in conformance with STANAG 4281 / AAITP-05; and
 - c. Utilize syntax and semantics in conformance with STANAG 2495 / AAITP-03;
Note: The PDF417 label containing the UII data must be either part of the other required packaging labels set out in this Statement of Work, or affixed as a separate label adjacent to the other required packaging labels.

5.4. Equipment Environmental Assessment (EEA)

- 5.4.1. The Contractor must prepare and submit an EEA IAW CDRL 008 and DID SE-005.

6. **Integrated Logistics Support (ILS)**

6.1. General

- 6.1.1. This section describes the requirements for ILS work that the Contractor must carry out under this Contract.

6.2. Technical Publications

6.2.1. Operator Manual Information:

The Contractor must supply the information IAW with CDRL 009 and DID LS-001 required for Canada to develop a bilingual operator's manual in a Canadian Forces Technical Order (CFTO) format.

6.2.2. Maintenance Manual Information:

The Contractor must supply the information IAW with CDRL 010 and DID LS-002 required for Canada to develop a bilingual maintenance manual in a CFTO format.

6.2.3. Data Summary Information:

The Contractor must supply the information IAW with CDRL 011 and DID LS-003 required for Canada to develop a data summary publication in a CFTO format.

6.2.4. Mechanical Diagram Information:

The Contractor must supply the information IAW with CDRL 012 and DID LS-004 required for Canada to develop a mechanical diagram publication in a CFTO format.

6.2.5. Illustrated Parts List Information:

The Contractor must supply the information IAW with CDRL 013 and DID LS-005 required for Canada to develop an illustrated parts list publication in a CFTO format.

6.2.6. Equipment Description Information:

The Contractor must supply the information IAW with CDRL 014 and DID LS-006 required for Canada to develop an equipment description publication in a CFTO format.

- 6.3. Provisioning Parts Breakdown (PPB)
The Contractor must deliver a PPB IAW CDRL 015 and DID LS-007.
- 6.4. Supplementary Provisioning Technical Documentation (SPTD)
The Contractor must provide SPTD IAW CDRL 016 and DID LS-008.
- 6.5. Spares Acquisition
 - 6.5.1. The Contractor must submit a Recommended Spare Parts List (RSPL) IAW CDRL 017 and DID LS-009.
 - 6.5.2. Provisioning of spares will be negotiated and funded under separate work requests using the DND 626 form for task authorization.
- 7. **Quality Assurance**
 - 7.1. General
 - 7.1.1. The Contractor must establish, implement, document and maintain a quality system that ensures conformance to contractual requirements and meets the objectives of the ISO 9001 or equivalent quality system model during performance of this contract.
 - 7.1.2. The Contractor must conduct Quality Conformance inspections and tests during manufacture in accordance with the Contractor's standard acceptance test plan. Details of the test plan, and documentation of all inspections/tests, are to be provided to DND upon request. DND reserves the right to send a representative(s) to witness production acceptance testing for all systems (mandatory and optional quantities). DND will provide a minimum of two (2) weeks' notice of a Quality Assurance visit.
 - 7.2. Testing
 - 7.2.1. DND reserves the right to conduct testing to verify product compliance with any or all of the requirements defined in Annex C Operational and Technical Requirements.

APPENDIX 1 to ANNEX B
LONG RANGE TELESCOPE SYSTEM
CONTRACT DATA REQUIREMENTS LIST (CDRL)



Reference Number: W8476-216466 /B

Date: 1 April 2022

Prepared by:
DSSPM 9
Technical Authority/Life Cycle Material Manager
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2



NOTICE

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

1 CONTRACT DATA REQUIREMENTS LIST (CDRL) ITEMS LIST

The following table lists the CDRLs (Block 2 – Title or Description of Data) attached to this Annex, including their CDRL number (Block 1 – CDRL Number) as well as their associated Data Item Description Number (Block 4 – Authority Number (DID)):

CDRL	Title	Data Item Description (DID)
001	Project Master Schedule (PMS)	PM-001
002	Meeting Agendas	PM-002
003	Meeting Minutes	PM-003
004	UID Marking Specifications	SE-001
005	UID Data Submission	SE-002
006	UID Verification and Validation Report	SE-003
007	Identification and Marking Presentation	SE-004
008	Equipment Environmental Assessment (EEA)	SE-005
009	Operator Manual Information	LS-001
010	Maintenance Manual Information	LS-002
011	Data Summary Information	LS-003
012	Mechanical Diagram Information	LS-004
013	Illustrated Parts List Information	LS-005
014	Equipment Description Information	LS-006
015	Provisioning Parts Breakdown (PPB)	LS-007
016	Supplementary Provisioning Technical Data (SPTD)	LS-008
017	Recommended Spare Parts List (RSPL)	LS-009

2 CDRL Definitions

The following section defines the various blocks of information found on the CDRL forms:

BLOCK A – SYSTEM / ITEM

Provides the name of the System or Item for which the CDRL applies.

BLOCK B – CONTRACT / RFP NUMBER

Identifies the Contract or RFP for which the CDRL applies.

BLOCK C – SOW IDENTIFIER

Identifies the SOW for which the CDRL applies.

BLOCK D – DATA CATEGORY

Identifies the general category of the data for which the CDRL is being prepared.

BLOCK E – CONTRACTOR

Identifies the Contractor responsible for the delivery of the CDRL.

BLOCK 1 – ITEM NUMBER

The Item Number is a sequential three-digit number to uniquely identify the individual data item (CDRL number). Note that the 001-099 series is reserved for Project Management (PM) CDRLs, the 101-199 series is reserved for Systems Engineering (SE) CDRLs and the 201-299 series is reserved for Integrated Logistics Support (ILS) CDRLs.

BLOCK 2 – TITLE OR DESCRIPTION OF DATA

The title of the data item being referred to in this CDRL.

BLOCK 3 – SUBTITLE

This block contains the subtitle of the data item for the CDRL if the title requires further identification.

BLOCK 4 – AUTHORITY NUMBER (DID)

N/A

BLOCK 5 – CONTRACT REFERENCE

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

BLOCK 6 – REQUIRING OFFICE

Identifies the technical office of primary interest responsible for defining the data requirement, reviewing, acceptance and/or approval of the data item, and ensuring the adequacy of the delivered data.

BLOCK 7 – INSPECTION

This block indicates the requirement for INSPECTION and ACCEPTANCE of the data. The following codes are used:

CODE	INSPECTION	ACCEPTANCE
SS	Source	Source
DD	Destination	Destination
SD	Source	Destination
DS	Destination	Source

If no applicable code is available for the data item, this block is marked as N/A.

BLOCK 8 – APPROVAL CODE (APP CODE)

Indicates items of critical data requiring specific advanced written approval, such as test plans, identified by placing an "A" in this field. These data may require submission of a preliminary draft prior to publication of a final document. When a preliminary draft is required, Block 16 *must* show the length of time for DND approval/disapproval and when the final submission is to be delivered. Block 16 also indicates the extent of the approval requirements, e.g., approval of technical content and/or format.

If advance approval is not required, this block is marked as "N/A".

BLOCK 9 – INPUT

Indicates if data are the integrated results of specific inputs from associated contractors by placing an "X" in this block. Otherwise the block is left blank.

BLOCK 10 – FREQUENCY

This block indicates the frequency of the delivered data. The following frequency codes are used:

- a. ANNLY Annually
- b. ASGEN As generated
- c. ASREQ As required
- d. BI-Monthly Every 2 months
- e. BI-Weekly Every 2 weeks
- f. DAILY Daily
- g. MNTHLY Monthly
- h. ONE/R One time with revisions

- i. OTIME One time
- j. QRTLY Quarterly
- k. R/ASR Revisions as required
- l. SEMI-A Semi-annually
- m. WKLY Weekly

BLOCK 11 – AS OF DATE

For data items that are submitted only once, the "as of" date or associated constraint is indicated. The following abbreviations are used for the constraints:

ASGEN	As generated
ASREQ	As required
DACA	Days after contract award
MACA	Months after contract award
EOM	End of month
EOQ	End of quarter
RFP	Request for Proposal

* when followed by “-“ (before) or “+” (after) and a number denotes the number of days the data item is to be delivered before or after the event (e.g. “SRR-30” 30 days before SRR).

If the as-of date is not applicable, leave this block blank.

BLOCK 12 – DATE OF 1ST SUBMISSION

The initial submission date or associated constraint for the 1st submission of the data item is indicated in this block using typical abbreviations as listed above under Block 11.

BLOCK 13 – DATE OF SUBSEQUENT SUBMISSION / EVENT

The date(s) of subsequent submission(s) or associated constraint(s) of the data item is indicated in this block. The abbreviations used for the constraints are as listed above under Block 11. If no subsequent submission or associated are not involved, this block is marked as “N/A”. Submission times may be expressed using the following codes:

ANPLY	Annually
ASGEN	As Generated
ASREQ	As Required
Bi-Monthly	Every 2 Months
BI-Weekly	Every 2 Weeks
Block 16	In accordance with Block 16 of the CDRL
DAILY	Daily
EOC	End of Contract
EOM	End of Month
EOQ	End of Quarter
MACA	Months After Contract Award
MNTHLY	Monthly
QRTLY	Quarterly (every 3 months)
R/ASR	Revisions as Required
SCHED	In accordance with the Contract schedule
SEMI-A	Semi-annually (every 6 months)
SRR *	System Requirements Review
SSR *	Software Specification Review
TEST *	At time of test
TRR *	Test Readiness Review
WKLY	Weekly

* when followed by “-“ (before) or “+” (after) and a number denotes the number of days the data item is to be delivered before or after the event (e.g. “SRR-30” 30 days before SRR).

BLOCK 14 – DISTRIBUTION AND ADDRESSEES

Indicates the addressees and the respective number of copies (hard copies and soft copies separately), for both the initial or original submissions (Sub-Block “Initial”), and for the final or subsequent submissions (Sub-Block “Final”), for which the data item is required. Column A contains addresses. The number of initial hard and soft copies for each addressee (as applicable) is indicated in Column B – INITIAL – Hard Copy and Column B – FINAL – Soft Copy.

BLOCK 15 – TOTAL

Indicates the total number of copies (hard copies and soft copies separately) required for both the original submission and for the final submission.

BLOCK 16 – REMARKS

Provides additional or clarifying information. Where other blocks refer to Block 16 – Remarks, then

the associated block number is indicated with the information, and a "See Block 16" note would be entered in the referring block.

BLOCKS 17 – 19

These blocks are for Contractor input as required as part of the RFP or Contract. These blocks are not used by TA.

BLOCK – PREPARED BY

This block identifies the CDRL originator's name and designation.

BLOCK – DATE

This block indicates the date of the CDRL approval.

BLOCK – APPROVED BY

This block contains the identification information, such as name and designation, of the person approving the CDRL.

3 Date Calculations

Delivery dates are generally expressed in working days or calendar months, and are to be calculated as follows:

Working days excludes weekends and the following designated holidays (based on CFAO 16-1 Annex A):

- New Year's Day,*
- Good Friday,
- Easter Monday,
- Victoria Day (the Monday on or immediately preceding 24 May),
- St-Jean Baptiste (24 Jun) or one other civic holiday,
- Canada Day (1 Jul),*
- Labour Day (first Monday in September),
- Thanksgiving Day (second Monday in October),
- Remembrance Day (11 Nov),* and
- Christmas and Boxing Days.**

Note: When a holiday marked with an asterisk (*) falls on a weekend, the following Monday will be taken as the designated holiday. When Christmas Day (**) falls on a Saturday, the following Monday and Tuesday will be taken as the designated Christmas/Boxing Day holidays.

Months are based on date, e.g., the 15th to the 15th. When counting from the end of a month with more days than the target month, the due date will be the first day of the following month. For example, one month after 31 Jan is 1 Mar.

In all cases if the due date falls on a weekend or holiday, the deliverable **must** be due the following working day.

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Project Management Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 001		2. TITLE OR DESCRIPTION OF DATA Project Master Schedule (PMS)		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) PM-001		5. CONTRACT REFERENCE Annex B, Paragraph 4.2.1		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1st SUBMISSION See Block 16	14. DISTRIBUTION and ADDRESSEES					
		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16	A. ADDRESS	B. COPIES				
					INITIAL		FINAL		
8. APP CODE N/A					Hard Copy	Soft Copy	Hard Copy	Soft Copy	
16. REMARKS Block 12. The Project Master Schedule (PMS) must be submitted by the Contractor for review within ten (10) working days following contract award. Canada will have five (5) working days to review the initial submission and provide comments. Feedback from Canada will take place at the initial Progress Review Meeting (PRM). Block 13. The revised PMS, addressing Canada's comments, must be submitted by the Contractor within five (5) working days following the receipt of comments. Subsequent changes to the PMS will be submitted by the Contractor as required. Canada will have three (3) working days to review the changes and provide feedback. Revisions addressing Canada's comments must be submitted two (2) working days following receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022	APPROVED BY						
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE \$		2		2	2	

CONTRACT DATA REQUIREMENTS LIST ITEM										
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD						
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Project Management Data		E. CONTRACTOR TBD						
1. ITEM NUMBER 002		2. TITLE OR DESCRIPTION OF DATA Meeting Agenda		3. SUBTITLE N/A						
4. AUTHORITY NUMBER (DID) PM-002		5. CONTRACT REFERENCE Annex B, Paragraph 4.3.1 c		6. REQUIRING OFFICE DSSPM 9						
7. INSPECTION DD	9. INPUT	10. FREQUENCY ASREQ	12. DATE OF 1st SUBMISSION See Block 16	14. DISTRIBUTION and ADDRESSEES						
		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16	A. ADDRESS		B. COPIES				
8. APP CODE N/A						INITIAL	FINAL			
					Hard Copy	Soft Copy	Hard Copy	Soft Copy		
16. REMARKS Block 12. The Meeting Agenda must be submitted by the Contractor for review no later than five (5) working days prior to each meeting. Canada will have two (2) working days to review and respond to the Contractor's initial submission with comments. Block 13. A revised Meeting Agenda addressing Canada's comments must be submitted by the Contractor within two (2) working days of receipt of comments.				PCO						
				DLP		1		1		
				PSPC						
				PM		1		1		
				SEM						
				ILSM						
PREPARED BY DSSPM 9		DATE 1 April 2022	APPROVED BY							
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE \$		2	2	2			

CONTRACT DATA REQUIREMENTS LIST ITEM								
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD				
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Project Management Data		E. CONTRACTOR TBD				
1. ITEM NUMBER 003		2. TITLE OR DESCRIPTION OF DATA Meeting Minutes		3. SUBTITLE N/A				
4. AUTHORITY NUMBER (DID) PM-003		5. CONTRACT REFERENCE Annex B, Paragraphs 4.3.1 d		6. REQUIRING OFFICE DSSPM 9				
7. INSPECTION DD	9. INPUT	10. FREQUENCY ASREQ	12. DATE OF 1st SUBMISSION See Block 16	14. DISTRIBUTION and ADDRESSEES				
		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16	A. ADDRESS		B. COPIES		
8. APP CODE N/A						INITIAL	FINAL	
				Ha rd Co py	Sof t Co py	Ha rd Co py	Sof t Co py	
16. REMARKS Block 12. Meeting minutes must be submitted by the Contractor for review within three (3) working days following each meeting. Canada will have two (2) working days to review and provide comments. Block 13. A revised meeting minutes addressing Canada's comments must be submitted by the Contractor for approval within two (2) working days of receipt of comments.				PCO				
				DLP		1		1
				PSPC				
				PM		1		1
				SEM				
				ILSM				
PREPARED BY DSSPM 9		DATE 1 April 2022	APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE \$	2		2	2	

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY System Engineering Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 005		2. TITLE OR DESCRIPTION OF DATA UID Data Submission		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) SE-002		5. CONTRACT REFERENCE Annex B, Paragraph 5.2.3.d		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		8. APP CODE N/A	11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS		
							B. COPIES		
						INITIAL		FINAL	
						Hard Copy		Soft Copy	
						Hard Copy		Soft Copy	
16. REMARKS Block 12. The UID Data Submission must be submitted by the Contractor prior to applying UID marks to the LRT. Canada will have fifteen (15) working days to review the initial submission of the UID Data Submission and provide comments. Block 13. A revised UID Data Submission addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP					
				PSPC			1		1
				PM					
				SEM			1		1
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$			2		2

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY System Engineering Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 006		2. TITLE OR DESCRIPTION OF DATA UID Verification and Validation Report		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) SE-003		5. CONTRACT REFERENCE Annex B, Paragraph 5.2.3.f		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Ha rd Co py	Sof t Co py		
						Ha rd Co py	Sof t Co py		
16. REMARKS Block 12. A UID Verification and Validation Report must be submitted by the Contractor prior to the first shipment of LRT Systems. Block 13. UID Verification and Validation Reports must be submitted by the Contractor prior to every subsequent shipment of LRT Systems.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY System Engineering Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 008		2. TITLE OR DESCRIPTION OF DATA Equipment Environmental Assessment (EEA)		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) SE-005		5. CONTRACT REFERENCE Annex B, Paragraph 5.4.1.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Hard Copy	Soft Copy		
						Hard Copy	Soft Copy		
16. REMARKS Block 12. The EEA must be submitted by the Contractor no later than twenty (20) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the EEA and provide comments prior to the first LRT System Block 13. A revised EEA addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM								
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD				
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Logistic Support Data		E. CONTRACTOR TBD				
1. ITEM NUMBER 009		2. TITLE OR DESCRIPTION OF DATA Operator Manual Information		3. SUBTITLE N/A				
4. AUTHORITY NUMBER (DID) LS-001		5. CONTRACT REFERENCE Annex B, Paragraph 6.2.1.		6. REQUIRING OFFICE DSSPM 9				
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1st SUBMISSION See Block 16	14. DISTRIBUTION and ADDRESSEES				
		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16	A. ADDRESS		B. COPIES		
8. APP CODE N/A						INITIAL	FINAL	
				Ha rd Co py	Sof t Co py	Ha rd Co py	Sof t Co py	
16. REMARKS Block 12. The Operator Manual Information must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the Operator Manual Information and provide comments. Block 13. A revised Operator Manual Information addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO				
				DLP		1		1
				PSPC				
				PM		1		1
				SEM				
				ILSM				
PREPARED BY DSSPM 9		DATE 1 April 2022	APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE \$	2		2	2	

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Logistic Support Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 010		2. TITLE OR DESCRIPTION OF DATA Maintenance Manual Information		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-002		5. CONTRACT REFERENCE Annex B, Paragraph 6.2.2.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Hard Copy	Soft Copy		
						Hard Copy	Soft Copy		
16. REMARKS Block 12. The Maintenance Manual Information must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the Maintenance Manual Information and provide comments. Block 13. A revised Maintenance Manual Information addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Logistic Support Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 011		2. TITLE OR DESCRIPTION OF DATA Data Summary Information		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-003		5. CONTRACT REFERENCE Annex B, Paragraph 6.2.3.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Hard Copy	Soft Copy		
						Hard Copy	Soft Copy		
16. REMARKS Block 12. The Data Summary Information must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the Data Summary Information and provide comments. Block 13. A revised Data Summary Information addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Logistic Support Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 012		2. TITLE OR DESCRIPTION OF DATA Mechanical Diagram Information		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-004		5. CONTRACT REFERENCE Annex B, Paragraph 6.2.4.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Hard Copy	Soft Copy		
						Hard Copy	Soft Copy		
16. REMARKS Block 12. The Mechanical Diagram Information must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the Mechanical Diagram Information and provide comments. Block 13. A revised Mechanical Diagram Information addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Logistic Support Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 013		2. TITLE OR DESCRIPTION OF DATA Illustrated Parts List Information		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-005		5. CONTRACT REFERENCE Annex B, Paragraph 6.2.5.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Ha rd Co py	Sof t Co py		
						Ha rd Co py	Sof t Co py		
16. REMARKS Block 12. The Illustrated Parts List Information must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the Illustrated Parts List Information and provide comments. Block 13. A revised Illustrated Parts List Information addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER ANNEX B - SOW		D. DATA CATEGORY Logistic Support Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 014		2. TITLE OR DESCRIPTION OF DATA Equipment Description Information		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-006		5. CONTRACT REFERENCE Annex B, Paragraph 6.2.6.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE N/A						B. COPIES			
						INITIAL			
						FINAL			
						Hard Copy	Soft Copy		
						Hard Copy	Soft Copy		
16. REMARKS Block 12. The Equipment Description Information must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the Equipment Description Information and provide comments. Block 13. A revised Equipment Description Information addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2	2		
							2		

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER Annex B : SOW		D. DATA CATEGORY Systems Engineering Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 015		2. TITLE OR DESCRIPTION OF DATA Provisioning Parts Breakdown (PPB)		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-007		5. CONTRACT REFERENCE Annex B, Paragraph 6.3.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16		A. ADDRESS			
8. APP CODE A							B. COPIES		
							INITIAL		
								FINAL	
								Hard Copy	
								Soft Copy	
16. REMARKS Block 12. The PPB must be delivered by the Contractor no no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the PPB and provide comments. Block 13. A revised PPB addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE / DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2		2	2

CONTRACT DATA REQUIREMENTS LIST ITEM									
A. SYSTEM / ITEM Long Range Telescope (LRT) System				B. CONTRACT / RFP NUMBER TBD					
C. SOW IDENTIFIER Annex B- SOW		D. DATA CATEGORY Logistics Support Data		E. CONTRACTOR TBD					
1. ITEM NUMBER 016		2. TITLE OR DESCRIPTION OF DATA Supplementary Provisioning Technical Data (SPTD)		3. SUBTITLE N/A					
4. AUTHORITY NUMBER (DID) LS-008		5. CONTRACT REFERENCE Annex B, Paragraph 6.4.		6. REQUIRING OFFICE DSSPM 9					
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R		12. DATE OF 1st SUBMISSION See Block 16		14. DISTRIBUTION and ADDRESSEES			
		8. APP CODE N/A	11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION / EVENT See Block 16	A. ADDRESS		B. COPIES		
					INITIAL		FINAL		
						Hard Copy	Soft Copy	Hard Copy	Soft Copy
16. REMARKS Block 12. The SPTD must be delivered by the Contractor no later than forty (40) working days after contract award. Canada will have fifteen (15) working days to review the initial submission of the SPTD and provide comments. Block 13. A revised SPTD addressing Canada's comments must be submitted by the Contractor for approval within ten (10) working days of receipt of comments.				PCO					
				DLP			1		1
				PSPC					
				PM			1		1
				SEM					
				ILSM					
PREPARED BY DSSPM 9		DATE 1 April 2022		APPROVED BY					
17. CONTRACT FILE /DOCUMENT NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATED PRICE \$		2		2	2

APPENDIX 2 to ANNEX B
LONG RANGE TELESCOPE SYSTEM
DATA ITEM DESCRIPTIONS (DID)



Reference Number: W8476-216466 /B

Date: 1 April 2022

Prepared by:
DSSPM 9
Technical Authority/Life Cycle Material Manager
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2



NOTICE

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

1. List of DIDs

The following table lists the DIDs (Block 1 – Title), including their DID number (Block 2 – Data Item Description Number) as well as their associated calling Contract Data Requirements List (CDRL) number:

DID	Title	CDRL
PM-001	Project Master Schedule (PMS)	001
PM-002	Meeting Agendas	002
PM-003	Meeting Minutes	003
SE-001	UID Marking Specifications	004
SE-002	UID Data Submission	005
SE-003	UID Verification and Validation Report	006
SE-004	Identification and Marking Presentation	007
SE-005	Equipment Environmental Assessment (EEA)	008
LS-001	Operator Manual Information	009
LS-002	Maintenance Manual Information	010
LS-003	Data Summary Information	011
LS-004	Mechanical Diagram Information	012
LS-005	Illustrated Parts List Information	013
LS-006	Equipment Description Information	014
LS-007	Provisioning Parts Breakdown (PPB)	015
LS-008	Supplementary Provisioning Technical Data (SPTD)	016
LS-009	Recommended Spare Parts List (RSPL)	017

2. Data Item Description (DID) Definitions

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

BLOCK 1 – TITLE

The title of the data item for the DID.

BLOCK 2 – DATA ITEM DESCRIPTION NUMBER

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

“PM” for Project Management

“SE” for Systems Engineering

“ILS” for Integrated Logistics Support

BLOCK 3 – DESCRIPTION

Provides a general description of the data content requirements.

BLOCK 4 – APPROVAL DATE

Indicates the date of the originator's approval of the DID.

BLOCK 5 – OFFICE OF PRIMARY INTEREST (OPI)

The office of primary interest for the review, acceptance and/or approval of the data item.

BLOCK 6 – GIDEP APPLICABLE

An “X” indicates that the data is to be submitted by a Government organization or the Contractor to the Government/Industry Data Exchange Program (GIDEP). Otherwise the block is left blank.

BLOCK 7 – APPLICATION / INTERRELATIONSHIP

Provides the application details and interrelationship of the data item to other DIDs or documents.

BLOCK 8 – ORIGINATOR

Indicates the originator's office responsible for the DID. Typically reviews data items prior to their acceptance/approval and provides recommendations to the OPI.

BLOCK 9 – APPLICABLE FORMS

Indicates any form associated with the DID.

BLOCK 10 – PREPARATION INSTRUCTIONS

Provides the preparation instructions, including format and content requirements, for the data.

3. *Applicable Documents*

The following documents form part of this specification to the extent specified and are supportive of the specification when referenced; all other document references are to be considered supplemental information only. In the event of a conflict between the documents referenced and the contents of the specification, then the contents of the specification must take precedence.

D-01-100-214/SF-000: Specification for Preparation of Provisioning Documentation for Canadian Forces Equipment; and

D-02-006-008/SG-001: The Design Change Deviation and Waiver Procedure;

DATA ITEM DESCRIPTION		
1. TITLE Project Master Schedule (PMS)	2. DATA ITEM DESCRIPTION NUMBER PM-001	
3. DESCRIPTION All project activities must be contained in a single MS Project file organized such that the work flow is intuitive, tasks are detailed to the work package level, tasks that have any interdependencies are linked and the critical path links all important activities.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP 7.1 This DID contains instructions for the preparation of the Project Master Schedule as required by the SOW.		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 Format		
10.1.1 The Project Master Schedule (PMS) must be prepared electronically and compatible with MS Project.		
10.2 Content		
10.2.1 The PMS must include all contracted activities, deliverables and milestones and must detail the sequencing, activity duration, milestones and all Work Breakdown Activities that must occur for the objectives and requirements of the Contract to be achieved.		
10.2.2 The PMS must show a time-phased sequence of activities and events, and their relationship to the Work Breakdown Activities, to include:		
<ul style="list-style-type: none"> a. The sequence, duration and completion dates of activities and deliverable items; b. Critical Path(s); c. Program tasks down to the work package level; d. Associated project milestones (both contractual and otherwise); e. Projected dates for all major project accomplishments not already covered as milestones f. Delivery of associated documentation for review, approval and final delivery in accordance with applicable CDRL. Contractor CDRL production, initial submission, DND review, Contractor CDRL update, Contractor resubmission and DND final review must be represented as separate linked tasks. g. Test Set-up, production of test fixtures, lead time to order materials, calibration, conditioning of test items, conduct of tests and reporting of testing and other processes must be presented as separate and linked 		

DATA ITEM DESCRIPTION		
1. TITLE Meeting Agendas	2. DATA ITEM DESCRIPTION NUMBER PM-002	
3. DESCRIPTION Meeting Agendas provide an outline of the purpose, objectives and subjects to be formally discussed at meetings.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP This DID integrates with DID PM-003 Meeting Minutes.		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 Meeting Agendas must be prepared in the Contractor's format.		
10.2 Meeting Agendas must include, as a minimum, the following:		
10.2.1 General		
a. Meeting identification, number, scope, purpose and objectives;		
b. Meeting venue, date, time, location, expected attendees and Level of Security;		
10.2.2 Discussion Items		
a. Opening remarks;		
b. Agenda review;		
c. Review of previous Minutes;		
10.2.3 If the purpose of the meeting is a Project Review Meeting (PRM) the following agenda items must be included:		
10.2.3.a.1 Review of Progress Report;		
10.2.3.a.2 Review of Project Schedule - Status of current activities (in-progress & completed) - new duration estimates - impact on critical path and milestones.		
10.2.3.a.3 Review of Issue-Action Item Log (IAIL);		
10.2.3.a.4 Review of Significant Risks;		
10.2.4 If the purpose of the meeting is other than a PRM the following agenda items must be included:		
a. Review of progress since last meeting;		
b. Review of items by area of responsibility; Engineering and Technical, Integrated Logistics Support (ILS), Other;		
c. Review of IAIL items pertinent to area of responsibility;		
d. Open Discussion Items;		
e. Next Meeting Date and Venue; and		
f. Closing Remarks.		
10.2.5 Special Requirements		
a. This section must detail the requirement for visit clearances, security clearances, security arrangements, facilities, and all other pertinent information such as specific instruction on the timely distribution of all Canada/Contractor documentation or presentation material to be presented at the meeting.		

DATA ITEM DESCRIPTION		
1. TITLE Meeting Minutes	2. DATA ITEM DESCRIPTION NUMBER PM-003	
3. DESCRIPTION Meeting record significant discussions and documents decisions taken at meetings.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP This DID integrates with DID PM-002 Meeting Agenda.		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1	Meeting Minutes must be prepared in the Contractor's format. The format of the first submission will be subject to approval by Canada, and once approved, must become the standard for future submissions.	
10.2	Meeting Minutes must include, as a minimum, the following: <ul style="list-style-type: none"> a. Meeting identification, number, scope, purpose and objectives; b. List of all attendees detailing title, responsibility and contact information; c. Discussion Items - Including a summary record of proceedings and discussions, all agenda items must be covered; d. Record of decisions taken, Issue-Action Item Log (IAIL), responsibility and target date of completion of issues-actions captured in the IAIL; e. Proposed date, time and location of next meeting; and f. Copies of all data and information tabled at the meeting. 	
10.3	Meeting Minutes must include a disclaimer that the meeting minutes do not constitute approval for contractual changes.	

DATA ITEM DESCRIPTION		
1. TITLE UID Marking Specifications	2. DATA ITEM DESCRIPTION NUMBER SE-001	
3. DESCRIPTION To describe the UII Mark design and specifications for each distinct item type that is subject to UID Marking under the contract.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP Statement of Work (SOW) paragraph 5.2.3.c		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 Provide the following data for each Line Item in the contract which is subject to UID Marking:		
10.1.1 Describe which type of marking methodology will be used (i.e., Direct or Indirect Part Marking, Data Plate Modification, etc.).		
10.1.2 Describe the Imprint Method / Type of Label / Nameplate (i.e., Chemical Etch, Dot Peen, Laser, Thermal Transfer, Ink Jet, Photo Etch, etc.).		
10.1.3 Marking Specifications:		
<ul style="list-style-type: none"> a. Identify applicable engineering drawings requiring UID marking. b. Machine Readable Mark Generation Instructions. <ul style="list-style-type: none"> i. Define the UID construct method ii. Identify format code, ISO/IEC syntax, and Data Qualifiers contained iii. Identify the Enterprise Identifier (EID) (i.e. Cage, DUNS, or GS1). iv. Identify the level of serialization (i.e., Part, Lot, Batch, Enterprise, etc.). v. If using Construct 1 – 18S, identify the sequence number generation process. vi. Determine other data elements (if required) in the data matrix symbol (i.e. 30P and 30T). c. Identify the Human Readable Mark Generation elements to be included on the label. d. For labels/nameplates, identify which type of material will be used for the creation of the Mark (i.e., Aluminum, Polyacrylic, Metal Foil, Polyester, Polyvinyl, Aluminum Foil, Stainless Steel, etc.). e. Describe the overall layout of the Mark including: <ul style="list-style-type: none"> i. Size (Length, Width, Thickness, etc.). ii. Shape (Circle, Square, Rectangle, Rounded Corners, etc.). iii. Layout/Order (Location of Human and Machine Readable elements). iv. Marking Location on Asset v. Type of Lettering (Font, Font Size, Color, etc.). vi. Attachment Method (Adhesive, Screws, Rivets, Tags, Bag and Tag, Tags and Bands, etc.). For Tag, and Bag/Band and Tag items, provide evidence of why part could not be marked and Government concurrence. 		
10.2 Data File Format: The data must be delivered in "PDF" format.		

DATA ITEM DESCRIPTION		
1. TITLE UID Data Submission	2. DATA ITEM DESCRIPTION NUMBER SE-002	
3. DESCRIPTION To describe the required data elements associated with UII Marks applied to materiel and their constituent UII data in accordance with the Statement of Work, and to describe the data format required to facilitate data utilization by DND/CAF.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP Statement of Work (SOW) paragraph 5.2.3.d		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1. Definitions		
Definitions within this DID shall be in accordance with the Unique Identification (UID) Clause within this Statement of Work.		
10.2 Provide the following data for each item to be delivered that is subject to Unique Identification:		
<ul style="list-style-type: none"> 10.2.A Description (English)* 10.2.B Description (French)* 10.2.C NCAGE of item manufacturer* 10.2.D Manufacturer current part number* 10.2.E Manufacturer serial number* 10.2.F Item Weight β 10.2.G Unit of Weight † 10.2.H Acquisition Value β 10.2.I Acquisition Currency † 10.2.J Country of Manufacture β 10.2.K Year of Manufacture β 10.2.L Month of Manufacture † 10.2.M Embedded item (Y/N)* 10.2.N NCAGE of parent item manufacturer (if an embedded item) † 10.2.O Manufacturer part number (if an embedded item) † 10.2.P Manufacturer serial number (if an embedded item) † 10.2.Q Unique item identifier of parent item (if an embedded item) † 10.2.R Unique item identifier of item* 10.2.S Unique Item Identifier Type* 10.2.T Issuing Agency Code* 10.2.U Enterprise Identifier of entity assigning UII (if concatenated UII is used) † 10.2.V Item Original Part number (if UII is serialized within the part number) † 10.2.W Item Lot or Batch Number (if UII is serialized within the batch or lot) † 10.2.X Serial number used in UII (if concatenated unique item identifier is used) † 10.2.Y CAGE or DUNS of organization submitting the data* 10.2.Z Name of the person or office submitting the data* 10.2.AA E-mail address of the submitter* 10.2.BB Phone number of the submitter* 10.2.CC Contract Number under which the item is to be delivered* 		

NOTES:

(*) indicates a Mandatory Field

(β) indicates an Optional Field

(†) indicates a Conditional Field

10.3 Marking Specifications

A - E is standard Materiel Identification Data Set for Serialized Equipment and is required for any serialized item (including embedded serialized items)

F - Weight is optional information

G - Unit of weight is conditional (required if Weight is not NULL)

H - Acquisition Value is optional information

I - Acquisition Currency is conditional (required if Acquisition Value is not NULL)

J - Country of Manufacture is optional information

K - Year of Manufacture is optional information

L - Month of Manufacture is optional information

M, N, O - NCAGE, Manufacturer Part Number and Manufacturer Serial number of superior equipment is conditional (required if item is installed in a superior equipment)

P - Concatenated UII required for ALL items subject to UID

Q - UII Type required to describe UID type (UID1, UID2, VIN, ESN, GIAI, GRAI, UDI)

S - Parent UII is conditional (required for all embedded items)

S - Parent UII must be submitted prior to, or along with, child UII. Child UIIs referencing a parent UII that is not registered will be rejected.

T - Issuing Agency code is conditional (required for all concatenated UIIs)

U - Enterprise Identifier responsible for ensuring uniqueness of UII is conditional (required for all concatenated UIIs)

V - Original part number is conditional for UII Data (required for UID2 construct when UIIs are serialized within the Part Number)

W - Lot / Batch number is conditional for UII Data (required for UID2 construct when UIIs are serialized within the Lot / Batch)

X - Serial Number in UII Data set is conditional (required for concatenated UIIs); if UID2 construct is used, UII serial must match OEM serial number (column F)

Y - AC is required to provide contact information of the entity submitting the data and the contract under which referenced equipment is to be delivered

C, U, Y - Discrete Enterprise Identifiers are required for:

C - The Enterprise ID of the original equipment manufacturer;

U - The entity that assigned the UII (if concatenated UII is used);

Y - The Enterprise ID of the entity that submitted the data to DND;

These Identifiers may be different or the same depending on which entity manufactured the equipment, which entity assigned the UII, which entity submitted the data to DND.

10.4 **Data File Format**

1. The data must be delivered in a ".CSV" or ".XLS: format"
2. The data must be presented in accordance with the following UID Data Submission template:

Sniper_LRT_600_DOC_Annex B Appendix 2 Attachment 1 – DID SE-002 UID Data Submission Template.xlsx

DATA ITEM DESCRIPTION		
1. TITLE	2. DATA ITEM DESCRIPTION NUMBER	
UID Verification and Validation Report	SE-003	
3. DESCRIPTION		
<p>The Unique Identification (UID) Verification and Validation Report is a tabular list providing UID marking activity, validation and verification data such as: physical asset marking, registration, inventory audits, quality audits, and verification/validation results.</p> <p>This Data Item Description (DID) contains format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.</p>		
4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
1 April 2022	DSSPM 9	N/A
7. APPLICATION / INTERRELATIONSHIP		
Statement of Work (SOW) paragraph 5.2.3.f		
8. ORIGINATOR	9. APPLICABLE FORMS	
DSSPM 9	N/A	
10. PREPARATION INSTRUCTIONS		
<p>10.1. Definitions shall be as in STANAG 2290, latest version cited online as promulgated at the NATO Standardization Office at the time of the solicitation. Other documents referenced in STANAG 2290 shall also be applied in the context of UID Verification and Validation.</p> <p>10.2. The Contractor's report format is acceptable.</p> <p>10.3. Each UII mark shall be validated for data contents in accordance with STANAG 2290 and AAITP-08.</p> <p>10.4. Verification for mark quality of the first article for each item type is required. A sampling plan based on lot size may be used to verify remaining UII marks within a lot. In order to pass, a mark must meet the minimum quality standards set out in AAITP-08, Annex B.2.5. Symbol Quality.</p> <p>10.5. Verification and validation results shall include at a minimum the data set out in 10.7 below (with exception of Verifications, for which a representative sample may be verified as per 10.4).</p> <p>10.6. Marks failing verification or validation must be replaced with compliant marks by the Contractor prior to acceptance of the items.</p> <p>10.7. The tabular report shall include the following alphanumeric fields:</p> <ul style="list-style-type: none"> a. Unique Item Identifier (UII). b. UII Type (Construct). c. Enterprise Identifier (EID). d. EID Type (CAGE/NCAGE, DUNS, etc). e. Original Equipment Manufacturer (OEM) Part Number. f. Service Assigned Serial Number (if assigned). g. Original Equipment Manufacturer (OEM) serial number. h. Equipment Nomenclature (name and type). i. National Stock Number (NSN). j. Validation Date. k. Validation Result (Pass/Fail). l. Verification Date. m. Verification Result (Pass/Fail). n. Other Event/Activity Date* (optional). o. Other Event/Activity* (optional). 		

- p. For items marked that "Fail" IUID validation or verification, identify corrective action (whether the item has been re-marked or scrapped).

Other Event/Activity will be defined in the Contract Data Requirements Lists (CDRLs) if required.

10.8 The Key attributes for the report are the validation and verification columns which each indicate (Pass/Fail). (NOTE: Most verification apparatus provide electronic records with pass/fail summaries for both verification and validation.)

A "Pass" validation value shall be assigned to records whose data matrix symbol(s) properly encode Item Unique Identification data as prescribed in STANAG 2290 requirements for machine readable information (MRI) marking.

A "Pass" verification value shall be assigned to records whose data matrix symbol(s) meet or exceed the Symbol Quality standards set out in STANAG 2290 for data matrix symbol quality. These must be accompanied with a detailed Verification report for each mark that was verified.

10.9 The Contractor shall ensure machine-readable UII marks required under this contract are permanently placed on the items subjected to contractually-required performance testing prior to that testing; and further shall include all mark serviceability problems in the item's test report(s).

DATA ITEM DESCRIPTION		
1. TITLE Identification and Marking Presentation	2. DATA ITEM DESCRIPTION NUMBER SE-004	
3. DESCRIPTION The Identification and Marking Presentation is needed to obtain Canada's approval prior to production.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 Format		
10.1.1 The Contractor's own format is acceptable.		
10.2 Content		
10.2.1 The presentation must provide Canada with the proposed content, location, configuration (size and font) and method of marking the following on the LRT:		
a. Serial Number per Annex B SOW, para. 5.2.1;		
b. "T3" marking per Annex B SOW, para. 5.2.2;		
c. UID Mark on the LRT per Annex B SOW, para. 5.2.3; and		
d. All other markings applied by the Contractor that appear on the LRT		

DATA ITEM DESCRIPTION

1. TITLE Acquisition Equipment Environmental Assessment (EEA) – Substances of Concern		2. DATA ITEM DESCRIPTION NUMBER SE-005	
3. DESCRIPTION The acquisition EEA identifies and documents all substances of concern in the equipment design.			
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A	
7. APPLICATION / INTERRELATIONSHIP This DID contains content and preparation instructions for the EEA as required by the SOW.			
8. ORIGINATOR DSSPM 9		9. APPLICABLE FORMS N/A	

10. PREPARATION INSTRUCTIONS

10.1 FORMAT
The EEA shall be completed in the Contractors format.

10.1.1 Title Page

a. Equipment Name and NSN (if available)
b. Assessment Contact: Name, title and company name of the author of the EEA

10.1.2 TABLES
Complete the following tables ensuring all information listed is provided.

Identification of Hazardous Substances & Chemical Products

Integrated Hazardous Substances	NSN	Original OEM Part Number	Item Description	Location	Additional Details
Arsenic, Cadmium, Chromium VI, Cobalt, Lead, Radioactive metals					
Halocarbons – refrigerant and air-conditioning systems					Type and weight (kg). Global Warming Potential of Hydrofluorocarbons used for refrigerant applications.
Mercury and its compounds					Form of mercury (e.g. liquid, vapour) and weight (mg)
Polychlorinated Biphenyl (PCBs)					Form (liquid or solid), quantity (kg), volume (L) and concentration in ppm
Hazardous Chemical Products (SDS Required)	NSN	Original OEM Part Number	Ingredient	Chemical Abstract Service Number (CAS#)	Controls*
Halocarbons – Fire extinguishing systems					
Halocarbons – In aerosol Products					
Paints and related commodities (CARC and non-CARC)					
Fire-fighting Foams					
Cleaner and Degreasers					
POLs (Petroleum, Oils, Lubricants)					
Adhesives					
Anti-seize					
Corrosion Inhibitor					
Decontaminant					
Detector Kit Chemical substances					

*Controls: Identify if the substance is regulated under the *Canadian Environmental Protection Act, 1999*; targeted in Schedule 1, Toxic Substance List under CEPA and/or subject to the reporting requirements under the National Pollutant Release Inventory (NPRI).

Identification of radiation sources and batteries

Categories	NSN	Original OEM Part Number	Item Description	Location*	Additional Details
Non-ionizing radiation					Type of electromagnetic energy (laser, microwave, radio frequency) and strength
Ionizing radiation					Type and quantity or activity level
Batteries					Type

* Identify the system/sub-system where these items are located.

10.1.3 References

List references consulted in the completion of the table (such as Canadian legislation, DND policies and procedures, technical documentation, etc.)

Annex A Safety Data Sheets (SDS)

For all hazardous chemical products which have an SDS, ensure documents (less than 3 years old) are provided as per WHMIS 2015.

DATA ITEM DESCRIPTION		
1. TITLE Operator Manual Information	2. DATA ITEM DESCRIPTION NUMBER LS-001	
3. DESCRIPTION The Operator Manual Information is the information that is required by Canada to generate a comprehensive bilingual operator manual in Canadian Forces Technical Order format.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1.1	The Contractor must provide the existing Operators Manual in the following format: <ul style="list-style-type: none"> a. Original, unlocked native file format that was originally used to author and develop the Operator Manual; b. An unlocked and searchable PDF version of the Operator Manual; and c. All illustrations, diagrams and pictures in scalable and editable native file formats. 	
10.1.2	In the event the Contractors Operator Manual does not have sufficient detail to allow a Canadian Operators Manual CFTO to be fully developed, the Contractor must provide additional information when requested by Canada.	

DATA ITEM DESCRIPTION		
1. TITLE Maintenance Manual Information	2. DATA ITEM DESCRIPTION NUMBER LS-002	
3. DESCRIPTION The Maintenance Manual Information is the information that is required by Canada to generate a comprehensive bilingual maintenance manual in Canadian Forces Technical Order (CFTO) format.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1	The Contractor must provide the existing Maintenance Manual that details all of the repair tasks that can be performed on the LRT System. The information for the Maintenance Manual must be in the following format: <ul style="list-style-type: none"> a. Original, unlocked native file format that was originally used to author and develop the Maintenance Manual; b. An unlocked and searchable PDF version of the Maintenance Manual; and c. All illustrations, diagrams and pictures in scalable and editable native file formats. 	
10.1.2	In the event the Contractors Maintenance Manual does not have sufficient detail to allow a Canadian Armourers Maintenance Manual to be fully developed, the Contractor must provide additional information when requested by Canada.	

DATA ITEM DESCRIPTION		
1. TITLE Data Summary Information	2. DATA ITEM DESCRIPTION NUMBER LS-003	
3. DESCRIPTION The Data Summary Information provides the details required to create Data Summaries.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 The Contractor must provide basic, descriptive identification data for the LRT System as follows:		
10.1.1 Identification:		
<ul style="list-style-type: none"> i. Design Manufacturer; ii. NCAGE; iii. Manufacturer P/N; iv. NATO Stock Number; and v. Model. 		
10.1.2 Physical Data:		
a. LRT		
<ul style="list-style-type: none"> i. Overall Length; ii. Height; iii. Width; and iv. Weight. 		
b. Telescope Mount:		
<ul style="list-style-type: none"> i. Overall Length; ii. Height; iii. Width; and iv. Weight. 		
10.1.3 Operating Data:		
a. LRT		
<ul style="list-style-type: none"> i. Minimum Magnification; ii. Maximum Magnification; iii. Elevation Turret limits; iv. Windage Turret Limits; v. Diopter adjustment limits; vi. Parallax adjustment limits; vii. Eye Relief; viii. Field of View; ix. Operating Temperature Range; x. Storage Temperature Range; xi. Detection; xii. Recognition: xiii. Identification; and xiv. Waterproof to depth; 		
10.1.4 Mounting Data:		
a. LRT to Telescope Mount:		
<ul style="list-style-type: none"> i. Torque value. 		

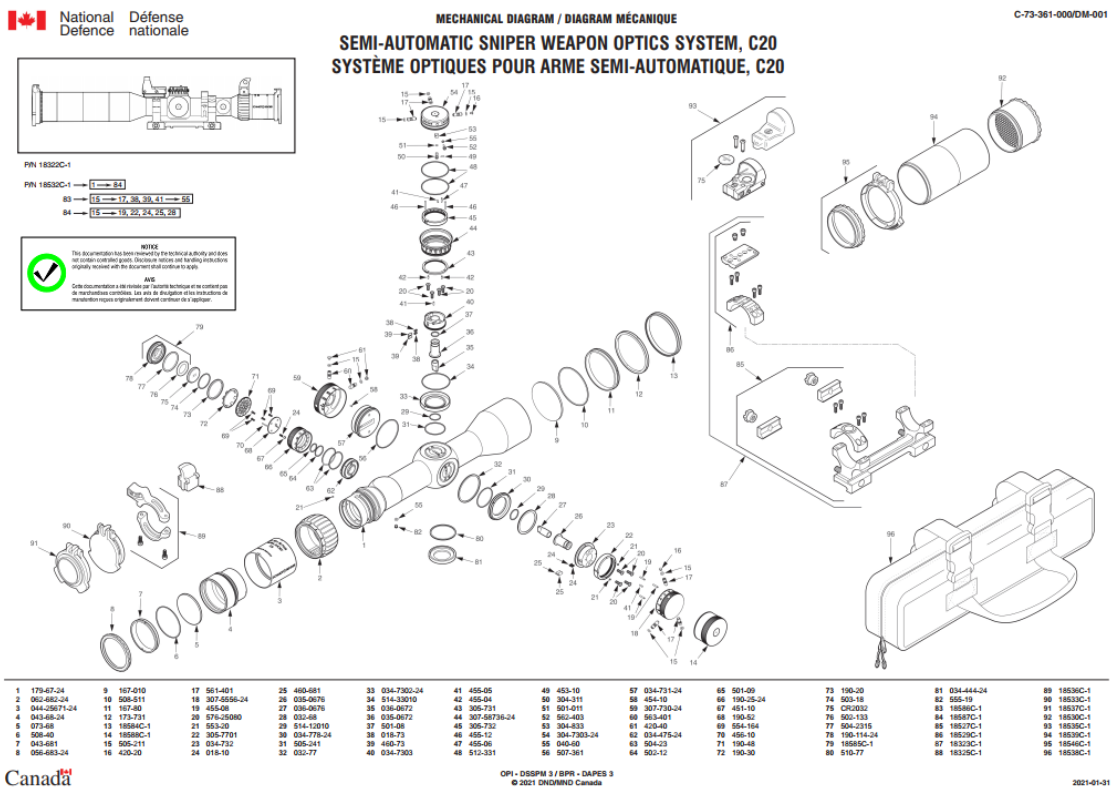
b. Telescope Mount to NATO Rail:

i. Torque Value.

DATA ITEM DESCRIPTION

<p>1. TITLE Mechanical Diagram Information</p>	<p>2. DATA ITEM DESCRIPTION NUMBER LS-004</p>	
<p>3. DESCRIPTION The Mechanical Diagram is an exploded view the LRT.</p>		
<p>4. APPROVAL DATE 1 April 2022</p>	<p>5. OFFICE OF PRIMARY INTEREST DSSPM 9</p>	<p>6. GIDEP APPLICABLE N/A</p>
<p>7. APPLICATION / INTERRELATIONSHIP N/A</p>		
<p>8. ORIGINATOR DSSPM 9</p>	<p>9. APPLICABLE FORMS N/A</p>	

10. PREPARATION INSTRUCTIONS
- 10.1 The Contractor must provide a mechanical diagram depicting an exploded view of the LRT that fully details the arrangement and locations of assembled components.
 - 10.2 The components that appear in the mechanical diagram must be sequentially numbered from "1" to "XX" in accordance with the style and fashion of the example below. All numbers must point to their specific component using an arrow.
 - 10.3 The mechanical diagram must include a sequentially numbered bill of material that references numbers assigned to parts in the mechanical diagram.
 - 10.4 The mechanical diagram must be delivered in a scalable and editable native format.
 - 10.5 An example of a Mechanical Diagram is depicted below:



DATA ITEM DESCRIPTION

1. TITLE Illustrated Parts List Information	2. DATA ITEM DESCRIPTION NUMBER LS-005	
3. DESCRIPTION		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 The Contractor must provide mechanical diagrams depicting an exploded view of the LRT System that fully details the arrangement and locations of assembled components.		
10.2 The components that appear in each sub-assembly mechanical diagram must be sequentially numbered from "1" to "XX" in accordance with the style and fashion of the examples below. All numbers must point to their specific component using an arrow.		
10.3 The mechanical diagram must be delivered in a scalable and editable native format.		
10.4 Mechanical Diagrams below for the C20 Optics System are provided as examples only:		
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;"> <p>Figure 2-2 Major Assemblies Figure 2-2 Ensembles principaux</p> </div> <div style="text-align: center;"> </div> <div style="writing-mode: vertical-rl; font-size: small;"> <p>C-73-961-000/M/Y/001</p> </div> </div>		

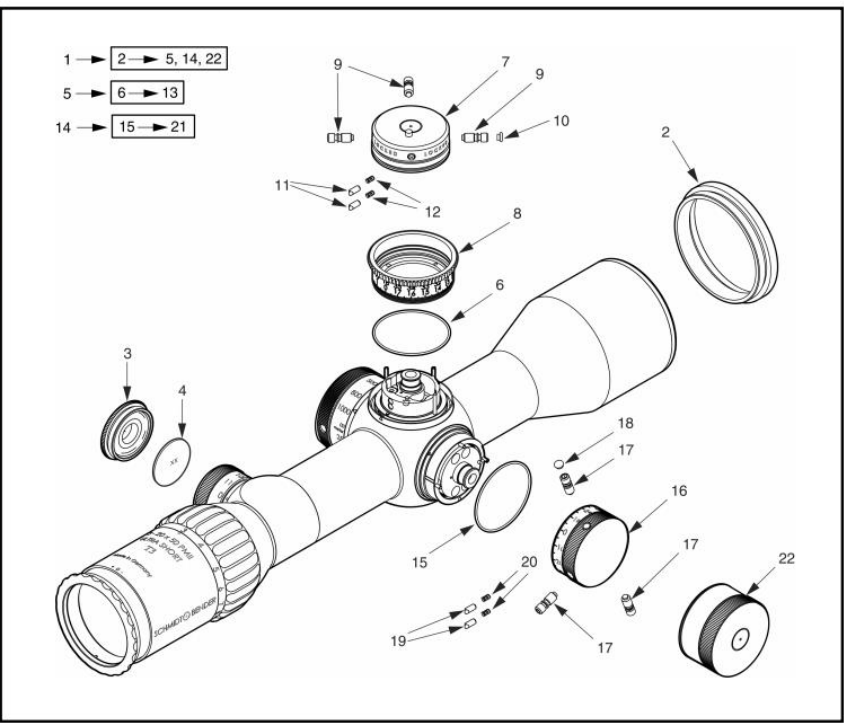


Figure 2-3 (sheet 3 of 3) Scope Assembly
Figure 2-3 (feuille 3 de 3) Ensemble lunette de tir

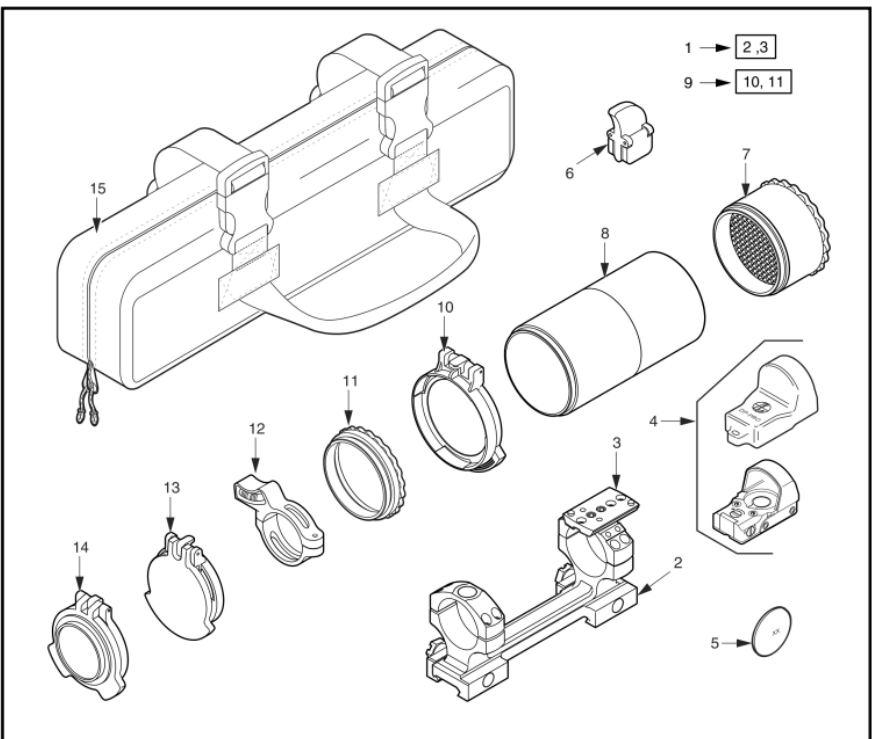


Figure 3-1 (Sheet 1 of 2) Accessories
Figure 3-1 (feuille 1 de 2) Accessoires

DATA ITEM DESCRIPTION		
1. TITLE Equipment Description Information	2. DATA ITEM DESCRIPTION NUMBER LS-006	
3. DESCRIPTION The Equipment Description Information provides instruction for the development of the Equipment Description. This data provides sufficient descriptive information and theory of operation to facilitate equipment maintenance, up to and including depot level maintenance		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1	The Contractor must provide an existing Equipment Description Manual that describes the LRT System assemblies and sub-assemblies and the theory of operation. The information for the Equipment Description Manual must be in the following format: <ul style="list-style-type: none"> a. Original, unlocked native file format that was originally used to author and develop the Maintenance Manual; b. An unlocked and searchable PDF version of the Maintenance Manual; and c. All illustrations, diagrams and pictures in scalable and editable native file formats. 	
10.2	In the event the Contractors Equipment Description Manual does not have sufficient detail to allow an Equipment Description Manual CFTO to be fully developed, the Contractor must provide additional text and diagrams as detailed below when requested by Canada:	
10.2.1	The Contractor must provide text in support of describing and developing a theory of operation for the LRT System assemblies and sub-assemblies.	
10.2.2	The Contractor must provide diagrams in support of the description and theory of operation of the LRT System for the following topics and assembly groups: <ul style="list-style-type: none"> a. LRT Overview Diagram. This diagram must illustrate left hand side views of the LRT System and the major subassembly groups. b. Detailed diagrams for the sub-assemblies of each group. These diagrams must illustrate the sub-assemblies of each group identified above in order to support descriptive text. Each group may be broken down into two or more sub-diagrams in order to more clearly illustrate the sub-components, its operation and adjustment. A cutaway view must be used to illustrate major parts internal to the sub-assembly that will be discussed in a high level description of the LRT. The diagrams must reference the sub-assemblies of each group using numbers and arrows. c. Detailed diagrams to support the theories of operation. These diagrams must be demonstrative in nature and be broken down into two or more diagrams in order to more clearly illustrate the sub-components, its operation and/or adjustment. A cutaway view must be used to illustrate major parts internal to the sub-assembly that form part of the theory of operation. 	

DATA ITEM DESCRIPTION		
1. TITLE Provisioning Parts Breakdown (PPB)	2. DATA ITEM DESCRIPTION NUMBER LS-007	
3. DESCRIPTION The PPB provides a top down breakdown of the equipment in the configuration in which it is being procured. This breakdown is accomplished by listing all parts included in the end item in a lateral and descending family tree/generation breakdown. In this breakdown, all assemblies, subassemblies and parts are listed in relation to the next higher assembly. This relationship is shown by means of an indentation code as illustrated in the top down breakdown sequence.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS See Block 10	
10. PREPARATION INSTRUCTIONS		
10.1 FORMAT		
10.1.1 The PPB must be in MS Excel 2013 format or later.		
10.2 CONTENT		
10.2.1 The Contractor must provide a PPB in accordance with specification D-01-100-214/SF-000. The specific data elements that must be provided to support the PPB are shown in Figure 5 of D-01-100-214/SF-000: Provisioning Documentation Selection Sheet.		
10.2.2 The PPB must be structured in a Family Tree format starting with the top level assembly down to the serviceable items.		

DATA ITEM DESCRIPTION		
1. TITLE Supplementary Provisioning Technical Data (SPTD)	2. DATA ITEM DESCRIPTION NUMBER LS-008	
3. DESCRIPTION Data required to uniquely identify, for cataloguing purposes, each item in the PPB list.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 FORMAT		
10.1.1 The SPTD must be prepared and submitted in accordance with D-01-100-214/SF-000 for all items identified on the Provisioning Parts Breakdown.		
10.2 CONTENT		
10.2.1 The SPTD must include:		
<ul style="list-style-type: none"> a. Full assembly drawings with attached parts lists, so that Canada can ensure that the PPB reflects the current and complete configuration of the equipment being procured. b. Comprehensive technical data against each PPB item that allows Canada to classify and fully describe the item within the NATO codification system. 		
10.2.2 The SPTD must include, as applicable:		
<ul style="list-style-type: none"> a. Engineering drawings, preferably equal to Level 3, but at least equal to Level 2 (refer to definitions in Section 6 of D-01-100-214/SF-000); b. Technical specification, including relevant standards; c. Physical characteristics, such as dimensions, tolerances, materials, mandatory processes, surface finish, protective coating; d. Performance data, including the environmental and operating conditions under which the item must perform; e. Mounting requirements; and f. Special features which contribute to the uniqueness of the item; 		

DATA ITEM DESCRIPTION		
1. TITLE Recommended Spare Parts List (RSPL)	2. DATA ITEM DESCRIPTION NUMBER LS-009	
3. DESCRIPTION The RSPL is a list of spare parts recommended by the Contractor, to maintain the LRT System for a 24 month service period.		
4. APPROVAL DATE 1 April 2022	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP N/A		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS		
10.1 FORMAT		
10.2.3 The RSPL must be in MS Excel 2013 format or later.		
10.3 CONTENT		
10.3.1 The Contractor must provide a RPSL in accordance with specification D-01-100-214/SF-000. The specific data elements that must be provided to support the RPSL are shown in Figure 5 of D-01-100-214/SF-000: Provisioning Documentation Selection Sheet.		
10.3.2 The RPSL must be structured in a Family Tree format starting with the top level assembly down to the serviceable items.		
10.3.3 The consumables and spare parts would be consumed by an electro-optical technician conducting all repairs where it is not necessary to open the Systems.		

ANNEX C

OPERATIONAL AND TECHNICAL REQUIREMENTS

LONG RANGE TELESCOPE SYSTEM



Reference Number: W8476-216466 /B

Date: 1 April 2022

Prepared by:
DSSPM 9
Technical Authority/Life Cycle Material Manager
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2



NOTICE

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

8. **Scope**

8.1. Objective

This document defines the mandatory technical requirements for the Long Range Telescope (LRT) System.

8.2. Acronyms

AECTP **Allied Environmental Conditions Test Publication**

IAW **In Accordance With**

LRT **Long Range Telescope**

MPI **Mean Point of Impact**

MRAD **Milliradians**

NATO **North Atlantic Treaty Organization**

STANAG **Standardization Agreement**

TA **Technical Authority**

8.3.

LRT System Equipment Breakdown Chart

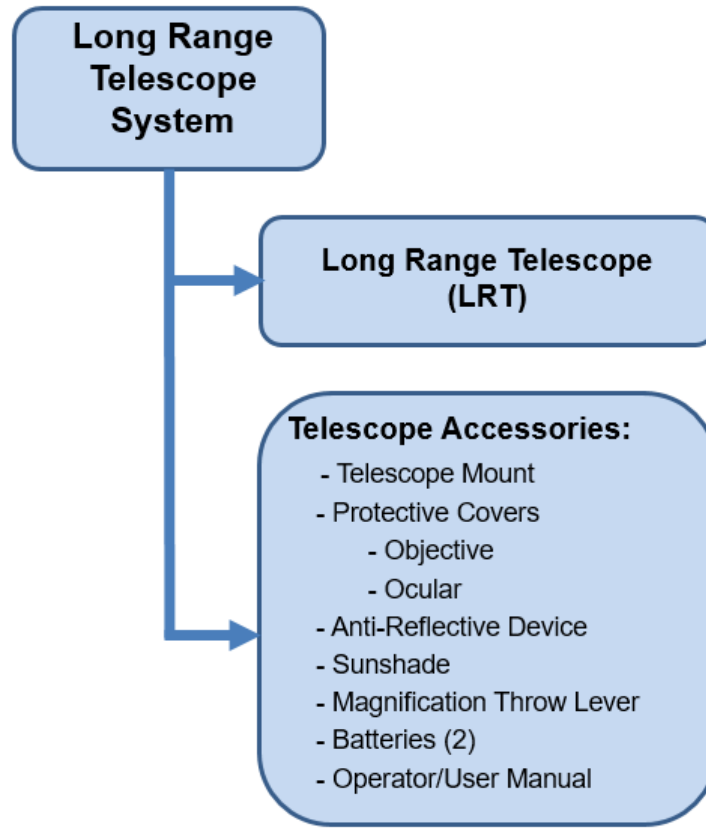


Figure 1: LRT System Equipment Breakdown Chart

9.

Applicable documents

The following documents form part of this specification to the extent specified and are supportive of the specified when referenced; all other document references are to be considered supplemental information only. In the event of a conflict between the documents referenced and the contents of the specification, then the contents of the specification must take precedence.

AECTP 200: Environmental Conditions

AECTP 300: Climatic Environmental Tests, Edition 3;

AECTP 400: Mechanical Environmental Tests, Edition 3;

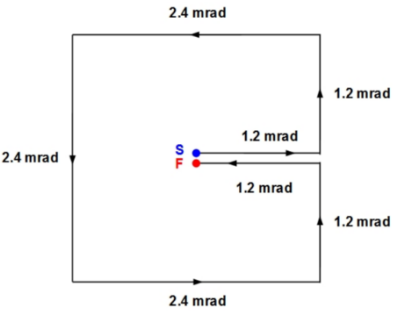
Mil-Std 810: Environmental Engineering Considerations and Laboratory Tests

STANAG 4370: Environmental Testing

STANAG 4694: NATO Accessory Rail.

SERIAL	REQUIREMENTS
3.1	LRT - Operational Performance Requirements
3.1.1	Operational Concept
3.1.1.1	The LRT must be a telescope designed to be used with a sniper weapon while being mounted to a Telescope Mount attached to the weapon NATO Accessory Rail.
3.1.2	Range Performance
3.1.2.1	<p>The LRT must have a range of at least 4.0 km for the detection of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimension: 0.91 m Intrinsic Target Contrast: 0.20 Contrast, $C = (LT - LB) / LB$ Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>
3.1.2.2	<p>The LRT must have a range of at least 1.3 km for the recognition of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimension: 0.91 m Intrinsic Target Contrast: 0.20 Contrast, $C = (LT - LB) / LB$ Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>

SERIAL	REQUIREMENTS
3.1.2.3	<p>The LRT must have a range of at least 0.65 km for the identification of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimensions: 0.91 m Intrinsic Target Contrast: 0.20 Contrast C = (LT – LB)/ LB Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>
3.1.3	Field of View (FOV)
3.1.3.1	The LRT FOV must be at least 1.2 m (4 ft) at 25x magnification at a distance of 91.44 m (100 yds).
3.1.4	Boresight Deviation
3.1.4.1	The LRT must have a range of boresight deviation through the complete range of scope magnifications of no more than 0.05 mrad (in both the horizontal and vertical) from the center of the aiming reticle to a vertical or horizontal reference line respectively.
3.1.5	Accuracy and Repeatability

SERIAL	REQUIREMENTS
3.1.5.1	<p>The azimuth and elevation adjustments must be accurate and repeatable across the full range of adjustment per the following procedure:</p> <p>At 100 m from reticle zeroed at position 1 (labeled “S”) you must return to position 1 (labeled “F”), to within +/- 0.05 mrad for each of the horizontal and vertical directions, after adjusting the LRT 1.2 mrad right, followed by 1.2 mrad up, followed by 2.4 mrad left, followed by 2.4 mrad down, followed by 2.4 mrad right, followed by 1.2 mrad up, followed by 1.2 mrad left - Scope Box Test. See figure below.</p> 
3.1.6	Environmental Conditions
3.1.6.1	High Temperature
3.1.6.1.1	The LRT must operate without physical damage and without degradation of performance in all high temperature environments associated with the A3, A2 and A1 (+49°C max) climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.
3.1.6.1.2	The LRT must be stored without physical damage and without degradation of performance in all high temperature environments associated with the A3, A2 and A1 (+71°C max) climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.
3.1.6.2	Low Temperature
3.1.6.2.1	The LRT must operate without physical damage and without degradation of performance in all low temperature environments associated with the C0, C1 and C2 (-40°C min) climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.
3.1.6.3	High Humidity

SERIAL	REQUIREMENTS
3.1.6.3.1	The LRT must operate without physical damage and without degradation of performance in all high humidity environments associated with the B1, B2 and B3 climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.
3.1.6.4	Blowing Dust
3.1.6.4.1	The LRT must operate without damage and without degradation of performance in environments with airborne fine dust particulates, as described in STANAG 4370, AECTP 300, Ed. 3, Method 313, Procedure I.
3.1.6.5	Loose Cargo
3.1.6.5.1	The LRT must operate without degradation of performance after 20 minutes of vibration induced during combat transportation as loose cargo.
3.1.6.6	Transit Drop
3.1.6.6.1	The LRT must operate without degradation of performance after being dropped from a height of 0.90m onto a concrete backed 5cm thick plywood surface in the following orientations: a. Impact onto Top surface; b. Impact onto Left side; c. Impact onto Right side; d. Impact onto Objective end; and e. Impact onto Eyepiece end.
3.1.6.7	Altitude
3.1.6.7.1	The LRT must be stored, transported, and operate without physical damage and without degradation of performance in all low ambient air pressure environments from sea level to 7,500m pressure-altitude above sea-level.
3.1.6.8	Under-Water Immersion
3.1.6.8.1	The LRT must not be physically damaged nor be degraded in performance following immersion under salt water to a depth of not less than 10 meters below the water surface for a duration of not less than 60 minutes, with no physical preparations or modifications required to the LRT prior to being immersed.
3.1.6.9	Salt Water Spray
3.1.6.9.1	The LRT must operate without damage and without degradation of performance when exposed to salt water spray.
3.1.7	Shock/Blast Resistance

SERIAL	REQUIREMENTS
3.1.7.1	The LRT must resist the shock and vibration of at least 2,500 rounds fired from a 0.50 calibre rifle, or equivalent, with no degradation in performance or operation.
3.1.7.2	The LRT must maintain zero under shock and vibration from a 0.50 calibre bolt action rifle, or equivalent.
3.1.8	Resistance to Fluids
3.1.8.1	<p>The LRT must not become damaged when exposed to the following fluid contamination tested at ambient temperature IAW MIL-STD 810H Method 504.3, Contamination by Fluids, Occasional Contamination Procedure:</p> <ul style="list-style-type: none"> - Gasoline: ASTM D4814 - IAW 4.5.5, Step 3, a; - Naphtha (Camp Stove) - IAW 4.5.5, Step 3, a; - Rifle Bore Cleaner: Mil-Pref-372D - IAW 4.5.5, Step 3, a; - Engine Oil: MIL-PRF-2104H - IAW 4.5.5, Step 3, a; - Simulated sea water – IAW 4.5.5, Step 3, a; - Isopropyl alcohol (2-propanol) – IAW 4.5.5, Step 3, a; - CLP: MIL-PREF-63460E - IAW 4.5.5, Step 3, a and - Insect Repellant: NSN 6840-01-284-3982 - IAW 4.5.5, Step 3, a.
3.2	LRT Technical Requirements
3.2.1	Size/Mass
3.2.1.1	The mass of the LRT must be less than or equal to 1250g.
3.2.1.2	The length of the LRT must be less than or equal to 445 mm.
3.2.1.3	The LRT must have an objective lens diameter that is less than or equal to 56 mm.
3.2.1.4	The LRT must have a tube diameter of less than or equal to 36mm.
3.2.2	Magnification
3.2.2.1	The LRT must incorporate a continuously variable magnification using a magnification adjustment bezel.
3.2.2.2	The LRT magnification low limit must be less than or equal to 5x.
3.2.2.3	The LRT magnification high limit must be greater than or equal to 25x.
3.2.2.4	The full range of magnification must be achieved within one full rotation of the magnification dial.
3.2.3	Elevation Turret
3.2.3.1	The LRT elevation turret must be top mounted.

SERIAL	REQUIREMENTS
3.2.3.2	The LRT elevation turret must be adjustable in 0.1 mrad increments (1 click equals 1 cm at 100m).
3.2.3.3	The LRT elevation turret must allow for a minimum of 26 mrad of elevation adjustment.
3.2.3.4	The LRT maximum elevation adjustment must be achieved within three complete turret rotations or less.
3.2.3.5	The elevation turret must provide the operator with a visual indicator to distinguish each rotation of the turret.
3.2.3.6	The elevation turret must operate such that a rotation counter clock-wise adjusts the Mean Point of Impact (MPI) down and a rotation clock-wise adjusts the MPI up.
3.2.4	Azimuth Turret
3.2.4.1	The LRT azimuth turret must be mounted on the right side.
3.2.4.2	The azimuth turret must be adjustable in 0.1 mrad increments (1 click equals 1 cm at 100m).
3.2.4.3	The azimuth turret must allow for a total adjustment of at least 10 mrads.
3.2.4.4	The azimuth turret must rotate one full rotation or less.
3.2.4.5	The azimuth turret must operate such that a rotation counter clock-wise adjusts the Mean Point of Impact (MPI) left and a rotation clock-wise adjusts the MPI right.
3.2.5	Reticle - General
3.2.5.1	The LRT must incorporate a battery powered illuminated reticle.
3.2.5.2	The colour of the illuminated reticle must be red.
3.2.5.3	The reticle must be the HORUS® Tremor™3.
3.2.5.4	The reticle must be in the first focal plane.
3.2.5.5	The reticle must be visible when used with night vision equipment.
3.2.5.6	The reticle illumination intensity must be variable.
3.2.6	Power
3.2.6.1	The LRT must use a single CR2032 battery for power.
3.2.7	Parallax Adjustment
3.2.7.1	The LRT parallax adjustment must be accomplished by the rotation of a dial.
3.2.7.2	The parallax adjustment dial must increase the adjustment from 50 m or less to infinity.
3.2.7.3	The dial must have a scale that allows the knob to be rotated to known distances for precise parallax adjustments.

SERIAL	REQUIREMENTS
3.2.8	Diopter Adjustment
3.2.8.1	The LRT must have an adjustable diopter range from -1.75 or lower to +1.75 or higher.
3.2.9	Eye Relief
3.2.9.1	The Eye Relief for all magnifications must be between 75mm and 100mm.
3.2.10	Lens
3.2.10.1	The LRT external lens surfaces must have a scratch resistant, anti-reflective coating.
3.2.10.2	The LRT must have an ocular and objective lens that do not fog or frost during normal usage over the operating temperature range;
3.2.11	Finish
3.2.11.1	The colour of the LRT must be Coyote Brown with a matte finish or an alternative colour approved by Canada.
3.3	Telescope Accessories - Technical Requirements
3.3.1	Telescope Mount
3.3.1.1	The Telescope Mount must be compatible with a NATO Accessory Rail as specified in STANAG 4694.
3.3.1.2	The Telescope Mount must be the unitized type where the bottom half of the rings and the base are made from one piece.
3.3.1.3	The Telescope Mount must have one or more load bearing recoil lug to maintain precise rail alignment and telescope accuracy.
3.3.1.4	The LRT, while mounted to the Telescope Mount, must have a vertical distance of 38.1mm \pm 1mm when measured from top of NATO Accessory Rail to center of ocular lens.
3.3.1.5	The Telescope Mount must be mounted to the NATO Accessory Rail using nuts with a specified torque setting.
3.3.1.6	The colour of the Telescope Mount must be Coyote Brown or an alternative colour approved by Canada.
3.3.1.7	The Telescope Mount must resist the shock and vibration of at least 500 rounds fired from a 0.50 calibre rifle, or equivalent, with no degradation in performance or operation.
3.3.2	Protective Covers
3.3.2.1	The LRT System must include TENEBRAEX objective and ocular lens cap covers with adapter rings.
3.3.2.2	The lens cap covers, when mounted to the LRT, must hinge up and stay in the up-position under shock of 0.50 calibre weapon fire.
3.3.2.3	The lens cap covers must be removable.

SERIAL	REQUIREMENTS
3.3.2.4	The colour of the lens cap covers must be Coyote Brown or an alternative colour approved by Canada.
3.3.3	Anti-Reflective Device (ARD)
3.3.3.1	The LRT System must include an ARD that is attached to the front of the LRT in front of the objective lens to minimize reflections.
3.3.3.2	The ARD must be installed and removed without the use of tools.
3.3.3.3	The colour of the ARD must be Coyote Brown or an alternative colour approved by Canada.
3.3.4	Sunshade
3.3.4.1	The LRT System must be equipped with a sunshade that can be mounted to the LRT in front of the objective lens to minimize light from entering the lens at an adverse angle.
3.3.4.2	The colour of the Sunshade must be Coyote Brown or an alternative colour approved by Canada.
3.3.4.3	The sunshade must be a screw in design and be at least 2.5 inches in length.
3.3.5	Magnification Throw Lever
3.3.5.1	The LRT System must be equipped with a Magnification Throw Lever that is either integral to or attachable to the magnification adjustment bezel of the LRT, to improve manipulation of the bezel.
3.3.5.2	The colour of the Magnification Throw Lever must be Coyote Brown or an alternative colour approved by Canada.
3.3.6	Batteries
3.3.6.1	The LRT System must be provided with quantity two (2) batteries.
3.3.7	Operator/User Manual
3.3.7.1	The LRT must be provided with an Operator/User Manual in a booklet format.

ANNEX D
INSTRUCTIONS TO BIDDERS
LONG RANGE TELESCOPE SYSTEM



Reference Number: W8476-216466 /B

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Prepared by:
DSSPM 9
Technical Authority/Life Cycle Material Manager
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2



NOTICE

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

11. **Scope**

11.1. Purpose

This document identifies the technical evaluation process for the Long Range Telescope (LRT) System bid submissions including requirements for Pre-Award Samples (PAS), written proposals and follow-on testing that will be conducted by Canada in support of bid evaluation.

11.2. Bidder's Instructions

Bidders must comply with the specific instructions contained in this document.

11.3. Acronyms

IAW	In Accordance With
LRT	Long Range Telescope
NATO	North Atlantic Treaty Organization
NSN	NATO Stock Number
OEM	Original Equipment Manufacturer
PAS	Pre-Award Sample
SSP	Sniper Systems Project
TA	Technical Authority

12. **Technical Bid Evaluation Methodology**

12.1. Bid Philosophy

12.1.1. The technical evaluation methodology detailed below will be used to determine all technically compliant bids.

12.2. Part 1 Requirements Evaluation

12.2.1. Part 1 will be a physical examination of Pre-Award Samples (PAS) and the documentary evidence provided by the bidders in support of the Compliance Matrix (Appendix 1 to Annex D). The documentary evidence is listed under para. 3.1.3 of this document.

12.2.2. DND will assemble a Technical Evaluation Team who will evaluate the proposals in accordance with the Requirements in the Compliance Matrix (Appendix 1 to Annex D).

12.2.3. All mandatory Requirements must be met or the bid submission will be deemed non-compliant.

12.2.4. Failure to provide sufficient detail in the bid submission to evaluate the proposal against the mandatory Requirements will deem the bid non-compliant.

12.2.5. At the conclusion of Part 1, the three lowest cost compliant bids only will proceed to Part 2 of the Bid Evaluation.

12.3. Part 2 Compliance Verification

12.3.1. Part 2 will be testing of the PAS provided by successful bidders from Part 1, where the PAS will be evaluated by DND at a DND designated facility.

12.3.2. The PAS will be evaluated against the requirements from Annex C. The Requirements will be evaluated as per Appendix 2 to Annex D.

12.3.3. DND will be responsible for planning and coordinating Part 2 of the Bid Evaluation.

12.3.4. If the PAS is found to be non-compliant with any one of the Requirements, the reasons will be recorded and the bid will be deemed non-compliant and given no further consideration;

12.3.5. In the event that the three lowest cost compliant bids fail Part 2 of the Bid Evaluation, Canada has the option to choose to evaluate the remaining compliant bids from Part 1; If Canada chooses to do so, Canada may choose to evaluate one bid at a time, or more than one bid, starting with the lowest bid, until there is a technically responsive bid in Part 2, or until all the remaining compliant bids from Part 1 have been exhausted.

13. **Bid Submission Deliverables**

13.1. Compliance Matrix

- 13.1.1. The Bidder must submit a completed Compliance Matrix including proof of compliance as specified in Appendix 1, with the self-assessment at Columns 5, 6 and 7 completed.
- 13.1.2. The Bidder must provide the required documentary evidence identified in Column 4, as part of the proposal. References to external sources and web sites will not be accepted.
- 13.1.3. Column 4: "Proof of Compliance"

This column provides guidance to the Bidder as to the type of data that must be provided with the proposal to demonstrate compliance against a specific requirement.

Technical Documentation

- Letter of Declaration for Manufacturer;
- Letter of Distribution rights for Licensed distributors;
- Invoice issued within last 12 months to ABCA/NATO or NA police Agency referencing P/N linked to COTS/MOTS product in current production line;
- A system brochure that details the components and operating characteristics of the system;
- The system Operator's Manual;
- The system Maintenance Manual;
- Drawing or schematic which clearly depicts the product's dimensions and scale; and
- Any additional documentation that provides product information.

Test Report

Verification by test report involves the submission of supporting objective evidence in the form of complete and verifiable test reports, including test procedures, parameters, conditions and results, conducted by the Original Equipment Manufacturer (OEM) or an independent organization, with an explanation that confirms the product(s) fully complies with the requirement.

Pre-Award Sample (PAS)

The PAS is a sample of the LRT system being offered made to the specifications in Annex C that fully represents the finished proposed item.

Statement of Compliance

A written statement from the Bidder confirming that the Bidder understands the requirement criterion and that their proposal must be compliant with this criterion.

13.1.4. Column 5 "Bidder's Self-Assessment".

This column is a Bidder's self-assessment column where a Bidder should indicate "COMPLIANT" or "NON-COMPLIANT" to each mandatory requirement being evaluated. Each cell contains a drop down menu with two choices from which the Bidder should choose either "COMPLIANT" or "NON-COMPLIANT".

13.1.5. Column 6 "Evidence Location In Bid"

In this column the Bidder should clearly identify where in the bid binder (document, page, and paragraph) the evaluator can find information that supports the Bidder's compliance against the mandatory requirement.

13.1.6. Column 7 " Bidder's Statement And/Or Comments"

In this column the Bidder should provide additional relevant information that they would like to bring to the attention of the evaluator for consideration during his assessment of each of

the mandatory requirements.

13.2. Pre-Award Sample (PAS)

13.2.1. The Bidder must submit quantity two (2) samples of the LRT system being offered made to the specifications in Annex C that fully represents the finished proposed item.

13.2.2. The PASs will be used to conduct Part 1 and Part 2 of the Bid Evaluation Process.

13.2.3. All PASs will be returned to the Bidder(s) at the conclusion of the bid evaluation process.

13.2.4. Each PAS must include the following:

- All components listed in Annex C, para. 1.4, Figure 1;
- The LRT must be installed and centered to the Telescope rings as per the OEM recommended procedures.
- Spare Parts to support Part 2 of the bid evaluation.

APPENDIX 1 to ANNEX D - COMPLIANCE MATRIX

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Evaluator Instructions:	
1. Fill-in Date, Bidder and Evaluator information below.	
2. Review Bidder's responses in Columns 5 to 7, and complete Columns 9 and 10 during Bid Evaluation.	
Date:	
Bidder:	
Evaluator:	

Bidder Instructions:	
1. Fill-in Submission Date, Bidder Unique ID Number, Product and Bidder`s Signature below.	
2. Minimum Substantiation type/method is indicated in Column 4.	
3. Complete Columns 5-7.	
4. All Requirements must be found COMPLIANT, otherwise the bid will not proceed to Phase 2 of Bid Evaluation.	
5. Refer to Annex D for detailed instructions.	
Submission Date:	
Bidder Unique ID Number:	
Product:	
Bidder Signature	

		TO BE COMPLETED BY BIDDER				BID EVALUATION - PART 1: TO BE COMPLETED BY EVALUATOR				
Col 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	
	Requirement	Requirement Type	Proof of Compliance	Bidder's Self Assessment	Evidence Location In Bid Package	Bidder's Statement and/or Comments	Evaluator Instructions	Evaluator's Assessment	Evaluator's Comments	
CORPORATE REQUIREMENTS										
	<p>A proposal must be submitted by either:</p> <ul style="list-style-type: none"> i. the Long Range Telescope (LRT) Manufacturer; or ii. a licensed distributor that represents the LRT Manufacturer. <p>The LRT Manufacturer must be an established manufacturer that has significant experience in telescopes for military or police organizations as follows:</p> <p>(a) Manufacturer Qualifications - must have been in the business of developing, manufacturing and selling telescope systems for a minimum of five (5) years; and</p> <p>(b) Proven Design - The LRT being offered must be based upon a Commercial-Off-The-Shelf (COTS) or Military-Off-The-Shelf (MOTS) product that</p>	Mandatory	<p>LRT Manufacturer or licensed distributor to provide documentation to support the following:</p> <ul style="list-style-type: none"> - LRT Manufacturer must include Letter declaring themselves as the manufacturers of the LRT; - Licensed distributors must include letter of distribution rights from the LRT manufacturer; - LRT Manufacturer possessing 5 years experience in developing, manufacturing and selling telescope systems. - Invoice issued within the last 12 months to an ABCA/NATO or North American Police Agency must be provided to prove compliance. Invoice must Link the LRT P/N to COTS/MOTS P/N 's in the Manufacturer's current inventory. 				<p>Review evidence provided by bidder and confirm the following:</p> <ul style="list-style-type: none"> - Manufacturer declaration letter or Distribution Rights letter from Manufacturer. - LRT Manufacturer possessing 5 years experience in developing, manufacturing and selling telescope systems. - Linking the LRT to either COTS/MOTS P/N 's in the Manufacturer's 			-

	is in current production and, at time of offer submission must be in use by an American, British, Canadian or Australian (ABCA) military organization, North Atlantic Treaty Organization (NATO) or a North American (Canada or United States) civilian police agency.						current inventory.		
Ref Annex C	OPERATIONAL AND TECHNICAL REQUIREMENTS								
3.1	LRT - Operational Performance Requirements								
3.1.1	Operational Concept								
3.1.1.1	The LRT must be a telescope designed to be used with a sniper weapon while being mounted to a Telescope Mount attached to the weapon NATO Accessory rail.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.1.2	Range Performance								

3.1.2.1	<p>The LRT must have a range of at least 4.0 km for the detection of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimension: 0.91 m Intrinsic Target Contrast: 0.20 Contrast, $C = (LT - LB) / LB$ Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>	Mandatory	DND will confirm compliance as detailed at Appendix 2 during Part 2.				No evaluation required during Part 1.		
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3.1.2.2	<p>The LRT must have a range of at least 1.3 km for the recognition of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimension: 0.91 m Intrinsic Target Contrast: 0.20 Contrast, $C = (LT - LB) / LB$ Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>	Mandatory	DND will confirm compliance as detailed at Appendix 2 during Part 2.				No evaluation required during Part 1.		
3.1.2.3	<p>The LRT must have a range of at least 0.65 km for the identification of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimensions: 0.91 m Intrinsic Target Contrast: 0.20 Contrast $C = (LT - LB) / LB$ Detection: 1 cycle Recognition: 4 cycles</p>	Mandatory	DND will confirm compliance as detailed at Appendix 2 during Part 2.				No evaluation required during Part 1.		

	Identification: 8 cycles								
3.1.3	Field of View (FOV)								
3.1.3.1	The LRT FOV must be at least 1.2 m (4 ft) at 25x magnification at a distance of 91.44 m (100 yds).	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.1.4	Boresight Deviation								
3.1.4.1	The LRT must have a range of boresight deviation through the complete range of scope magnifications of no more than 0.05 mrad (in both the horizontal and vertical) from the center of the aiming reticle to a vertical or horizontal reference line respectively.	Mandatory	DND will confirm compliance as detailed at Appendix 2 during Part 2.				No evaluation required during Part 1.		
3.1.5	Accuracy and Repeatability								

3.1.6.1.2	The LRT must be stored without physical damage and without degradation of performance in all high temperature environments associated with the A3, A2 and A1 (+71°C max) climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.1.6.2	Low Temperature								
3.1.6.2.1	The LRT must operate without physical damage and without degradation of performance in all low temperature environments associated with the C0, C1 and C2 (-40°C min) climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.	Mandatory	Test Report AECTP 300, Ed 3, Method 303, Low Temperature, Procedure IIa, Operation (constant temperature) and Procedure III, Manipulation Test or Equivalent Test Method (ie. MIL-STD-810H), conducted at a minimum C2 meteorological air temperature (-40°C) is a sufficient means to demonstrate compliance to this requirement. DND will confirm compliance as detailed at Appendix 2 during Part 2.				The Evaluator will examine the Test Report(s) submitted to confirm compliance of the LRT with the requirement.		
3.1.6.3	High Humidity								
3.1.6.3.1	The LRT must operate without physical damage and without degradation of performance in all high humidity environments associated with the B1, B2 and B3 climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to		

							determine if the LRT meets the requirement.		
3.1.6.4	Blowing Dust								
3.1.6.4.1	The LRT must operate without damage and without degradation of performance in environments with airborne fine dust particulates, as described in STANAG 4370, AECTP 300, Ed. 3, Method 313, Procedure I.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.1.6.5	Loose Cargo								
3.1.6.5.1	The LRT must operate without degradation of performance after 20 minutes of vibration induced during combat transportation as loose cargo.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.1.6.6	Transit Drop								

3.1.6.6.1	The LRT must operate without degradation of performance after being dropped from a height of 0.90m onto a concrete backed 5cm thick plywood surface in the following orientations: a. Impact onto Top surface; b. Impact onto Left side; c. Impact onto Right side; d. Impact onto Objective end; and e. Impact onto Eyepiece end.	Mandatory	Test Report AECTP 400, Ed 3, Method 414, Handling, Procedure I, Transit Drop, or Equivalent Test Method (ie. MIL-STD-810H), conducted at a minimum of 1.22m drop and impact onto the top surface, bottom surface, left side, right side, objective end and eyepiece end, is a sufficient means to demonstrate compliance to this requirement.				The Evaluator will examine the Test Report(s) submitted to confirm compliance of the LRT with the requirement.		
3.1.6.7	Altitude								
3.1.6.7.1	The LRT must be stored, transported, and operate without physical damage and without degradation of performance in all low ambient air pressure environments from sea level to 7,500m pressure-altitude above sea-level.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.1.6.8	Under-Water Immersion								

3.1.6.8.1	The LRT must not be physically damaged nor be degraded in performance following immersion under salt water to a depth of not less than 10 meters below the water surface for a duration of not less than 60 minutes, with no physical preparations or modifications required to the LRT prior to being immersed.	Mandatory	<p>Test Report</p> <p>AECTP 300, Ed 3, Method 307, or Equivalent Test Method (ie. MIL-STD-810H), conducted where the test item is pre-conditioned to a temperature of 10°C above the temperature of the water, the upper most part of the test item is immersed no less than 10 meter below the surface of the water for a duration of no less than 60 minutes, is a sufficient means to demonstrate compliance to this requirement.</p> <p>DND will confirm compliance as detailed at Appendix 2 during Part 2.</p>				The Evaluator will examine the Test Report(s) submitted to confirm compliance of the LRT with the requirement.		
3.1.6.9	Salt Water Spray								
3.1.6.9.1	The LRT must operate without damage and without degradation of performance when exposed to salt water spray.	Mandatory	<p>Technical Documentation</p>				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.1.7	Shock/Blast Resistance								
3.1.7.1	The LRT must resist the shock and vibration of at least 2,500 rounds fired from a 0.50 calibre rifle, or equivalent, with no degradation in performance or operation.	Mandatory	<p>Test Report</p> <p>DND will confirm compliance as detailed at Appendix 2 during Part 2.</p> <p>DND test will be conducted with 20 rounds.</p>				The Evaluator will examine the Test Report(s) submitted to confirm compliance of the LRT with		

							the requireme nt.		
3.1.7.2	The LRT must maintain zero under shock and vibration from a 0.50 calibre bolt action rifle, or equivalent.	Mandat ory	Test Report				The Evaluator will examine the Test Report(s) submitted to confirm complianc e of the LRT with the requireme nt.		
3.1.8	Resistance to Fluids								
3.1.8.1	The LRT must not become damaged when exposed to the following fluid contamination tested at ambient temperature IAW MIL-STD 810H Method 504.3, Contamination by Fluids, Occasional Contamination Procedure: - Gasoline: ASTM D4814 - IAW 4.5.5, Step 3, a; - Naphtha (Camp Stove) - IAW 4.5.5, Step 3, a; - Rifle Bore Cleaner: Mil-Pref-372D - IAW 4.5.5, Step 3, a; - Engine Oil: MIL-PRF-2104H - IAW 4.5.5, Step 3, a; - Simulated sea water – IAW 4.5.5, Step 3, a; - Isopropyl alcohol (2-propanol) – IAW 4.5.5, Step 3, a; - CLP: MIL-PREF-63460E - IAW 4.5.5, Step 3, a and	Mandat ory	Technical Documentation				The Evaluator will examine the Technical Document ation and any other informatio n submitted with the proposal to determine if the LRT meets the requireme nt.		

	- Insect Repellant: NSN 6840-01-284-3982 - IAW 4.5.5, Step 3, a.								
3.2	LRT Technical Requirements								
3.2.1	Size/Mass								
3.2.1.1	The mass of the LRT must be less than or equal to 1250 g.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.1.2	The length of the LRT must be less than or equal to 445 mm.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.1.3	The LRT must have an objective lens diameter that is less than or equal to 56 mm.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.1.4	The LRT must have a tube diameter of less than or equal to 36mm.	Mandatory	Pre-Award Sample				The evaluator will examine		

							the PAS to determine if it meets the requirement.		
3.2.2	Magnification								
3.2.2.1	The LRT must incorporate a continuously variable magnification using a magnification adjustment bezel	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.2.2	The LRT magnification low limit must be less than or equal to 5x.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.2.3	The LRT magnification high limit must be greater than or equal to 25x.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the		

							requirement.		
3.2.2.4	The full range of magnification must be achieved within one full rotation of the magnification dial.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.3	Elevation Turret								
3.2.3.1	The LRT elevation turret must be top mounted.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.3.2	The LRT elevation turret must be adjustable in 0.1 mrad increments (1 click equals 1 cm at 100m).	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		

3.2.3.3	The LRT elevation turret must allow for a minimum of 26 mrad of elevation adjustment.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.3.4	The LRT maximum elevation adjustment must be achieved within three complete turret rotations or less.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.3.5	The elevation turret must provide the operator with a visual indicator to distinguish each rotation of the turret.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the		

							requirement.		
3.2.3.6	The elevation turret must operate such that a rotation counter clock-wise adjusts the Mean Point of Impact (MPI) down and a rotation clock-wise adjusts the MPI up.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.4	Azimuth Turret								
3.2.4.1	The LRT azimuth turret must be mounted on the right side.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.4.2	The azimuth turret must be adjustable in 0.1 mrad increments (1 click equals 1 cm at 100m).	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		

3.2.4.3	The azimuth turret must allow for a total adjustment of at least 10 mrad.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.4.4	The azimuth turret must rotate one full rotation or less.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.4.5	The azimuth turret must operate such that a rotation counter clock-wise adjusts the Mean Point of Impact (MPI) left and a rotation clock-wise adjusts the MPI right.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the		

							requirement.		
3.2.5	Reticle - General								
3.2.5.1	The LRT must incorporate a battery powered illuminated reticle.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.5.2	The colour of the illuminated reticle must be red.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.5.3	The reticle must be the HORUS® Tremor™3.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.5.4	The reticle must be in the first focal plane.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the		

							requirement.		
3.2.5.5	The reticle must be visible when used with night vision equipment.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.2.5.6	The reticle illumination intensity must be variable.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.6	Power								
3.2.6.1	The LRT must use a single CR2032 battery for power.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.7	Parallax Adjustment								
3.2.7.1	The LRT parallax adjustment must be accomplished by the rotation of a dial.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to		

							determine if it meets the requirement.		
3.2.7.2	The parallax adjustment dial must increase the adjustment from 50 m or less to infinity.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.7.3	The dial must have a scale that allows the knob to be rotated to known distances for precise parallax adjustments.	Mandatory	Pre-Award Sample				The evaluator will examine the PAS to determine if it meets the requirement.		
3.2.8	Diopter Adjustment								
3.2.8.1	The LRT must have an adjustable diopter range from -1.75 or lower to +1.75 or higher.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.9	Eye Relief								
3.2.9.1	The Eye Relief for all magnifications must be between 75mm and 100mm.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and		

							any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.10	Lens								
3.2.10.1	The LRT external lens surfaces must have a scratch resistant, anti-reflective coating.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.2.10.2	The LRT must have an ocular and objective lens that do not fog or frost during normal usage over the operating temperature range;	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.2.11	Finish								
3.2.11.1	The colour of the LRT must be Coyote Brown with a matte finish or an alternative colour approved by Canada.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information		

							n submitted with the proposal to determine if the LRT meets the requirement.		
3.3	Telescope Accessories - Technical Requirements								
3.3.1	Telescope Mount								
3.3.1.1	The Telescope Mount must be compatible with a NATO Accessory Rail as specified in STANAG 4694.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.3.1.2	The Telescope Mount must be the unitized type where the bottom half of the rings and the base are made from one piece.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		

3.3.1.3	The Telescope Mount must have one or more load bearing recoil lug to maintain precise rail alignment and telescope accuracy.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.3.1.4	The LRT, while mounted to the Telescope Mount, must have a vertical distance of 38.1mm ± 1mm when measured from top of NATO Accessory Rail to center of ocular lens.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.3.1.5	The Telescope Mount must be mounted to the NATO Accessory Rail using nuts with a specified torque setting.	Mandatory	Technical Documentation			The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the		

							requirement.		
3.3.1.6	The colour of the Telescope Mount must be Coyote Brown or an alternative colour approved by Canada.	Mandatory	Technical Documentation				The Evaluator will examine the Technical Documentation and any other information submitted with the proposal to determine if the LRT meets the requirement.		
3.3.1.7	The Telescope Mount must resist the shock and vibration of at least 500 rounds fired from a 0.50 calibre rifle, or equivalent, with no degradation in performance or operation.	Mandatory	Test Report DND will confirm compliance as detailed at Appendix 2 during Part 2. DND test will be conducted with 20 rounds.				The Evaluator will examine the Test Report(s) submitted to confirm compliance of the LRT with the requirement.		
3.3.2	Protective Covers								
3.3.2.1	The LRT System must include TENEBRAEX objective and ocular lens cap covers with adapter rings.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.2.2	The lens cap covers, when mounted to the LRT, must hinge up and stay in the up-	Mandatory	DND will confirm compliance as detailed at Appendix 2 during Part 2.				No evaluation required during		

	position under shock of 0.50 calibre weapon fire.						Part 1.		
3.3.2.3	The lens cap covers must be removable.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.2.4	The colour of the lens cap covers must be Coyote Brown or an alternative colour approved by Canada.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.3	Anti-Reflective Device (ARD)								
3.3.3.1	The LRT System must include an ARD that is attached to the front of the LRT in front of the objective lens to minimize reflections.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.3.2	The ARD must be installed and removed without the use of tools.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		

3.3.3.3	The colour of the ARD must be Coyote Brown or an alternative colour approved by Canada.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.4	Sunshade								
3.3.4.1	The LRT System must be equipped with a sunshade that can be mounted to the LRT in front of the objective lens to minimize light from entering the lens at an adverse angle.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.4.2	The colour of the Sunshade must be Coyote Brown or an alternative colour approved by Canada.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.4.3	The sunshade must be a screw in design and be at least 2.5 inches in length.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.5	Magnification Throw Lever								

3.3.5.1	The LRT System must be equipped with a Magnification Throw Lever that is either integral to or attachable to the magnification adjustment bezel of the LRT, to improve manipulation of the bezel.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.5.2	The colour of the Magnification Throw Lever must be Coyote Brown or an alternative colour approved by Canada.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.6	Batteries								
3.3.6.1	The LRT System must be provided with quantity two (2) batteries.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		
3.3.7	Operator/User Manual								
3.3.7.1	The LRT must be provided with an Operator/User Manual in a booklet format.	Mandatory	Statement of Compliance				The Evaluator will confirm that the Bidder has provided a Statement of Compliance.		

APPENDIX 2 to ANNEX D
COMPLIANCE VERIFICATION CHECKLIST
LONG RANGE TELESCOPE SYSTEM



Reference Number: W8476-216466 /B

Date: 1 April 2022

Prepared by:
DSSPM
Technical Authority/Life Cycle Material Manager
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2



NOTICE

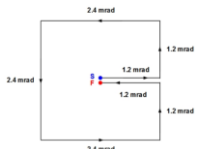
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APPENDIX 2 to ANNEX D - COMPLIANCE VERIFICATION CHECKLIST - LRT SYSTEM

W8476-216466 / B - 1 April 2022

Item	Requirement	Method of Verification	Compliant (Y/N)
3.1.2.1	<p>The LRT must have a range of at least 4.0 km for the detection of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimension: 0.91 m Intrinsic Target Contrast: 0.20 Contrast, C = (LT – LB) / LB Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>	Testing in accordance with Appendix 3, Test 1.	
3.1.2.2	<p>The LRT must have a range of at least 1.3 km for the recognition of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimension: 0.91 m Intrinsic Target Contrast: 0.20 Contrast, C = (LT – LB) / LB Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>	Testing in accordance with Appendix 3, Test 1.	
3.1.2.3	<p>The LRT must have a range of at least 0.65 km for the identification of a stationary man-sized target, under clear atmospheric conditions (atmospheric coefficient of 0.2/km) for temperatures ranging from 10°C to 20°C, based on the following parameters:</p> <p>Optical source colour temperature: 2856K ± 50K Background Luminance: LB 1.61 fL Critical Target Dimensions: 0.91 m Intrinsic Target Contrast: 0.20 Contrast C = (LT – LB) / LB Detection: 1 cycle Recognition: 4 cycles Identification: 8 cycles</p>	Testing in accordance with Appendix 3, Test 1.	
3.1.4.1	The LRT must have a range of boresight deviation through the complete range of scope magnifications of no more than 0.05 mrad (in both the horizontal and vertical) from the center of the aiming reticle to a vertical or horizontal reference line respectively.	Testing in accordance with Appendix 3, Test 2.	
3.1.5.1	<p>The azimuth and elevation adjustments must be accurate and repeatable across the full range of adjustment per the following procedure:</p> <p>At 100 m from reticle zeroed at position 1 (labeled "S") you must return to position 1 (labeled "F"), to within +/- 0.05 mrad for each of the horizontal and vertical directions, after adjusting the LRT 1.2 mrad right, followed by 1.2 mrad up, followed by 2.4 mrad left, followed by 2.4 mrad down, followed by 2.4 mrad right, followed by 1.2 mrad up, followed by 1.2 mrad left - Scope Box Test. See figure below.</p> 	Testing in accordance with Appendix 3, Test 3.	
3.1.6.2.1	The LRT must operate without physical damage and without degradation of performance in all low temperature environments associated with the C0, C1 and C2 (-40°C min) climatic regions as described in STANAG 4370, AECTP 200, AECTP 230, Leaflet 2311/1 and Leaflet 2311/2.	Testing in accordance with Appendix 3, Test 4.	
3.1.6.8.1	The LRT must not be physically damaged nor be degraded in performance following immersion under salt water to a depth of not less than 10 meters below the water surface for a duration of not less than 60 minutes, with no physical preparations or modifications required to the LRT prior to being immersed.	Testing in accordance with Appendix 3, Test 5. DND will test the LRT at a depth of 1m for a duration of 30 minutes.	
3.1.7.1	The LRT must resist the shock and vibration of at least 2,500 rounds fired from a 0.50 calibre rifle, or equivalent, with no degradation in performance or operation.	Testing in accordance with Appendix 3, Test 6. DND will subject the LRT to 20 rounds of 0.50 calibre shock.	
3.3.1.7	The Telescope Mount must resist the shock and vibration of at least 500 rounds fired from a 0.50 calibre rifle, or equivalent, with no degradation in performance or operation.	Testing in accordance with Appendix 3, Test 6. DND will subject the LRT to 20 rounds of 0.50 calibre shock.	
3.3.2.2	The lens cap covers must hinge up and stay in the up-position under shock of 0.50 calibre weapon fire.	Testing in accordance with Appendix 3, Test 6.	

Attachment 1 to APPENDIX 2 to ANNEX D
DID SE-002 UID Data Submission Template
LONG RANGE TELESCOPE SYSTEM



Reference Number: W8476-216466 /B

Date: 1 April 2022

Prepared by:

DSSPM

Technical Authority/Life Cycle Material Manager

National Defence Headquarters

Major General George R. Pearkes Building

Ottawa, Ontario

K1A 0K2



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Description English	Description French	NCAGE (Manufacturer)	Manufacturer Current Part Number	Manufacturer Serial Number	Weight	Unit Of Weight	Acquisition Value	Acquisition Currency	Country of Manufacture	Year of Manufacture	Month of Manufacture	NCAGE (Manufacturer Superior Equipment)	Manufacturer Part Number Superior Equipment	Manufacturer Serial Number Superior Equipment	Unique Item Identifier	Unique Item Identifier type	Embedded Item?	Parent UID (if an embedded item)	Issuing agency code (0-8,LE,UN,D,LD)	Enterprise identifier of assigning III	Original part number	Lot or batch number	Serial number used in UI	Submitting Organization (CASE or DUNS)	Name of Person or Office at Submitting Organization	Email address of submitting entity	Phone Number of Submitting Entity	DND Contract Number
CHAR.40	CHAR.40	CHAR.30	CHAR.18	CHAR.30	QUAN.13	UNIT3	CURR.13	CUNY.5	CHAR.3	CHAR.4	CHAR.2	CHAR.30	CHAR.18	CHAR.72	CHAR.4	CHAR.1	CHAR.72	CHAR.4	CHAR.30	CHAR.40	CHAR.30	CHAR.30	CHAR.30	CHAR.30	CHAR.50	CHAR.20	CHAR.20	
POWER PACK	POWER PACK(FR)	1245 3467-CON	2FR4321	2FR4321	5000 KG	UNIT3	4000 CAD	US	US	2013 01		1245 3467-CON	2FR4321	2FR4321	023456789-01002	N	D		1245 3456-CON	1245 3456-CON	2FR4321		54321	John.Doe@org.555-555-5555	555-555-5555	W1234-56789		
TRANSMISSION	TRANSMISSION(FR)	1245 80765-CON	60F9224	60F9224	10000 KG	UNIT3	2000 CAD	US	US	2013 01		1245 3467-CON	2FR4321	023456789-01002	Y	D	0123456789 D		1245 80765-CON	1245 80765-CON	60F9224		54321	John.Doe@org.555-555-5555	555-555-5555	W1234-56789		

Notes for Use:

- Delete Example Data (rows 3, 10) before use
- Add additional rows as required to accommodate data representing each UID-subject item for which data is being submitted
- Adhere to business and data rules set out below
- All data submissions must be consistent with the rules for Construction of a Unique Item Identifier as described in NATO STANAG 2290, most current editions as of the date of the Contract

Business and Data Rules:

- A - E is a Standard Identifier/Identification Data Set for Serialized Equipment and is required for any serialized item (including embedded/serialized items)
 - F - Weight is optional information
 - G - Unit of weight is conditional (required if Weight is not NULL)
 - H - Acquisition Value is optional information
 - I - Acquisition Currency is conditional (required if Acquisition Value is not NULL)
 - J - Country of Manufacture is optional information
 - K - Year of Manufacture is optional information
 - L - Month of Manufacture is optional information
 - M, N, O - NCAGE, Manufacturer Part Number and Manufacturer's Serial number of superior equipment (required if item is installed in a superior equipment)
 - P - Concatenated UID required for ALL items subject to UID
 - Q - UID Type required to describe UID type (UID, UID2, VIN, ESN, GMA, GAI, UID)
 - S - Parent UID is conditional (required for all embedded items)
 - S - Parent UID must be submitted prior to, or along with, child UID. Child UIDs referencing parent UID that is not registered will be rejected.
 - T - Issuing Agency code is conditional (required for all concatenated UIDs)
 - U - Enterprise Identifier responsible for ensuring uniqueness of UID is conditional (required for all concatenated UIDs)
 - V - Original part number is conditional for UI Data (required for UID2 construct when UIDs are serialized within the Part Number)
 - W - Lot / Batch number is conditional for UI Data (required for UID2 construct when UIDs are serialized within the lot / Batch)
 - X - Serial Number in UI Data set is conditional (required for concatenated UIDs); if UID2 construct is used, UI serial must match OEM serial number (column F)
 - Y - AC is required to provide contact information of the entity submitting the data and the contract under which referenced equipment is to be delivered
 - C, U, V - Discrete Enterprise Identifiers are required for:
 - C - The Enterprise UID of the original equipment manufacturer
 - U - The entity that assigned the UID (if concatenated UID is used)
 - V - The Enterprise UID of the entity that submitted the data (UID)
- These Identifiers may be different or the same depending on which entity manufactured the equipment, which entity assigned the UID, which entity submitted the data to DND, and

APPENDIX 3 to ANNEX D

EVALUATION PROCEDURES

Long Range Telescope System



Reference Number: W8476-216466 /B

Date: 1 April 2022

Prepared by:
DSSPM 9
Technical Authority/Life Cycle Material Manager
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2



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14. TEST PROCEDURES

The following Test Procedures will be used to verify compliance of selected Requirements from Annex C during bid evaluation.

Canada reserves the right to conduct the tests described in this Appendix in any order.

Applicable Documents:

MIL-STD-150A : Photographic Lenses, 12 May 1959

STANAG 4347 : Land (Edition 1) Definition of Nominal Static Range Performance for Thermal Imaging Systems, 18 July 1995

14.1. Test 1: Range Performance

- i. Type: Laboratory Evaluation;
- ii. Compliance: Requirement 3.1.2.1, 3.1.2.2, 3.1.2.3
- iii. Test Methodology: The Range performance of the LRT must be calculated from minimum resolvable contrast (MRC) data generated using a negative USAF 1951 resolution target as per MIL-STD-150A, under the following conditions:
 - a. Optical source colour temperature: $2856K \pm 50K$;
 - b. Background luminance measured at the objective of the LRT: 1.61 fL;
 - c. Target luminance is measured at the objective of the LRT;
 - d. Contrast, $C = (L_T - L_B) / L_B$ where:
 1. L_T : Target luminance; and
 2. L_B : Background luminance;
 - e. Image of the resolution target is viewed on with the LRT at a magnification of 25.0 ± 0.1 ;
 - f. Three or more observers are used to perform the test;
 - g. The criterion for measuring MRC is to determine the smallest Group and Element set of three vertical bars and three horizontal bars of the USAF 1951 resolution target that can be resolved at decreasing contrast values; the vertical and horizontal bars must be resolved at the same time;

-
- h. After the specified contrast is set, the observer will view the USAF 1951 target through the LRT, and determine the smallest Group and Element set that can be resolved;
 - i. Determine the spatial frequency in line pairs/mm (lp/mm) of the Group and Element number for each observer;
 - j. Calculate the geometric average of the spatial frequency (lp/mm) for the observers, for each of the contrast values; if an observer is not able to resolve any Group and Element set, then the geometric average is calculated based on the other observers;
 - k. Calculate the spatial frequency in cycles per milliradian (cy/mrad) by multiplying the average spatial frequency in lp/mm with the focal length of the lens in metres (focal length for the lens used in this test is 0.8m);
 - l. For any contrast value, if two or more observers are not able to resolve any Group and Element set, then the LRT has failed the test;
 - m. The data pairs of contrast and average spatial frequency (cy/mrad) will be plotted to generate a MRC curve; and
 - n. Using the method of NATO STANAG 4347, the detection, recognition and identification ranges will be determined using the MRC data with the following conditions:
 - 1. Visibility 19.6 km
 - 2. Atmospheric attenuation 0.20 / km
 - 3. Target critical dimension 0.91 m
 - 4. Intrinsic target contrast 0.20
 - 5. Detection 1 cycle
 - 6. Recognition 4 cycles
 - 7. Identification 8 cycles
 - o. Success Criteria: The detection, recognition and identification ranges obtained must be greater than or equal to the values listed in Requirements 3.1.2.1, 3.1.2.2 and 3.1.2.3

14.2. Test 2: Boresight Deviation

- i. Type: Laboratory Evaluation;
- ii. Compliance: Requirement 3.1.4.1

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- iii. Test Methodology:
- a. Set the azimuth and elevation dials to their default settings;
 - b. Use a V-block test setup, or equivalent, to determine which magnification setting on the LRT yields the minimum deviation of the line of sight of the LRT and the center of the reticle. This becomes the reference setting for subsequent measurements. The magnification dial setting that will be used to determine the minimum deviation of the LRT are 5x, 16x and 25x;
 - c. The deviation of the LRT will be measured at the following magnification dial settings: 5x, 11x, 16x, 21x and 25x.
 - d. Use a collimator to project the image of a boresight target to infinity;
 - e. Mount the LRT to a test fixture that is securely fastened to an optical table such that it views the boresight target;
 - f. Mount a camera to a test fixture that is located behind the LRT such that the LRT reticle and boresight target are visible in the FOV of the camera. If the image of the reticle is not sufficiently large to resolve its anticipated deviation, additional optics may be used to magnify the image of the reticle;
 - g. Set the magnification of the LRT to 5x;
 - h. Use the camera to record an image of the LRT reticle and boresight target;
 - i. Test Deviation of Zero as follows:
 1. Use the magnification dial to set the magnification to its minimum value;
 2. Use the camera to record an image of the LRT reticle and boresight target;
 3. Increase the magnification to the next setting on the magnification dial ensuring no movement of the LRT; and
 4. Repeat until an image has been recorded at all magnification settings;
 - j. Analyze the recorded images to determine the deviation of the reticle from the minimum deviation setting at each magnification setting;

-
- k. Success Criteria: The boresight deviation obtained must be less than or equal to the value listed in Requirement 3.1.4.1.

14.3. Test 3: Accuracy and Repeatability

- i. Type: Laboratory Evaluation;
- ii. Compliance: Requirement 3.1.5.1
- iii. Test Methodology:
 - a. The accuracy and repeatability of the windage and elevation dials is measured using a collimator with a boresight target projected to infinity;
 - b. Mount the LRT to a test fixture that is securely fastened to an optical table such that it views the boresight target;
 - c. Mount a camera to a test fixture that is located behind the LRT such that the LRT reticle and boresight target are visible in the FOV of the camera. If the image of the reticle is not sufficiently large to resolve its anticipated deviation, additional optics may be used to magnify the image of the reticle;
 - d. Test will be conducted at LRT magnification of 25.0 ± 0.1 ;
 - e. Use the camera to record an image of the LRT reticle and boresight target with the reticle aim point at the Start position.
 - f. Move the aim point as per Requirement 3.1.5.1;
 - g. Use the camera to record an image of the LRT reticle and boresight target with the reticle aim point at the Finish position.
 - h. Analyze the recorded images to determine the deviation of the reticle aim point at the Finish position relative to the Start position.
 - i. Success Criteria: The deviation of the reticle aim point must be less than or equal to the value listed in Requirement 3.1.5.1.

14.4. Test 4: Low Temperature Operation

- iv. Type: Laboratory Evaluation;
- v. Compliance: Requirement 3.1.6.2.1
- vi. Test Methodology:
 - a. AECTP 300, Method 303, Low Temperature, Procedure IIa, Operation (constant temperature) and Procedure III, Manipulation Test. Test facility

may also use MIL-STD-810H, Method 502.7, Low Temperature, Procedure II – Operation and Procedure III – Manipulation

- b. Stabilize the LRT at -40°C for a minimum of 4 hours.
- c. Test the System following temperature stabilization:
 - 1. Visually inspect the LRT;
 - 2. Attach the LRT to a NATO rail;
 - 3. Flip open both the eyepiece and objective lens covers;
 - 4. Rotate the magnification dial left and right five (5) times;
 - 5. Power ON the illumination reticle* and cycle through all applicable illuminating intensities;
 - 6. Power OFF the illumination function;
 - 7. Rotate the parallax adjustment focus knob forward and reverse five (5) times;
 - 8. Rotate the elevation turret left and right five (5) times;
 - 9. Rotate the windage turret forward and reverse five (5) times; and
 - 11. Close the flip covers for the eyepiece and objective lens.
- d. Success Criteria: The LRT System must remain serviceable throughout the test without degradation of performance, and must not exhibit any physical damage.

* The units will be conditioned with a fresh battery. If the illumination reticle fails to power on the first time, the battery will be replaced once with a laboratory ambient temperature battery. Then a second attempt to power on the illumination reticle will be made.

14.5. Test 5: Under-Water Immersion

- i. Type: Laboratory Evaluation;
- ii. Compliance: Requirement 3.1.6.8.1
- iii. Test Methodology:
 - a. AECTP 300, Method 307, Immersion, 1 meter depth, for a duration of 30 minutes. Test facility may also use MIL-STD-810H, Method 512.6, Immersion, Procedure I - Immersion
 - b. Preconditioning temperature will be 10°C above the water temperature.

-
- c. Test the System following removal from water:
1. Visually inspect LRT;
 2. Attach the LRT to a NATO rail;
 3. Flip open both the eyepiece and objective lens covers;
 4. Rotate the magnification dial left and right five (5) times;
 5. Power ON the illumination reticle and cycle through all applicable illuminating intensities;
 6. Power OFF the illumination function;
 7. Rotate the parallax adjustment focus knob forward and reverse five (5) times;
 8. Rotate the elevation turret left and right five (5) times;
 9. Rotate the windage turret forward and reverse five (5) times; and,
 10. Close each flip covers for the eyepiece and objective lens.
- d. Success Criteria: The LRT System must remain serviceable throughout the test without degradation of performance, and must not exhibit any physical damage.

14.6. Test 6: Shock/Blast Resistance

- i. Type: Range Evaluation;
- ii. Compliance: Requirement 3.1.7.1, 3.3.1.7, 3.3.2.2
- iii. Test Methodology:
 - a. Mount-Dismount-Mount the LRT to the NATO rail of a 0.50 calibre bolt-action rifle.
 - b. Turn on the LRT, operate all controls and functions, and observe the image through the eyepiece of the LRT, to confirm proper operation of the LRT prior to firing the rounds.
 - c. While the LRT is turned on, and the lens cap covers in the open position, proceed with firing 20 rounds of 0.50 calibre cartridges from the bolt-action rifle while the LRT is mounted on the NATO rail.
 - d. After firing the 20 rounds, observe image through the eyepiece of the LRT and operate all controls and functions of the LRT to assess the operation of the LRT after firing.

-
- e. Dismount-Mount the LRT to the NATO rail of the 0.50 calibre bolt-action rifle to confirm operation of the Telescope Mount.
 - f. Success Criteria: The LRT System must remain serviceable throughout the test without degradation of performance, and must not exhibit any physical damage. The lens cap covers must remain hinged in the up-position under the shock.