APPENDIX 2 to ANNEX B

C21
MULTI-CALIBRE SNIPER WEAPON (MCSW) SYSTEM

DATA ITEM DESCRIPTIONS (DID)

Reference Number: W8476-196090

Date: 27 April 2020

Prepared by:
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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	Identification and Marking Presentation	004
SE-002	Not Used	-
SE-003	Equipment Environmental Assessment (EEA)	006
SE-004	System Acceptance Test Report	007
SE-005	Failure Investigation	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
LS-010	Operator Training Package	018
LS-011	Maintenance Training Package	019
LS-012	Operator Training Course	020
LS-013	Maintenance Training Course	021
CM-001	Request for Deviation	022
CM-002	Request for Waiver	023

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	2. DATA ITEM DESCRIPTION NUMBER
Project Master Schedule (PMS)	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	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	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	9. APPLICABLE FORMS
DSSPM 9	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:

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	2. DATA ITEM DESCRIPTION NUMBER
Meeting Agendas	PM-002

3. DESCRIPTION

Meeting Agendas provide an outline of the purpose, objectives and subjects to be formally discussed at meetings.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

This DID integrates with DID PM-003 Meeting Minutes.

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	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	2. DATA ITEM DESCRIPTION NUMBER
Meeting Minutes	PM-003

3. DESCRIPTION

Meeting record significant discussions and documents decisions taken at meetings.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

This DID integrates with DID PM-002 Meeting Agenda.

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	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:

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 Identification and Marking Presentation		2. DATA ITEM DESCRIPTION NUMBER SE-001
3. DESCRIPTION The Identification and Marking Presentation is needed to obtain Canada's approval prior to production.		
4. APPROVAL DATE 27 April 2020	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 MCSW:

a. Rifle and Barrels serial numbers;

b. Suppressor serial number;

c. Bolt serial number;

d. Rifle and Calibre designation; and

e. Rifle proof markings.

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Equipment Environmental Assessment (EEA)	SE-003

3. DESCRIPTION

The EEA identifies and documents potential environmental impacts of the equipment over various life-cycle phases (test and evaluation following production, operation and maintenance, and demilitarization and disposal) and the associated mitigation measures required to reduce or eliminate them.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

This DID contains content and preparation instructions for the EEA as required by the SOW.

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

10. PREPARATION INSTRUCTIONS

10.1 Format

The EEA must be prepared in the Contractor's format.

10.2 Content

The EEA must contain the following sections and information, as a minimum.

10.2.1 Title Page

a. Equipment Name and NSN (if available);

b. Originating Directorate: TBD;

c. DGLEPM EEA Registration Number: TBD; and

d. Assessment Contact: Name, title and company name of the author of the EEA.

10.2.2 Executive Summary

Provide a brief summary of potential environmental impacts and recommended mitigation measures for each life-cycle (test and evaluation following production, operation and maintenance, and demilitarization and disposal).

10.2.3 Equipment Description

a. Provide an overview of the equipment and identify each major sub-system as per the Equipment Breakdown Structure.

b. For each major sub-system, identify the following:

i) Ionizing radiation sources (radioisotopes and x-ray). e.g. Uranium, Radon, plutonium and tritium etc;

ii) Non-ionizing radiation sources (radiofrequency and lasers);

iii) Identify hazardous substances that are incorporated into the equipment design. Provide additional information in tabular form in Annex A;

iv) Identify hazardous products that are:

Used during manufacturing (i.e. paints/surface treatments, adhesives, lubricants, consumables such as batteries, etc.);

Recommended by the Contractor during the in-service life-cycle phase (i.e. lubricants, cleaners, decontaminants) or included in the Technical Documentation; and

Provide information in tabular form in Annex B.

v) Provide Safety Data Sheets (SDS) in Annex C for all hazardous products.

10.2.4 Environmental Assessment

For each lifecycle phase (test and evaluation following production, operation and maintenance, and demilitarization and disposal) discuss the following:

a. Lifecycle activities: Describe anticipated activities (including operator and maintenance tasks that are detailed in Contractor provided Technical Documentation) and identify if any of these activities have the potential to: release a polluting substance to air, water or land (e.g. exhaust emissions, hazardous waste, spills, etc.); impact human health; noise or vibration; and/or alter landscape features. Note: The scope of the EEA excludes activities related to the use of munitions;

b. Environmental impacts: Describe the potential environmental impacts identified above;

c. Mitigation Measures: Describe mitigation measures to eliminate or reduce identified potential environmental impacts, including those that are part of the design, any warning devices, emission control equipment, spill response, safe handling and disposal procedures, training, Personal Protective Equipment (PPE), labels on equipment, cautions and warnings in the Technical Documentation, monitoring or inspections, etc.

10.2.5 Conclusion and Recommendations

Summarize the main environmental impacts and recommended mitigation measures.

10.2.6 References

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

Annex A – List of Hazardous Substances in the equipment

Annex B – List of Hazardous Products

Annex C – Safety Data Sheets SDS for all hazardous products identified in the EEA

Annex A - List of Hazardous Substances in the Equipment

Hazardous Substance	NSN	Original OEM Part Number	Item Description	Location	Additional Details
Antimony, Arsenic, Beryllium, Brass, Bronze, Chromium VI, Cobalt, Copper, Lead, Precious and radioactive metals					
Asbestos					Type and Mil Spec. Name and description of product containing asbestos, concentration and mass of asbestos in the product, units of measurements for describing concentration and mass.
Halocarbons					Type and weight (kg). Global Warming Potential of Hydrofluorocarbons used for refrigerant applications.
Ionizing radiation					Type and quantity or activity level
Mercury and its compounds					Product Category, form of mercury (e.g. liquid, vapour) and weight (mg)
Non-ionizing radiation					Type of electromagnetic energy (laser, microwave, radio frequency) and strength
Polychlorinated Biphenyl					Form (liquid or solid), quantity (kg), volume (L) and concentration in ppm

* Note: Provide information on the presence of other metals, metal coatings, surface treatments, etc. if available and even if regulations are not in existence at the time of the assessment.

Annex B – List of Hazardous Products

Hazardous Product	NSN	Product Part Number / Manufacturer	Ingredient	Chemical Abstract Service Number	Controls*
Adhesives, anti-seize, anti-static, batteries, solvents, cleaners and degreasers, compressed gases, coolant, corrosion inhibitor, cutting fluid, decontaminant, desiccant, detector kit, dielectric compounds, fire extinguishing agent, flame retardant, fuel, grease, inspection penetrant, lubricants, paints and related commodities (topcoat, primer, wash-primer, thinner, paint stripper, powder coating, underbody coating), polishing compounds (automotive polish, leather care), refrigerants, sealants, spill kits, welding compounds (solder, flux, electrode etc.), etc.					

*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).

Annex C – Safety Data Sheets SDS for all hazardous products identified in the EEA

DATA ITEM DESCRIPTION

1. TITLE		2. DATA ITEM DESCRIPTION NUMBER
System Acceptance Test Report (SAT)		SE-004
3. DESCRIPTION The SAT report formally documents all of the discussions, results and conclusions generated during SAT.		
4. APPROVAL DATE 27 April 2020	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 Contractor's own format is acceptable.

10.1.2 All test results must be traceable (cross reference) to the applicable requirements of Annex B (MCSW Statement of Work) and Annex C (MCSW Mandatory Technical Requirements). See Annex B, Appendix 4 for a list of applicable requirements.

10.2 Content

10.2.1 The SAT Test Report must include the following details:

a. A coversheet showing the signatures and dates of the required Contractor Authorities for approval including the Quality Assurance Manager and the Test Officer;

b. Background and description of Items being tested with photographs;

c. Location of test facilitates;

d. Tabulated Summary of all results including columns for Test Reference, Test Description, Sentencing Criteria, Result and Pass/Fail; and

e. Annexes containing copies of all raw data collected during SAT including target impact points in Cartesian (X, Y) format and photographs of targets.

10.2.2 For each specific test called up in Annex B, Appendix 4, the SAT report must include the following detail:

a. Test Identification and Title: Identification of the specific test being conducted from Annex B, Appendix 4;

b. Background of the test;

c. Purpose and objective of the test;

d. Location of where test was conducted;

e. Test Authority, test officer and any other participants;

f. Details of any deviations from procedure or criteria;

g. Results: Details of all the test data and calibrations with sample calculations with applicable graphs, charts, printouts of test data, illustrations, digital photographs and/or video recordings. The results must clearly indicate pass/fail;

h. Conclusions: Identify pass/fail results and provide an analysis of the test results; and

i. Recommendations, explanations, decisions and remedial actions for partially met requirements and test failures. This section shall propose corrective action for all test failures.

DATA ITEM DESCRIPTION			
1. TITLE Failure Investigation			2. DATA ITEM DESCRIPTION NUMBER SE-005
3. DESCRIPTION The Failure Investigation Report formally documents all failures and deficiencies found during SAT.			
4. APPROVAL DATE 27 April 2020	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 Contractor's own format is acceptable.

10.2 Content

10.2.1 The Failure Investigation Report must be an engineering report signed off by a professional engineer in the company or a 3rd party engineering company tasked to do the failure analysis. The report must include as a minimum the following subjects and discussions:

a. Description of failure, including photos and images;

b. Circumstances in which the failure occurred;

c. Discussion and findings of the investigations, including tests, analysis that may have been performed, supported by data;

d. Conclusions, recommendations, options and or solutions; and

e. Risk and impact statements against each recommended option or solution.

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 27 April 2020	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:

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	2. DATA ITEM DESCRIPTION NUMBER
Maintenance Manual Information	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	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

N/A

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

10. PREPARATION INSTRUCTIONS

10.1 The Contractor must provide the existing Armourers Maintenance Manual that details all of the repair tasks that can be performed on the Rifle. The information for the Armourers Maintenance Manual must be in the following format:

a. Original, unlocked native file format that was originally used to author and develop the Armourers Maintenance Manual;

b. An unlocked and searchable PDF version of the Armourers Maintenance Manual; and

c. All illustrations, diagrams and pictures in scalable and editable native file formats.

10.1.2 In the event the Contractors Armourers 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	2. DATA ITEM DESCRIPTION NUMBER
Data Summary Information	LS-003

3. DESCRIPTION

The Data Summary Information provides the details required to create Data Summaries.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

N/A

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

11. PREPARATION INSTRUCTIONS

11.1 The Contractor must provide basic, descriptive identification data for the Rifle as follows:

11.1.1 Physical Data:

a. Weights:

i. Rifle Weight (each caliber) ;

ii. Sling Weight;

iii. Empty Magazine Weight (each caliber) ;

iv. Full Magazine Weight (each caliber);

v. Muzzle Brake Weight; and

vi. Suppressor Weight;

b. Lengths (each caliber):

i. Rifle with Stock fully Collapsed;

ii. Rifle with Stock Extended to each lockable position;

iii. Rifle with Stock Fully Extended; and

iv. Rifle with suppressor with Stock fully Collapsed;

c. Chamber Pressure:

i. Rifle Design Pressure (DP); and

ii. Rifle Permissible Maximum Pressure (PMP).

d. Barrel Data (each caliber):

i. Length with and without muzzle brake;

ii. Number of grooves;

iii. Pitch of Rifling; and

iv. Direction of twist;

e. Gauging Specifications (each caliber):

i. Bore Straightness Gauge (Dimension of the gauge that will drop freely through the bore with the barrel held vertically);

ii. Headspace minimum go gage;

iii. Headspace minimum no go gage;

iv. Firing Pin Protrusion;

v. Minimum no-go; and

vi. Maximum go;

f. Trigger Second Stage Pull Range (maximum and minimum);

g. Torque Limits for all major components; and

h. Suppressor noise reduction rating.

DATA ITEM DESCRIPTION			
1. TITLE Mechanical Diagram Information			2. DATA ITEM DESCRIPTION NUMBER LS-004
3. DESCRIPTION The Mechanical Diagram is an exploded view the MCSW.			
4. APPROVAL DATE 27 April 2020	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	

12. PREPARATION INSTRUCTIONS

12.1 The Contractor must provide a mechanical diagram depicting an exploded view of the MCSW that fully details the arrangement and locations of assembled components.

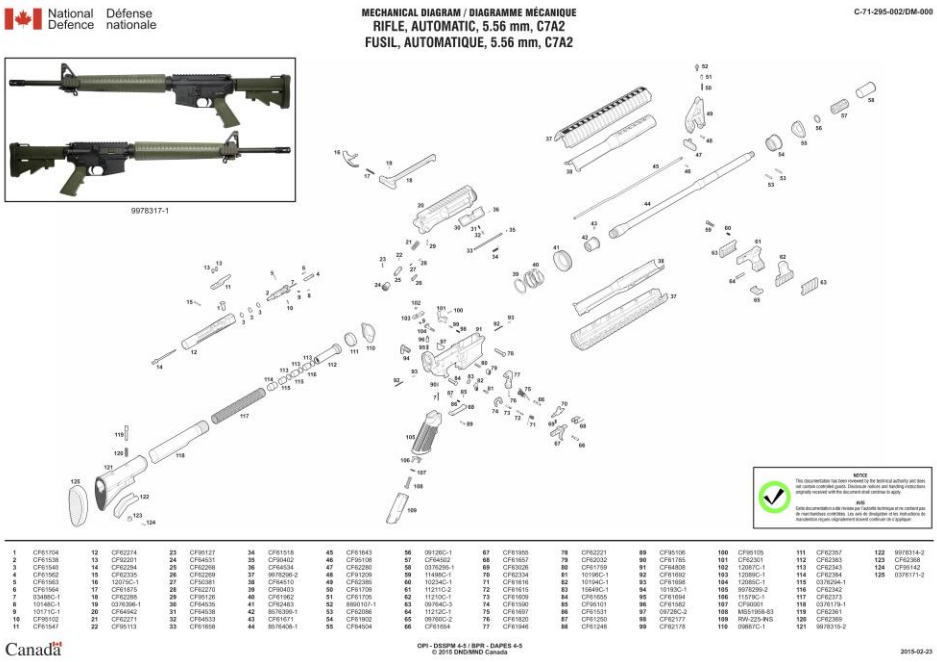
12.2 The components that appear in the mechanical diagram must be sequentially numbered from “1” to “XX” in accordance with the style and fashion of the example below. All numbers must point to their specific component using an arrow.

12.3 Mechanical diagram numbering must be organized such that the numbering of components is generally done in a left to right fashion.

12.4 The mechanical diagram must include a sequentially numbered bill of material that references numbers assigned to parts in the mechanical diagram. Components which have different options depending on the caliber must be clearly identified and a warning to use the proper set of components must be included.

12.5 The mechanical diagram must be delivered in a scalable and editable native format.

12.6 An example of a C7A2 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 27 April 2020	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	

13. PREPARATION INSTRUCTIONS

13.1 The Contractor must provide mechanical diagrams depicting an exploded view of the following MCSW sub-systems that fully details the arrangement and locations of assembled components:

a. Bolt and Bolt Carrier sub-assembly with all caliber options;

b. Chassis sub-assembly;

c. Trigger Mechanism sub-assembly;

d. Barrels and barrel attachment sub-assembly;

e. Butt Stock and Extension sub-assembly;

f. Muzzle brake and Suppressor sub-assembly; and

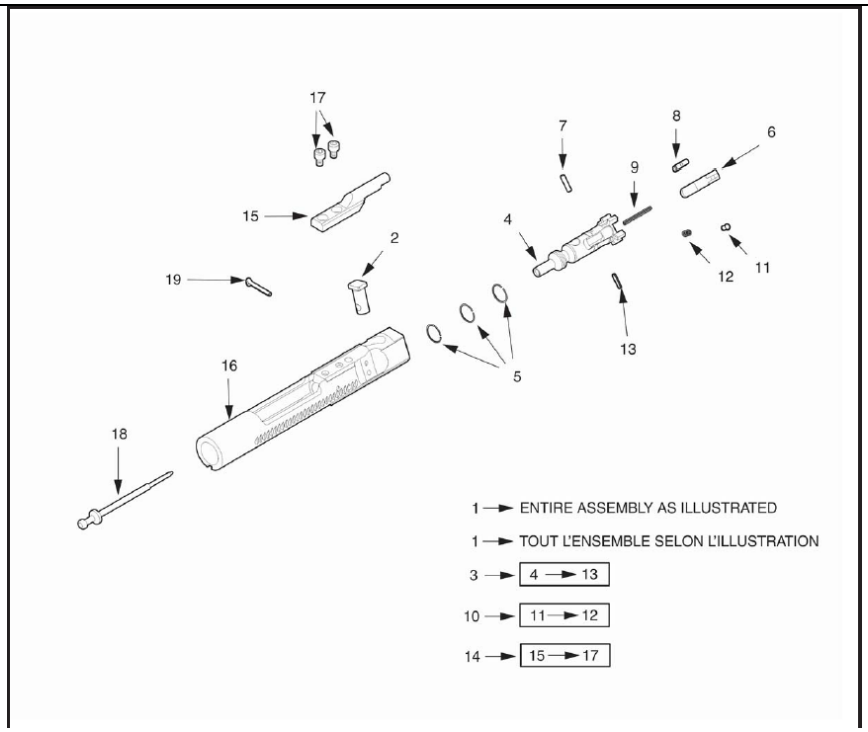
g. Sling assembly.

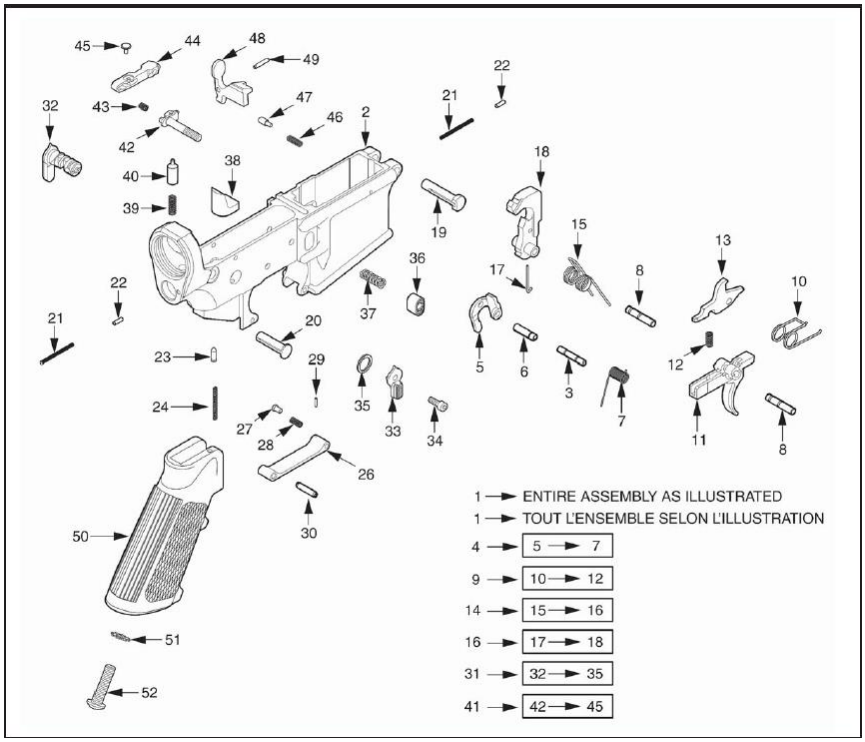
13.2 The components that appear in each sub-assembly mechanical diagram must be sequentially numbered from “1” to “XX” in accordance with the style and fashion of the examples below. All numbers must point to their specific component using an arrow.

13.3 Mechanical diagram numbering must be organized such that the numbering of components is generally done in a left to right fashion.

13.4 The mechanical diagram must be delivered in a scalable and editable native format.

13.5 Mechanical Diagrams below for a C7A2 are provided as examples only:


1 → ENTIRE ASSEMBLY AS ILLUSTRATED
1 → TOUT L'ENSEMBLE SELON L'ILLUSTRATION
3 → 4 → 13
10 → 11 → 12
14 → 15 → 17


1 → ENTIRE ASSEMBLY AS ILLUSTRATED
1 → TOUT L'ENSEMBLE SELON L'ILLUSTRATION
4 → 5 → 7
9 → 10 → 12
14 → 15 → 16
16 → 17 → 18
31 → 32 → 35
41 → 42 → 45

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Equipment Description Information	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	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

N/A

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

14. PREPARATION INSTRUCTIONS

14.1 The Contractor must provide an existing Equipment Description Manual that describes the MCSW assemblies and sub-assemblies as well as caliber change instructions and the theory of operation in both suppressed and unsuppressed modes. The information for the Equipment Description Manual must be in the following format:

a. Original, unlocked native file format that was originally used to author and develop the Armourers Maintenance Manual;

b. An unlocked and searchable PDF version of the Armourers Maintenance Manual; and

c. All illustrations, diagrams and pictures in scalable and editable native file formats.

14.2 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:

14.2.1 The Contractor must provide text in support of describing and developing a theory of operation for the MCSW System assemblies and sub-assemblies.

14.2.2 The Contractor must provide diagrams in support of the description and theory of operation of the MCSW for the following topics and assembly groups:

a. MCSW Overview Diagram. This diagram must illustrate left hand side views of the MCSW with the suppressor installed and with the suppressor uninstalled. The diagram must reference the following major assembly groups using numbers and arrows:

i. Barrels and barrel attachment groups with caliber change options;

ii. Chassis group;

iii. Trigger Mechanism assembly group;

iv. Bolt and Bolt Carrier sub-assembly with caliber change options;

v. Butt Stock and Extension assembly group;

vi. Suppressor and Muzzle brake assembly group;

vii. Magazines;

viii. Maintenance Items and Tools; and

ix. Sling assembly group.

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, adjustment, and/or caliber options. 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 MCSW. The diagrams must reference the sub-assemblies of each group using numbers and arrows.

c. Detailed diagrams to support the following 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:

   i. Select Fire;

   ii. Feeding and Chambering (depicting cut away view with cartridge being fed into chamber);

   iii. Bolt in lock position showing direction of travel for bolt and locking mechanism;

   iv. Firing (depicting projectile in bore);

   v. Recoil management;

   vi. Bolt in unlocked position showing direction of travel for bolt and locking mechanism;

   vii. Casing Extraction (Depicting cutaway view with casing being extracted);

   viii. Casing Ejection (Depicting cut away view of casing being ejected);

   ix. Noise suppression (Depict cutaway view showing internal baffles and gas management during firing).

   x. Caliber change procedure.

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Provisioning Parts Breakdown (PPB)	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 indention code as illustrated in the top down breakdown sequence.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

N/A

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	See Block 10

15. PREPARATION INSTRUCTIONS

15.1 FORMAT

15.1.1 The PPB must be in MS Excel 2013 format or later.

15.2 CONTENT

15.2.1 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.

15.2.2 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		2. DATA ITEM DESCRIPTION NUMBER
Supplementary Provisioning Technical Data (SPTD)		LS-008
3. DESCRIPTION Data required to uniquely identify, for cataloguing purposes, each item in the PPB list.		
4. APPROVAL DATE 27 April 2020	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	

16. PREPARATION INSTRUCTIONS

16.1 FORMAT

16.1.1 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.

16.2 CONTENT

16.2.1 The SPTD must include:

a. Full assembly drawings with attached parts lists for all required caliber options, 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.

16.2.2 The SPTD must include, as applicable:

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 MCSW System (less GFE items) for a 24 month service period.			
4. APPROVAL DATE 27 April 2020	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 16.2.3 The RSPL must be in MS Excel 2013 format or later. 16.3 CONTENT 16.3.1 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. 16.3.2 The RPSL must be structured in a Family Tree format starting with the top level assembly down to the serviceable items.			

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Operator Training Package	LS-010

3. DESCRIPTION

The training documentation will be used by DND to support the delivery of the ICT serials. It will also be used subsequently by DND to support the courseware development of post ICT training within DND. It is expected that training documentation (courseware) will already have been developed for existing customers.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

N/A

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

17. PREPARATION INSTRUCTIONS

17.1 FORMAT

17.1.1 The Contractor's own format is acceptable.

17.1.2 The training documentation package for each course must be prepared separately.

17.1.3 The Contractor's existing training documentation format is acceptable and may include material from sub-contractor in its own format, provided the material is comprehensible and comprehensive.

17.2 CONTENT

17.2.1 The training documentation must include as a minimum:

a. Charts/diagrams of the system;

b. Method of operation;

c. Proposed user training objectives;

d. Lesson guides;

e. Computer generated animations if currently available; and

f. Multimedia (e.g. DVD's, videos) if currently available.

17.2.2 The Operator training documents must cover the following material:

a. MCSW System Introduction and Overview;

b. MCSW Caliber Change procedure and its effect on point of impact;

c. MCSW Stripping, Assembling, Lubrication and Cleaning;

d. Ammunition Handling, Sights, Trigger Pull adjustments, Load, Ready, Unload, Make Safe and Safety;

e. Mechanisms, Immediate Action and Possible Stoppages; and

f. Setting up for muzzle brake and suppressor use and effect on point of impact.

17.2.3 It is expected that the Contractor will take maximum advantage of existing training documentation.

17.3 OFFICIAL LANGUAGES

17.3.1 The Operator Training Package must be delivered in English.

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Maintenance Training Package	LS-011

3. DESCRIPTION

The training documentation will be used by DND to support the delivery of the ICT serials. It will also be used subsequently by DND to support the courseware development of post ICT training within DND. It is expected that training documentation (courseware) will already have been developed for existing customers.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

N/A

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

18. PREPARATION INSTRUCTIONS

18.1 FORMAT

18.1.1 The Contractor's own format is acceptable.

18.1.2 The training documentation package for each course must be prepared separately.

18.1.3 The Contractor's existing training documentation format is acceptable and may include material from sub-contractor in its own format, provided the material is comprehensible and comprehensive.

18.2 CONTENT

18.2.1 The training documentation must include as a minimum:

a. Charts/diagrams of the system;

b. Method of operation;

c. Proposed user training objectives;

d. Lesson guides;

e. Computer generated animations if currently available; and

f. Multimedia (e.g. DVD's, videos) if currently available.

18.2.2 The Maintenance training documentation must cover the following material:

a. MCSW Introduction and Overview;

b. Apparatus and Tools;

c. Repair Techniques:

i. Lubrication;

ii. Refinishing;

iii. Cleaning; and

iv. Care and Servicing;

d. Disassembly & Reassembly into Major Groups, caliber change procedure;

e. Assembled MCSW Serviceability Inspection; and

f. Tests and Adjustments.

18.2.3 It is expected that the Contractor will take maximum advantage of existing training documentation.

18.3	OFFICIAL LANGUAGES
18.3.1	The Maintenance Training Package must be delivered in English.

DATA ITEM DESCRIPTION

1. TITLE		2. DATA ITEM DESCRIPTION NUMBER
Operator Training Course		LS-012
3. DESCRIPTION This training course is a train the trainer exercise where the Contractor will teach trainers how the MCSW functions and operates, so the trainers can then train the rest of the snipers.		
4. APPROVAL DATE 27 April 2020	5. OFFICE OF PRIMARY INTEREST DSSPM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP DID LS-010 Operator Training Package		
8. ORIGINATOR DSSPM 9	9. APPLICABLE FORMS N/A	

19. PREPARATION INSTRUCTIONS

19.1 CONTENT

19.1.1 The Operator Training Course must cover the material in the Operator Training Package (DID LS-010) including:

a. MCSW System Introduction and Overview;

b. MCSW Stripping, Caliber Change (including zero adjustment), Assembling, Lubrication and Cleaning;

c. Ammunition Handling, Sights, Trigger Pull adjustment, Load, Ready, Unload, Make Safe and Safety;

d. Mechanisms, Immediate Action and Possible Stoppages; and

e. Setting up for muzzle brake and/or suppressor use and effect on point of impact.

19.2 OFFICIAL LANGUAGES

19.2.1 The Operator Training Course must be delivered in English.

DATA ITEM DESCRIPTION

1. TITLE		2. DATA ITEM DESCRIPTION NUMBER
Maintenance Training Course		LS-013

3. DESCRIPTION

This training course is a train the trainer exercise where the Contractor will teach trainers how to maintain and repair the MCSW, so the trainers can then train the rest of the armourers.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

DID LS-011 Maintenance Training Package

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	N/A

20. PREPARATION INSTRUCTIONS

20.1 CONTENT

20.1.1 The Maintenance Training Course must cover the material in the Maintenance Training Package (DID LS-011) including:

a. MCSW Introduction and Overview;

b. Apparatus and Tools;

c. Repair Techniques:

i. Lubrication;

ii. Refinishing;

iii. Cleaning; and

iv. Care and Servicing;

d. Disassembly & Reassembly into Major Groups;

e. Assembled MCSW Serviceability Inspection; and

f. Tests and Adjustments as well as component evaluation and replacement (if needed).

20.2 OFFICIAL LANGUAGES

20.2.1 The Maintenance Training Course must be delivered in English.

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Request for Deviation (RFD)	CM-001

3. DESCRIPTION

Requests for Deviation provide the required details in order to seek authorization, prior to manufacture, to deliver materials not meeting specified requirements. The Requests for Deviation must fully enable the DND TA to evaluate for authorization the item not conforming to Contractual requirements with respect to the impact on performance, availability, logistics support and any other affected areas.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	DND 672

21. PREPARATION INSTRUCTIONS

21.1 Format

21.1.1 Requests for Deviation (RFD) must be in the Contractor's own format and as further described herein.

21.1.2 The RFD package must be accompanied by the latest form DND 672 following procedures contained in D-02-006-008/SG-001 – The Design Change Deviation and Waiver Procedure.

21.2 Content

21.2.1 The following information as a minimum must be included and detailed for each Requests for Deviation:

a. General information (i.e. originator, date, Requests for Deviation number, designation, title, etc.);

b. Configuration Item Information (CI(s) to which Requests for Deviation applies) as well as main equipment affected;

c. Impact on performance, availability, logistics, training, specifications, interfaces and any other affected areas;

d. Description of deviation;

e. Substantiation (need/reason) of deviation; and

f. Authorities (Submitting, Reviewing, Recommending and Approving).

DATA ITEM DESCRIPTION

1. TITLE	2. DATA ITEM DESCRIPTION NUMBER
Request for Waiver (RFW)	CM-002

3. DESCRIPTION

Requests for Waiver provides the required details in order to seek authorization to deliver manufactured materials, or currently being manufactured, not meeting specified requirements. The Requests for Waiver enables the DND TA to fully evaluate for authorization the item not conforming to Contractual requirements with respect to the impact on performance, availability, logistics support, interfaces and any other affected areas.

4. APPROVAL DATE	5. OFFICE OF PRIMARY INTEREST	6. GIDEP APPLICABLE
27 April 2020	DSSPM 9	N/A

7. APPLICATION / INTERRELATIONSHIP

8. ORIGINATOR	9. APPLICABLE FORMS
DSSPM 9	DND 675

22. PREPARATION INSTRUCTIONS

22.1 Format

22.1.1 Requests for Waiver (RFW) must be in the Contractor's own format and as further described herein.

22.1.2 The RFW package must be accompanied by the latest DND 675 form following procedures contained in D-02-006-008/SG-001 – The Design Change Deviation and Waiver Procedure.

22.2 Content

22.2.1 The following information as a minimum must be included and detailed for each Requests for Waiver:

a. General information (i.e. originator, date, Requests for Waiver number, designation, title, etc.);

b. Configuration Item Information (CI(s) to which Requests for Waiver applies) as well as main equipment affected;

c. Impact on performance, availability, logistics, training, specifications, interfaces and any other affected areas;

d. Description of waiver;

e. Substantiation (need/reason) of waiver;

f. Corrective actions taken;

g. Extent of manufacturing of non-conformance; and

h. Authorities (Submitting, Reviewing, Recommending and Approving).