

ANNEX A-ISS

CANADIAN ARMY MEDIUM RANGE RADAR IN SERVICE SUPPORT (MRR-ISS)

STATEMENT OF WORK (SOW)

{Including Free-Flow Repair and Overhaul (R&O)}

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Appendix 1 DND 626 Form

Appendix 2 DND 552 Form - Application for Spectrum Supportability

Appendix 3 Instructions for Completing the DND Form 552

1. GENERAL

1.1 Aim

- 1.1.1 This Statement of Work (SOW) describes the work that is required to sustain a Medium Range Radar (MRR) System for Intelligence Surveillance Target Acquisition and Reconnaissance (ISTAR) support to force generation and deployment of Canadian Armed Forces (CAF) units. The method for accomplishing this work is to be proposed by the Contractor in its bid, in the context of Canada's concept of operations and support.

1.2 Overview

- 1.2.1 This SOW shall apply to a Medium Range Radar (MRR) providing weapon location and air surveillance capabilities to the CAF units and sub-units.
- 1.2.2 The support and maintenance of the MMR described herein shall meet the specifications described in the Medium Range Radar Acquisition System Performance Specification Solicitation No: W8476-133817.
- 1.2.3 As described in this SOW, the Contractor shall be required to achieve outcomes by producing outputs across four (4) functional areas:
 - a. Program Management;
 - b. Engineering Support;
 - c. Materiel Support; and
 - d. Maintenance Support.
- 1.2.4 The support for the MRR Systems must achieve the following outcomes:
 - a. Provision of timely, accurate engineering support products and services;
 - b. Provision of MRR Systems and parts when and where required in an effective and efficient manner; and
 - c. Provision of MRR System maintenance and training support services.
- 1.2.5 The following outputs shall be required to support the MRR Systems:
 - a. Maintenance/updates of Plans and Reports, or creation of new plans and reports as and when tasked;
 - b. Provision of Engineering Support Products and Services;
 - c. Provision of Materiel Support Products and Services; and
 - d. Provision of Maintenance Support Products and Services.

1.3 Scope

- 1.3.1 The work shall be complementary to, and in support of the MRR Acquisition Contract for delivering the capability to the CAF.
- 1.3.2 Management plans created under the MRR Acquisition Contract and described in the Medium Range Radar Acquisition Statement of Work, shall be source documents and shall be maintained and used for the duration of this support Contract, includes the following:
 - a. Project Management Plan in accordance with (IAW) CDRL 1278-PMP-001, DID 1278-PMP-001;
 - b. Integrated Logistics Support Plan (Materiel) IAW CDRL 1278-ILS-001, DID 1278-ILS-001;
 - c. Maintenance Plan IAW CDRL 1278-ILS-002, DID 1278-ILS-002;
 - d. Training Master Plan IAW CDRL 1278-ILS-006, DID 1278-ILS-006; and
 - e. Configuration Management Plan IAW 1278-ILS-011, DID 1278-ILS-011.
- 1.3.3 Where applicable, work under this SOW shall be conducted IAW the appropriate plan or plans.
- 1.3.4 Technical Investigation and Engineering Support (TIES) tasks and Additional Work Request (AWR) tasks shall require the Contractor to provide support from its location or on specific occasions at sites specified in the individual task SOW. Each task will require separate authorization.
- 1.3.5 For component and assembly maintenance purposes, the complete overhaul of equipment returned to the Contractor (except life items that are time expired) shall only be permitted on a case by case basis when specifically authorized by the Technical Authority. The intent is that repair work shall be done and overhaul resorted to only where such overhaul is economically and technically justifiable. The following definitions shall apply:
 - a. Repair: The identification and correction of those specific defects which degrade the performance of an item causing it to function below the specifications;
 - b. Overhaul: The restoration of an item to its original condition/near life expectancy. It includes the replacement of worn, damaged or life expired parts, the incorporation of approved modifications and the rework of components as necessary;
 - c. Inter-changeability: Following repair, the item must remain fully interchangeable (form, fit and function) with articles catalogued under the same reference number, part number and of the same modification status. This concept of inter-changeability must be extended to include internal characteristics such as wave forms and components layout in order to ensure full compatibility with automatic test equipment software and automatic probing; and

- d. Serviceable Condition: The condition of an item of equipment which allows it to be used, shipped or held in stores without being subjected to any limitations not applicable to new equipment.

1.4 Electronic Document Format

- 1.4.1 All documents requested in electronic format with the exception of “.pdf” files shall be delivered in a format that can be imported, read, edited, printed and saved.
- 1.4.2 Documents submitted with security settings or document protection settings that prevent DND from printing the document shall be re-submitted in an appropriate format.
- 1.4.3 PDF files shall only be acceptable for those documents that the Technical Authority has no requirement to insert comments, to amend the text or data, to extract text or data, or to use the content of the document for other action.

1.5 Concept of Operations (CONOPS)

- 1.5.1 The MRR Systems will be in service with the 4th Air Defence Regiment, RCA, located at CFB Gagetown, NB. Operational and support elements of this unit will deploy from fixed sites to conduct missions in a theatre of operations as and when required.
- 1.5.2 For combat operations, the MRR will typically be deployed by a troop as part of a sub-unit of the regiment. Each MRR troop will consist of two radar systems with each system operated by integral detachments of no more than four (4) operators. For these operations, the sub-unit is an integral part of the supported formation, and all transportation, support and protection is provided within the sub-unit and/or formation resources. The MRR system will be on a mobile platform, allowing operation from static positions or move as required.
- 1.5.3 For operations in support of other activities the MRR troop will be augmented by integral unit support resources, while maintaining the same operator crew level.
- 1.5.4 In both cases the MRR troop will at all times carry the resources required to complete 24-hours of operations.
- 1.5.5 For equipment requirement purposes, the MRR troops are assumed to travel to their final operations site by vehicle, and to then operate independently from an open field with no immediate support for a 24 hour period. It is then assumed that their integral unit support resources will provide the necessary resupply on a daily basis.

1.6 Concept of Support

- 1.6.1 The MRR System will be supported during force generation and force employment operations primarily through resources integral to the 4th Air Defence Regiment, RCA, located at CFB Gagetown, NB. Integral supply and maintenance support will typically be provided by the Regiment.

- 1.6.2 Integral maintenance elements will typically perform first-level and second-level maintenance activities as defined in paragraph 8.1.1. Integral support elements will stock and distribute supplies required to maintain continuous MRR System operations (such as fuel, rations, ammunition) as well as the spare parts and consumables required to perform the first-level and second-level maintenance.

2. REFERENCES

2.1 Applicable Documents, Acronyms and Glossary

- 2.1.1 A complete list of documents that shall form part of this SOW to the extent specified herein, and that shall be supportive of the SOW when referenced in section 3.0 and beyond can be found in Annex D-ISS (Applicable Documents) to the MRR-ISS Contract. Applicable acronyms and definitions that shall be used are listed at Annex E-ISS.

3. GENERAL REQUIREMENTS

3.1 Operational Availability

- 3.1.1 Operational Availability shall be defined as the percentage of time that the MRR System is in serviceable condition over an Expected Availability Period (EAP).

- 3.1.2 Operational Availability (Ao) shall be expressed as follows:

$$Ao = (EAP - TCT) / (EAP), \text{ where}$$

EAP = Expected Availability Period – calculated as 24 hours per day, 7 days per week for each month for all MRR Systems not covered under separate support tasks.

TCT = Total Contractor Time - period of time from when a defect / deficiency report is submitted to the Contractor until the MRR System is returned to the user unit line in a serviceable condition. .

- 3.1.3 The following will be excluded from the calculation of the Total Contractor Time:

- a. periods where the Canadian Armed Forces is performing authorized maintenance;
- b. periods where the Canadian Armed Forces is performing preventative maintenance;
- c. periods where the MRR System is awaiting repair due to battle damage and/or direct physical damage not associated with routine / expected wear and tear;
- d. periods of downtime due to failure of the Canadian Armed Forces to authorize the repair of an item within 30 days of a repair request if the cost exceeds the preauthorized repair limit;
- e. periods of downtime due to failure of the Canadian Armed Forces to authorize any minor obsolescence related changes to the MRR System within 90 days of a the request;
- f. periods where Canada has issued a stop work instruction to the Contractor;

- g. periods where the MRR System is awaiting repair due to the lack of Canadian Armed Forces maintenance resources;
 - h. the transit time for the MRR System to be shipped to the Regimental support area for Contractor repairs where shipping is the responsibility of the Canadian Armed Forces; and
 - i. The transit time for spare parts from the regimental support area to a non-serviceable MRR System where shipping is the responsibility of the Canadian Armed Forces.
- 3.1.4 When MRR Systems are outside the Regimental support area under the Canadian Armed Forces control, shipping of spare parts to the MRR System and/or shipping of a non-serviceable MRR System back to the Regimental support area for Contractor repairs will be the responsibility for the Canadian Armed Forces.
- 3.1.5 Operational Availability shall be evaluated for the entire fleet on a monthly basis where the EAP includes weekends and holidays. Deployed fleets covered by a separate support tasking will be excluded and evaluated according to the terms of their respective support tasking.
- 3.1.6 The Contractor shall provide technical advice to the Technical Authority when required for maintenance.
- 3.1.7 The Contractor shall base all their recommendations for spares and ILS plans on a 90% Operational Availability.
- 3.1.8 Any proposed changes to the ILS Plan including the agreed upon spare part quantities held at the Regimental support area are subject to approval by Canada. In the absence of such approval the availability calculations shall continue to be in effect.
- 3.1.9 Any non-serviceable MRR System awaiting repair due to the lack of spare parts held by the Canadian Armed Forces shall be deemed as Operationally Unavailable.

3.2 Estimated MRR System Usage

- 3.2.1 MRR System Usage shall be defined as those periods where the MRR System is deployed for operator and maintenance training, regimental exercises, national exercises, pre-deployment training and routine regimental activities.
- 3.2.2 Estimate usage for the MRR Systems within the Canadian Armed Forces is as follows:
 - a. Regimental and below routine operations usage is estimated to average 1600 hours per year for all MRR Systems combined; and
 - b. Collective exercises usage is estimated to average 800 hours per year for all MRR Systems combined.

3.3 Repair and Overhaul (R&O)

- 3.3.1 The Contractor shall cost and track each request for third level repair individually where the basis of payment shall be per request for repair and the agreed upon rates.

- 3.3.2 The Contractor shall repair and/or overhaul only those items for which it has received authorization from the Procurement Authority in accordance with either an established list of pre-authorized repairs or an individual authorization specific to individual components or assemblies that are not on the pre-authorized list at the time the item is received. The Contractor shall conform to such procedures as required in this SOW, A-LM-184-001/JS-001, and applicable reference documents/publications related to the Contractor management of DND equipment and stores in its possession. DND reserves the right to exercise surveillance over all applicable aspects of the Contractor's supply operation in Canada.

3.4 Support

- 3.4.1 When tasked, the Contractor shall provide additional in-service support at Canadian Armed Forces (CAF) work sites to support training and maintenance. These tasks will be created to satisfy specific short duration requirements. The Contractor shall only perform the work and provide the services specified in any approved tasks on receipt of the appropriate approved contractual documentation (DND 626, Appendix 1).

3.5 Materiel Transportation Responsibilities

- 3.5.1 The Contractor shall be responsible for all transportation of materiel between the Contractor and the CAF unit at CFB Gagetown.

4. PROGRAM MANAGEMENT SERVICES

4.1 Program Management/Control

- 4.1.1 The Contractor shall provide program management, including a Program/Project Manager (PM) and any support staff necessary to manage the Contractor work under this program. Canada will not provide office/work space for the PM and the associated support staff. For the period that the Acquisition Contract and this ISS Contract are both in effect, the PM established under the acquisition program shall be the joint PM of both Contracts. All Field Service Representatives (FSR) will be provided with office and work space inclusive of communications and access to power.
- 4.1.2 The Project Management Plan (PMP) IAW CDRL 1278-PMP-001, DID 1278-PMP-001, generated and approved under the MRR Acquisition Contract shall be applicable to and form part of this SOW. The PMP includes all requirements for maintaining schedules, hosting or attending meetings, producing minutes for meetings, delivering reports, delivering updates to information and documentation related to MRR Systems and operating frequencies when applicable.

4.2 Integrated Logistics Support Plan

- 4.2.1 Where applicable, the original ILS plan delivered IAW CDRL 1278-ILS-001, DID 1278-ILS-001, and its sub-component plans shall be used for the routine MRR System support work under this SOW. When appropriate, the Contractor shall propose updates to the ILS Plan.

4.3 Maintenance Plan

- 4.3.1 Maintenance will be conducted IAW the Contractors maintenance plan delivered IAW CDRL 1278-ILS-002, DID 1278-ILS-002. In the event that there is any change to equipment, software or procedures that requires an amendment to the maintenance procedures the Contractor shall inform Canada of the changes as early as is practical. The changes shall only become effective the date Canada publishes an amendment to the applicable maintenance publication, or issues a service bulletin to the applicable CAF operator units.

4.4 Publication Management

- 4.4.1 The Contractor shall be responsible for maintaining the operation and technical publications IAW the Technical Data (Publication and Engineering Data) CDRL 1278-ILS-005, DID 1278-ILS-005. The Contractor remains responsible for informing Canada of any change to the technology or software that is a result of its support to other MRR operators or a result of configuration changes. Note that configuration changes for Canada's equipment shall only be allowed on completion of the appropriate engineering change approval process by Canada.

4.5 Training Plan

- 4.5.1 If tasked, the Contractor shall provide support to CAF training conducted IAW the Training Plan. If tasked the Contractor shall review and recommend updates to the Training Plan delivered IAW CDRL 1278-ILS-006, DID 1278-ILS-006. Failing which, the CAF instructors will continue to instruct based upon the information received during the initial instructor and operator training program.

5. SYSTEM ENGINEERING

5.1 General MRR Systems Requirements

- 5.1.1 The Contractor shall employ system engineering, testing and production procedures.
- 5.1.2 The Contractor shall execute all required system engineering tasks to design, develop and integrate any system changes required to maintain the MRR System performance.

5.2 Drawings, Associated Lists and Cataloguing

- 5.2.1 The MRR Systems and components, including reusable shipping/storage containers supplied by the Contractor that must be held by Canada in support of MRR Systems operation, training and maintenance activity, shall be appropriately catalogued.
- 5.2.2 Where the item has already been catalogued under a NATO Stock Number (NSN), the Contractor shall be required to provide information which identifies the items to Canada's satisfaction and enables Canada to adopt the existing Stock Number.
- 5.2.3 Where accountable hardware and software items do not already have Unique Item Identifiers (UII), the Contractor shall assign and affix UIIs to these items.

- 5.2.4 Where items have not already been catalogued, the Contractor shall provide IAW CDRL 1278-ILS-003, DID 1278-ILS-003, the Supplementary Provisioning Technical Documentation required for their codification and cataloguing.
- 5.2.5 The Contractor shall enable Canada to access the appropriate Level 1 to Level 3 drawings at the Contractor facility within seven (7) calendar days notice when required for any specific investigation involving safety or unresolved technical problems.
- 5.2.6 For any special purpose items developed at Canada's expense under an AWR, the Contractor shall deliver to Canada a Level 3 drawing package, IAW CDRL 1278-ILS-005, DID 1278-ILS-005, which conforms to the standards of D-01-400-001/SG000, Engineering Drawings Practices.

5.3 Technical Investigations and Engineering Support (TIES)

- 5.3.1 When authorized by the Procurement Authority, the Contractor shall undertake TIES tasks. This activity includes the provision of system and maintenance support and management services. It includes requirement analysis and planning to ensure specifications are met, the scheduling of maintenance, the identification of spares and support, as well as the development of policies and maintenance procedures. It also includes the Contract management activities as well as the validation/acceptance of deliverables when maintenance activity is contracted for. It also includes technical advice requiring drawings or preparation of documented answers, and engineering tasks such as integration and managing component obsolescence.
- 5.3.2 The Contractor shall only perform the work and provide the services specified in any approved TIES task on receipt of the appropriate approved contractual documentation (DND 626, Appendix 1).

5.4 Configuration Management (CM)

- 5.4.1 The Contractor shall be responsible for CM of the MRR System hardware and software which Contractor provides for this program. The Contractor shall conduct CM activities IAW the approved CM Plan (CDRL 1278-ILS-011, DID 1278-ILS-011).
- 5.4.2 The Contractor shall not introduce configuration or system support changes without the prior approval of the Technical Authority. The Contractor shall submit an Engineering Change Proposal (ECP) IAW MIL-HDBK-61A, Configuration Control or an equivalent ECP process for each proposed configuration change. If Canada accepts the proposal the ECP will be signed off and returned to the Contractor for action/implementation, and Canada will raise a task authorization for the applicable work.
- 5.4.3 The Contractor shall identify the configuration baselines that will be used to manage the product configuration, and subsequently use these baselines to maintain configuration control.
- 5.4.4 The Contractor shall recommend for DND approval, which items should be designated as configuration items, using criteria presented in the Contractor's CMP.

- 5.4.5 The Contractor shall determine (and subsequently prepare) the configuration documentation needed to define each configuration baseline for each type of configuration item.
- 5.4.6 The configuration documentation shall progressively define functional requirements, design constraints, interface characteristics, test requirements and other technical data required in support of the MRR System.
- 5.4.7 The Contractor shall follow an engineering release system for configuration documentation to issue any required material change notices and updated configuration documentation IAW D-01-100-215/SF-000.
- 5.4.8 The Contractor shall maintain traceability between product units and their respective manuals, warranties and life cycle support obligations.

5.5 Obsolescence Management

- 5.5.1 The Contractor shall prepare and maintain an obsolescence plan for the MRR System which will ensure the required operational availability without changes to the form, fit and function of the MRR System.
- 5.5.2 The Contractor shall provide the Technical Authority every six (6) months with forecasts for items within the MRR System that are no longer supportable at the required operational availability in the foreseeable future. The Contractor shall provide the Technical Authority with an overview of the proposed changes required to the MRR System in order to continue to support the MRR System. This overview shall contain a rough order of magnitude of costs associated with the proposed changes.
- 5.5.3 When tasked, plans based on forecasts shall be developed to continue to support the MRR System. The plans shall contain detailed cost estimates as well as the expected technical improvements.
- 5.5.4 The MRR System shall be supportable without major redevelopment associated with obsolescence for an initial period of five (5) years of the ISS Contract.
- 5.5.5 Major obsolescence shall be defined as greater than 20% of the initial cost of a new MRR System.

5.6 Radio/Radar Frequency Management

- 5.6.1 All radio frequency (RF) equipment used in the MRR System will be certified (or be granted Spectrum Supportability by Industry Canada (IC)) and licensed for use in Canada.
- 5.6.2 DND will apply for certification and licensing.
- 5.6.3 The Contractor shall allow for a change in channel(s) within the designed frequency range of the equipment.

- 5.6.4 If the MRR System RF equipment does not have an Industry Canada Technical Acceptance Certificate (TAC), the Contractor shall be responsible to ensure that the equipment is compatible with existing MRR Systems in Canada, which conform to the applicable Industry Canada policies, plans, circulars, procedures and specifications. These documents are available on the Industry Canada web site at http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/h_sf01841.html

5.7 Application for Spectrum Supportability

- 5.7.1 The Contractor shall properly complete DND 552 Forms "Application for Spectrum Supportability" (attached as Appendix B2) for each type of RF equipment, and submit them as a deliverable item with the proposal in order to support the live fire evaluation.
- 5.7.2 The values entered on the DND 552 form shall be measured values.
- 5.7.3 Where the values have not been measured, specified values may be substituted for measured values on the DND 552 form. However, before radio licences are issued, the Contractor shall conduct measurements to confirm that the actual equipment conforms to the specified values on the submitted DND 552 forms, and notify DND of any discrepancies.
- 5.7.4 If the MRR System equipment is in use by the US military it may already have a US DoD Form 1494. If available, a DoD 1494 form will be accepted in lieu of a DND 552 form.
- 5.7.5 Industry Canada will assess each DND 552 form and grant or deny authorization to use the equipment in Canada. Industry Canada may stipulate conditions of use.

5.8 Frequency Support - Additional Documentation

- 5.8.1 The Contractor shall prepare and submit any additional documentation to the Technical Authority that is required to support the licence application procedure, such as Letters of Intent and Engineering Briefs.

5.9 Frequency Support - Contractor's Responsibility

- 5.9.1 The Contractor's shall ensure that all MRR System equipment is certifiable by Industry Canada and can meet all requirements.
- 5.9.2 The Contractor shall ensure that any RF equipment that is substituted or modified remains certifiable throughout the project and during contracted operations.

6. INTEGRATED LOGISTICS SUPPORT (ILS)

6.1 ILS Plan

- 6.1.1 The Contractor shall use the ILS Plan provided IAW CDRL 1278-ILS-001, DID 1278-ILS-001.

- 6.1.2 IAW the ILS Plan the Contractor shall ensure the provision of Supply Support in the form of consumable and repairable spare parts on an as required basis to sustain the MRR System reliability and availability.
- 6.1.3 IAW the ILS Plan the Contractor shall ensure the provision of Maintenance Support IAW the maintenance concept and the Maintenance Plan delivered under CDRL 1278-ILS-002, DID 1278-ILS-002.

6.2 Field Service Representative (FSR)

- 6.2.1 The Contractor shall provide, when tasked, one (1) FSR to the primary MRR System unit, 4 AD Regt, currently located at Canadian Forces Base Gagetown, New Brunswick, for variable and optional periods.
- 6.2.2 The FSR may be required to provide additional training and assist with first level and second level maintenance of the MRR for variable periods as may be required and approved by the Technical Authority.

6.3 Additional Spare parts and Parts Replacements

- 6.3.1 The Contractor shall provide Canada the option to procure additional spare parts beyond the initial MRR Acquisition Contract deliverables.
- 6.3.2 The Contractor shall prepare and submit the Recommended Spare Parts List (RSPL) in accordance with CDRL 1278-ILS-003 and DID 1278-ILS-003 when necessary to support the options to purchase spare parts.
- 6.3.3 The approved RSPL shall be the basis of options for the Contractor to provide the approved quantity of repair parts, unit held spares, Contractor held spares and consumables under this ISS Contract.

6.4 Management of DND-Owned Spares Held by Contractor

- 6.4.1 Additional repairable items / equipment / assemblies may be held by the Contractor in their facilities. These spare items will be issued to the Contractor. Any decision to procure additional repairable items would be based on Contractor suggested rate of usage under the RSPL.
- 6.4.2 The Contractor shall be responsible for:
 - a. determining the requirement for DND owned spares;
 - b. obtaining the spares when DND approval is granted;
 - c. maintaining custody of the spares;
 - d. accounting for the spares in an approved manner for use on the R&O repair line and for meeting unit equipment demands; and
 - e. for the disposal (when so directed by Canada) of the spares in accordance with A-LM-184-001/JS-001.

6.5 Management of DND-Owned Spares Held by CAF Unit

- 6.5.1 The Contractor shall be responsible for establishing and maintaining the spare parts stock level held by the CAF unit in order to ensure the operational availability of the MRR System.

6.6 Additional Tools and Test Equipment

- 6.6.1 The Contractor shall prepare and submit a STTE List in accordance with CDRL 1278-ILS-004 and DID 1278-ILS-004 when necessary to support the options to purchase additional tools and test equipment.
- 6.6.2 The approved STTE List shall be the basis of options for the Contractor to provide the STTE under this Contract.

6.7 Unique Item Identifiers

- 6.7.1 The Contractor shall generate, assign, and install Unique Item Identifiers (UII) to all accountable hardware and software items delivered to DND IAW A-LM-505-702/JS-001 and IAW STANAG 2290. The UIIs shall be in a machine readable form on the outside of the material or on the package when not easily accessible.

6.8 Supply Support

- 6.8.1 Transaction Documentation. For items delivered to the Contractor, the Contractor's Document Control Group (DCG) facilities shall file and retain the following auditable transaction documentations by applicable account Repairable Material Account (RMA) or Repair Shop Account (RSA) warehouse either by Stock Code or by Requisition Number, in accordance with Part 3 of A-LM-184-001/JS-001:
 - a. Stock Code sequence followed by requisition number; or
 - b. Requisition number.

6.9 Contractor Supply Accounting

- 6.9.1 Regardless of the system used, the Contractor shall maintain an audit trail acceptable to Canada for all materiel held on the Contractor's Account. Any automated or manual materiel accounting system shall first be approved by the Procurement Authority. Supply accounting records for DND materiel shall be maintained separately from other company records.

6.10 DND Publications

- 6.10.1 General procedures with respect to management of publications are contained in PART 11 of A-LM-184-001/JS-001. The Contractor shall document requirements for publications. The Contractor shall develop procedures to control all DND publications in its possession and shall be responsible for amending all DND publications in its custody. The Record of amendments shall be maintained as indicated in the applicable area of each publication.

6.10.2 Unless otherwise specified, publications may be copied and/or extracts taken from them. As these copies/extracts are not subject to follow-up amendment action, they are not valid for use as a reference document and shall be stamped "FOR INFORMATION ONLY".

6.10.3 The Contractor shall respond to any request for "verification of publication holdings" which may be requested periodically by DND.

6.11 Life Cycle Product Support

6.11.1 Software Life Cycle Support

- a. Minor software upgrades that improve the software system stability shall be provided for the period of the Contract performance. Minor upgrades shall be performed not more than twice per calendar year.
- b. Major software upgrades that represent a significant increase in MRR System capability shall be presented by the Contractor as an option to the Technical Authority when available.

7. SPARES REVIEW

7.1.1 If applicable, in conjunction with the stocktaking schedule, the Contractor shall carry out a review of spares holdings to determine if quantities of any particular item:

- a. exceed the economic stock retention level. The level is normally equal to the length of lead time required for acquisition of vital components;
- b. have become surplus to requirements as a result of a modification, disposal, obsolescent or transfer of the major equipment; and/or
- c. are no longer fit for use in the R&O of MRR Systems.

7.1.2 The Contractor shall contact the Procurement Authority for disposition instructions in the event it becomes apparent that the Contractor is holding excess stock of spares owned by Canada.

7.2 Stocktaking

7.2.1 The Contractor shall initiate and complete a one hundred per cent (100%) manual stocktaking as a minimum once every two (2) years in accordance with PART 6 of A-LM-184-001/JS-001.

7.3 Loss or Damage to DND Materiel

7.3.1 The Contractor shall report to the Procurement Authority as applicable, all instances of loss or damage to DND owned materiel in its custody within two (2) working days of confirmation of its discovery.

7.3.2 In the case of loss or damage of materiel in transit, action shall be taken in accordance with Part 8 of A-LM-184-001/JS-001.

7.4 Scrap - Custody & Disposal

- 7.4.1 The Contractor shall safeguard, control, and dispose of the scrap materiel in accordance with Part 7 of A-LM-184-001/JS-001.
- 7.4.2 The Contractor shall dispose of returned MRR equipment at the end of the MRR life only when authority to do so has been obtained from the VCDS/DGLEPM and directed by the Technical Authority.
- 7.4.3 The Contractor shall be responsible for disposal of all obsolete component and parts when authority to do so has been obtained from the Technical Authority.

8. MAINTENANCE

8.1 Maintenance Concept

- 8.1.1 Canada's maintenance concept shall be comprised of up to three (3) levels:
 - a. First Level: Field Level / First Line Operator Maintenance;
 - b. Second Level: Unit Technical Maintenance (if applicable); and
 - c. Third Level: Contractor Repair and Overhaul (R&O).
- 8.1.2 First Level Maintenance (Operator). The level of maintenance will be performed by the MRR System Operator. It will consist of preventative maintenance, visual inspection and MRR System self-diagnostics tests and any other task in accordance with the Contractor approved maintenance plan.
- 8.1.3 Second Level Maintenance (Technician). This level of maintenance will be performed by the MRR System Technician. It will consist of any preventative or corrective maintenance that is deemed to be beyond Operator Maintenance in the Contractor's maintenance plan and may require a protected workshop area to perform the maintenance. The protected workshop area will be provided by Canada for any required Second Level Maintenance. It will also include the loading of software and the replacement and testing of faulty Line Replaceable Units (LRU) before return to the Contractor for repair. Second Level Maintenance will be done in accordance with the Contractor approved maintenance plan.
- 8.1.4 Third Level Maintenance. This level of maintenance will usually be performed by the Contractor and consist of any repairs, upgrades, modifications and LRU replacement that are beyond first and second levels of maintenance.

8.2 Support Process Concept Overview

- 8.2.1 When warranty or other equipment failures occur at the unit level that are beyond the first and second level maintenance repair level, the unit will submit a report to the Technical Authority who will submit it to the Contractor. Once the report has been submitted, the MRR System shall be deemed as operationally unavailable and the diagnostics, repair and transportation responsibilities shall be transferred to the Contractor. The MRR System shall be declared available for operation once it has been returned to the unit line in a Serviceable Condition.

8.3 Unit Held Spares / First and Second Level Repair

- 8.3.1 The unit held spares stock level shall be recommended and maintained by the Contractor. The planning, shipment and consideration for repair delay times shall be the responsibility of the Contractor in order to ensure that the Operational Availability requirement is met.
- 8.3.2 The Contractor shall track any costs including applicable shipping and handling for unit held spare parts. The monthly support service invoice shall include all costs associated with the unit held spare parts. When spare parts are delivered to the CAF units, the items become CAF property.
- 8.3.3 The Contractor shall charge any applicable repair costs to Canada on invoice submission for the following month.

8.4 R&O Process

- 8.4.1 For the R&O process, the items shall be handled outside of the CFSS. At all times the Procurement Authority will be the primary DND contact for authority to proceed with work, and for the submission of any reports and documentation.

8.5 R&O Item Receipt

- 8.5.1 Upon receipt of DND equipment, the Contractor shall:
 - a. identify the equipment and ensure authority to repair IAW the pre-authorized repairable list or a specific authorization document from the Procurement Authority; and
 - b. carry out a physical check and proper handover to ensure that the item is complete and is in accordance with the applicable accompanying movement orders, adjustment transactions and receipt documentation.
- 8.5.2 If the Contractor is missing any information or documentation, he shall request it through the Procurement Authority and/or the Technical Authority.
- 8.5.3 For all items, based upon available information and/or inspection of the item, the Contractor shall determine the extent of work required, prepare a cost estimate, and if the cost to repair is below the maximum repair cost (MRC), proceed with the repair. Whenever the cost to repair threatens to exceed the MRC, the Contractor shall request authority in writing to proceed with the repair from the Procurement Authority.

- 8.5.4 Where it is impossible to determine the cost of repair, the Contractor shall seek authority from the Procurement Authority to strip the equipment so as to assess its repair and/or overhaul potential and to estimate the costs. Unless otherwise specified, and regardless of the value of the equipment, the cost of the work involved in estimating the repair cost shall be chargeable to the item whether or not it is subsequently repaired.

8.6 Discrepancies in Shipments

- 8.6.1 If upon initial inspection, the Contractor identifies equipment as having the same form, fit and function as other equipment, but as being misidentified, the Contractor shall forward a detailed message to the Consignor and to the Procurement Authority with a recommendation for corrective action. A discrepancy in shipment can consist of any of the following:

- a. The reported condition of the equipment;
- b. Surplus; or
- c. Shortage.

- 8.6.2 The Contractor shall action discrepancies in shipments in accordance with the procedures of PART 3 of A-LM-184-001/JS-001, except that the information is passed to the Procurement Authority for items processed outside of the CFSS.

8.7 Completion of Work

- 8.7.1 On completion of Repair and/or Overhaul, the Contractor shall prepare and transmit a completion of work certificate to the Procurement Authority.
- 8.7.2 The following "Contractor Certification" shall be stamped on the invoice and signed prior to the Contractor transmitting to the Procurement Authority:

Contractor Certification

I certify that the item(s) listed above have been inspected, tested and conform to all specifications and requirements detailed in the Contract or purchase order.

Signature _____ Date _____

(Contractor QC)

8.8 Work Control

- 8.8.1 The Contractor shall ensure that the repair of all MRR Systems is controlled by a serial numbered work order in accordance with PART 2 of A-LM-184-001/JS-001. Upon completion of work, the work order shall include as a minimum the following:
- a. a Contract serial number against which all costs incurred are chargeable;
 - b. the NATO Stock Number (NSN) and/or Part Number (PN), description, quantity and serial number, if any, of the item repaired;
 - c. a cross reference to all Supply Documents. This includes receipt, issues and returns, including scrap activity, finalization of repair, inspection, and final acceptance;
 - d. reference to the applicable technical data;
 - e. details of the work performed;
 - f. a list of all the parts, by part number and description, found unserviceable and requiring repair and/or overhaul, ensuring that the repair scheme is referenced;
 - g. a list of parts required, identifying the stores from which it is issued;
 - h. repair cost estimate; and
 - i. the identity of the person opening the work order.
- 8.8.2 The Contractor shall provide to the Procurement Authority, a list of Contractor personnel authorized to open work orders.
- 8.8.3 All repaired items shall be returned to DND in the same part number configuration as it was delivered to the Contractor, unless otherwise authorized in writing by the Technical Authority and the Procurement Authority, and if applicable the Quality Assurance Authority.
- 8.8.4 All equipment assemblies, components and kits, after repair, shall have a CF 942 tag/label completed and attached as detailed in Government Publication C-02-005-009/AM-000. The CF 942 tag/label shall also be affixed to the external packaging. Form CF 942 is available both as a tag (CF 942) or label (CF 942A).

8.9 Cost Control

- 8.9.1 The Contractor shall monitor the cost of each repair to ensure that total repair costs remain within maximum repair costs. Appropriate management control procedures must be in place and records maintained. These control procedures and records shall be available for review and/or audit on request.

8.10 Costing Records

- 8.10.1 The Contractor shall prepare forms and maintain records which will provide, to the Procurement Authority, as applicable:
- a. a cost listing, by serial number if applicable, of each item or job lot going through the repair line;
 - b. a detail of the extent of work carried out, in-process inspections completed and materiel embodied at any stage of the repair process;
 - c. the average cost of repair and/or overhaul, by NSN; and
 - d. the total repair cost for an item (NSN), by work order.

8.11 Warranty Consideration

- 8.11.1 Action shall be taken for materiel which has been returned for warranty consideration, in accordance with PART 10 of A-LM-184-001/JS-001.

8.12 Stop Repair Action

- 8.12.1 The Contractor shall comply immediately with all stop repair instructions. Detailed procedures are contained in PART 2 of A-LM-184-001/JS-001.

8.13 Reports

- 8.13.1 The Contractor shall submit a monthly status report in accordance with CDRL 1278-PMR-005 and DID 1278-PMR-005.
- 8.13.2 The Contractor shall submit a progress report IAW CDRL 1278-PMR-002, DID 1278-PMP-002, which will report details as required under any work under the other various plans, and as detailed in any specific support service task.