



ANNEX C

Repair and Overhaul

Technical Statement of Work

Naval Remote Weapon Station System

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1. SCOPE

1.1 Purpose

The Department of National Defence (DND) has a requirement for Repair & Overhaul (R&O) in support of the Naval Remote Weapon Station (NRWS) Systems.

1.2 Background

The NRWS System will be used as the primary weapon system to act as a defence against threats in the close inbound range. The NRWS will operate beyond the range of small arms but inside the minimum range of the ship's main gun. The NRWS System will consist of multiple remotely operated mounts, sensor suites, and operator consoles to be installed onboard the HALIFAX Class ships. This work does not include any maintenance or repair of the Fabrique Nationale M2 .50 Cal Heavy Machine Gun or the 7.62mm C6 machine gun used by the Royal Canadian Navy (RCN).

1.3 Maintenance Philosophy

First and second line maintenance will be carried out by the DND technicians and Fleet Maintenance Facilities respectively. Third line repair of spares and specialized test equipment will be the responsibility of the contractor. Selected third line repairable items and test equipment as identified in the Selection Notice and Priority Summary (SNAPS) will be returned to the contractor for repair. All mechanical / electrical assemblies will be restored to "like new" conditions or replaced as required.

1.4 Contractor Work

Services are required in order to maintain the RCN NRWS System's operational availability requirements. The work detailed in this SOW includes:

- a. Repair and maintenance of NRWS Systems, NRWS, sub-systems and components, both at the contractor's facility and at sites designated by DND;
- b. Engineering services for NRWS Systems and other areas of interest;
- c. In-Service Support Sparing; and
- d. Project Management including, but not limited to, scope management, quality management, cost management, configuration management, risk management and updates to NRWS technical documentation.

1.5 Abbreviations

DND	Department of National Defence
FSR	Field Service Representative
NRWS	Naval Remote Weapon Station
PRM	Progress Review Meeting
RCN	Royal Canadian Navy
R&O	Repair and Overhaul
SOW	Statement of Work
TIES	Technical Investigations & Engineering Studies
TRM	Technical Review Meetings

2. APPLICABLE DOCUMENTS

2.1 Applicability

The following documents support this SOW and must be considered as supplemental information if not specifically identified in the text. In the event of conflicts between the documents referenced below and the content of the SOW, the content of the SOW shall take precedence.

2.2 Referenced Documents

- A-LM-184-00I/JS-001 - Special Instructions, Repair and Overhaul contractors

3. REQUIREMENTS

3.1 Repair and Overhaul

- 3.1.1 The contractor shall furnish all common tools, special tools, test equipment, and other resources required to perform the work in this SOW.
- 3.1.2 The contractor shall have proven capabilities to provide the following:
- a. R&O of NRWS Systems, NRWS, sub-systems and components;
 - b. Common tools, special tools, test equipment and support equipment to conduct all R&O, calibration, software troubleshooting and maintenance of NRWS System, NRWS, sub-systems and components; and
 - c. Original Equipment Manufacturer specifications and engineering drawings for NRWS System, NRWS, sub-systems and components in order to perform the work required in this SOW.
- 3.1.3 The R&O shall consist of all levels of Corrective Maintenance for NRWS System, NRWS, sub-systems and components. Corrective Maintenance is defined as a reactive maintenance task carried out after the occurrence of a functional failure or detection of a fault, in order to restore the equipment or system to a state in which it can perform its required functions.
- 3.1.4 The contractor shall have trained in-house technical personnel capable of successfully completing NRWS R&O including, but not limited to manufacturing, modifications, and testing.
- 3.1.5 The contractor shall have total responsibility for the R&O of all items received at the contractor's facility.
- 3.1.6 The contractor shall create, deliver and maintain a maintenance schedule in order to plan and manage the required maintenance on NRWS System, NRWS, sub-systems and components which is to include:
- a. Calibration of NRWS System, NRWS sub-systems and components in accordance with required test and calibration schedules/cycles;
 - b. NRWS System Overhauls, to include;

- i. disassembly to the lowest testable component;
- ii. NRWS, sub-system and component overhaul if required;
- iii. NRWS, sub-system and component repair if required;
- iv. NRWS, sub-systems and components verification testing;
- v. NRWS, sub-systems and components re-assembly; and
- vi. NRWS, sub-systems and components acceptance testing.

3.1.7 The contractor shall conduct R&O activity in accordance with the Logistics Statement of Work for NRWS System Free Flow Repair at Appendix 1 to Annex C.

3.1.8 The contractor shall create and deliver a monthly report detailing the items held for R&O and the items which completed R&O during the previous quarter.

3.2 Spares

3.2.1 The contractor shall establish a spare parts provision to support the NRWS System equipment R&O throughout its service life. The contractor held inventory will be charged as and when issued.

3.2.2 The contractor shall supply spares to the Canadian Forces Supply System (CFSS) to respond to tasks on an as-and-when required basis.

3.3 Engineering Services

3.2.3 The contractor shall provide Technical Investigations & Engineering Studies (TIES) services on the NRWS System, NRWS, sub-systems, operations, concepts, and other applicable RCN equipment on an as-and-when required basis.

3.2.4 The contractor shall have in-house engineering personnel capable of successfully completing engineering services including, but not limited to design engineering, drawing creation and modifications, and technical manual creation and revisions.

3.2.5 TIES tasks shall consist of, but not be limited to the following:

- a. Engineering investigations into equipment deficiencies and areas for improvement;
- b. Engineering design and modifications;
- c. Fabrication or modification of prototypes;
- d. Testing of modifications and improvements;
- e. Fabrication and implementation of modifications and/or improvements;
- f. Engineering Change Proposal preparation; and
- g. Updating of technical data packages.

3.2.6 The contractor shall create and deliver a TIES report within 10 business days of the conclusion of each task which is to include as a minimum:

- a. Work conducted during the TIES tasking;
- b. Details of how each requirement in the TIES proposal was met during the tasking;
- c. Duration of task with respect to approved schedule;
- d. Materiel used during the TIES tasking and final status of materiel;
- e. Logistical issues and recommendations for future TIES improvement; and

- f. Other miscellaneous comments or recommendations.
- 3.2.7 All TIES tasks shall only be authorized using the DND 626 Task Authorization process.
- 3.4 Field Service Representative**
- 3.4.1 The contractor shall provide Field Service Representative (FSR) services to respond to tasks on an as-and-when required basis.
 - 3.4.2 The contractor FSR shall be able to work at designated DND sites to perform specific Work on NRWS System and associated equipment.
 - 3.4.3 The contractor FSR visits shall normally be to either CFB Esquimalt located in Esquimalt, British Columbia, Canada or to CFB Halifax located in Halifax, Nova Scotia, Canada.
 - 3.4.4 The contractor FSR shall be capable of travelling to, living on and working aboard RCN vessels alongside or at sea.
 - 3.4.5 The contractor FSR shall be capable of travelling internationally in order to support RCN operations in foreign territory and to support RCN ships docked in foreign countries' ports of harbour.
 - 3.4.6 The contractor FSR tasks shall consist of, but not be limited to the following:
 - a. Maintenance activities outside of first and second line maintenance performed by RCN staff;
 - b. Training of DND personnel on modifications/revisions to the NRWS System; and
 - c. Testing of implemented modifications/revisions to the NRWS System.
 - 3.4.7 The contractor FSR shall have a minimum of three years of experience in the maintenance, repair, and operation of NRWS System.
 - 3.4.8 The contractor FSR shall be present on site within 2 calendar days of receiving an urgent tasking request from DND.
 - 3.4.9 The contractor shall create and deliver a FSR report within 10 business days of the conclusion of each task which is to include as a minimum:
 - a. Work conducted during the FSR tasking;
 - b. Details of the damage or fault repaired;
 - c. Materiel used to repair damage or correct fault;
 - d. Duration of task, with work hours performed and non-work hours for each day; and
 - e. Any logistical issues and recommendations for work flow improvement.
 - 3.4.10 All FSR tasks shall only be authorized using the DND 626 Task Authorization process.

3.5 Project Management

- 3.5.1 The contractor shall utilize personnel who are qualified, experienced, and familiar with the equipment, to carry out the work in this Technical Statement Of Work (TSOW). The contractor shall ensure that personnel are trained on the equipment on which they are employed. Such training/certification is the contractor's responsibility.
- 3.5.2 The contractor shall create, deliver and maintain a Project Management Plan defining how the contractor plans to manage the work described in this SOW. The Project Management Plan shall include an organizational chart of the contractors personnel; describe the roles and responsibilities of each main section in the contractors organization, and describe which contractor personnel will formally liaise with Canada in the performance of this work. The Project Management Plan shall include, but not be limited to, scope management, quality management, cost management, configuration management, risk management and how updates to NRWS technical documentation will be performed.
- 3.5.3 The contractor shall have a Project Manager assigned to manage the work outlined in this SOW. The Project Manager shall be a certified Project Management Professional, and have not less than three (3) years of experience managing DND projects. The Project Manager will be the point of contact for the DND Project Manager.
- 3.5.4 The contractor may be required to travel to support Project Management tasks required under this SOW. Travel will normally be to locations in order to support meetings, reviews and evaluations.

3.6 Meetings

- 3.6.1 A contract kick-off meeting shall be conducted between the contractor and Canada within 30 business days of contract award. The contract kick-off meeting shall be held at the contractor's facility.
- 3.6.2 The contractor shall schedule all meetings in conjunction with Canada. Meetings shall include Progress Review Meetings (PRM), Technical Review Meetings (TRM) and a kick-off meeting.
- 3.6.3 The contractor shall provide the facilities, material and services reasonably required for the conduct of all meetings. All meetings shall be held at the contractor's facilities unless otherwise specified by Canada.
- 3.6.4 The contractor shall convene PRM to review contract, cost, schedule, performance, issues, and any other topics that affect the conduct of the work outlined in this TSOW. PRMs shall be held annually or as required.
- 3.6.5 The contractor shall develop and deliver a meeting agenda at least 10 days prior to all meetings specified in this SOW.
- 3.6.6 The contractor shall take minutes of each meeting and distribute minutes within five (5) business days of the meeting for approval by Canada. As a minimum, the minutes shall include:

- a. List of attendees;
 - b. Original proposed agenda;
 - c. Summary of discussions and decisions;
 - d. Action items with actionees and due dates; and
 - e. Annexes of presentation materials.
- 3.6.7 The contractor shall distribute approved minutes to Canada within five (5) business days of receiving approval by Canada.

3.7 Reports

- 3.7.1 The contractor shall provide monthly Progress Reports. All issues and concerns will be reported through the Progress Report. The Progress Report will provide Canada with the status of the NRWS System support and any ongoing issues and concerns. Issues raised in the progress reports will be addressed during the scheduled meetings (PRM and TRM). All action items will be recorded in accordance with paragraph 3.6.6 and pursued to their conclusion. The Progress Report shall contain:
- a. Brief summary of the major accomplishments; key data items delivered and issues affecting the conduct of the program in each of the major service areas over the period of the month;
 - b. Status of all open TIES tasks;
 - c. Summary of expenditures and forecasts for in year; and
 - d. Total expenditures from start of contract.
- 3.7.2 The contractor shall provide yearly Annual Reports. The Annual Report shall summarize at a high level the work that was conducted during the report period. The Annual Report shall include the configuration status of the NRWS Systems and their associated documentation, the status of any parts loaned to the contractor, the status of any spares being held by the contractor, the out year forecasted expenditures for each basis of payment line item and any other comments or recommendations.
- 3.7.3 Three (3) months before the end of the contract, the contractor shall submit a contract final report. The contract final report shall summarize at a high level the work that was conducted during the contract. The contract final report shall include the configuration status of the NRWS Systems and their associated documentation, the status of any parts loaned to the contractor, the status of any spares being held by the contractor, and any other comments or recommendations. The contract final report shall include a copy of each audit report which was performed on the contract.