Performance Work Statement
Halifax Class Combat System (HCCS)
In-Service Support

29 May 2019
Version 4.0

1 Introduction

1.1 Purpose

[I] Throughout this PWS, each paragraph is marked with an [O], an [M] or an [I]. The [O] paragraphs are mandatory outcomes that specify the end result to be achieved by the Contractor. The [M] paragraphs are mandatory requirements that are required to be delivered by the Contractor. The fulfillment of the mandatory requirements supports achievement of the mandatory outcomes. The [I] paragraphs are intended to provide contextual information to the Contractor.

[I] The HCCS In-Service Support Contract (ISSC) will be flexible, performance based and may evolve over the life cycle of the *Halifax*-class. Canada and the Contactor will form a strategic partnership to achieve mutually successful outcomes.

[I] The work to be carried out by the Contractor is tied to a series of performance measures selected to promote outcomes required by Canada.

[I] It is intended that the ISS Contract will follow a Phased implementation. The Start-Up Phase followed by the Steady-State and Close-Out Phases are described in Chapter 2.

1.2 Background

1.2.1 General

[I] Six systems which make up part of the *Halifax*-class Combat System were retrofitted through the *Halifax*-class Modernization/Frigate Life Extension (HCM/FELEX) Combat System Integration (CSI) Design-and-Build (DAB) contract.

[I] In-Service Support (ISS) is currently provided through separate contracts.

[I] The HCCS ISSC will be a single contract in which the Contractor will work with the OEMs or authorized representatives of the OEMs for each of the HCCS EG systems to provide long term support.

1.2.2 Concept of Operations and support

[I] The Royal Canadian Navy (RCN) currently operates twelve (12) *Halifax*-class frigates and intends to operate them until their end of life, which is currently estimated to be 2041. The HCCS EG is an integral component of the *Halifax*-class ships and will require support until approximately 2041 for the *Halifax*-class.

[I] Of the twelve (12) *Halifax*-class frigates, seven (7) ships are assigned to Maritime Forces Atlantic, located at Canadian Forces Base Halifax, Nova Scotia and five (5) ships are assigned to Maritime Forces Pacific, located at Canadian Forces Base Esquimalt, British Columbia.

[I] The *Halifax*-class frigates support the DND requirement to defend Canada and Canadian interests and contribute to international peace and security. The ships are self-sufficient and able to participate and integrate into joint missions with the United States or multi-national forces anywhere in the world.

[I] In accordance with the Naval Materiel Management System Manual (NaMMS) and the Major Surface Combatants (MSC) class program plan, the *Halifax*-class makes use of Programmed Work Periods (PWPs).

[I] PWPs require repair facility support and are comprised of Short Work Periods (SWPs), Assisted Maintenance Periods (AMPs), Docking Work Periods / Interim Docking (DWPs), Engineering Change Work Periods (ECWPs) and Refit/Extended Docking Work Periods (EDWPs).

[I] The *Halifax*-class ships are also supported by many other contracts including: a *Halifax*-class Design Agent and Support Services Contract, *Halifax*-class Work Period Contracts and a Combat Systems Integration (CSI) Contract.

1.3 Abbreviations, Acronyms and Definitions

[I] Terms and acronyms and abbreviations used in this PWS are defined in the Glossary of Terms, Appendix 6 and Acronyms and Abbreviations in Appendix 7.

[I] In each case, the following applies:

a. acronyms when defined for the first time will appear capitalized in brackets following the applicable term, then used on their own thereafter;

b. if an acronym, abbreviation or term has two or more definitions, that definition or meaning which matches the context of the PWS statement in which it appears is to be used;

c. for terms not defined under the contract, the Oxford Concise Dictionary definitions apply.

2 General Requirements

2.1 Scope of Work

[I] The *Halifax*-class Combat System (HCCS) Equipment Group (EG) is comprised of the systems listed in Appendix 2 – HCCS EG List.

[I] DND has a requirement to provide In-Service Support throughout the life of the *Halifax*-class. The Contractor's portion is achieved though the execution of the work of the PWS.

[I] Henceforth, *Work* is defined as the work requirements specified herein.

[O] The Contractor must work to realize the lowest achievable life cycle cost while maintaining the performance levels of the HCCS EG.

[O] The Contractor must ensure the HCCS EG complies with the Canadian configuration of the HCCS EG.

[I] The Canadian configuration of the HCCS EG is defined as the HCCS EG Product Baseline plus all approved configuration changes.

[I] The HCCS EG Product Baseline is defined as the HCCS EG List (Appendix 2) plus the HCCS EG Technical Data Package (Appendix 3). The HCCS EG Product Baseline contains the approved technical information which describes the configuration of all HCCS EG configuration items during production, deployment and operational phases of their life cycles. The HCCS EG Product Baseline prescribes:

a. the necessary physical/form, fit, and function characteristics of a configuration item,

b. the selected functional characteristics designated for acceptance testing,

c. the acceptance test requirements, and

d. all allocated technical information pertaining to a configuration item.

[M] The Contractor must provide all Materiel required for the *Work*. All Materiel will be owned by Canada.

[I] The Contractor's performance in conducting the *Work* will be assessed by Canada as described in Chapter 8.

[M] The Contractor must support all of the HCCS EG systems described in Appendix 2 – HCCS EG List.

[I] Canada may add or remove systems and/or sub-systems from the HCCS EG described in Appendix 2 – HCCS EG List.

[I] Canada may add or remove support locations for the HCCS EG described in Appendix 2 – HCCS EG List.

[M] As part of Management Work, the Contractor must provide all written deliverables and documentation (e.g. reports, plans, schedules) to Canada in editable electronic format that is compatible with the software and versions in use at DND (e.g. Microsoft Office, Microsoft Project).

[M] As part of Management Work, the Contractor must provide supporting data and requested additional objective evidence for all plans and reports delivered to Canada.

[M] As part of Management Work, the Contractor must resolve discrepancies with Canada.

2.2 HCCS In-Service Support (ISS) Organization

[O] The Contractor must conduct the *Work* herein with minimal intervention by DND.

[I] The HCCS ISS organization will consist of a collaboration of Canada's organization and the Contractor's organization.

[I] DND will retain Design Authority and System Authority responsibilities for the HCCS EG.

2.2.1 Integrated Equipment Management Team (EMT)

[I] To work collaboratively and to facilitate the exchange of information, DND will establish an HCCS EG EMT.

[M] As part of Management Work, the Contractor must be responsive to the needs of the HCCS EG EMT.

2.2.2 West / East Coast Offices

[I] The Class Program Manager (Major Surface Combatant) will operate *Halifax*-class Detachment Offices on each coast. Point of Contacts (POC) on each coast for co-ordinating the ISS activities for the *Halifax*-class Ships will be provided by Canada.

[O] The Contractor must integrate their plans and schedules with the Fleet Maintenance Facilities (FMF) Operations Departments' plans and schedules.

2.2.3 Roles and Responsibilities of DND

[I] DND and the RCN will conduct associated activities in accordance with the HCCS EG in-service maintenance plans, pursuant to the Naval Materiel Management System (NaMMS) manual.

2.2.3.1 Class Program Manager (CPM)

[I] Major Surface Combatant (MSC) CPM is the Design Authority (DA) responsible for Program Management, Platform Management and Materiel Assurance Management. MSC CPM is responsible to develop and execute the Class Program Plan (CPP) for the *Halifax*-class which includes setting the objectives and priorities for the development of the subordinate HCCS EG Program Plan (EGPP).

[I] The MSC CPM is responsible for the In-Service Support Program for the *Halifax*-class Ships.

2.2.3.2 Design Authority (DA)

[I] DA is vested in a delegated individual within DND who is accountable to the Naval Materiel Authority as the single point of responsibility for: establishment and/or maintenance of a design and its associated Design Intent; and, management of risks due to materiel departures from Design Intent. The DA has the authority to approve design requirements, design activities, and the final design, as well as changes to the design. DA for a class is vested in a CPM from in-service to disposal.

[I] Design Intent is the intended operation and performance capability of a platform, system or equipment.

2.2.3.3 Equipment Group Program Manager (EGPM)

[I] Responsibility for the HCCS EG will reside with the HCCS EGPM. The HCCS EGPM is responsible to the CPM. The Contractor will support the HCCS EGPM in the development of the EGPP and the Through Life Management Plan (TLMP) for the HCCS EG.

[M] As part of Management Work, the Contractor must be responsive and supply necessary information to support the development of the EGPP and the TLMP for the HCCS EG.

2.2.3.4 System Authority (SA)

[I] System Authority is vested in a delegated individual within DND who is accountable to the Naval Materiel Authority for providing subject matter expert advice for a specific technology area and its associated systems. A System Authority provides official DND advice and maintains standards and publications authorized for use within their specific technology area.

2.2.3.5 Other Support Contracts

[I] The CPM has established a number of support contracts for the *Halifax*-class. A brief description of the contracts of particular relevance to the HCCS EG follow.

2.2.3.5.1 *Halifax*-class Design Agent and Support Services Contract

[I] The CPM is assisted in the execution of the Design Authority responsibilities through a *Halifax*-class Design Agent and Support Services Contract.

2.2.3.5.2 *Halifax*-class Work Period Contract (WPC)

[I] The CPM uses WPCs on each coast, to execute cyclical Docking Work Periods (DWP). Under the WPCs, DND will chair a Canada Industry Integrated Project Team (CI-IPT) and Working Group to coordinate the work and schedule for the DWPs.

2.2.3.5.3 Combat Systems Integration (CSI) ISSC

[I] The CPM uses the CSI ISSC to provide support for the Combat Management System (CMS), its associated hardware and all trainers and training aids. All software changes to the HCCS will be tested through the CSI ISSC before approval of release is given.

2.2.3.6 Quality Assurance (QA) Management

[I] QA responsibility resides with the Director of Quality Assurance (DQA). DQA will be responsible for the quality assurance inspection and audit aspects of this PWS.

2.2.3.7 Royal Canadian Navy (RCN)

[I] The following RCN Formations and units (including ships) are integral components of the HCCS EG Support Program and their roles and responsibilities are outlined below and described in NaMMS.

[I] The intent is to authorize liaison between the Contractor and the appropriate Units/Formations to facilitate planning and scheduling of work, noting that work authorizations will reside with assigned government points of contact. All work authorizations will follow the established contractual process.

[I] The assignment of individual ships to specific readiness levels will not follow one single and identical rhythm across all units. Formation Commanders and Fleet Commanders have the authority to modify the readiness assignments and periods within a unit's operational cycle.

[I] The Contractor will be informed by Canada of the expected annual usage of each *Halifax*-class ship for planning purposes only. Note that this usage is subject to change without warning by RCN.

2.2.3.7.1 Ship's Staff

[I] Ship's Staff (SS) operate equipment and execute the maintenance plan in accordance with Design Intent. SS responsibilities include:

a. executing on board HCCS maintenance;

b. reporting first level maintenance execution;

c. submitting maintenance requirements for Programmed Work Periods (PWP) including Docking Work Periods (DWP) and Short Work Periods (SWP);

d. ordering, receiving, and returning HCCS materiel associated with the first level maintenance;

e. controlling ship access for the Contractor;

f. providing assistance to the Contractor to complete level three tasks, and;

g. implementing when requested, approved Engineering Changes (EC) and upgrading installations such as installing a software patch.

2.2.3.7.2 Formations

[I] HMC Ships on the East Coast are assigned to Maritime Forces Atlantic (MARLANT). HMC Ships on the West Coast are assigned to Maritime Forces Pacific (MARPAC).

[I] The MARLANT F4 Engineering Operations and MARPAC Fleet Engineering Readiness and their staff are responsible for managing the Formation engineering and maintenance program and coordinating trials.

[I] The Formations are responsible to produce their associated annual (fiscal year) Operations Schedule, which is the principal document for scheduling and setting readiness levels for the operational fleet, shore establishments and supporting maintenance facilities. This classified Operations Schedule is used to develop the CPP schedule.

2.2.3.7.3 Fleet Maintenance Facilities

[I] Each Formation, Maritime Forces Atlantic (MARLANT) and Maritime Forces Pacific (MARPAC), has a Fleet Maintenance Facility (FMF) dedicated to the direct support of the Fleet. Each FMF performs Level Two and some Level Three maintenance tasks.

[I] For the HCCS EG, the FMFs have the following responsibilities:

a. assist SS in completion of Level One Maintenance,

b. conduct Level Two Maintenance,

c. conduct engineering and/or technical investigations and studies, when tasked,

d. provide in-theatre repair support, as directed by RCN,

e. provide assistance to the Contractor (cranes, rigging, materiel movement, chemical cleaning, etc.) as outlined in the Guide for In-Service Support Contracts in HMC Dockyards, and

f. act as the conducting authority for all in-service tests and trials.

[I] The Fleet Maintenance Facilities (FMF) priorities for repair and maintenance onboard ships are set by RCN.

2.2.3.7.4 RCN Fleet Schools

[I] RCN Fleet Schools are established on the Canadian Forces Base Halifax and Canadian Forces Base Esquimalt. These Schools deliver training to DND HCCS EG operators and maintainers throughout the in-service phase.

2.3 Applicable Specification, Precedence, Standards and Documents

[I] The following documents, standards and definitions form part of this PWS to the extent specified in the PWS or individual Appendices. Wherever a specific paragraph of a document is referenced as part of a requirement, all subparagraphs of the referenced paragraph must apply, unless otherwise indicated herein. References within references need to be considered as well. Additional and/or updated references may be provided after contract award.

Document ID	Document Title
A-LM-184-001/JS-001	Special Instructions – Repair and Overhaul Contractors
SAE/EIA-649	Configuration Management Standard
SAE/GEIA-HB-649	Configuration Management Standard Implementation Guide
C-01-100-100/AG-006	Specification, Writing, Format and Production of Technical Publications
C-03-005-012/AM-001	Naval Materiel Management System Manual
C-23-005-000/AG-001	Naval Materiel Regulation for Surface Ships (NMRSS)
D-01-100-214/SF-000	Specification for Preparation of Provisioning Documentation for Canadian Forces Equipment
MIL-STD-882E	Department of Defense Standard Practice System Safety
D-01-400-001/SG-000	Specification - Engineering Drawing Practices
Internal DND Document	Major Surface Combatants (MSC) Class Program Plan (*Halifax*-class) – to be provided after contract award
Internal DND Document	Major Surface Combatants (MSC) *Halifax*-class Configuration Management Plan - to be provided after contract award

[I] Specifications, standards, technical documents, and other related documents that form part of this PWS will, unless otherwise detailed herein, be the version in effect on the date of issue of the Request For Proposal (RFP).

[I] In the event of a conflict between the documents referenced herein and the contents of the PWS, the contents of the PWS will take precedence.

[M] As part of Management Work, the Contractor must immediately notify the Contract Authority (CA) of discrepancies discovered within or among any of the attachments or documents that form part of this PWS.

[I] In the event that reference documents are updated, either with newer versions or cancelled altogether, the use of the newer version, or the continued use of the cancelled reference, will be subject to review by the Technical Authority (TA).

[I] The documents will be given precedence in the following order:

a. Articles of the PWS;
b. DIDs;
c. All other Appendices to the PWS; and
d. Specifications, standards, technical documents, and other related documents referenced in the PWS.

2.4 Work Categories

2.4.1 General

[I] Work performed by the Contractor will be divided into one of two work categories: Management Work and Emergent Work.

2.4.2 Management Work

[I] Management Work is the initiating, planning, organizing, influencing and controlling of activities required to complete the *Work* and to achieve the mandatory outcomes specified in this Performance Work Statement.

[M] The Contractor must conduct Management Work.

[M] As part of Management Work, the Contractor must initiate, plan, organize, influence and control the activities for each outcome specified in this Performance Work Statement.

[M] As part of Management Work, the Contractor must oversee the implementation of each plan developed by the Contractor in accordance with this Performance Work Statement.

2.4.3 Emergent Work

[I] Emergent Work is all work other than Management Work specified in this Performance Work Statement.

[M] The Contractor must conduct Emergent Work on an as and when requested basis, when authorized by Canada in accordance with the Contract Article entitled “Work Authorization - Emergent Work” of the Contract.

[M] As part of Management Work, the Contractor must prepare and deliver a description of the emergent work tasks and the cost breakdowns to support the development of the Task Authorization form (DND 626) for each Emergent Work Request (EWR).

2.5 Work Phases

[I] The purpose of this section is to describe the three phases of the contract's lifecycle.

2.5.1 Start-Up Phase

[I] The purpose of the Start-Up Phase is for the Contractor to establish full service delivery capability and to demonstrate that implementable processes are in place to deliver the *Work*.

[I] Support for the HCCS EG is currently provided through contracts with the OEMs. Canada intends to transition this work (not the contracts) to the Contractor during the Start-Up Phase.

[I] The Start-Up Phase starts at contract award, and ends when a steady-state ISS capability has been verified by Canada to be acceptable to start the conduct of steady-state ISS of the HCCS EG. The steady-state capability is achieved when the Contractor is providing sustainable ISS at full capacity for the HCCS EG.

[I] The Start-Up Phase is estimated to be one (1) year in duration.

[M] As part of Management Work, the Contractor must develop Steady-State processes and procedures that will be implemented in the Steady-State phase.

[M] As part of Management Work, the Contractor must develop test plans and procedures for the Steady-State processes and procedures.

[M] As part of Management Work, the Contractor must conduct reviews with Canada of the Steady-State processes and procedures.

[M] As part of Management Work, the Contractor must conduct reviews with Canada of the test procedures for the Steady-State processes and procedures.

[M] As part of Management Work, the Contractor must provide objective evidence to prove that Steady-State ISS capability has been achieved.

[M] As part of Management Work, the Contractor must demonstrate to Canada successful implementation of the Steady-State processes and procedures via the Verification Cross Reference Matrix described in the Start-Up Plan Data Item Description (DID) Item PM-002.

[M] As part of Management Work, the Contractor must prepare the Steady-State Achievement Report in accordance with DID Item PM-003.

2.5.2 Steady-State Phase

[I] The purpose of the Steady-State Phase is to conduct the *Work* under the Performance Management Framework. The contract should deliver affordable and sustainable support to ensure the HCCS EG complies with the Canadian configuration of the HCCS EG.

2.5.3 Close-Out Phase

[I] The purpose of the Close-Out Phase is to ensure an orderly transition of information and materiel from the current Contractor to Canada.

[I] Canada will notify the Contractor when the Close-Out Phase should be implemented.

[M] As part of Management Work, the Contractor must conduct an orderly transition of support to Canada.

[M] As part of Management Work, the Contractor must develop Close-Out processes and procedures.

[M] As part of Management Work, the Contractor must conduct reviews with Canada of the Close-Out processes and procedures.

3 In-Service Support Management

[I] The purpose of this chapter is to define the management support required for the *Work*.

[O] The Contractor must continually strive to improve the management processes used to manage the *Work*.

3.1 Objectives and Overview

[I] The HCCS EG will be managed using resources from both DND and the Contractor within an integrated management team. The *Work* will be synchronized with RCN and *Halifax*-class related activities, and managed within the related DND business plans and budgets.

3.1.1 Program Objectives

[O] The Contractor must align their output to deliver Canada's objectives, while remaining within the scope of the Contract.

[I] Canada's objectives are to:

a. achieve HCCS EG materiel readiness in support of RCN operational objectives through the delivery of the *Work*;

b. optimize support solutions to minimize life cycle costs while improving the efficiency and effectiveness of available resources;

c. ensure each HCCS EG system complies with the Canadian configuration of the HCCS EG;

d. ensure responsible stewardship to comply with Canada's environmental, safety, naval materiel assurance, security, and international regulatory commitments;

e. achieve a seamless integration of the Contractor's support program with Canada's support elements for the HCCS EG; and

f. establish a work environment through effective collaboration that engenders trust, promotes innovation and best practice development, fosters the sharing of knowledge, skills, and resources, and creates joint efficiency improvement.

3.2 Planning

3.2.1 DND Responsibilities

[I] DND implements an ISS solution for the *Halifax*-class in accordance with NaMMS. The CPM provides the specific plans and procedures for support, of which contracting third level support from Industry (the *Work*) is a portion.

[I] The HCCS EG EMT is subject to the priorities and objectives of the CPM.

[I] DND retains responsibility as DA and SA for the HCCS EG.

[I] DND is responsible to validate the Annual Operating Plan (AOP) budget estimate against available funding.

3.2.2 Contractor Responsibilities

[O] The Contractor must implement a Management Program that delivers support for the HCCS EG and ensures that deliverables are in-scope, on-time and of high quality.

[I] The Contractor will provide inputs to business and resource planning for the CPM.

[I] The Contractor will provide inputs to other DND *Halifax*-class service providers (i.e. FMF).

3.2.2.1 Project Management Plan

[I] The Project Management Plan (PMP) is the plan that describes the Contractor's management approach, strategy, plans, methodologies and processes for meeting the requirements of the Contract.

[M] As part of Management Work, the Contractor must develop the PMP to enable Canada to assess that the Contractor will manage and deliver the *Work* for the HCCS EG in a cost effective and timely manner that ensures the HCCS EG complies with the Canadian configuration of the HCCS EG.

[M] As part of Management Work, the Contractor must develop and update the PMP that describes their organization’s management, organization and specifications for key staff positions, as well as their approaches, strategies, plans, methodologies and processes for meeting the requirements of the Contract.

[M] As part of Management Work, the Contractor must prepare the PMP in accordance with DID Item PM-001.

[M] As part of Management Work, the Contractor must implement the accepted PMP.

3.2.2.1.1 Start-Up Plan

[O] The Contractor must develop and implement a Start-Up Plan that ensures the Contractor reaches the Steady-State work phase in a cost effective and timely manner to ensure there are no disruptions to the support of the HCCS EG.

[M] As part of Management Work, the Contractor must develop and update a Start-Up Plan, while in the Start-Up Phase, that specifies the plan and schedule necessary to:

a. Establish its Program Management capability, including alignment with HCCS Program Management elements, DND Formations and Units, and other *Halifax*-class ISS providers, so that services can be planned and delivered efficiently.

b. Establish full support capability to execute the *Work*.

c. Transition service support from the current OEM support contracts.

d. Establish a performance management framework to initiate monitoring, reporting and assessment required to verify performance.

[M] As part of Management Work, the Contractor must develop the Start-Up Plan to demonstrate to Canada that the contract will reach the Steady-State work phase.

[M] As part of Management Work, the Contractor must prepare the Start-Up Plan for acceptance in accordance with DID Item PM-002.

[M] As part of Management Work, the Contractor must manage the Start-Up Phase in accordance with the accepted Start-Up Plan.

3.2.2.1.2 Close-Out Plan

[O] The Contractor must develop a Close-Out Plan that ensures the orderly transition of information and materiel from the current Contractor to Canada in a cost effective and timely manner to ensure there are no disruptions to the *Work* of the HCCS EG.

[O] The Contractor must develop a Close-Out Plan that includes processes to cease or transition the support of any systems within the HCCS EG that are retired or replaced.

[M] As part of Management Work, the Contractor must develop and update a Close-Out Plan that specifies how the Contractor will:

a. coordinate with Canada when and how services will be terminated;

b. transfer Government Property to Canada in accordance with Contract loan agreements;

c. dispose of the HCCS EG systems; and

d. provide all records and supporting documentation in the established baseline of the HCCS EG.

[M] As part of Management Work, the Contractor must develop the Close-Out Plan to enable Canada to assess the risk of closing out the contract and transferring the information and materiel.

[M] As part of Management Work, the Contractor must prepare the Close-Out Plan in accordance with DID Item PM-004.

[M] As part of Management Work, the Contractor must manage the services in accordance with the accepted Close-Out Plan.

3.2.2.2 Annual Operating Plan (AOP)

[O] The Contractor must develop and implement an AOP that specifies the Contractor's work plan for the *Work* and aligns this work plan to the needs of the CPM to ensure the HCCS EG complies with the Canadian configuration of the HCCS EG.

[I] As illustrated in the sample AOP below, the AOP is the Contractor's work plan by fiscal year. The AOP will evolve to reflect RCN operational requirements and HCCS EG sustainment requirements.

Sample HCCS Annual Operating Plan

	FY 20 ($K)								FY 21 ($K)							
		System								System						
Work Item	**MMF**	**Nav**	**2D**	3D	**FCS**	**IFF**	**ESM**	**TOTAL FY ($K)**	**MMF**	**Nav**	**2D**	**3D**	**FCS**	**IFF**	**ESM**	**TOTAL FY ($K)**
Monthly Management Fee	1200							1200	1200							1200
Repair & Overhaul																
Free Flow Repairs		250	1000	750	800	400	1500	4700		250	1000	750	800	400	1500	4700
Antenna Overhauls			2000		2500		350	4850			2000		2500		350	4850
Below Deck Systems Overhauls							500	500							500	500
Configuration Management																
Conduct Physical + Functional Audit (1 ship each coast)		10	50	50	50	20	50	230		10	50	50	50	20	50	230
Conduct Physical Audit Only (1 ship each coast)		5	10	10	10	5	10	50		5	10	10	10	5	10	50
Obsolescence Management																
Develop EC for obsolete parts						500		500			1200					1200
Material Management																
Warehousing Costs		10	20	20	20	10	20	100		10	20	20	20	10	20	100
NICP Purchases		250	1500	2000	2000	500	2500	8750		50	750	3000	1500	1000	3000	9300
Disposals		20	20	20	20	20	20	120		20	20	50	75	20	20	205
TDP Updates																
CFTO Updates		10	40	40	50	10	25	175		10	40	40	50	10	25	175
Drawing Updates		20	30	35	50	50	75	260		20	30	35	50	50	75	260
Engineering																
FSR Support Services		50	50	50	50	50	50	300		50	50	50	50	50	50	300
EC Development				350				350			750					750
EC Implementation							750	750				300			750	1050
Technical Problem Solving		30	30	50	30	50	75	265		30	30	50	30	50	75	265
TOTALS ($K)	**$1,200**	**$655**	**$4,750**	**$3,375**	**$5,580**	**$1,615**	**$5,925**	**$ 23,100**	**$1,200**	**$455**	**$5,950**	**$4,355**	**$5,135**	**$1,615**	**$6,425**	**$ 25,135**

[I] The AOP should be organized by Canada's fiscal year and should span the timeframe of the Contract Period. The AOP should separate the costs for each system in the HCCS EG.

[I] It is expected that the Contractor will develop their initial version of the AOP each October. Canada and the Contractor will review and iterate on the AOP in November and December. Canada will use the AOP to acquire its budget for the upcoming fiscal year in January and February such that Canada can issue tasks, in accordance with the Contract, in February and March. Following this tempo will ensure that work can continue uninterrupted when the new fiscal year begins in April.

[M] As part of Management Work, the Contractor must develop an AOP that aligns with Canada's Fiscal Year.

[M] As part of Management Work, the Contractor must include the cost estimate of each work item in the AOP.

[M] As part of Management Work, the Contractor must develop an AOP for the coming Fiscal Year.

[M] As part of Management Work, the Contractor must develop and update draft AOPs for all future fiscal years of the Contract Period.

[M] As part of Management Work, the Contractor must identify, describe and prioritize the *Work* in the AOP.

[M] As part of Management Work, the Contractor must adjust the AOP to reflect any changes caused by Fleet changes, schedule changes, delays in execution of *Work*, or changes in funding.

[M] As part of Management Work, the Contractor must adjust the AOP for the out-years to ensure that any deferred work can be considered as part of the next *Halifax*-class business cycle.

[M] As part of Management Work, the Contractor must develop the AOP to enable Canada to assess that the HCCS EG will be sustained to meet the requirements and to develop the budget.

[M] As part of Management Work, the Contractor must prepare the AOP in accordance with DID Item PM-005.

[M] As part of Management Work, the Contractor must manage the *Work* in accordance with the accepted AOP.

3.2.2.2.1 AOP Schedule

[O] The Contractor must develop and maintain an AOP Schedule that aligns this work plan to the needs of the CPM to ensure the HCCS EG complies with the Canadian configuration of the HCCS EG.

[I] The AOP Schedule is a consolidated view of schedules including every work item in the AOP.

[M] As part of Management Work, the Contractor must develop and update an AOP Schedule.

[M] As part of Management Work, the Contractor must prepare an AOP Schedule in accordance with DID Item PM-006.

[M] As part of Management Work, the Contractor must manage the *Work* in accordance with the accepted AOP Schedule.

[M] As part of Management Work, the Contractor must obtain Canada's approval for any amendments to the accepted AOP Schedule that impact deliverables.

[M] As part of Management Work, the Contractor must align the AOP Schedule with the Major Surface Combatants (MSC) Class Program Plan (*Halifax*-class) Schedule.

3.2.2.2.2 Work Breakdown Structure (WBS)

[I] The WBS consists of a complete hierarchical indentured list, graphical chart(s) of the work items to be performed under the AOP.

[I] While the PMP defines the processes and plans used to deliver the *Work*, and the AOP lists the work items and their cost and schedule details, the WBS illustrates the entire *Work* scope of the contract. All AOP work items will map to a WBS element. All AOP work items are executed via a process or plan that is defined in the PMP.

[O] The Contractor must develop and update a WBS to reflect the work items within the AOP.

[M] As part of Management Work, the Contractor must develop and update a WBS that consists of a complete hierarchical indentured list, graphical chart(s) of the work items to be performed under the AOP.

[M] As part of Management Work, the Contractor must prepare the WBS in accordance with DID Item PM-007.

3.2.2.2.3 Technical Progress Report (TPR)

[I] The TPR is the monthly reporting of the *Work* that was performed. The TPR is intended to supplement the Monthly Progress Report to provide technical content and depth to enable Canada to assess the progress of the work items and to see the status of repair and overhaul materiel.

[M] As part of Management Work, the Contractor must develop and update a TPR reporting the status of the *Work* that was performed for the reporting period.

[M] As part of Management Work, the Contractor must develop and modify the TPR to enable Canada to assess the readiness of the HCCS EG.

[M] As part of Management Work, the Contractor must prepare the TPR in accordance with DID Item PM-008.

3.3 Business Continuity

[I] The purpose of Business Continuity Planning is to provide uninterrupted services and support to operations in the event a place of business or technical data is affected by different levels of disaster (natural disasters, theft, fire or flooding, security breach), which can be a localized short term disaster, or a permanent loss of a building/capability. This plan explains how the Contractor or its subcontractors would continue to provide support services to ensure the operational capability of the *Halifax*-class is not compromised.

[O] The Contractor must deliver uninterrupted services and support to Canada.

[O] The Contractor must ensure that all HCCS EG data is secure, accurate, and available in a timely manner to ensure the uninterrupted delivery of ISS for the HCCS EG.

3.4 Relationship Management

[I] Relationship Management fosters the sharing of knowledge, skills, and resources, and creates joint efficiency improvements.

[I] The relationship will include common goals, desired behaviours, joint governance and a series of mutually agreed upon processes to increase collaboration. It is through effective collaboration that a work environment that engenders trust, promotes innovation and best practice development is established.

[O] The Contractor must manage relationships such that there are collaborative and effective working relationships between Canada and the Contractor and between the Contractor and other stakeholders to achieve mutually successful outcomes.

[I] A Canada-Industry Integrated Project Team (CI-IPT) will be formed. Core Membership at initiation of the CI-IPT will include the Contractor PM and HCCS PM. Full membership will be established by the core group to include representatives from the OEMs and authorized representatives of the OEMs and Canadian entities that are working with *Halifax*-class ISS.

[I] The outcome of this CI-IPT will be risk mitigation, issue resolution, and continuous improvement by achieving an effective working relationship and collaboration between Industry ISSC representatives and Canada. The Terms of Reference for the CI-IPT will be provided by Canada.

[M] As part of Management Work, the Contractor must participate in the CI-IPT.

[M] As part of Management Work, the Contractor must follow the Terms of Reference for CI-IPT.

[M] As part of Management Work, the Contractor's participation in the CI-IPT must be proactive, responsive and flexible.

[I] The Relationship Management Plan (RMP) describes how the Contractor plans:

a. on enhancing collaboration with Canada and stakeholders and streamlining the processes that involve interaction with Canada and stakeholders;

b. to align its goals, promote desired behaviours, and participate in joint governance, including managing subcontractor involvement in governance; and

c. to collaborate with Canada in the management of risk and issues, and how it plans to streamline the processes for risk and issue management.

[M] As part of Management Work, the Contractor must develop and update a Relationship Management Plan to enable Canada to assess the commitment from the Contractor to collaborate with Canada and stakeholders to provide the In-Service Support for the HCCS EG.

[M] As part of Management Work, the Contractor must identify collaborative relationship risks and mitigations between the Contractor and Canada and stakeholders.

[M] As part of Management Work, the Contractor must prepare the Relationship Management Plan in accordance with DID Item PM-009.

[M] As part of Management Work, the Contractor must manage activities in accordance with the accepted RMP.

[I] The Communications Plan documents the approved communication interfaces between the representatives of the Contractor and Canada and defines the roles and responsibilities of all team members responsible, accountable, consulted or informed of the work.

[I] The Communications Plan enables communication and decisions to be executed at the lowest levels for various work activities within the DND and Contractor organizations to allow for efficient and effective work flow.

[I] Throughout the duration of the contract the Communications Plan is expected to evolve to better achieve the HCCS EG support objectives.

[M] As part of Management Work, the Contractor must develop and update a Communications Plan to identify communication interfaces between the Contractor and Canada.

[M] As part of Management Work, the Contractor must prepare the Communications Plan in accordance with DID Item PM-010.

[M] As part of Management Work, the Contractor must manage the *Work* in accordance with the accepted Communications Plan.

3.5 Meetings

[O] The Contractor must enable Canada to manage records of decisions and action items of all documented meetings.

[O] The Contractor must ensure that meetings will be efficient, cost effective and that all relevant topics are addressed.

[M] As part of Management Work, the Contractor must fully leverage available technology to reduce the cost of hosting and holding meetings.

[M] As part of Management Work, the Contractor must convene meetings at the Contractor's facility or at an alternate location as agreed to by Canada and the Contractor.

[M] As part of Management Work, the Contractor must provide, for all meetings at its location, a venue with the necessary facilities, including telephone and internet connection, suitable for hosting meetings.

[I] The Contractor's major Subcontractors may attend meetings as required by agreement between the Contractor and Canada. Canada may be accompanied to meetings by outside consultants and other Contractors providing services to Canada.

[M] As part of Management Work, the Contractor must schedule, plan and organize all meetings.

[M] As part of Management Work, the Contractor must ensure that meetings are attended by key Contractor personnel.

3.5.1 Minutes and Agenda

[M] As part of Management Work, the Contractor must develop and update Meeting Agendas for all meetings.

[M] As part of Management Work, the Contractor must prepare the Meeting Agenda in accordance with DID Item PM-011.

[M] As part of Management Work, the Contractor must develop and update Meeting Minutes for all meetings.

[M] As part of Management Work, the Contractor must prepare the Meeting Minutes in accordance with DID Item PM-012.

3.5.2 Action Item Management

[M] As part of Management Work, the Contractor must record action items arising from meetings, reviews or correspondence that have been approved by Canada in the Action Item Log.

[M] As part of Management Work, the Contractor must develop the Action Item Log to enable Canada to manage action items.

[M] As part of Management Work, the Contractor must prepare the Action Item Log in accordance with DID Item PM-013.

3.5.3 Kick-Off Meeting

[I] The purpose of the Kick-Off Meeting is to review and clarify requirements.

[M] As part of Management Work, the Contractor must organize a Kick-Off Meeting with Canada no later than 30 calendar days after contract award at a time and location that is mutually convenient to both Canada and the Contractor.

[M] As part of Management Work, the Contractor must include the following in the agenda for the Kick-Off Meeting:

a. Contractor briefing on the company and how it will be organized to manage the contract;
b. Communications Plan Review including roles and responsibilities of key personnel and points of contact;
c. Key contract terms;
d. Phases and Timelines;
e. ISS Activities;
f. Communications - Procedures for monitoring and reporting progress;
g. Procedures for managing risks and issues including initial insight to risks already identified or realized;
h. Contract administration and contract change procedures;
i. Development of a list of processes that need to be progressed jointly between Canada and the Contractor.

3.5.4 Progress Review Meeting (PRM)

[M] As part of Management Work, the Contractor must schedule, plan and organize PRMs in accordance with the Contract.

[M] As part of Management Work, the Contractor must convene PRMs as follows:

a. Start-up Phase: monthly, unless otherwise mutually agreed, or directed by Canada.
b. Steady-State: quarterly, unless otherwise mutually agreed or directed by Canada.

[I] PRMs will be chaired by the CA.

[M] As part of Management Work, the Contractor must coordinate with the CA for all arrangements related to PRMs.

[M] As part of Management Work, the Contractor must, at each PRM, address the following items:

a. Progress since the last PRM;
b. Achievements from the Continuous Improvement Program;
c. Project Risks, associated mitigation, impact timeframe, contingency plan;
d. Action Items tracking and status updates from previous PRMs, other meetings and correspondence;
e. Contractual Issues;
f. Financial Issues;

g. Performance Assessments;

h. Activities planned for the next reporting period; and

i. Such other items as may be required to affect the Contractor's solution or that the Contractor considers relevant to the work.

3.5.5 Technical Review Meeting (TRM)

[M] As part of Management Work, the Contractor must convene TRMs monthly, unless otherwise mutually agreed, or directed by Canada.

[I] TRMs will be chaired by the TA.

[I] No new work or tasks are generated from TRMs.

[M] As part of Management Work, the Contractor must coordinate with the TA for all arrangements related to TRMs.

[M] As part of Management Work, the Contractor must, at each TRM, address the following items:

a. Progress since the last TRM;

b. Work in progress as related to the free-flow R&O activities;

c. Technical Schedule;

d. Technical Risks, associated mitigation, impact timeframe, contingency plan (assessment of the Risk & Issue Register);

e. Action Items tracking and status updates from previous TRMs, other meetings and correspondence;

f. Technical Problem Summary;

g. Obsolescence forecasts;

h. Achievements from the Value Engineering Program;

i. Technical activities planned for the next reporting period; and

j. Such other items as may be required to affect the Contractor's solution or that the Contractor considers relevant to the work.

3.5.6 Performance Assessment Meetings

[I] The Performance Assessment Meetings will be used to review and assess the performance measurement data and results from the following metrics: Strategic Performance Measures (SPMs), Key Performance Indicators (KPIs), System Health Indicators (SHIs).

[I] The Performance Assessment Meetings will also be used to validate that the performance measures are meeting their intended purpose. Both parties will evaluate the requirement for additional performance metrics or to modify existing performance metrics.

[M] As part of Management Work, the Contractor must schedule, plan and organize the Performance Assessment Meetings, chaired by the CA, which must coincide with the PRMs.

[M] As part of Management Work, the Contractor must prepare and include the following information for the Performance Assessment Meetings:

a. report the measurement metrics as defined in Chapter 8;

b. calculate the applicable performance award based on the performance measurement framework as defined in Chapter 8;

c. make recommendations for changes to the measurement indicators and the Performance Measurement Framework; and

d. Performance Assessment Report.

3.6 Liaison with Formations and Units

[I] The liaison between the Contractor and RCN Formations and Units through coastal representatives is encouraged to coordinate the exchange of information for planning and coordinating approved work. The liaison will be done in accordance with the Communications Plan.

[I] HMC Ships are responsible to conduct the first level preventive maintenance tasks and to report deficiencies and initiate materiel demands in DMRIS. They may also request additional, deployed or along-side augmentation of support services which may be directed to the Contractor by Detachment Offices' POCs through the EWR process. The Ship's Staff coordinate and assist the Contractor staff when aboard.

[I] FMF, in addition to performing Level Two and some Level Three maintenance tasks in support of *Halifax*-class Ships, act as the lead in-service support provider for the *Halifax*-class, co-ordinating Ship's support activities on the Dockyards and providing key support services upon request. A Point of Contact (POC) for co-ordination of these activities will be provided to the Contractor after contract award through the development of the Communications Plan.

[M] The Contractor must provide support to the coasts and formations using the EWR process specified in Chapter 2.4.3.

3.6.1 DND Direct Liaison with OEMs and OEM authorized representatives

[M] As part of Management Work, the Contractor must enable DND to consult and communicate directly with the HCCS EG OEMs and the HCCS EG OEM authorized representatives.

[I] DND will keep the Contractor informed of discussions with the HCCS EG OEMs and the HCCS EG OEM authorized representatives in accordance with the Communications Plan.

3.6.2 Location of Contractor's West / East Coast Representatives

[I] The Contractor's West and East Coast representatives will function as the Contractor's coastal points of contact for the local day-to-day maintenance and support of the HCCS EG.

[M] As part of Management Work, the Contractor's West and East Coast Representatives must be located on both coasts, residing within a 50 km radius of CFB Esquimalt and CFB Halifax respectively.

3.7 Risk Management

[O] The Contractor must develop and implement a Risk Management Process that identifies and manages future risks in a consistent and timely manner to be able to implement risk mitigation actions.

[O] The Contractor must continuously identify and mitigate risks that may impact Canada's ability to use the HCCS EG to fulfill RCN missions.

[I] Risk management includes the ongoing identification and assessment of risks, the development and execution of agreed risk response plans, and the monitoring or evaluation of the risk response plans.

[M] As part of Management Work, the Contractor must implement a risk management process that continuously manages the identification, qualification, quantification, mitigation and control of risks.

[M] As part of Management Work, the Contractor must establish and maintain a Risk and Issue Register to record and rank risk issues as they arise for tracking and reporting.

[M] As part of Management Work, the Contractor must highlight significant risks in the TPRs in addition to recording them in the Risk and Issue Register.

[M] As part of Management Work, the Contractor must input all risks and issues identified by the Contractor and Canada in the Risk and Issue Register.

[M] As part of Management Work, the Contractor must develop and update a Risk Management Plan that describes how the Contractor will manage risk, issues and opportunities throughout the life of the contract.

[M] As part of Management Work, the Contractor must provide in the Risk Management Plan, a risk management framework that provides a governance structure by which risks are escalated to the appropriate decision level in a timely manner to permit mitigation steps and actions to be implemented.

[M] As part of Management Work, the Contractor must prepare the Risk Management Plan in accordance with DID Item PM-014.

[M] As part of Management Work, the Contractor must manage the risk management activities in accordance with the accepted Risk Management Plan.

3.8 Surge Management

[I] On rare occasions, work injected will be of such a significant magnitude that Surge Reporting will be requested by Canada. The impact on planning, execution and reporting will need to be managed.

[I] Canada will provide information on operational changes as soon as they are known to the Contractor to assist in planning development.

[M] As part of Management Work, the Contractor must develop, implement, monitor and report on the surge response.

[M] As part of Management Work, the Contractor must manage the risks of the surge response in accordance with the risk management process specified herein.

[M] As part of Management Work, the Contractor must develop and update a Surge Response Status Report to enable Canada to monitor and assess the risk of the Contractor's progress in meeting the surge requirement.

[M] As part of Management Work, the Contractor must prepare the Surge Response Status Report in accordance with DID Item PM-015.

[M] As part of Management Work, the Contractor must manage the surge response.

[M] The Contractor must provide a surge response.

3.9 Performance Management

[I] This PWS is performance based to incentivize the Contractor to continuously improve the efficiency and effectiveness of the HCCS EG and its support solution.

3.9.1 Performance Management Framework (PMF)

[O] The Contractor must support and work with Canada to establish and conduct performance management of the *Work* within the PMF to enable Canada to monitor, assess, and measure the Contractor’s performance.

[I] The Performance Management Framework (PMF) encompasses those components of the PWS that incorporate and connect the management processes, the services outcomes, the performance monitoring and assessment activities, to the performance incentives.

[I] The Performance Requirement Specification (PRS) details the system for collecting, assessing and reporting performance. The performance targets that are associated with each of the outcomes are an important performance level to establish accountability for Services delivery. The PRS therefore forms a part of the Performance Management Framework and is the key to ensuring the delivery of the outcomes required by Canada.

[I] Canada and the Contractor will start the performance management of the *Work* during the Start-Up Phase. The performance management within the PMF will be continuously reviewed and updated to improve the support services.

[I] the emphasis of the performance management is on establishing and validating the performance measures, data collection, and implementation of data analysis to support the SPMs, KPIs and SHIs. This will ensure that these indicators accurately reflect performance and for Canada and the Contractor to agree that they can be applied for the purpose of contract incentives.

[I] It may be necessary to make changes to the performance assessment process or the performance measures through the life of the contract.

[M] As part of Management Work, the Contractor must establish and maintain the performance management processes.

[M] As part of Management Work, commencing at Contract Award, the Contractor must collect performance data to support the performance management of the *Work*.

3.9.2 Performance Management Plan

[M] As part of Management Work, the Contractor must develop and update a Performance Management Plan that describes how the Contractor will manage their performance for the duration of the Contract.

[M] As part of Management Work, the Contractor must describe the performance metrics data sources, performance metrics data collection methodology and a summary dashboard for the PMF in accordance with the Performance Requirements Specification (PRS) in Appendix 1.

[M] As part of Management Work, the Contractor must describe the processes for verifying and validating the performance metrics in the PRS.

[M] As part of Management Work, the Contractor must describe the processes for validating the integrity of the performance metrics data.

[M] As part of Management Work, the Contractor must prepare the Performance Management Plan in accordance with DID Item PM-016.

[M] As part of Management Work, the Contractor must implement Performance Management in accordance with the accepted Performance Management Plan.

3.9.3 Performance Assessment Reporting

[M] As part of Management Work, the Contractor must develop and update a Performance Assessment Report that describes the results of the performance assessment.

[M] As part of Management Work, the Contractor must develop the Performance Assessment Report to enable Canada to assess the performance of the Contractor and the HCCS EG.

[M] As part of Management Work, the Contractor must prepare the Performance Assessment Report in accordance with DID Item PM-017.

3.10 Continuous Improvement Program

[I] A Continuous Improvement Program coupled with Value Engineering services will be used to continuously improve the processes and procedures for supporting the HCCS EG.

[O] The Contractor must continuously improve the HCCS EG support system.

[M] As part of Management Work, the Contractor must implement a Continuous Improvement Program with the aim to optimize life cycle costs while ensuring the HCCS EG complies with the Canadian configuration of the HCCS EG.

[M] As part of Management Work, the Contractor must implement the Continuous Improvement Program described in the PMP.

[M] As part of Management Work, the Contractor must implement the Value Engineering services described in the Systems Engineering Management Plan.

[I] Where improvement initiatives result in cost savings, it is intended to share the savings between Canada and the Contractor. Gain Sharing is an incentive for improvement based on shared benefits and represents a Win-Win outcome. It incentivizes continuous improvement by sharing the benefits from realized continuous improvement and value engineering efforts. The Gain Sharing system is based on Cost Reduction Initiatives (CRIs) that are designed to provide

increased Value for Money to Canada. There will be a spectrum of improvements ranging from the small with little benefit to the large where the benefits may be significant. Also, the number of minor improvements may be much higher than the number of major, step change improvements. Therefore, two categories of CRIs are established.

[I] Category A. Regarding the improvements that result in long-term financial benefits. When recommending a Category A Gain Sharing CRI, the Contractor will also recommend an approach to track and quantify sustainment cost savings. Category A Gain Sharing will be based on quantified and verified sustainment cost reductions. Some examples of the many sources of savings that could lead to Gain Sharing:

- Operational (Maintenance) Efficiency;
- Supply Chain Efficiency;
- Improvements in Mean Time Between Failure;
- Material cost reductions. Includes repair vs replace, reduction in the quantity of parts, reduction in the cost of parts; and
- Reduction in support services.

Gain Sharing Residuals provide recurring benefit from improvements, rendering savings opportunities more attractive. Category A Gain Sharing may be eligible for residual payment.

[I] Category B. Regarding the improvements that result in financial benefit in a one-time only manner. When recommending a Category B Gain Sharing CRI, the Contractor will also recommend an approach to track and quantify sustainment cost savings. Category B Gain Sharing will be based on quantified and verified sustainment cost reductions.

[I] Achievements from the Continuous Improvement and Value Engineering Programs will be discussed at the PRMs and TRMs.

3.11 Naval Materiel Regulatory Requirements

[O] The Contractor must support the HCCS EGPM to ensure that the HCCS EG is fit for purpose; safe and complies with Regulatory and Environmental requirements.

[I] The Design Authority is responsible for ensuring the currency of platform certification and for managing the certification program. This activity is governed by C-23-005-000/AG-001, the Naval Materiel Regulation for Surface Ships (NMRSS). Compliance and certification for the *Halifax*-class will be established by agreement between the Naval Materiel Regulatory Authority (NMRA) and the Design Authority and outlined in the *Halifax*-class Certification Plan (HCCP).

[I] DND has established class standards to manage risks in ten key safety areas:

a. Structure;

b. Buoyancy, Stability and Controllability;

c. Engineering Systems;

d. Fire Safety;

e. Escape, Evacuation and Rescue;

f. Communications;

g. Seamanship;

h. Navigation;

i. Dangerous Goods.

j. Environmental Performance.

[I] DND will provide the Contractor with a point of contact from the Recognized Organization (RO) which will conduct relevant surveys and issue certificates of compliance or certifications of conformance to the DA, as applicable, for these safety areas.

[M] As part of Management Work, the Contractor must accommodate DND or its representative participation in factory acceptance events.

[M] As part of Management Work, the Contractor must report and obtain approval for any deviations from the Canadian configuration of the HCCS EG and must provide materiel state evidence to the CPM, or RO when required, to support the DND Naval Materiel Certification process.

[M] As part of Management Work, the Contractor must obtain approval from Canada for any materiel substitution.

3.12 Security Program Management

[O] The Contractor must support the TA in the management of the security program for the HCCS EG.

[M] As part of Management Work, the Contractor must protect HCCS EG assets including technology, components, and information from compromise by implementing countermeasures to mitigate risks posed by threats and vulnerabilities.

[M] As part of Management Work, the Contractor must protect assets using the guidelines specified in IT Security Risk Management: A Life cycle Approach ITSG-33.

[M] As part of Management Work, the Contractor must establish the governance structure described in the PMP to provide effective and integrated security risk management.

[M] As part of Management Work, the Contractor must implement security as an integral component for the conduct of the *Work*.

[M] As part of Management Work, the Contractor must adopt and amend security measures and implement those changes in the day-to-day operations in response to applicable security arrangements, partnerships and alliances.

[M] As part of Management Work, the Contractor must institute and maintain procedures to identify and report counterfeit or non-compliant materiel of any sort.

3.12.1 Security Risk Management Activities

[M] As part of Management Work, the Contractor must implement a security risk management process.

[M] As part of Management Work, the Contractor must conduct the following security risk management activities:

a. Critical Program Information (CPI) Identification and Criticality Analysis;

b. Threat Analysis;

c. Vulnerability Assessment;

d. Risk Assessment; and

e. Countermeasure Implementation.

3.12.2 Critical Program Information and Mission-Critical Functions and Components

[I] Critical Program Information and mission-critical functions and components are the HCCS EG technology, components, and information that provide mission essential capabilities.

3.12.3 Critical Program Information

[I] Critical Program Information (CPI) are elements of the ISS of the HCCS EG that, if compromised, could cause significant degradation in mission effectiveness; shorten the expected combat-effective life of the system; reduce technological advantage; significantly alter program direction; or enable an adversary to defeat, counter, copy, or reverse engineer the technology or capability.

[M] As part of Management Work, the Contractor must establish processes necessary for the safeguarding of HCCS EG CPI to prevent unauthorized or inadvertent disclosure, destruction, transfer, alteration, reverse engineering, or loss.

[M] As part of Management Work, the Contractor must protect the following HCCS EG CPI:

a. Information about applications, capabilities, processes, and end-items;

b. Elements or components critical to a military system or network mission effectiveness;

c. Technology that would reduce the Canadian technological advantage if it came under foreign control;

d. Classified military information which is considered a national security asset that will be protected;

e. Intellectual Property;

f. Design information;

g. Controlled Goods information; and

h. Commercial-off-the shelf (COTS) technology that fulfill a critical function within the system.

3.12.4 Mission-Critical Functions and Components

[I] Mission-critical functions are those functions of the system if corrupted or disabled, would likely lead to mission failure or degradation. Mission-critical components are primarily the elements of the system (hardware, software, and firmware) that implement critical functions. In addition, the system components which implement protections of those inherently critical components, and other components with unmediated access to those inherently critical components, may themselves be mission critical.

[M] As part of Management Work, the Contractor must plan and implement the following protection program for mission-critical HCCS EG functions and components:

a. Trade-off considerations (including cost/benefit analyses);

b. Resource allocations (staffing and budget);

c. Countermeasures planning and implementation;

d. Adjustment of countermeasures, as appropriate, for variations in the planned use or environment of inherited critical components;

e. Summary of consequences if compromised; and

f. Residual risk identification after countermeasures are implemented, including follow-up mitigation plans and actions.

3.12.4.1 Criticality Analysis

[M] As part of Management Work, the Contractor must identify and prioritize mission-critical HCCS EG functions and components.

[M] As part of Management Work, the Contractor must decompose the end-to-end functions to identify the mission-critical functions and components.

[M] As part of Management Work, the Contractor must specify in its criticality analysis:

a. Identification and prioritization of system mission threads;

b. Mission threads decomposed into mission-critical functions;

c. Identification of system components that implement the mission-critical functions; and

d. Assigned levels of criticality based on failure consequences and ability to perform its mission.

3.12.5 Supplier Threat Analysis

[M] As part of Management Work, the Contractor must analyze the supply chain for HCCS EG mission-critical components.

[M] As part of Management Work, the Contractor must provide to Canada the analysis results showing all suppliers for the mission-critical components and the assessed trust level of each supplier.

[M] As part of Management Work, the Contractor must conduct a security risk assessment of the supplier's ability to protect CPI.

3.12.6 Vulnerability Assessment

[I] Vulnerability is any weakness in system design, development, production, or operation that can be exploited by a threat to defeat a system's mission objectives or significantly degrade its performance.

[M] As part of Management Work, the Contractor must assess the vulnerabilities of the HCCS EG mission-critical functions and components identified in the criticality analysis.

[M] As part of Management Work, the Contractor must conduct a vulnerability assessment to include the following:

a. Identification of the vulnerabilities;

b. Assess and rate the severity of the vulnerabilities;

c. Develop vulnerability mitigations or countermeasures; and

d. Update other security analysis with the vulnerability analysis results.

3.12.7 Risk Assessment

[M] As part of Management Work, the Contractor must provide a security risk methodology that takes into consideration the criticality analysis, vulnerability assessment and supplier threat analysis. The probabilities of the identified risks must be provided in the security risk assessment.

[M] As part of Management Work, the Contractor must develop and update a Security Risk Assessment and Countermeasures Report showing how security risks identified in the security risk assessment for the HCCS EG will be mitigated and the mitigation level to be achieved.

[M] As part of Management Work, the Contractor must develop the Security Risk Assessment and Countermeasures Report to enable Canada to assess the security risks of the HCCS EG.

[M] As part of Management Work, the Contractor must prepare the Security Risk Assessment and Countermeasures Report in accordance with DID Item PM-018.

[M] As part of Management Work, the Contractor must consider the following in the development of the countermeasures:

a. Anti-tamper protection of critical system elements;

b. Information assurance measures to protect CPI to ensure system availability, integrity, authentication, confidentiality, and non-repudiation;

c. Software assurance for the design of software security protections;

d. Supply chain risk management for CPI and mission-critical functions and components;

e. Identification of trusted suppliers; and

f. System security engineering process.

[M] The Contractor must implement cost-effective countermeasures.

3.12.8 Security Incidents

[M] As part of Management Work, the Contractor must report all security incidents of loss, compromise, or theft of proprietary information or trade secrets involving Critical Program Information.

[M] As part of Management Work, the Contractor must report the security measures implemented to repair the loss or aid in recovery from the effects and resolution of any consequences of the security incidents.

[M] As part of Management Work, the Contractor must conduct a post-incident analysis.

[M] As part of Management Work, the Contractor must report security incidents immediately.

3.12.9 Cybersecurity Training

[M] As part of Management Work, the Contractor must ensure that the personnel it employs have certified training in basic cybersafe best practices before being allowed to work on the HCCS EG.

[M] As part of Management Work, the Contractor must have a system to track the cybersafe training of its personnel and be able to provide Canada records of training of its personnel when requested.

[M] As part of Management Work, the Contractor must ensure that cybersafe refresher training is given to its personnel on an annual basis and that the training records are updated accordingly.

[I] Basic cybersafe best practices is the measurable implementation of CyberSafety that tailors cybersecurity and systemic safety to assets in order to enable and encourage risk-based asset management as a systemic outcome. In this context basic practices requires that any activity or process, ability or capability, or state whereby information and operational systems and the information contained therein are protected from and/or defended against damage, unauthorized use or modification, or exploitation.

3.13 Quality Management System

[O] The Contractor must apply consistent processes and continuously improve these processes in the conduct of the *Work* on the HCCS EG.

3.13.1 Quality Plan (QP)

[I] The Contractor's QP provides Canada the ability to assess the effectiveness of the Contractor's Quality Management System and how it is applied during the performance of the HCCS ISS contract.

[M] As part of Management Work, the Contractor must develop and update a Quality Plan that identifies the quality management methods being applied to the HCCS ISS contract describing all the processes involved in the performance of the contract and their traceability to the Quality Management System requirements.

[M] As part of Management Work, the Contractor must develop a Quality Plan to enable Canada to assess the effectiveness of the implementation of the Quality Management System.

[M] As part of Management Work, the Contractor must develop a traceability matrix from the elements of the specified quality requirements to the corresponding processes in the Quality Plan.

[M] As part of Management Work, the Contractor must prepare the Quality Plan in accordance with ISO 10005 current version at time of contract award and with DID Item PM-019.

[M] As part of Management Work, the Contractor must manage the implementation of the accepted QP and its updates throughout the term of the contract.

[M] As part of Management Work, the Contractor must make appropriate amendments to the QP that reflect current updates to specification and standards as well as planned quality activities throughout the term of the contract.

3.14 Subcontractor Management

[M] As part of Management Work, the Contractor must manage the *Work* of the Subcontractors, distributors and vendors.

[M] As part of Management Work, the Contractor must integrate the work of Subcontractors, distributors, and vendors into all Contractor plans, activities, schedules, and reports where they are relevant.

3.14.1 Maintenance of Support Agreements

[I] For Canada to retransfer Government Property (GFI/GFE) subject to ITAR or other Nations export controls, Canada will arrange for and maintain the required retransfer approval or applicable licenses.

[M] As part of Management Work, the Contractor must obtain and manage any Technical Assistance Agreements, accreditations, and manufacturing licence agreements required in accordance with the contract to execute the *Work*.

[M] As part of Management Work, the Contractor must obtain and manage any Third Party Transfer Agreements required.

[M] As part of Management Work, the Contractor must ensure that applicable documents are valid for the duration of the Contract, as required under ITAR if a Technical Assistance Agreement(s) (TAA), and/or Export License or similar document is required for the performance of the *Work*.

3.14.2 Maintain Supplier List

[M] As part of Management Work, the Contractor must develop and update a Subcontractor Supplier List that provides a complete list of all subcontractors qualified by the Contractor and approved by Canada to work in support of the Contractor.

[M] As part of Management Work, the Contractor must prepare and submit the Subcontractor Supplier List in accordance with DID Item PM-020.

3.15 Mandated Training

[I] Prior to start of work at DND Dockyard or Contracted Repair Facility locations, Contractor personnel (and subcontractor) must attend courses provided by the RCN to familiarize them with safety and emergency procedures to be followed in the DND Dockyard or Contracted Repair Facility. Other safety training may be required depending on the work to be completed.

[M] As part of Management Work, the Contractor must contact the MARLANT or MARPAC safety and environmental organizations to confirm training requirements.

[M] The Contractor must ensure its personnel are trained before they enter the DND Dockyard or Contracted Repair Facility.

3.16 Intellectual Property Management

[M] As part of Management Work, the Contractor must specify in the Project Management Plan (PMP) how their program and procedures will meet the IP and technical data requirements.

3.16.1 Intellectual Property Rights (IPR)

[M] The Contractor must obtain any rights, licenses and agreements that may be required to perform the Work.

[M] As part of Management Work, the Contractor must identify foreground and background Intellectual Property (IP) and ensure all deliverables to Canada are labeled accordingly.

[M] As part of Management Work, the Contractor must protect against disclosure to third parties the OEM background IP held as Technical Data for the HCCS EG.

[M] As part of Management Work, the Contractor must include reference to any involved or affected IP Licenses in any Technical Investigations completed or Engineering Change Proposals submitted.

3.16.2 Intellectual Property Reports

[I] Canada will provide the Contractor with a baseline IP Report after Contract Award. It is anticipated that an emergent work task will be raised during the Start-Up phase for the Contractor to verify and validate the IP report. The Contractor will have to maintain and update the IP Report throughout the remainder of the contract term.

[M] As part of Management Work, the Contractor must report in an IP Report all IP provided by Canada, IP Licences and any new foreground IP developed in the execution of the *Work*.

[M] As part of Management Work, the Contractor must provide Canada an IP Report that describes any new foreground IP developed and any new background IP used in the execution of the *Work*.

[M] As part of Management Work, the Contractor must develop and update the IP Report that enables Canada to manage the HCCS EG IP and to assess risks associated with the HCCS EG IP.

[M] As part of Management Work, the Contractor must prepare the IP Report in accordance with DID Item PM-021.

3.17 Controlled Goods Management

[I] The Contractor and any subcontractor are advised that, within Canada, only persons who are registered under, exempt under or excluded under the Controlled Goods Program (CGP) are lawfully entitled to examine, possess or transfer Controlled Goods.

[M] As part of Management Work, the Contractor must ensure that all the *Work* is performed in compliance with all Controlled Goods laws and regulations of Canada in accordance with the contract.

[M] As part of Management Work, the Contractor must enforce and comply with all applicable laws, export control laws and regulations as part of the Controlled Goods Program (CGP) in accordance with the contract.

[M] As part of Management Work, the Contractor must support the EGPM to generate and maintain demilitarization codes for all HCCS EG Controlled Goods.

3.17.1 Import and Export Control Management

[M] As part of Management Work, the Contractor must prepare, obtain and manage any and all Import and Export control documentation and permits for the HCCS EG when supporting local or deployed operations.

[M] As part of Management Work, the Contractor must obtain and manage any Import and Export licenses that will be required between the Contractor and the OEMs, other Subcontractors or third parties.

[M] As part of Management Work, the Contractor must obtain and manage any Import and Export licenses that will be required between the Contractor, OEMs, other Subcontractors, or third parties and Canada.

3.18 Government Property Management

[I] Canada may provide Government Property to the Contractor including Government Furnished Equipment (GFE), Government Supplied Material (GSM), and Government Furnished Information (GFI) subject to the terms and conditions of the Contract.

[M] As part of Management Work, the Contractor must manage Government Property in accordance with the contract.

[M] As part of Management Work, the Contractor must describe its approach to Government Property management in the PMP.

3.19 General Safety and Environmental Program Management

[I] It is DND / CF policy to maintain a program of General Safety, which ensures that safety considerations are incorporated into every aspect of departmental operations including Training and support activities.

[M] As part of Management Work, the Contractor must describe its approach to General Safety and Environmental Program Management in the PMP.

[M] As part of Management Work, the Contractor must implement a General Safety and Environmental Program in accordance with the PMP.

[M] As part of Management Work, the Contractor must follow all safety programs in place when work is performed at government owned facilities.

[M] As part of Management Work, the Contractor must comply with DND policies, orders, directives, instructions and best practices when accessing DND owned or controlled lands, buildings or equipment.

[M] As part of Management Work, the Contractor must ensure that specifications, standards, support documents and test programs are reviewed for Environmental Health and Safety compliance and appropriate warnings included.

4 Technical Schedule Management (TSM)

[O] The Contractor must align the *Work* with the MSC Class Program Plan schedule.

[I] The MSC Class Program Plan identifies the readiness levels for the Ships and the available work periods. The MSC Class Program Plan schedule will be delivered by Canada at the Kick-Off meeting and is updated monthly.

[M] As part of Management Work, the Contractor must specify in the Project Management Plan (PMP) how their program and procedures will meet the TSM requirements.

[M] As part of Management Work, the Contractor must provide HCCS TSM Services to:

a. assist in the planning and scheduling of Programmed Work Periods (PWPs);

b. identify and ensure early resolution of any scheduling issues or conflicts using Risk Management described in Section 3.7;

c. ensure the identified and approved work packages are complete, so they can be efficiently sequenced and scheduled for approved PWPs;

d. ensure all the components, resources and materiel support required for each work package will be available to support the execution of approved PWPs in accordance with the Materiel Management Plan; and

e. develop contingency plans and incorporate schedule flexibility to accommodate changes for unforeseen and/or immediate requirements following processes in the PMP and QP.

4.1 Programmed Work Period Management

[I] Formation operational authorities are responsible for scheduling work periods for ships as well as periods for surveys and inspections prior to DWPs/refits. These authorities prioritize the work conducted during the work periods. Through the Waterfront Management Group within the FMFs and the Detachment Office POCs on each coast, the Contractor must support the coordination of any HCCS EG work to be conducted within a work period.

[I] FMF manages delivery of services to a ship. For all work periods, the FMF planning group develops a ship Work Period Schedule (WPS), manages the work requirements, de-conflicts work, adjusts for arisings, incorporates new requirements, and reports progress.

[O] The Contractor must support the Detachment Offices POCs, FMF planners, WPCs for planning, scheduling, executing, and close-out of any HCCS EG work in the PWPs.

[M] As part of Management Work, the Contractor must support the FMF planning group through the Detachment Office POCs and attend meetings when required.

[M] As part of Management Work, the Contractor must coordinate and cooperate with the Detachment Offices POCs and FMF planners to ensure that:

a. work can be completed by FMFs, RCN ship staff and ISS Contractors in order of priority,

b. the Contractor's planning and scheduling aligns to the on support schedules that are maintained in DRMIS, and

c. the DRMIS records are updated upon completion of the work.

[M] As part of Management Work, the Contractor must prepare the work for each PWP in accordance with the AOP, with the objective of ensuring that systems essential to the upcoming operational period are adequately maintained.

[M] As part of Management Work, the Contractor must inform Detachment Offices POCs and the FMF planners of significant work, such as EC or production activity that requires the ships to be alongside for long periods, being planned over the next three years.

[I] The assignment of FMF resources to support the Contractor's work will be based upon FMF priorities, and availability of FMF resources to support the work.

[M] As part of Management Work, the Contractor must inform the Detachment Offices POCs of any FMF infrastructure requirements for the Contractor's work.

[M] During work period execution, to ensure the successful execution and on-time completion of all ship work, as part of Management Work, the Contractor must:

a. report progress to the Detachment Offices POCs,

b. notify the Detachment Offices POCs if changes to the WPS may be required,

c. advise the Detachment Offices POCs of any conflicts with tasks being conducted by FMF or SS; and

d. attend ship work period planning and coordination meetings.

[M] As part of Management Work, the Contractor must inform the Detachment Offices POCs of any schedule or materiel risks to planned work for all work periods and any special requirements for the work.

4.2 Work Outside a Designated Planned Work Period

[I] On rare occasions, the Contractor may be requested to support activities outside of a PWP. The coordination of these activities will be on an as and when required basis through the Detachment Offices POCs.

[I] All access to ships, schools and ranges must be through the Detachment Offices POCs as Field Service Representative (FSR) or Mobile Repair Party (MRP) taskings in accordance with the contract.

[M] As part of Management Work, the Contractor must provide FSR or MRP support through the Detachment Offices POCs in accordance with the contract. The FSR or MRP service delivery will be authorized under an emergent task.

4.3 Docking Work Periods (DWP)

[I] The CPM plans for the cyclical execution of DWPs for each *Halifax*-class Ship.

[I] DWPs will be conducted at the Shipyard specified by the MSC Class Program Plan schedule.

[I] For DWPs, the WPC Contractor plans and schedules the work with input from the MSC planners.

[M] As part of Management Work, the Contractor must support the FMF planning group through the Detachment Office POCs and attend meetings when required.

[M] As part of Management Work, the Contractor must coordinate and cooperate with the Detachment Offices POCs and FMF planners to ensure that:

a. work can be completed by FMFs, RCN ship staff and ISS Contractors in order of priority,

b. the Contractor’s planning and scheduling aligns to the on support schedules that are maintained in DRMIS, and

c. the DRMIS records are updated upon completion of the work.

[M] As part of Management Work, the Contractor must support the EGPM and MSC planners for the execution of any HCCS EG work during a DWP.

[M] As part of Management Work, the Contractor must provide any DWP special instructions for the HCCS EG to the EGPM and MSC planners.

[M] As part of Management Work, the Contractor must prepare a forecast of their work requirements for each DWP, to be submitted to the EGPM and MSC planners, along with any special safety or logistical requirements such as infrastructure, power, storage, IT and security.

5 ISS Activities

[I] ISS activities represent the life cycle materiel management of the HCCS EG to ensure sustained performance and that the HCCS EG complies with the Canadian configuration of the HCCS EG. The DND LCMM concepts, policies and processes are described in the reference documents.

[O] Through the provision of ISS activities, the Contractor must ensure that the HCCS EG complies with the Canadian configuration of the HCCS EG.

5.1 Configuration Management

[I] Configuration Management is key to Naval Materiel Assurance.

[I] The Contractor will assist the HCCS EG System Authority and the HCCS EGPM in updating the approved Canadian configuration of the HCCS EG and its associated technical data.

[M] The Contractor must manage the Canadian configuration of the HCCS EG.

[M] The Contractor must provide impact assessments and analysis of the Canadian Configuration of the HCCS EG to changes to the operation and support of the HCCS EG.

[M] The Contractor must provide Canada with on-going assurances of alignment between HCCS EG configurations, ISS and the corresponding Product Baseline documentation, including providing required objective quality evidence to DND to support evaluations and decisions using Naval Materiel Assurance procedures.

[O] The Contractor must establish, manage and maintain complete and accurate configurations for the Canadian configuration of the HCCS EG.

[O] The Contractor must manage all changes to the Canadian configuration of the HCCS EG.

[M] The Contractor must manage the Canadian configuration of the HCCS EG in accordance to with SAE/EIA-649 Configuration Management Standard.

[I] HCCS CM services are engineering and management services to control changes to the approved Canadian configuration of the HCCS EG.

[M] The Contractor must use the Configuration Items (CIs) specified in the Configuration Item Index Report (CIIR) at Appendix 4.

5.1.1 Configuration Management Planning and Management

[I] Configuration Management planning and management over the entire life cycle of the Canadian configuration of HCCS EG is essential in achieving predictable, effective, and repeatable configuration management processes.

[M] As part of Management Work, the Contractor must develop and update a Configuration Management Plan (CMP) that describes the Contractor’s configuration management program.

[M] As part of Management Work, the Contractor must develop and update in the CMP, the processes, procedures, and controls implemented to ensure effective configuration management and planning, configuration identification, configuration change management, configuration status accounting and configuration verifications and audits of the configuration including, but not limited to, hardware, software and firmware.

[M] As part of Management Work, the Contractor must align the MSC *Halifax*-class Configuration Management Plan in their Configuration Management Plan.

[M] As part of Management Work, the Contractor must develop the CMP to enable Canada to assess the risk of the Configuration Management program.

[M] As part of Management Work, the Contractor must prepare the Configuration Management Plan in accordance with DID Item LM-001.

[M] As part of Management Work, the Contractor must manage Configuration Management in accordance with the accepted CMP.

[M] The contractor must ensure that the requirements of SAE/EIA-649 and the Contractor's CMP are flowed down and followed by any subcontractors and suppliers.

[M] The Contractor's CM program must include the configuration management of: systems, equipment, hardware, firmware, software, technical data package and training within each HCCS EG and sub-systems approved configuration.

[M] The Contractor must support the EGPM in keeping current the Canadian configuration master data repository.

[M] The Contractor must perform configuration management in support of the development of Engineering Change Proposals and the implementation of Engineering Changes.

5.1.2 Configuration Identification

[I] Canada has ownership of the approved Canadian configuration of the HCCS EG (which consists of the HCCS EG Product Baseline plus all approved configuration changes) and approves proposed changes by the Contractor to the configuration items

[M] The Contractor must maintain and update the CIIR in Appendix 4.

[M] The Contractor must obtain approval from DND for new and modified CIs through the use of DND forms 746 (Equipment Identification and Documentation Data Base (EID DB) Update Form) and 752 (Equipment Identification and Documentation Data Base (EID DB) Application for Equipment Registration).

[M] The Contractor must manage and keep current the approved Canadian configuration of the HCCS EG and any approved configuration changes for the *Halifax*-class frigates to enable Canada to assess the risks of configuration changes.

5.1.2.1 HCCS EG Configuration Items

[I] Configuration items for the HCCS EG are identified by unique equipment registration numbers (ERNs).

[M] The Contractor must develop and maintain the HCCS EG Product Structure based on the

existing *Halifax*-class Equipment Family Tree.

[M] The Contractor must update the HCCS EG Product Structure with approved new and modified CIs based on the approved DND 746 and 752 forms.

5.1.3 Configuration Change Management

[I] Configuration changes to the HCCS EG are changes to configuration items and are effected through complete engineering changes or through TDP only changes.

[I] Canada is the sole approval authority for configuration change management and is the sole release authority to configuration change stakeholders in accordance with the Communications Plan.

[I] Canada will validate and approve all proposed changes to the approved Canadian configuration of the HCCS EG.

[M] The Contractor must support the internal DND approval process with all necessary information to enable decisions.

[M] The Contractor must prepare configuration changes and submit them for DND approval and release as per the MCS EC Process and MSC TDP change process.

[M] The Contractor must only change software when authorized by Canada.

5.1.3.1 Contractor Configuration Change Process

[M] The Contractor must develop and align their configuration change process in accordance with the current SAE/EIA-649 Configuration Management Standard and the MSC configuration change processes.

5.1.4 Configuration Status Accounting (CSA)

[I] CSA provides access to accurate and timely information about a product and its technical information throughout the product life cycle.

[I] The CSA report documents the state of each Configuration Item and the status of any change requests. The change requests may also include requests for change or requests for deviations and waivers.

[M] The Contractor must develop and update a Configuration Status Report that describes the status of each configuration item and the status of the implementation of changes to each configuration item and associated technical data.

[M] The Contractor must prepare the Configuration Status Report in accordance with DID Item LM-002.

5.1.5 Configuration Verification and Audits

[I] Configuration verification and audits establish that:

a. adequate processes are in place to maintain consistency between the class/ship/equipment and its technical information throughout its life cycle;

b. the approved product technical information is complete, accurate and up-to-date; and

c. the physical, functional, and interface requirements, as defined in the approved product definition information, are achieved by the class/ship/equipment.

[M] When requested by Canada, the Contractor must conduct physical and functional configuration audits of the Canadian Configuration of the HCCS EG to verify conformance to the technical information.

[M] As part of Management Work, the Contractor must develop and update a Configuration Audit Plan that describes how the Contractor will conduct the audits to enable Canada to assess the risk that the physical and functional configuration audits can be successfully conducted by the Contractor.

[M] The Contractor's Configuration Audit Plan must align with the MSC Configuration Management Verification and Audit Program.

[M] As part of Management Work, the Contractor must prepare the Configuration Audit Plan in accordance with DID Item LM-003.

[M] The Contractor must manage and conduct audit activities in accordance with the accepted Configuration Audit Plans.

[M] The Contractor must develop and update a Configuration Audit Report that describes the results of any Configuration Audits conducted to enable Canada to determine the accuracy of the HCCS EG configuration.

[M] The Contractor must prepare the Configuration Audit Report in accordance with DID Item LM-004.

[M] The Contractor must audit their Configuration Management Plan and all their CM processes on an annual basis and report the findings as per DID LM-004.

5.2 Technical Problem Management

[O] The Contractor must respond to all technical problems and develop timely resolutions with Canada to minimize disruptions to the operations of the HCCS EG and accurately assess risk.

[I] The EMT will require a management system to identify technical problems and track their resolution. The contractor must develop and manage a Technical Problem Management System (TPMS).

[M] As part of Management Work, the Contractor must establish and maintain a TPMS.

[M] As part of Management Work, the Contractor must provide Canada access to the TPMS.

[M] As part of Management Work, the Contractor must enable Canada to report problems in the TPMS.

[M] The Contractor must record all information related to technical problems and resolutions for the HCCS EG in the TPMS in accordance with the PMP.

[M] The Contractor must record technical problems identified by the EMT as issues in the Risk and Issue Register.

[M] The Contractor must include the date/time of problem receipt by the Contractor and the date/time of problem resolution by the Contractor in the TPMS.

[M] The Contractor must implement recommended solutions to resolve problems using the EWR process specified in Chapter 2.4.3.

[M] The Contractor must identify and analyze trends in the problems reported and report on the trends in the TPR.

5.3 Obsolescence Management

[O] The Contractor must support the EGPM in ensuring that the HCCS EG remains supportable throughout the duration of the contract.

[I] Obsolescence is the loss, or impending loss, of manufacturers or suppliers of items, or raw materials, or software. This can be caused by many factors such as low-volume market demand, new or evolving science or technology, detection limits, toxicity values, and regulations related to chemicals and materials, that significantly affect the supply chain and industrial base.

[I] HCCS equipment is subject to obsolescence during its service life and will require effective Obsolescence Management. ISS activities will support overall obsolescence management of the HCCS EG and its supportability. The scope of Obsolescence management includes parts in the CIIR, Contractor repair parts and parts to support the HCCS EG.

[M] The Contractor must identify and report obsolescence for the HCCS EG.

[M] The Contractor must work with the HCCS EG OEMs and the authorized representatives of the HCCS EG OEMs to ensure obsolescence issues are identified.

[M] The Contractor must identify and report obsolete items.

[M] The Contractor must conduct options analysis and provide recommendations with substantiating data to support proposed actions in the Obsolescence Report.

[I] The obsolescence risk of each HCCS EG system is used for the KPI calculations in the PRS.

[M] The Contractor must assess the overall obsolescence risk of each HCCS EG system using the obsolescence data, analyses, recommendations and actions and provide the assessment in the Obsolescence Report.

[M] The Contractor must assess the obsolescence risk of an HCCS EG system as low if and only if every obsolete item in the HCCS EG system has a feasible, timely and affordable plan to resolve the obsolete item's obsolescence and ensure availability of the HCCS EG.

[M] As part of Management Work, the Contractor must develop and update an Obsolescence Management Plan that describes how the Contractor will manage and resolve obsolescence issues for the HCCS EG.

[M] As part of Management Work, the Contractor must develop the Obsolescence Management Plan to enable Canada to assess the risk that the Contractor is capable of managing HCCS EG obsolescence.

[M] As part of Management Work, the Contractor must prepare the Obsolescence Management Plan in accordance with DID Item LM-005.

[M] The Contractor must develop the Obsolescence Report to enable Canada to assess the risk that the HCCS EG remains supportable and to assess the risk of obsolescence on HCCS EG availability.

[M] The Contractor must prepare the Obsolescence Report in accordance with DID Item LM-006.

5.4 Technical Data Management

[I] Appendix 3 reflects the current status of HCCS EG Technical Data Package (TDP). Canada owns this technical data. In addition, the OEMs will hold technical data and/or data lists that will need to be managed and maintained by the Contractor.

[I] Data gaps within the TDP for the HCCS EG Product Baseline exist and the Contractor will be tasked immediately after Contract Award to identify and subsequently close these gaps.

[O] The Contractor must identify and close the gaps in the HCCS EG TDP.

[O] The Contractor must manage and maintain the technical data for the approved Canadian configuration of the HCCS EG.

[M] The Contractor must interface with DND technical data authorities to ensure DND master data repository accurately reflect the approved Canadian configuration of the HCCS EG.

[O] The Contractor must ensure the HCCS EG technical data is accurate and up-to-date to enable Canada to assess the risks of approving the Canadian configuration of the HCCS EG.

[I] The HCCS EG technical data is defined as the technical data within the TDP.

[M] The Contractor must assign each TDP element to an ERN.

[O] The Contractor must ensure that the HCCS EG TDP elements are version controlled.

[M] The Contractor must update or create TDP elements based on change requests for ECPM review within 90 days of receipt of the necessary information, unless otherwise stated in the emergent work request(s).

[O] The Contractor must provide the HCCS EG technical data to Canada and other authorized stakeholders in a timely manner to ensure the availability of up-to-date technical data.

[I] The HCCS EG technical data includes software and supporting documentation that is critical for the successful integration of the HCCS with the *Halifax*-class Combat Management System.

[I] Management of technical data includes planning, collecting, organizing, storing, controlling, disseminating, using and disposing of technical data.

[M] The Contractor must produce, update, store, control, maintain, manage and distribute Technical Data in support of the *Work*.

[M] The Contractor must manage Technical Data in any format provided by Canada.

[M] The Contractor must ensure that technical data conforms to DND formats and content in accordance with the accepted Technical Data Management Plan (TDMP).

[M] The Contractor must ensure that all technical data produced or modified has the correct markings (e.g. ITAR, CTAT, Classification, IP).

[M] The Contractor must obtain approval for TDP changes to the Canadian configuration of HCCS EG.

5.4.1 Technical Data Management Plan (TDMP)

[M] As part of Management Work, the Contractor must develop and update a TDMP that describes how the Contractor will manage and maintain the Canadian configuration of the HCCS EG.

[M] As part of Management Work, the Contractor must develop the TDMP to enable Canada to assess the risk to the HCCS EG technical data.

[M] As part of Management Work, the Contractor must prepare the TDMP in accordance with DID Item LM-007.

[M] As part of Management Work, the Contractor must manage Technical Data services in accordance with the accepted TDMP.

[M] As part of Management Work, the Contractor must ensure that all Subcontractor Technical Data is managed in accordance with the accepted TDMP.

5.4.2 Technical Data Management Information System (TDMIS)

[I] A TDMIS is a software based system used to control and manage technical information (in this case to manage the TDP).

[M] As part of Management Work, the Contractor must utilize a TDMIS for the management of all HCCS EG Technical Data. The HCCS EG Technical Data can be in any DND format, which includes but not limited to Word, PDF, Excel, JPG, etc.

[M] As part of Management Work, the Contractor must utilize a TDMIS that is compliant with S1000D Issue No. 4.2 International Specification for Technical Publications.

[M] As part of Management Work, the Contractor must provide Canada and other authorized stakeholders access to the TDMIS.

[M] As part of Management Work, the Contractor must track revisions to the HCCS EG Technical Data such that revision levels and any other pertinent status indicators are recorded in the Contractor's TDMIS.

5.4.3 Technical Data Update

[M] As part of Management Work, the Contractor must deliver all updates to the HCCS EG Technical Data in the original format and language, unless otherwise approved by Canada.

[M] The Contractor must convert HCCS EG Technical Data to be compliant with S1000D Issue No. 4.2 International Specification for Technical Publications.

5.4.4 Technical Data Translation Requirements

[M] The Contractor must translate technical data into Canada's official languages as and when requested.

[M] The Contractor must carry out the Translation Accuracy Check process in accordance with Part 6 Section 4 and Part 12 section 2 of C-01-100-100/AG-006, “Specification, Writing, Format and Production of Technical Publications” for all translated material.

[M] The Contractor must deliver the Translation Accuracy Check Certificates to Canada for all Contractor translated technical publications.

5.4.5 Validation of Data

[I] Technical data will be subject to validation by Canada.

[M] The Contractor must provide for Canada to validate the technical data during its development.

[M] The Contractor must follow validation processes described in the accepted TDMP.

5.4.6 Technical Data Disposal

[I] Canada will provide oversight on the Contractor disposal management and on its execution of disposal actions.

[M] The Contractor must dispose of the TDP in accordance with the accepted TDMP.

5.5 Special Tools and Test Equipment

[I] HCCS STTE was procured by Canada during HCCS EG acquisition to support DND assigned maintenance tasks. Canada will procure and retain ownership of STTE for DND assigned maintenance.

[M] The Contractor must support the EGPM in the maintenance and support of the STTE.

5.6 Engineering Support

[I] HCCS engineering support services use systems engineering principles and processes to deliver integrated engineering support services for the HCCS EG. Engineering support services will be centred on conducting engineering investigations and introducing engineering changes to sustain HCCS EG capabilities over its service life.

[I] The HCCS EG is integrated with many systems within the *Halifax*-class ships and engineering support must be provided.

[O] The Contractor must provide engineering support using recognized engineering practices to conduct the *Work*.

[M] The Contractor must provide engineering support to the EGPM for the integration of the HCCS EG with other systems within the *Halifax*-class.

5.6.1 Planning Engineering Support Services

[M] As part of Management Work, the Contractor must develop and update a Systems Engineering Management Plan (SEMP) that describes the Systems Engineering management and processes that the Contractor will implement to provide Engineering Support to the HCCS EG.

[M] As part of Management Work, the Contractor must develop the SEMP to enable Canada to assess the risk that the Contractor will deliver Engineering Services for the HCCS EG in a cost effective and timely manner that maintains the Canadian configuration of the HCCS EG.

[M] As part of Management Work, the Contractor must prepare the SEMP in accordance with DID Item SE-001.

[M] As part of Management Work, the Contractor must make available to Canada all associated plans, processes, procedures, and instructions supporting the SEMP.

[M] As part of Management Work, the Contractor must manage Engineering Support in accordance with the accepted SEMP.

[M] As part of Management Work, the Contractor must use systems engineering and systems engineering management processes for all aspects of the HCCS EG and its support in accordance with the accepted SEMP.

5.6.2 Engineering Changes (ECs)

[I] Engineering Changes are required to sustain existing capabilities and/or implement new capabilities.

[I] There are three types of Engineering Changes managed by Canada: Ship Alteration (SHIPALT), Canadian Naval Equipment Modification (CANAVMOD) and Software Change.

[I] A SHIPALT is an approved modification to a ship's structure or an approved modification whereby an equipment or system is added, removed or repositioned so as to entail the alteration of ship's drawings.

[I] A CANAVMOD is an approved modification to the design or configuration of an existing CI which does not involve repositioning relative to a ship's structure or otherwise entail alteration of a ship's as-fitted drawings. Modifications to computer firmware are CANAVMODs.

[I] A Software Change is an approved modification to an existing computer software CI. In the context of software, a modification is defined as any addition, deletion or change to any part of the code.

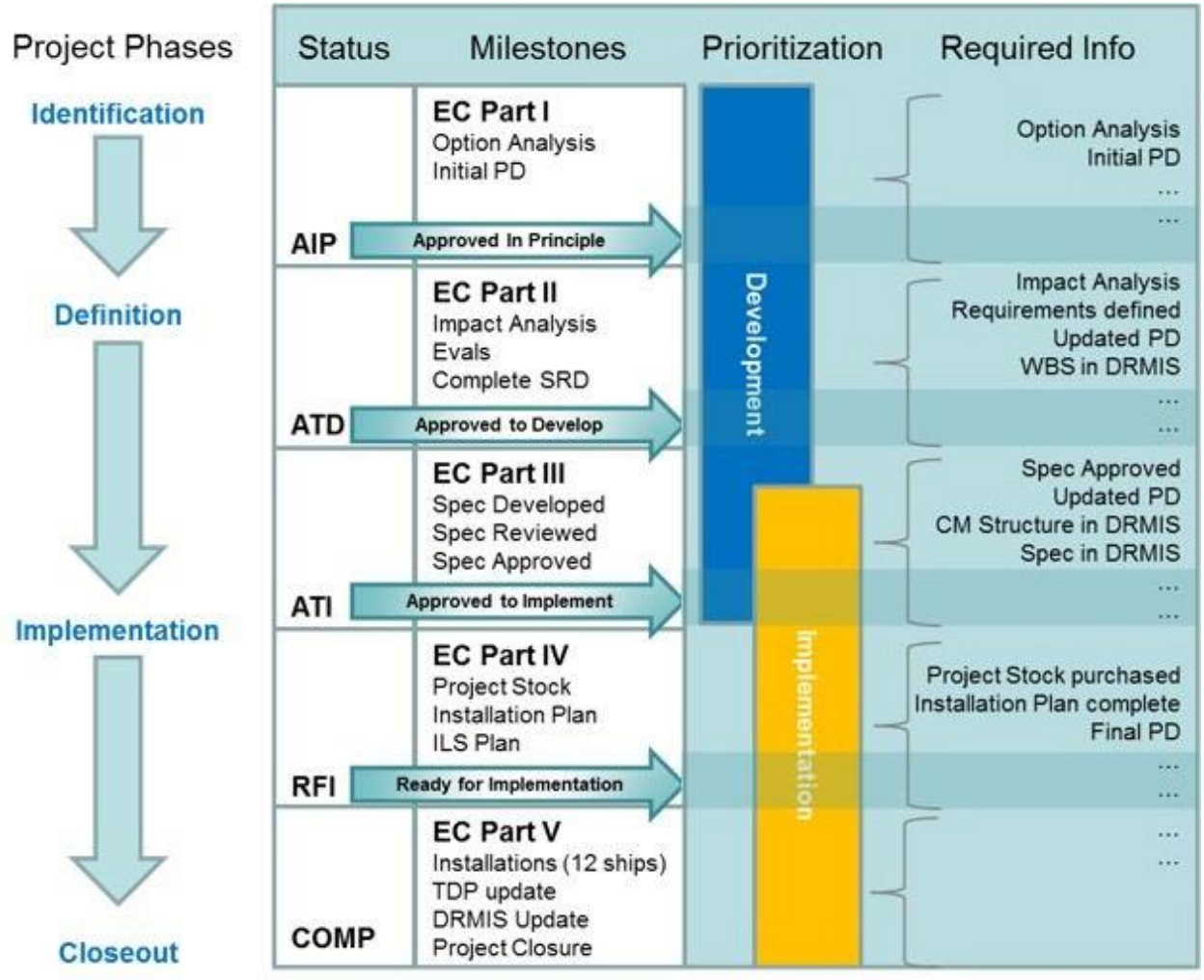
[I] Changes impacting the HCCS EG Product Baseline will be assessed by the EGPM to determine if the EC will be implemented through the MSC EC process or if it will follow the contractor's EC processes in the accepted SEMP.

[M] The contractor's EC processes, as defined in the SEMP, must align with Canada's EC process approval gates.

[O] The Contractor must conduct Engineering Change (EC) development, installation, and verification work as directed for the HCCS EG.

[O] For any HCCS EG ECs that impact the ships' and shore-based configurations, the Contractor must support the EGPM in the development, installation and verification of Engineering Change (EC) including changes for facilities.

[I] The EC process covers requirement definition through to the installation and acceptance of the change in the HCCS EG and the ship. Introduction of an EC also includes an impact assessment for the maintenance, training and logistic support. An illustration of the MSC EC process is provided below.



5.6.2.1 Engineering Change Management

[O] The Contractor must conduct the EC work accurately, on-time, and within budget in accordance with planned engineering change as identified in the approved AOP.

[M] The Contractor must implement Canada approved ECs using the EWR process specified in Chapter 2.4.3.

5.6.2.2 Engineering Change Proposals (ECP)

[I] A product level ECP is a proposal for an engineering change to an HCCS EG configuration item in support of a CANAVMOD or Software Change. A ship level ECP is a proposal for an engineering change to the ship caused by a product level change in support of a SHIPALT.

[M] The Contractor must develop and update ECPs that describe the proposed engineering change for any proposed changes to the form, fit or function of the HCCS EG.

[I] Canada will use its Design Agent to analyze the impact to the ship of any proposed EC.

[M] The Contractor must support the EGPM to enable the Design Agent to analyze the impact of any proposed EC.

[M] The Contractor must describe and analyze the impact to the HCCS EG of the proposed engineering change.

[M] The Contractor must develop ECPs to enable Canada to assess the risk of the proposed engineering change to the Canadian configuration of the HCCS EG.

[M] The Contractor must develop and prepare the ECPs in accordance with DID Item SE-002.

[M] The Contractor must submit the ECPs in order of the MSC decision points to Canada for review and approval, with recommendations and supporting data.

5.6.2.3 Engineering Change Development

[M] The Contractor must support the EGPM in the development of ECs in accordance with the accepted SEMP and CMP to ensure their effective integration into the HCCS EG, *Halifax*-class ships and shore installations.

[M] The Contractor must submit the Engineering Change Proposals in order of the MSC decision points to Canada for review and approval, with recommendations and supporting data.

[M] The Contractor must develop and prepare Engineering Change Specifications in accordance with DID Item SE-003.

[M] The Contractor must submit the Engineering Change Specifications in order of the MSC decision points to Canada for review and approval, with recommendations and supporting data.

[M] The Contractor must support the EGPM to develop and update ship level EC specifications.

[M] For ship level EC specifications, the Contractor must prepare an Engineering Change Installation Guidance Package in accordance with SE-004.

5.6.2.4 Engineering Change Implementations

[M] The Contractor must support the EGPM when directed to integrate the EC implementation schedule with all stakeholders.

[M] The Contractor must support the EGPM when directed to co-ordinate and deliver materiel required for the EC at the installation site.

[M] The Contractor must support the EGPM when directed to provide engineering support and quality assurance for the installation of the EC.

[M] The Contractor must support the EGPM when directed to conduct, co-ordinate and support the verification of the implemented EC.

[M] The Contractor must support the EGPM when directed to analyse the impact of arisings during EC installation.

[M] The Contractor must certify that the EC has been implemented in accordance with the Engineering Change Installation Guidance Package.

5.6.3 Engineering Investigations and Studies

[I] A range of in-service support engineering investigations and studies will be required. DND will require engineering advice from the Contractor, its subcontractors and the HCCS EG OEMs and authorized representatives of the OEM.

[M] The Contractor must conduct Technical Investigation and Engineering Studies (TIES) using the EWR process specified in Chapter 2.4.3.

[M] The Contractor must recommend and conduct Special Investigation and Technical Studies (SITS) using the EWR process specified in Chapter 2.4.3.

5.6.4 Engineering Tests and Trials

[M] As and when requested, the Contractor must:

a. develop DND Integrated Test and Trial Plans and Procedures for ECPs in accordance with the accepted SEMP.

b. support the conduct of ECP tests and trials or In Service Support tests and trials and ;

c. perform engineering assessments of test and trial data; and

d. provide recommendations.

5.7 Maintenance

[O] The Contractor must maintain the Canadian configuration of the HCCS EG.

[O] The Contractor must ensure the maintenance plan is executable by DND's maintenance organization through continuous improvement processes.

[M] Regardless of who conducts the maintenance procedures the Contractor must ensure that the procedures are able to be completed and recorded in DRMIS by the appropriate maintainer.

[M] The Contractor must follow the Communications Plan for the co-ordination of level 1 and 2 maintenance activities.

[M] The Contractor must coordinate Level three maintenance procedures of the HCCS EG with the HCCS EG OEMs and authorized representatives of the HCCS EG OEMs.

[M] The Contractor must ensure the Level three maintenance procedures are conducted in accordance with the approved maintenance plan.

[I] In the event that the Contractor identifies issues with the completion of Level one and Level two maintenance procedures, Canada may authorize an emergent task in accordance with the EWR process described in the contract, to address the issues.

[M] The Contractor must conduct maintenance, when directed by Canada, in accordance with the approved maintenance plan and its supporting documentation.

5.7.1 Maintenance Program Management

[I] When developing changes to maintenance processes, consideration should be given to the level of self-sufficiency required by the fleet and the availability and skills of the crew and FMF, as specified in the *Halifax*-class Maintenance Profile.

[O] The Contractor must continually improve and optimize the HCCS EG maintenance plan and the performance of the maintenance plan.

[M] The Contractor must verify and validate the accuracy of the HCCS EG maintenance tasks that change during the life of the contract.

[M] The Contractor must submit validation and verification documentation supporting each change with the publication request form (CF565).

[M] The Contractor must support the EGPM in ensuring that each ship's equipment configuration is known and has the correct maintenance plan to support it in DRMIS.

[M] The Contractor must ensure that the maintenance plan and supporting documentation allows the collection of maintenance data to support continuous improvement and value engineering.

[M] The Contractor must conduct an annual review of the maintenance program.

[M] The Contractor must deliver continuous improvement status, recommendations, and risks from the annual review of the maintenance program in the Maintenance Program Review Report in accordance with DID Item LM-008.

5.7.1.1 Naval Maintenance Effectiveness Reviews (NMER)

[I] The CPM conducts NMER to ensure the maintenance plan is performing for all class equipment.

[M] The Contractor must support the EGPM when required to support CPM directed NMER.

5.7.1.2 Maintenance Support Plan (MSP)

[I] The MSP will describe how the Contractor will deliver maintenance services in support of the *Work.*

[M] As part of Management Work, the Contractor must develop the MSP to enable Canada to assess the risk of maintaining the HCCS EG to comply with the Canadian configuration of the HCCS EG.

[M] As part of Management Work, the Contractor must prepare the Maintenance Support Plan in accordance with DID Item LM-009.

[M] As part of Management Work, the Contractor must manage Maintenance in accordance with the accepted MSP.

[M] As part of Management Work, the Contractor must make available to Canada all associated plans, processes, procedures, instructions and data supporting production support services within the MSP.

5.7.2 First Level Maintenance

[I] Maintenance tasks are assigned to RCN units through DRMIS as defined in the DND approved maintenance plan.

[M] As and when directed by the Detachment Offices POCs the Contractor must conduct level one maintenance in accordance with the authorities identified in Communications Plan.

5.7.3 Second Level Maintenance

[I] Maintenance tasks are assigned to the FMFs through DRMIS as defined in the DND approved maintenance plan.

[M] As and when directed by the Detachment Offices POCs the Contractor must conduct level two maintenance in accordance with the authorities identified in Communications Plan.

5.7.4 Third Level Maintenance

[I] The Contractor will be the provider of Level Three maintenance support. Level Three maintenance support represents all support services for the installed HCCS EG systems, removable assemblies and sub-components not assigned to RCN Units. All third level work conducted by the Contractor takes place at the Contractor's facility or at the Subcontractor's facility. When this does not apply, FSR and MRP will apply as emergent work in accordance with the contract.

[I] Maintenance tasks are assigned to the Contractor through DRMIS as defined in the DND approved maintenance plan.

[M] The Contractor must carry out all assigned third level maintenance support in accordance with the accepted MSP, the Log SOW for Free Flow repairs, and all approved emergent work requests.

5.7.5 Additional Maintenance

[I] Maintenance support may be required from the Contractor for ships and FMFs in home ports or for deployed ships. FMFs may provide in-theatre repair support, as determined by the RCN and the Contractor may be requested to support the FMF effort.

[I] Emergency Repair services may include completion of an urgent safety related EC, accident related Technical Investigation or operational immediate task;

[M] The Contractor must respond to a request for Emergency Repair services.

[M] The Contractor must provide MRP Services and FSR support to ships and FMF in home ports.

[M] The Contractor must conduct on-site inspections and surveys.

[M] The Contractor must provide in-theatre support to deployed HMC Ships for:

a. emergency repairs;

b. provision of a Mobile Repair Party (MRP);

c. FSR Support; and

d. provision of support for HMC Ship maintenance periods while deployed.

[M] The Contractor must contact designated POCs to arrange clearance for personnel not already pre-cleared when these additional services are requested.

5.7.6 Maintenance Engineering Activities

[M] The Contractor must conduct Reliability Engineering during the service life of the HCCS EG.

[M] The Contractor must conduct Level Of Repair Analysis of the HCCS EG.

[M] The Contractor must conduct a sparing analysis for the HCCS EG.

[M] The Contractor must conduct a maintenance task analysis for the HCCS EG.

5.8 Materiel Management

[O] The Contractor must have support systems in place to materially support the maintenance plans.

[O] The Contractor must conduct materiel management activities in accordance with DND reporting requirements.

[O] The Contractor must optimize the amount of materiel that is held within DND warehouses.

[M] The Contractor must ensure an optimal inventory across the supply chain to support the maintenance plan for the HCCS EG.

[M] The Contractor must procure materiel and services required to support the HCCS EG.

[M] The Contractor must store and maintain all procured consumables and parts.

5.8.1 Materiel Management Planning

[M] As part of Management Work, the Contractor must develop and update a Materiel Management Plan (MMP) that describes how the Contractor will have the materiel resource available to Canada when required.

[M] As part of Management Work, the Contractor must enable Canada to assess the risk that the Contractor will meet the Materiel Management requirements for the HCCS EG in the MMP.

[M] As part of Management Work, the Contractor must prepare the MMP in accordance with DID Item MM-001.

[M] As part of Management Work, the Contractor must make available to Canada all associated plans, processes, procedures, instructions and data supporting the Materiel Management Plan.

[M] As part of Management Work, the Contractor must manage Materiel Management in accordance with the accepted MMP.

5.8.2 DND Supply Management System

[I] DND will manage its elements of the overall HCCS EG ISS supply chain.

[M] The Contractor must include the impact of the DND supply system elements in its supply chain.

[M] The Contractor must provide accurate supply management data to DRMIS within 3 business days of changes.

5.8.3 Inventory Management Services

[I] Assessments and adjustments of stock levels at both DND and Contractor warehouses will be required to ensure effective and efficient operation of the HCCS EG supply chain.

[M] The Contractor must provide inventory management services for the HCCS EG supply chain. This will include identification of recommended holdings for DND supply organizations.

[M] The Contractor must ensure that inventory is maintained appropriately such that the parts delivered to DND will be fit for purpose.

[M] The Contractor must conduct analyses of stock movements and holdings to assess stock adequacy and provide stock level recommendations to DND for DND holdings.

[M] The Contractor must recommend for approval stock levels.

5.8.3.1 Codification and Cataloguing Services

[I] Supply items and assets flowing through the DND supply chain will need to be recorded in DRMIS.

[M] The Contractor must provide information to support the codification and cataloguing of HCCS EG supply items and assets within DND systems of record, DRMIS, in accordance with D-01-100-214/SF-000.

5.8.3.2 Procurement Item Management

[M] The Contractor must manage Long Lead Items (LLI) (any item requiring more than one year to acquire) within their supply chain to ensure that the HCCS EG DI is not impacted.

[M] The Contractor must develop and update the LLI List to enable Canada to assess the risk of impacts to the HCCS EG DI caused by long lead items.

[M] The Contractor must prepare the LLI List in accordance with DID Item MM-002.

5.8.4 Materiel Movement and Distribution

[M] The Contractor must distribute materiel to/from Contractor locations to the established handover points at CFB Esquimalt and CFB Halifax as directed by Canada.

[I] Canada may include additional handover points if required.

5.8.5 Materiel Repair and Overhaul (R&O)

[M] As part of Management Work, the Contractor must develop and update an R&O plan that describes the Contractor's R&O processes, procedures and controls.

[M] As part of Management Work, the Contractor must prepare the R&O plan in accordance with DID Item MM-003.

[M] The Contractor must implement the HCCS EG R&O services in accordance with the accepted R&O plan and Special Instructions – Repair and Overhaul Contractors A-LM-184-001/JS-001.

[M] The Contractor must repair in accordance with A-LM-184-001/JS-001 all unserviceable HCCS EG parts to return to serviceable condition.

[M] The Contractor must overhaul HCCS EG assembly sets in accordance with the R&O plan to restore to like new or to a serviceable life and operational performance as scheduled in the AOP.

5.8.6 Materiel Divestment & Disposal

[I] All materiel will be returned to Canada for disposal, unless otherwise directed.

[O] The Contractor must support Canada in the disposal of HCCS EG materiel in accordance with applicable regulations.

[M] The Contractor must support Canada in the disposal of HCCS EG materiel in accordance with the accepted Disposal Management processes in the PMP.

[M] The Contractor must only use DND provided disposal instructions.

[M] The Contractor must provide the DQA with all Controlled Goods Disposal/Demilitarization End User Certificates in accordance with the Contract. Information copies are to be provided to the CA.

[M] The Contractor must provide the DQA with all Hazardous Material Disposal Certificates as required in accordance with the Contract. Information copies are to be provided to the CA and TA. This includes certificates required to meet provincial and municipal regulations.

6 Training Support

[I] The RCN has operator and maintainer training systems for the HCCS EG. The RCN also delivers operator and maintainer training courses.

[I] Anytime the Contractor makes a change to the HCCS EG that impacts operator usage of the systems, or impacts the maintenance routines, the Contractor needs to assess the impact of the changes on the training material, and provide training updates as necessary.

[O] The Contractor must provide operation and maintenance process updates to Canada.

[M] When required by Canada, the Contractor must augment the delivery of HCCS EG operator and maintenance training by the RCN schools, by supplying instructors that are qualified on the HCCS EG systems.

[M] When required by Canada, the Contractor must deliver HCCS EG operator and maintainer training at DND and/or Contractor facilities.

[M] When required by Canada, the Contractor must provide instructions and course material in both Official Languages (English and French).

[M] The Contractor must report on Training Support as part of the TPR in accordance with DID Item PM-008.

7 Information Exchange (IE)

[I] Sharing of Technical Information is fundamental to the HCCS EG ISS.

[I] Canada's MA&S system of record for DND assets is an Enterprise Resource Planning (ERP) system known as the Defence Resource Management Information System (DRMIS). DRMIS, which is hosted on the DND Defence Wide Area Network (DWAN), is used by DND personnel to support DND related maintenance management, supply chain management, engineering change and technical information management, asset management and, technical problem reporting.

7.1 IE Processes

[I] The DND business processes to support the HCCS EG are fluid. As the IE processes and supporting infrastructure are evolving, the current view is that the contractor will be required to use DRMIS to transfer Technical Data and Transactional Data. As this capability is currently evolving, the contractor will be required to respond to DRMIS demands and notifications. A secure data exchange environment (e.g. Web Portal) will be used to access DRMIS in order to pass data between DND and the contractor. The Contractor personnel requiring access to DRMIS will be required to attend DRMIS training courses offered by DND.

[M] As the IE processes and supporting infrastructure are evolving, the contractor must be prepared to transition to an Electronic Information Exchange process when it is made available by DND.

[M] The contractor must exchange Technical Data and Transactional Data in accordance with predefined IE process models which will be developed during the Start-Up Phase.

[M] The Contractor must manage the IE process.

7.2 HCCS EG System of Record

[I] Timelines for DRMIS updates will vary and will be determined by Canada during the Start-Up Phase. These timelines will be reviewed and amended as required during the contract period.

[O] Following any changes to the HCCS EG, the Contractor must provide necessary updates to the DRMIS system of record.

[M] The Contractor must provide accurate updates.

[M] The Contractor must verify and validate the updates.

7.3 Collaborative Environment (CE)

[I] A Collaborative Environment will be established to facilitate the management of the HCCS Contract. Functionality of the Collaborative Environment will include, as a minimum, document exchange, change management and support to the engineering change process.

[O]The HCCS EG CE must provide access for up to 30 concurrent users from Canada.

[M] As part of Management Work, the Contractor must set up and manage the Collaborative Environment.

[O] The Contractor must provide timely and current information from project management and the ISS of the HCCS EG using an electronic virtual collaborative environment.

[M] As part of Management Work, the Contractor must implement the CE to provide information and status of the *Work* to support efficient business transactions with Canada.

[M] As part of Management Work, the Contractor must provide CE training to Canada.

[M] As part of Management Work, the Contractor must provide a CE implementation plan in the PMP.

[M] As part of Management Work, the Contractor must provide full access and use of the CE to Canada via the DWAN.

7.4 Contractor IT/IM Infrastructure

[M] As part of Management Work, the Contractor must maintain its own requisite IT infrastructure and associated plans, policies and processes in accordance with the accepted PMP.

8 Performance Monitoring and Assessment

[O] The Contractor must provide objective evidence to prove its performance against the performance metrics specified in the Performance Requirements Specification (PRS) at Appendix 1.

[I] Canada will validate the Contractor's performance against the objective evidence provided.

[I] The purpose of Performance Assessment is to provide an evaluation of current ISS performance, process efficiency, system health, and PWS compliance.

[I] Performance Assessment forms the basis for awarding incentives to the Contractor.

[M] As part of Management Work, the Contractor must collect, measure, analyze, compute, record and report metrics on the performance of the *Work* in accordance with the accepted Performance Management Plan and PRS.

[M] As part of Management Work, the Contractor must conduct and provide to Canada an annual trend analysis of key metrics used to compute the indicators, to support the SPM, KPI and SHI performance indicators. The metrics to be included in the trend analysis will be discussed during the Kick-Off Meeting and the regular Performance Assessment Meetings.

[M] As part of Management Work, the Contractor must develop and update the Performance Assessment Report in accordance with DID Item PM-017.

[M] As part of Management Work, the Contractor must report and present the SPMs, KPIs, and SHIs in the Performance Assessment Report to Canada for validation in accordance with DID Item PM-017 and DID Item PM-008.

[M] As part of Management Work, the Contractor must compute the Composite Performance Payment in accordance with the PRS.

[M] As part of Management Work, the Contractor must calculate and report the SHIs and KPIs, using the previous three months' data to support the PRMs.

[M] As part of Management Work, the Contractor must calculate and report the SHIs and KPIs, using the cumulative data for Canada's current fiscal year to support the PRMs.

[M] As part of Management Work, the Contractor must report the SPMs annually, using the previous 36 months' data.

9 Appendix 1 – Performance Requirements Specification

(Refer to Separate Attachment)

10 Appendix 2 – HCCS EG List

(Refer to Separate Attachment)

11 Appendix 3 - HCCS EG Technical Data Package (TDP)

(Refer to Separate Attachment)

12 Appendix 4 – Configuration Item Index Report

(Refer to Separate Attachment)

13 Appendix 5 – Government Property

(Refer to Separate Attachment)

14 Appendix 6 – Glossary of Terms

(Refer to Separate Attachment)

15 Appendix 7 - Acronyms and Abbreviations

(Refer to Separate Attachment)