

Volume 3, Annex B

Performance Work Statement for In-service Support

Underwater Warfare Suite Upgrade

28 February 2017

ID				Requirement Type
PWS-1	Volume 3, Annex B to W8472-135462 Performance Work Statement for In-service Support Dated: 28 February 2017			Heading
PWS-2	Volume 3, Annex B Performance Work Statement for In-service Support Underwater Warfare Suite Upgrade 28 February 2017			Heading
PWS-6	History of Revisions			Heading
PWS-9	Revision	Date	Description	Information
	Rev 0	22 June 2016	Draft Document for PMT Review	
	Rev 1	03 July 2016	Initial review completed and PWS updated.	
	Rev 2	08 July 2016	Amended copy post reviews.	
	Rev 3	13 September 2016	Amend para: 3.18.2 Amend a. GG-040-004/AG-001- General Safety Program, Hazardous Materials Safety and Management Manual; Add sub para for h. GG-040-001/AG-001- General Safety Program, Volume 1, Policy and Program;	
	Rev 4	16 September 2016	Removed Appendices 7, 8, 9 & 10 and replaced with DIDs: DID-GFE-001 & GFE-002; and DID-EBL-001 & DID-MRC-001. Ref paras: 1.32, 3.19, 3.26 and 5.58	
	Rev 5	07 October 2016	Amended Section 5.3 table for level 3 maintenance activities and paragraphs 5.3.11.7 through 5.3.11.10	
	Rev 5a	18 October 2016	/ Imported into DOORS, minor corrections	
	Rev 5b	04 November 2016	Amended 2.10.1 c. and 5.1.3 b. for line level issue. Amended 2.13.3.4 and deleted 2.13.3.5 and Added 5.4.19.10 through 5.4.19.12 to	

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			correct a material purchase issue.	
	Rev 5c	24 November 2016	Amended para 1.1.4 to add reference to the newly developed UWSU SBCA. Amended para 3.1.6.c to read UWSU.	
	Rev 6	19 December 2016	Amended for NETE review Findings	
	Rev 6A	05 January	Amended 2.15 for phase and payment comments from PSPC and Final Review	
PWS-160	1 Introduction			Heading
PWS-161	1.1. Forward			Heading
PWS-162	1.1.1. [I] Although this PWS is being initially released as part of the UWSU project RFP, it will continue to exist after the UWSU project has completed delivery obligations. In due course, this PWS is expected to be further amended and adjusted outside of the context of the UWSU project or RFP under which it is being initially released.			Information
PWS-163	1.1.2. [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 of the in-service work items to be achieved by the Contractor. The [M] paragraphs are mandatory in-service requirements that must be delivered by the Contractor. The [I] paragraphs are intended to provide contextual information to the Contractor.			Information
PWS-171	1.2. Purpose			Heading
PWS-172	1.2.1. [I] The purpose of this PWS is to specify the In-Service Support (ISS) work to be provided by the Contractor for the <i>Halifax</i> -class Underwater Warfare Sensor System Equipment Group (UWSS EG).			Information
PWS-173	1.2.2. [I] The UWSU In-Service Support Contract (ISSC) will be long-term, flexible, and performance based and will evolve over the life cycle of the <i>Halifax</i> -class. Through a relational framework, Canada and the Contractor will form a strategic partnership to achieve mutually successful outcomes through an alignment of contract parties' interests and processes.			Information
PWS-174	1.2.3. [I] The work to be carried out by the Contractor is tied to a series of performance measures selected to promote the ISS outcomes required by Canada. The PWS also specifies the incentives which are linked to measureable outcomes.			Information
PWS-175	1.2.4. [I] It is intended that the ISS Contract will follow a Phased implementation. The Start-Up Phase including a transitional Sub Phase, followed by the Steady-State and Close-Out Phases are described in more detail in Chapter 2.			Information
PWS-	1.2.5. [I] This contract will be for an initial period of six (6) years, followed by a series			Information

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176	of potential contract extensions for additional periods of one (1) year, in a 'rolling wave' format illustrated below, which will continue until the end of life of the <i>Halifax</i> -class. Performance measures will be one of the criteria assessed for the award of contract extensions.	
PWS-177	<u>Figure 1 – PWS Performance Measurement Chart</u>	Information
PWS-178	<p>Rolling Wave Performance Based Contract for UWSU ISSC - Initial 6 Year Start-Up Term with 14 Years in Annual Options Years Renewals</p> <p>Start-Up Transitional Steady State Close-Out</p> <p>Contract Year</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20</p> <p>Initial Contract 6 Year Start-Up Term</p> <p>Decision Point → ← For Option Year Award based on Performance Report</p> <p>Remaining Contract Tenure at Decision Point</p> <p>Option Year Award</p> <p>Contract Close Out Phase</p> <p>Annual Recurring Option Year Decision Point</p> <p>Performance Measurement</p> <p>Performance Not Measured during Start-Up Performance Measured and Performance Measurement Process Tested, Evaluated and Adjusted Performance Measured and Linked to Contract Tenure and Payments Performance Measurement Final Review and Process Ended.</p>	

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PWS-179	1.3. PWS Structure and Organization	Heading
PWS-180	1.3.1. [I] This PWS is organized as follows:	Information
PWS-1648	Chapter 1 – Introduction	Information
PWS-1649	Chapter 2 - General Requirements	Information
PWS-1650	Chapter 3 - In-Service Support Management	Information
PWS-1651	Chapter 4 - Technical Schedule Management	Information
PWS-1652	Chapter 5 - In-Service Support Service Delivery	Information
PWS-1653	Chapter 6 - Life Cycle Materiel Management	Information
PWS-1654	Chapter 7 - Training Support and Personnel	Information
PWS-1655	Chapter 8 - Electronic Information Management	Information
PWS-1656	Chapter 9 - Performance Monitoring and Assessment	Information
PWS-191	Chapter 10 Meetings	Information
PWS-192	1.3.2. [I] The following appendices form part of this PWS and are also being released initially as respective appendices of Vol3 Annex B to the UWSU RFP:	Information
PWS-193	Appendix 1 – Contract Data Requirements (CDRLs) List	Information
PWS-194	Appendix 2 – Data Item Deliverables (DIDs)	Information
PWS-195	Appendix 3 – Abbreviations and Acronyms	Information
PWS-196	Appendix 4 - Glossary of Terms	Information
PWS-197	Appendix 5 – List of References	Information
PWS-198	Appendix 6 - Performance Requirement Specification (PRS)	Heading
PWS-200	1.4. Background	Heading
PWS-	1.4.1. General	Heading

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201		
PWS-202	1.4.1.1. [I] Through the UWSU project, the <i>Halifax</i> -class Underwater Warfare System Upgrade Equipment Systems will be installed in no less than six (6) <i>Halifax</i> -class frigates and may be installed on a Fitted For But Not With (FFBNW) basis for the remaining frigates. For the FFBNW installations, partial or whole systems may be added or removed based on the <i>Halifax</i> -class Operational requirements. The UWSU project Design Intent (DI) is to have a basic Anti-Submarine Warfare (ASW) capability installed in all 12 frigates.	Information
PWS-203	1.4.1.2. [I] The <i>Halifax</i> -class UWSS onboard equipment will be comprised of the following systems:	Information
PWS-204	a. Towed Active/Passive Sonar System (TAPSS);	Information
PWS-205	b. Hull Mounted Sonar (HMS) System;	Information
PWS-206	c. Sonobuoy Processing System (SPS);	Information
PWS-207	d. Torpedo Sonar Intercept and Classification (TORSIC) system;	Information
PWS-208	e. Ownship Noise Monitoring (ONM) system;	Information
PWS-209	f. Onboard Trainer (OBT) System; and	Information
PWS-210	g. Associated Test Equipment and Training Aids.	Information
PWS-211	1.4.1.3. [I] The projected shore-based equipment systems and simulators will be comprised of:	Information
PWS-212	a. Mission, operations and maintenance training simulators installed in the RCN Fleet Schools in Halifax, Nova Scotia and Esquimalt, British Columbia;	Information
PWS-213	b. Testing simulators will be installed/located in both Fleet Maintenance Facility Cape Scott (FMFCS) and Fleet Maintenance Facility Cape Breton (FMFCB);	Information
PWS-214	c. Integration testing simulator located at the Combat Systems Support Center (East);	Information
PWS-215	d. Acoustic Data Analysis Centre, Mission Analysis System; and	Information
PWS-216	e. Associated Test Equipment and Training Aids.	Information
PWS-217	1.4.1.4. [I] The UWSU In-Service Support Contract (ISSC) will be a fully integrated single contract that encompasses ISS for the above listed ship and shore systems. The contractor will either be the Original Equipment Manufacturer (OEM) for all of these systems or will work and partner with the individual OEM's of each system of the UWSS EG to provide the ongoing long term ISS as determined by the UWSU ISS	Information

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	contract award.	
PWS-218	1.4.2. Concept of Operations and ISS	Heading
PWS-219	1.4.2.1 [I] The RCN currently operates twelve (12) <i>Halifax</i> -class frigates and intends to operate them until their estimated end of life in 2036. The UWSS EG will be an integral component of the <i>Halifax</i> -class frigates and will require ISS support within this expected life span.	Information
PWS-220	1.4.2.2 [I] Of the twelve (12) <i>Halifax</i> -class frigates, seven (7) ships are assigned to Maritime Forces Atlantic, located at Canadian Forces Base <i>Halifax</i> , Nova Scotia and five (5) ships are assigned to Maritime Forces Pacific, located at Canadian Forces Base Esquimalt, British Columbia.	Information
PWS-221	1.4.2.3 [I] The <i>Halifax</i> -class frigates will support the DND requirement to defend Canada and Canadian interests and contribute to international peace and security. The ships must be tactically self-sufficient and able to join or integrate into joint, US or multinational force, anywhere in the world. The ships will be assigned tasks/missions to fulfil this requirement. The UWSS EG will support the ships in its conduct of these assigned tasks/missions. Ships are deployable, self-contained and capable of remaining on station for a prolonged period and will be capable of integrating into the larger Command and Control, Communication and Computers, Intelligence, Surveillance, and Reconnaissance capabilities provided at the joint or national levels.	Information
PWS-222	1.4.2.4 [I] The UWSS EG will be complementary to the already existing warfighting capability and will ensure that the <i>Halifax</i> -class frigate will remain a flexible, multi-role and combat-capable platform able to conduct missions described in the Defence Plan in both the open ocean and the littoral environments:	Information
PWS-223	a. conduct daily domestic and continental operations, including in the Arctic and through NORAD;	Information
PWS-224	b. support a major international event in Canada, such as the 2010 Olympics;	Information
PWS-225	c. respond to a major terrorist attack;	Information
PWS-226	d. support civilian authorities during a crisis in Canada such as a natural disaster;	Information
PWS-227	e. lead and/or conduct a major international operation for an extended period; and	Information
PWS-228	f. deploy forces in response to crises elsewhere in the world for shorter periods.	Information
PWS-229	1.4.2.5 [I] The UWSS EG will provide the <i>Halifax</i> -class with the capability to detect both submarines and UW weapons in a wide range of environments for self-defence, as well as execute its role in achieving and maintaining Sea Control as part of a larger naval force.	Information
PWS-	1.4.2.6 [I] The Contractor will be required to provide ISS on the UWSS EG systems	Information

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230	installed in the <i>Halifax</i> -class frigates, RCN Fleet Schools, FMFCS, FMFCB, Combat Systems Support Center (East) and Special Purpose Tools and Test Equipment (SPTATE). This will be subject to review after completion of the UWSU project and after the initial ISS contract period, as determined by completed installations onboard the <i>Halifax</i> -class frigates.	
PWS-231	1.4.2.7 [I] UWSS EG first and second level maintenance will be the responsibility of Canada, and third level maintenance will be provided by the Contractor. However, the Contractor will have the capacity and capability to augment DND level one and two maintenance when requested, and conversely, Canada may assist the Contractor to conduct level three maintenance.	Information
PWS-232	1.4.2.8 [I] Limited ISS is currently provided for the legacy systems through contracts arranged by Canada separately with each OEM. These interim contracts are limited in that they are intended to provide only the minimum essential support services until the UWSU Equipment Systems are installed and a more comprehensive ISS Contract is established.	Information
PWS-233	1.4.2.9 [I] The <i>Halifax</i> -class frigates are also supported by: a Design Agent ISS contract, two <i>Halifax</i> -class Work Period ISS Contracts (WPC-W and WPC-E), one for each coast, and the Combat Systems Integration ISS contract.	Information
PWS-235	1.4.3. Assumptions and Constraints	Heading
PWS-236	1.4.3.1 [I] <i>Halifax</i> -class Modernization (HCM) ships have a design service life of 20 years upon completion of the HCM Modernization Program (expected end of life of the class in 2036).	Information
PWS-237	1.4.3.2 [I] There will continue to be DND infrastructure and facilities on both coasts (Halifax and Esquimalt) to support the HCM ships during their service life.	Information
PWS-240	1.4.3.3 [I] The Contractor is able to obtain and maintain security clearances as required by the Security Requirements Checklist.	Information
PWS-241	1.4.3.4 [I] The Contractor is able to obtain and maintain the required export licenses including Controlled Goods (CG) and International Traffic in Arm Regulations (ITAR) to deliver the assigned ISS Services.	Information
PWS-242	1.5. Abbreviations, Acronyms and Definitions	Heading
PWS-243	1.5.1 [I] Abbreviations, acronyms, Definitions and Terms used in this PWS are defined in Appendix 3 and 4.	Information
PWS-244	1.5.2 [I] In each case, the following applies:	Information
PWS-245	a. acronyms when defined for the first time will appear capitalized in brackets following the applicable term, then used on their own thereafter;	Information
PWS-246	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; and	Information

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PWS-247	c. for terms not defined under the contract, the Oxford Concise Dictionary definitions apply.	Information
PWS-248	1.6. Operating and Support Environment	Heading
PWS-249	1.6.1. [O] The Contractor must achieve Underwater Sensor System (UWSS) mandatory outcomes within the following operational use profile established for the <i>Halifax</i> -class frigates:	Mandatory
PWS-250	a. <i>Halifax</i> -class frigates will be deployed worldwide, independently or as part of a Task Group, depending on the mission;	Mandatory
PWS-251	b. a mission is defined as the 90 day operational period at sea with tasks performed continuously 24 hours per day;	Mandatory
PWS-252	c. <i>Halifax</i> -class frigates could be deployed for up to 250 days per year in various readiness states;	Mandatory
PWS-253	d. <i>Halifax</i> -class frigates will be capable of completing a 180-day operational deployment;	Mandatory
PWS-254	e. <i>Halifax</i> -class frigates will have an Operational Cycle not less than 60 months between Docking Work Periods (DWP);	Mandatory
PWS-255	f. <i>Halifax</i> -class frigates will normally have no more than four Short Work Periods (SWPs) per year; and	Mandatory
PWS-256	g. <i>Halifax</i> -class frigates will have a DWP that is normally 9 months long including a 4 month dry dock period.	Mandatory
PWS-257	1.6.2. <u>UWSU Supportability Characteristics</u>	Heading
PWS-258	1.6.2.1 [I] Canada will acquire systems under the UWSU procurement contract to meet specified performance characteristics. The UWSU ISSC objective is to ensure each procured UWSS component continues to achieve the delivered performance capability while continuously optimizing the resources applied to its support.	Information
PWS-259	1.6.2.2 [I] There are two main processes performed by the delivered systems:	Information
PWS-260	a. Torpedo detection, localization and tracking; and	Information
PWS-261	b. Submarine detection, localization and tracking.	Information
PWS-262	1.6.2.3 [I] The UWSS EG designed supportability characteristics specified for Reliability, Availability and Maintainability are as described below for the inboard systems.	Information
PWS-263	1.6.2.4 [O] Outboard system components reliability must be greater than 95% reliable and be available at all times because maintainability above 1 st level activities while in theatre is not possible. The reliability and operational availability is to be considered in terms of the UWSS as a whole, that is, the individual components in the UWSS can provide redundancy within the system.	Mandatory
PWS-	1.6.3. <u>Reliability</u>	Heading

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PWS-265	1.6.3.1. [O] The UWSS reliability must be scored on and continuously strive to achieve a reliability of 100% for a mission lasting 90 days operating continuously 24 hours a day, assuming a maximum 24 hour ship staff repair on inboard items.	Mandatory
PWS-266	1.6.4. <u>Availability</u>	Heading
PWS-267	1.6.4.1 [O] The UWSS Contractor must be scored on reliability and must continuously strive to achieve 100% availability, 24 hours a day, seven days a week, throughout a deployed period of up to 90 days, notwithstanding a maximum 24 hour ship staff repair on inboard items. The UWSS must continue to be available for no less than 250 days per calendar year, as specified in the RCN Fleet Plan.	Mandatory
PWS-268	1.6.5. <u>Maintainability</u>	Heading
PWS-269	1.6.5.1 [M] The Contractor must develop updates to maintenance processes with due consideration to the level of self-sufficiency required by the ship and availability/skills of the crew. Access to off-board spares and shore technical assistance will often be unavailable for periods of up to 90 days.	Mandatory
PWS-270	1.6.5.2 [I] Onboard Sparing is to be kept to an absolute minimum and will be subject to approval by the TA. The requirement for sparing items is to be reviewed on a per item basis. The intent of this is to have the Contractor provide a UWSS with a very reliability design rating.	Information
PWS-271	1.6.6. <u>Continuous Improvement</u>	Heading
PWS-272	1.6.6.1 [O] The ISS contractor must provide ongoing efforts to improve products, service and processes in order to strive to achieve and maintain 100% availability of the UWSS while improving cost efficiency.	Mandatory
PWS-273	2 General Requirements	Heading
PWS-274	2.1 Scope of Work	Heading
PWS-275	2.1.1 [I] In broad terms, the scope of UWSU ISS will consist of the following major components conducted and aligned in conjunction with the functional elements of the Director General Maritime Equipment and Programme Management (DGMEPM), In-service Support System Description Document (ISS SDD), 2 Mar 2015, RDIMS 3902154-v2:	Information
PWS-276	a. In-Service Support Management;	Information
PWS-277	b. Technical Schedule Management;	Information
PWS-278	c. In-Service Support Service Delivery;	Information

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PWS-279	d. Life Cycle Materiel Management;	Information
PWS-280	e. Training Support;	Information
PWS-281	f. Electronic Information Management;	Information
PWS-282	g. Performance Monitoring and Assessment; and	Information
PWS-283	h. Meetings.	Information
PWS-284	2.1.2 [I] Henceforth, Work is defined as 'Work' as per the general terms and conditions of the contract, as scoped by the PWS described herein.	Information
PWS-285	2.1.3 [O] The contractor must preserve and strictly control the DI of the UWSS EG for the duration of the ISSC.	Mandatory
PWS-286	2.1.4 [I] The Contractor's performance in conducting the Work will be assessed by Canada as described in Chapter 9.	Information
PWS-287	2.1.5 [M] The Contractor must provide ISS for the UWSS EG systems and simulators that are installed in all <i>Halifax</i> -class frigates and at the RCN Fleet Schools in Halifax NS and in Esquimalt BC, FMFCS, FMFCB and to maintain SPTATE.	Mandatory
PWS-288	2.1.6 [I] Systems may be added to or removed from the scope of this contract to meet the <i>Halifax</i> -class ongoing UWSS EG operational requirements.	Information
PWS-289	2.1.7 [I] UWSU ISS will provide efficient and effective support of the UWSS EG while minimizing overall support costs and meeting RCN readiness requirements. The ISS will be implemented by establishing an ISS contact (ISSC) that is performance-based with an emphasis on performance objectives rather than providing prescriptive direction on how or what support activities to perform. The overarching goal of the ISSC is to continuously improve the support, reliability, availability, maintainability of the UWSS. DND support agencies (on the coasts and in NDHQ) and RCN ships will also have ISS responsibilities that complement the ISSC.	Information
PWS-290	2.1.8 [I] The UWSU performance-based ISSC may evolve over the duration of the contract. Canada and the Contractor will form a strategic relationship where the Contractor will be properly motivated and incentivized to achieve and continuously improve upon the outcomes of the in-service support system; notably resources are optimally utilized to deliver the defence capability. It is anticipated that Canada will realize benefits through reduced overall system support costs and increased system availability and reliability.	Information
PWS-291	2.1.9 [I] The UWSU ISSC will include a long term participatory approach in the management of the contract to meet the operational requirements of the RCN. It may include a Relationship Charter which will be developed cooperatively with the Contractor.	Information
PWS-	2.1.10 [I] All UWSU systems will continuously be improved with the goal of achieving	Information

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292	100% reliability and availability.	
PWS-293	2.1.11 [M] The Contractor must continuously improve the maintainability, reliability and availability of the entire UWSS while minimizing the on board spares.	Mandatory
PWS-294	2.2 UWSU In-Service Support (ISS) Organization	Heading
PWS-295	2.2.1 [O] The Contractor must conduct the work herein with minimal support by Canada over the full duration of the ISSC.	Mandatory
PWS-296	2.2.2 [I] The UWSU ISS organization will consist of a collaboration of Canada's organization and the Contractor's organization.	Information
PWS-297	2.2.3 [I] Canada retains Design Authority and System Authority responsibilities for the UWSS EG.	Information
PWS-298	2.3 Integrated Equipment Management Team (EMT)	Heading
PWS-299	2.3.1 [I] To work collaboratively and to facilitate the exchange of information, Canada will establish an UWSS EG EMT.	Information
PWS-300	2.3.2 [M] The Contractor must participate in the UWSS EG EMT.	Mandatory
PWS-301	2.4 Roles and Responsibilities of Canada	Heading
PWS-302	2.4.1 [I] Canada and the RCN will conduct ISS activities associated with the UWSS EG, pursuant to the Naval Materiel Management System (NaMMS) manual, the Naval Engineering Manual (NEM), and the Canadian Forces Supply System (CFSS) Manual.	Information
PWS-303	2.5 Class Program Manager (CPM)	Heading
PWS-304	2.5.1 [I] The CPM is the Design Authority (DA) responsible for Program Management, Platform Management and Material Assurance Management and is responsible to develop and execute the Class Program Plan (CPP) for the <i>Halifax</i> -class, which includes setting the objectives and priorities for the development of the subordinate UWSS EG Program Plan (EGPP).	Information
PWS-305	2.5.2 [I] The CPM is responsible for the DI of the <i>Halifax</i> -class frigates. DI constitutes the sum of all operational requirements, technical requirements, technical policies, and intended environmental conditions/limitations which govern the design, maintenance and operations of naval materiel.	Information
PWS-306	2.5.3 [I] The CPM, in ensuring material assurance management, has five (5) key responsibilities:	Information
PWS-307	a. [I] <u>Competence and Authority</u> : In support of the Class objectives laid out in the CPP, the CPM may initiate design tasks to improve or sustain capability while maintaining compliance with DI, the Certification Baseline, and Certification Plan.	Information
PWS-308	b. [I] <u>Configuration Management</u> : The DA has the responsibility to manage, track and confirm the configuration of the Class.	Information
PWS-	c. [I] <u>Class Performance, Safety and Security</u> : The CPM must provide assurance of	Information

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309	class performance, safety and security. The DA holds the authority to approve any changes to DI.	
PWS-310	d. [I] <u>Certification</u> : The DA is responsible for ensuring the platform certification is current 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) and as outlined in the <i>Halifax</i> -class Certification Plan (HCCP).	Information
PWS-311	e. [I] <u>Systems Integration Authority</u> : The DA is responsible for managing the impacts of system integration, e.g. weight, electrical, heat loads, periodic auditing of configuration, and the approval of expenditure of margins resulting from design changes.	Information
PWS-312	2.6 <i>Halifax</i> -class Support Contracts	Heading
PWS-313	2.6.1 [I] The <i>Halifax</i> -class support contracts are managed by the CPM/DA and will interact with the UWSU ISSC through as provided:	Information
PWS-314	a. <u><i>Halifax</i>-class Design Agent ISSC</u>	Heading
PWS-315	i. [I] The CPM is assisted in the execution of the Design Authority responsibilities through a Class Design Agent ISSC. This contract provides Engineering Change (EC) Management, Configuration Change Management, and Technical Data Management, including Margin Management and Control.	Information
PWS-316	ii. [M] The Contractor must provide through the DND EMT, all information necessary to conduct Engineering Change (EC) Management, Configuration Change Management, and Technical Data Management, including Margin Management and Control activities, to the Class Design Agent ISSC as requested or deemed necessary to update and maintain the current status and configuration of the <i>Halifax</i> -class frigates.	Mandatory
PWS-317	b. <u><i>Halifax</i>-class Work Period Contracts</u>	Heading
PWS-318	i. [I] Under the <i>Halifax</i> -class WPC-W and WPC-E, Canada will chair a Canada Industry Integrated Project Team (CI-IPT) and Working Group to coordinate the work and schedule for DWPs.	Information
PWS-319	ii. [M] The Contractor in conjunction with the UWSU EMT, must interact with the CI-IPT and the WPC-W and WPC-E contracts to coordinate any UWSU ISSC work and schedules that occur during the <i>Halifax</i> -class DWPs.	Mandatory
PWS-320	c. <u>Combat Systems Integration (CSI) ISSC</u>	Heading
PWS-321	i. [I] The CPM uses the CSI ISSC to provide all supportability requirements, including system engineering, systems integration, software engineering, software testing and material support services, for the Combat Management System (CMS), its associated hardware and all training aids.	Information
PWS-	ii. [M] The Contractor must provide through the DND EMT, all information	Mandatory

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322	necessary to conduct any CMS software or software interface related system engineering, systems integration, software engineering, software testing services.	
PWS-323	2.7 UWSS Equipment Group Program Manager (EGPM)	Heading
PWS-324	2.7.1 [I] Responsibility for the UWSS EG will reside with the UWSS EGPM. The UWSS EGPM is responsible to the CPM.	Information
PWS-325	2.7.2 [I] The SA for the UWSS EG will reside with the UWSS EGPM. UWSS EGPM is delegated responsibility for DI of the UWSS EG on behalf of the CPM.	Information
PWS-326	2.7.3 [M] The Contractor must support the UWSS EGPM.	Mandatory
PWS-327	2.8 DND Quality Assurance (QA) Management	Heading
PWS-328	2.8.1 [I] DND's 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 on behalf of Canada. Canada will use other organizations to support quality assurance management such as the RCN Ship's Staff (SS), Fleet Maintenance Facilities (FMF), the Naval Engineering Test Establishment (NETE), or other government's QA organizations.	Information
PWS-329	2.9 Roles and Responsibilities of the RCN	Heading
PWS-330	2.9.1 [I] The intent is to authorize direct liaison between the Contractor and the appropriate Units/Formations to facilitate planning and scheduling of work. All work authorizations must follow the established contractual process.	Information
PWS-331	2.9.2 [I] The following RCN Formations and units are integral components of the UWSS EG Support Program and their roles and responsibilities are outlined below and described in Naval Material Management System Manual (NaMMS):	Information
PWS-332	a. <u>Ship's Staff</u>	Heading
PWS-333	i. [I] SS operate and maintain the ship in accordance with DI. The ship's Commanding Officer and Engineering Officers are Duty Holders. SS responsibilities include:	Information
PWS-334	a) executing on board UWSU first level preventive and corrective maintenance routines;	Information
PWS-335	b) reporting UWSU operational deficiencies (OPDEF Report), and submitting maintenance requirements for Programmed Work Periods (PWP) including; Short Work Periods (SWP), Docking Work Periods (DWP) and Extended Docking Work Periods (EDWP) and Engineering Change Work Periods (ECWPs);	Information
PWS-336	c) ordering, receiving, and returning UWSU authorized Mobile Account Ship's Table (MAST) spares and consumables;	Information

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PWS-337	d) co-ordinating access for the Contractor and executing safety routines during along-side maintenance periods;	Information
PWS-338	e) co-ordinating medium to high risk activities which are disruptive on the jetty and between adjacent vessels;	Information
PWS-339	f) executing care and custody maintenance routines in preparation for DWPs;	Information
PWS-340	g) providing assistance to the Contractor to complete level three tasks; and	Information
PWS-341	h) implementing, when requested, minor approved Engineering Changes (EC) and upgrading installations, such as installing a software patch.	Information
PWS-342	b. <u>Formations</u>	Heading
PWS-343	i. [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 (MARPAAC);	Information
PWS-344	ii. [I] The MARLANT and MARPAAC Deputy Chiefs of Staff Engineering Operations (N37) and their staff are responsible for managing the Formation engineering and maintenance program;	Information
PWS-345	iii. [I] The Formations are responsible to produce their associated annual (fiscal year) Operations Schedule (OPSKED), which is the principal document for scheduling and setting readiness levels for the operational fleet, shore establishments and supporting maintenance facilities; and	Information
PWS-346	iv. [I] RCN Formations assign specific readiness levels to individual ships. The assigned readiness levels establish the priorities for work that will be used by the Contractor for work period planning. Formation Commanders and Fleet Commanders have the authority to modify the readiness assignments and periods within a Ship's operational cycle and this may cause an adjustment in the priorities for planned and approved maintenance activities.	Information
PWS-347	c. <u>Fleet Maintenance Facilities</u>	Heading
PWS-348	i. [I] Each Formation, Maritime Forces Atlantic (MARLANT) and Maritime Forces Pacific (MARPAAC), 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;	Information
PWS-349	ii. [I] For the UWSS EG, the FMFs have the following responsibilities:	Information
PWS-350	a) assist SS in completion of Level One Maintenance;	Information
PWS-351	b) conduct Level Two Maintenance;	Information
PWS-	c) conduct engineering and/or technical investigations and studies, when	Information

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352	tasked;	
PWS-353	d) provide in-theatre repair support, as directed by RCN;	Information
PWS-354	e) act as the Project Leader, work period coordinator and Point of Contact (POC) for each <i>Halifax</i> -class frigate; and	Information
PWS-355	f) through the FMF POC and via DND EMT tasking, the FMF will provide assistance to the contractor for work aboard the <i>Halifax</i> -class frigates.	Information
PWS-356	d. <u>RCN Fleet Schools</u>	Heading
PWS-357	i. [I] RCN Fleet Schools are established on East and West Coast;	Information
PWS-358	ii. [I] For the UWSS EG, RCN Fleet Schools are responsible to:	Information
PWS-359	a) deliver training to CAF Underwater Warfare (UWW) operators and maintainers throughout the in-service phase;	Information
PWS-360	b) update Training Qualification Standards and Plans (QSPs), with Contractor input;	Information
PWS-361	c) perform limited Level One Maintenance on Training Aids; and	Information
PWS-362	d) operate the combat systems and CMS 330 integration and test lab at the Pullen Building in CFB Halifax, in conjunction with DNCS5/CSSC(E) and the CSI ISS Contractor, in support of the RCNs baseline combat system development, integration, testing and proving activities.	Information
PWS-363	2.10 Roles and Responsibilities of the Contractor	Heading
PWS-364	2.10.1 [I] The Contractor is responsible to support the UWSS EG through the provision of the following:	Information
PWS-365	a. In-service Support Management: implement a program and schedule that governs the delivery of cost effective and efficient ISS;	Information
PWS-366	b. Technical Schedule Management: develop, update, co-ordinate and implement all schedules and associated trial activities for the UWSS EG within the <i>Halifax</i> -class availability schedule, as defined by Canada;	Information
PWS-367	c. In-service Support Service Delivery: conduct the Work to support the UWSS EG including planning ISS activities, Ensuring equipment operates First use in accordance with its DI, planning of ISS activities, engineering support, Technical Investigations, first, second and third line maintenance, facilities and government property management, material Management, Repair and Overhaul activities, maintain Special Tools and test Equipment, and Engineering Change development and implementation;	Information
PWS-368	d. Life Cycle Materiel Management (LCMM): conduct a wide range of LCMM activities including DI management, configuration management, technical problem	Information

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	management, obsolescence management, technical data management, material management;	
PWS-369	e. Training Support: augment DND training resources and develop, deliver and update training material on an as and when requested basis;	Information
PWS-370	f. Electronic Information Management: implement and maintain the information management and technology resources to support the management and implementation of the UWSS EG ISS;	Information
PWS-371	g. Performance Monitoring and Assessment: establish and conduct Performance Monitoring and Assessment of the Work herein, assess and monitor performance; and	Information
PWS-372	h. Meetings: The Contractor will convene meetings to make reports, to determine actions, to update on status and in accordance with Chapter 10 and the relevant applicable DIDs.	Information
PWS-373	2.10.2 [I] Resources are the materiel and personnel elements required to maintain the UWSS EG to meet readiness and sustainability requirements. It includes personnel, spares, material, equipment, technical data, and facilities.	Information
PWS-374	2.10.3 [O] For the duration of the ISSC, the Contractor must provide all the resources necessary to perform all the work required unless otherwise specified within this PWS or as negotiated with Canada on a per instance basis.	Mandatory
PWS-375	2.11 Applicable Specification, Precedence, Standards and Documents	Heading
PWS-376	2.11.1 [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) for this PWS.	Information
PWS-377	2.11.2 [I] In the event of a conflict between the documents referenced herein and the contents of the PWS, the contents of the PWS must take precedence.	Information
PWS-378	2.11.3 [M] The Contractor must immediately notify the Contracting Authority (CA) of discrepancies discovered within or among any of the attachments or documents that form part of this PWS.	Mandatory
PWS-379	2.11.4 [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, must be subject to review by the Technical Authority (TA). Any changes to the reference documents will be incorporated into the Contract.	Information
PWS-380	2.11.5 [I] The PWS and the PWS appendices and reference documents will be given precedence in the following order:	Information
PWS-381	a. Articles of the PWS;	Information
PWS-382	b. DIDs;	Information
PWS-383	c. All other Appendices to the PWS; and	Information

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PWS-384	d. Specifications, standards, technical documents, and other related documents referenced in the PWS.	Information
PWS-385	2.12 Data Deliverables	Heading
PWS-386	2.12.1 [M] The Contractor must prepare and deliver all data as specified in Vol3 Annex B Appendix 1 the Contract Data Requirements List (CDRL) and Vol3 Annex B Appendix 2 the Data Item Description (DID).	Mandatory
PWS-387	2.12.2 [M] The Contractor must maintain and revise all data items to reflect approved changes to the Contract.	Mandatory
PWS-388	2.13 Management Functions, Core Work, Emergent Work and Additional Maintenance Support	Heading
PWS-389	2.13.1 <u>General</u>	Heading
PWS-390	2.13.1.1 [I] Work performed by the Contractor will be divided into one of four categories: Management Functions, Core Work, Emergent Work and Additional Maintenance Support.	Information
PWS-391	2.13.2 <u>Management Functions</u>	Heading
PWS-392	2.13.2.1 [I] Management Functions are the management level work necessary to execute the Contract. ISSC Management functions include but are not limited to: ISSC Project Management (Mgt), Core & Emergent Work Mgt, AOP Mgt, TSM, Reporting, Meetings, Surge Mgt, Electronic Info Mgt, Quality Mgt, Safety Mgt, Risk Mgt, Security Mgt, Environmental Mgt, ISS Planning , Life Cycle Costing, Performance Mgt, Material Mgt and Service Delivery Management Functions.	Information
PWS-393	2.13.2.2 [M] the Contractor must conduct management-level work in accordance with this PWS.	Mandatory
PWS-394	2.13.3 <u>Core Work</u>	Heading
PWS-395	2.13.3.1 [I] Core Work is work that is predictable, quantifiable and performed on an ongoing basis or within specified time periods. It will be defined on an annual basis in the approved Annual Operating Plan (AOP). Core Work activities include but are not limited to: Engineering, Maintenance, Material, Life Cycle Material Management Functions, Configuration Management Functions, Electronic Information Management Activities, Software Refresh and Update Activities, Training Activities, Obsolescence Management and Technology Refresh.	Information
PWS-396	2.13.3.2 [M] the Contractor must not include Management Functions in Core Work.	Mandatory
PWS-397	2.13.3.3 [M] the Contractor must identify core work in the AOP for each ship by home port.	Mandatory
PWS-398	2.13.3.4 [I] the scope and cost of changes to the Core Work, identified in the Contractor's originally contracted AOP will be negotiated and agreed to between	Information

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	Canada and the Contractor.	
PWS-400	2.13.4 <u>Emergent Work</u>	Heading
PWS-401	2.13.4.1 [I] Emergent Work is work within a contract which is generally unplanned or unquantifiable, although of a known type. Emergent work activities include but are not limited to: New Work related to Engineering, Maintenance, Material, Software Engineering, Other EWRs and Installation of EC's & Upgrades. Emergent work will generally be task-based and usually subject to time and material based payments.	Information
PWS-402	2.13.4.2 [M] The Contractor must conduct Emergent Work on an "as and when requested" basis in accordance with the Basis of Payment of the contract.	Mandatory
PWS-403	2.13.4.3 [I] Emergent Work will be authorized through a DND 626 - Task Authorization form and remunerated in accordance with the Contract.	Information
PWS-404	2.13.4.4 [M] The Contractor must submit an Emergent Work Requests (EWRs) for approval in accordance with the contract. The contractor must develop an EWR form in accordance with DID-EWR-001 for use by both DND and the Contractor to request Emergent Work activities.	Mandatory
PWS-405	2.13.5 <u>Additional Maintenance Support</u>	Heading
PWS-406	2.13.5.1[I] Deployed ships may require additional maintenance support including, in-theatre repair, Mobile Repair Parties, Factory Service Representatives, support to the FMFs and ships staff, material support to deployed ships and occasional surge – overtime work as directed by DND.	Information
PWS-407	2.13.5.2 [M] The Contractor must provide Additional Maintenance Support as requested via EWR or DND 626 task authorization process.	Mandatory
PWS-408	2.14 Repair and Overhaul Activities	Heading
PWS-409	2.14.1 [M] DND will engage the Contractor to provide repair and overhaul services for the duration of the ISSC in which the contractor must:	Mandatory
PWS-410	a. conduct a strip and survey of components parts and evaluate and report on their reparability;	Mandatory
PWS-411	b. conduct the repairs at an agreed hourly and mark-up rate; and	Mandatory
PWS-412	c. conduct free-flow R&O up to the specified Maximum Repair Cost (MRC) and as individually approved by the TA via request to repair items above MRC.	Mandatory
PWS-413	2.15 Contract Phases	Heading
PWS-414	2.15.1 <u>Start-Up Phase</u>	Heading
PWS-415	2.15.1.1 [I] The purpose of the Start-Up Phase is for the Contractor to establish full-service delivery capability and to implement and validate the performance management framework via data collection and assessment.	Information

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PWS-416	2.15.1.2 [I] The UWSU In-Service Support Contract (ISSC), as a whole, will be initially placed in a dormant state upon contract award, including the contract clock. The ISSC will be kept dormant until twelve (12) months prior to completion of the first full ship installation. The exact date will be defined/negotiated between Canada and the Contractor as prescribed for under the Acquisition Contract and is dependent on DND approval of the first master schedule update after Acquisition Critical Design Review (CDR), depicting updated dates for ship installations reflective of the project status and adjustments required resulting from CDR.	Information
PWS-1738	2.15.1.3 [I] The Start-Up Phase starts at the end of the initial dormancy period, and ends when a steady-state ISS capability has been verified by Canada to be acceptable to start the conduct of steady-state ISS activities of the UWSS EG. The Start-Up Phase is estimated to be a minimum of one (1) year in duration, for the Initial Start-Up Sub Phase, and up to four (4) years duration for the transition Sub Phase to Steady State. It will need to be scheduled and executed in conjunction with transition of responsibility for the UWSS EG from the UWSU acquisition project.	Information
PWS-1739	2.15.4 [I] The Initial Start-Up Sub Phase commences at the end of the dormancy period and continues until the contractor completes acceptable delivery of the initial drafts of the ISS DIDs that are required to achieve Steady State as identified in DID-SSS-001, in consideration also for updated design and integrated logistics support configuration information reflective of the Acquisition project. The initial Start-Up Sub Phase will not complete before approval by Canada of the first full ship system acceptance from Acquisition.	Information
PWS-1731	2.15.1.5 [I] Transitional Sub Phase:	Heading
PWS-1732	2.15.1.5.1 [I] The purpose of the Transitional Sub Phase is to allow the Contractor a period of time to finalize the development, updates and implementation of ISSC management plans, activities and to revise, test and record data for performance management matrices in consideration for in-service systems, in order to produce the Objective Quality Evidence, identified in DID-SSS-001, required to achieve the Steady State Phase of the ISSC.	Information
PWS-1733	2.15.1.5.2 [I] As the Transitional Sub Phase forms part of the ISSC Start-Up Phase, it is not linked to performance incentive payments. The Transitional Sub Phase will not complete before approval by Canada of all core full ship system acceptances from Acquisition.	Information
PWS-417	2.15.1.5.3 [M] The Contractor must provide objective evidence to prove that steady-state ISS capability has been achieved.	Mandatory
PWS-418	2.15.1.5.4 [M] The Contractor must submit the objective evidence in DID-SSS-001.	Mandatory
PWS-419	2.15.2 <u>Steady-State Phase</u>	Heading
PWS-	2.15.2.1 [I] The purpose of the Steady State Phase is to conduct ISS under a	Information

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420	Performance Management Framework in order to deliver affordable and sustainable ISS to preserve the Design Intent of the UWSS EG.	
PWS-1740	2.15.2.2 [I] The Steady State Phase of the ISSC is achieved only when the contractor successfully delivers to Canada, the OQE called up in DID-SS-001 with the relevant supporting data and that OQE and data is accepted and approved by Canada for implementation as Steady State Phase activities. Steady-State must not commence before approval by Canada of all core full ship system acceptances from Acquisition.	Mandatory
PWS-421	2.15.2.3 [M] The Contractor must support the UWSU EG under the Performance Management Framework to preserve the Design Intent of the UWSS EG.	Mandatory
PWS-422	2.15.3 <u>Close-Out Phase</u>	Heading
PWS-423	2.15.3.1 [I] The purpose of the Close-Out Phase is to ensure an orderly transition of support from the current Contractor to Canada, or a third party, or to initiate the orderly reduction and termination of services leading to the disposal of UWSS EG systems and associated support items in compliance with Government of Canada and ITAR requirements.	Information
PWS-424	2.15.3.2 [I] The Close-Out Phase starts at either notice of contract termination or when the Contractor is notified by Canada of the intention to retire the UWSS EG systems due to end of service life for some or all HMC Ships, and ends when all ships and all related transfer or disposal activities have been completed.	Information
PWS-425	3 In-Service Support Management	Heading
PWS-426	3.1 UWSU ISS Project Management	Heading
PWS-427	3.1.1 [I] The UWSU ISS contract will be administered by the Contracting Authority (CA), Public Services and Procurement Canada (PSPC). The contract Technical Authority and Procurement Authority will reside within the MEPM division at DND. DND will manage UWSU systems throughout their service life and will retain responsibility as the Design Authority, and as the System Authority for the UWSU.	Information
PWS-428	3.1.2 [I] The contract will include the requirement to establish appropriate channels of communication between the Contractor, Formations, FMF, CFNOS, ADAC, <i>Halifax</i> -class ISS providers and HMC Ships that will ensure the exchange of information to execute efficient ISS delivery within authorized contract boundaries.	Information
PWS-429	3.1.3 [I] The UWSU ISS work will be managed using resources from both DND and the Contractor within an integrated management environment. UWSU ISS work will also be synchronized with RCN and <i>Halifax</i> -class related activities, and managed within the related DND business plans and budgets.	Information
PWS-430	3.1.4 [I] ISS Project Management activities will be delivered primarily by the Contractor, as Management Function tasks.	Information
PWS-431	3.1.5 [O] The Contractor must manage all aspects of the UWSU ISSC to achieve and maintain the high level steady state operational capability of the <i>Halifax</i> -class frigates.	Mandatory

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PWS-432	3.1.6 [O] The Contractor must incorporate into its ISS Program, without limiting or affecting any other provision of the Contract, Canada's objective to:			Mandatory
PWS-433	a. achieve RCN operational objectives through the provision of ISS defined in the PWS;			Mandatory
PWS-434	b. reduce life cycle costs and optimize resources;			Mandatory
PWS-435	c. ensure each applicable UWSS EG system continues to achieve its Design Intent performance capability;			Mandatory
PWS-436	d. ensure responsible stewardship to comply with Canada's environmental, safety, naval materiel, security, and international regulatory commitments;			Mandatory
PWS-437	e. successfully integrate the Contractor's ISS Program and Canada's elements of the ISS System; and			Mandatory
PWS-438	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.			Mandatory
PWS-439	3.1.7 [I] Table 1 outlines the expected division of responsibilities for activities related to UWSU ISS Project Management.			Information
PWS-440	Table 1 – Responsibility Matrix – ISS Project Management Responsibilities			Information
PWS-443	Management Component	Canada Responsibilities	Contractor Responsibilities	
	ISSC Management	Act as Procurement Authority Act as Contract Technical Authority Complete Contract Assessment/Amendment	Deliver Contract Requirements	
	ISSC Core and Emergent Work	Define and Approve Work	Identify and Submit Work · Execute Work	
	Project Management	Manage ISS work Manage DND Business Plans UWSU Inputs Perform Design Intent Oversight Act as UWSU System Authority	Manage ISS work Provide Input to DND ISS Managers Provide Design Intent Input Provide System Authority Input	
	Annual Operating Plan (AOP)	Review and Approve AOP	Submit AOP Inputs Amend and Update AOP	
	Reporting	Review Progress/Issues Provide Feedback	Report Progress and Issues Recommend Resolution	

ID				Requirement Type
	Surge Management	Adjust to Requirements Inform ISS Contractor	Plan throughout and Execute as requested	
	Intellectual Property (IP) Management	Review Issues & Recommendations Approve solutions	Manage IP with OEMs Report Issues/Recommend solutions	
	Export License Management	Review Issues, changes and status/recommendations Approve solutions	Manage export licenses with OEMs and DND Report risks and issues/Recommend solutions	
	Export Control Management	Execute Oversight	Plan and Execute Activities	
	Quality Management (QM)	Validate ISS Contractor QM program	Implement/Execute QM System	
	Safety & Security / Environmental Management	Governmental Accountability Oversight of Processes and Requirements	Plan and Execute Activities Provide Processes.	
PWS-490	3.2 Export Controls			Heading
PWS-491	3.2.1 [M] The Contractor must obtain approved export licenses from the OEM's and others where applicable to be able to conduct and provide in-service support of the Equipment Group. The Contractor must ensure that DND has sufficient licenses to enable it to support and operate its equipment. The Contractor must acquire the needed export licenses without DND intervention, in a timely manner, and ensure they are all kept up to date. The export license management must comply with all regulatory requirements within Canada and other governments.			Mandatory
PWS-492	3.2.2 [M] If required, the Contractor must obtain and manage any Export licenses required between the OEMs or other Sub-contractors and Canada.			Mandatory
PWS-493	3.2.3 [M] The Contractor must prepare any export control documentation for the UWSU that may be required in support of Deployed Operations.			Mandatory
PWS-494	3.3 Quality Management			Heading
PWS-495	3.3.1 [O] The Contractor must conduct the work in support of the UWSS EG at the highest possible quality through the consistent application, and continual improvement of processes that produce services that meet the needs of the UWSS EG.			Mandatory
PWS-496	3.3.2 [M] The Contractor must implement and maintain a Quality Management System (QMS) compliant with ISO 9001:2008. The Contractor must conduct QM activities in accordance with its Quality Plan. The Contractor must flow-down the QMS to all sub-contractors and vendors. DND will evaluate the Contractor's QMS and Quality			Mandatory

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	Plans through ongoing process audits throughout the course of the contract. DND will validate the Quality Management program (processes and products) using Government Quality Assurance Representatives (QAR).	
PWS-497	3.4 Environmental Management	Heading
PWS-498	3.4.1 [M] The Contractor must implement and maintain an Environmental Management System (EMS) compliant with ISO 14001:2015. The Contractor must conduct Environmental Management activities in accordance with his EMS plan and will provide oversight of this plan to DND.	Mandatory
PWS-499	3.4.2 [I] The UWSS Equipment Group must operate in a safe, secure and environmentally compliant environment. UWSU ISS activities will be subject to a number of regulatory regimes related to safety, security and environmental management.	Information
PWS-500	3.4.3 [M] For Environmental Health and Safety (EHS) Management, the Contractor must incorporate and document the Environmental Health and Safety (EHS) considerations into the decision making process for the Work performed under this contract.	Mandatory
PWS-501	3.4.4 [M] The Contractor must comply with DND policies, orders, directives, instructions and best practices when accessing DND owned or controlled lands, buildings or equipment.	Mandatory
PWS-502	3.4.5 [M] The Contractor must ensure that specifications, standards, support documents and test programs are reviewed for EHS compliance and appropriate warnings included.	Mandatory
PWS-503	3.4.6 [M] The Contractor must conduct a Disposal EHS Assessment prior to any disposal action being taken to ensure that the proper mitigation measures have been identified and that the instructions and plans are compliant with EHS legislations, regulations, and policies/directives that are in force at that time.	Mandatory
PWS-504	3.5 Green Procurement	Heading
PWS-505	3.5.1 [I] Canada is committed to greening its supply chain. In April 2006, Canada issued a policy, on Green Procurement, directing federal departments and agencies to take the necessary steps to acquire products and services that have a lower impact on the environment than those traditionally acquired. Assessing the environmental impact of a product or service involves considering the whole life cycle of the product or service, from the extraction of the raw material to its disposition at the end of its useful life.	Information
PWS-506	3.5.2 [M] The Contractor must incorporate green procurement practices into its EHS Management that align with the commitments Canada made in the Green Procurement Policy.	Mandatory
PWS-507	3.6 Occupational Health and Safety Management	Heading

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PWS-508	3.6.1 [M] The Contractor must implement and maintain an Occupational Health and Safety Management (OHSMS) System that is consistent with the principles presented in Occupational Health and Safety Assessment Series (OHSAS) 18001 at its facilities located in Canada and that is compliant with all applicable provincial/territorial legislative requirements, Industrial standards, health and safety policies and directives, the Canada Labour Code Part II, and the Canada Occupational Health and Safety Regulations. The Contractor must apply the OHSMS throughout all of the Work of this PWS.	Mandatory
PWS-509	3.6.2 [O] The UWSS EG must operate in a safe, secure and environmentally compliant environment. UWSU and ISS activities will be subject to a number of regulatory regimes related to safety, security and environmental management. The operators must be able to complete their mission safely when using the UWSS EG.	Mandatory
PWS-1748	3.6.3 [M] The Contractor must follow regulatory regimes as defined in the contract and provide the processes that allows the UWSS EG to: <ul style="list-style-type: none"> a. operate safely and not cause hazards that may lead to mishaps; b. contain security capabilities to meet the security requirements; and c. comply to environmental requirements when operating in all modes. 	Mandatory
PWS-510	3.7 ISS Planning	Heading
PWS-511	3.7.1 DND Responsibilities	Heading
PWS-513	3.7.1.1 [I] DND manages and controls the UWSU ISS Program through the Class and Equipment Group Program Plans, the UWSU ISS Contract, other DND business plans, and all applicable DND ISS processes.	Information
PWS-514	3.7.1.2 [I] DND establishes the objectives for the UWSU ISS Program, approves of the detailed ISS Program and provides the forecasted annual budget.	Information
PWS-515	3.7.1.3 [I] DND retains responsibility as DA and SA for the UWSS EG.	Information
PWS-516	3.7.2 Contractor Responsibilities	Heading
PWS-517	3.7.2.1 [M] The Contractor must implement an ISS Management Program that includes management plans that control and coordinate support services, and related processes.	Mandatory
PWS-518	3.7.2.2 [M] The Contractor must support the UWSS EGPM, in developing the EGPP and its associated CPP.	Mandatory
PWS-519	3.7.2.3 [M] The Contractor must provide inputs to business and resource planning for the CPM and to other DND <i>Halifax</i> -class service providers (i.e. FMF).	Mandatory
PWS-520	3.7.3 Program Management Plan	Heading
PWS-521	3.7.3.1 [I] The Program Management Plan (PMP) is the plan that describes the Contractor's strategy, plans, methodologies and processes for meeting the	Information

ID		Requirement Type
	requirements of the Contract.	
PWS-522	3.7.3.2 [M] The Contractor must develop, deliver and update a PMP in accordance with DID-PMP-001.	Mandatory
PWS-523	3.7.3.3 [M] The Contractor must manage and perform the Work in accordance with the accepted PMP.	Mandatory
PWS-524	3.7.4 Start-Up Plan	Heading
PWS-525	3.7.4.1 [O] The Contractor must develop and implement a Start-Up Plan that ensures the Contractor reaches the Steady State Contract Phase in a cost effective and timely manner.	Mandatory
PWS-526	3.7.4.2 [M] The Contractor must develop a Start-Up Plan that specifies the plan and schedule:	Mandatory
PWS-527	a. to establish its Program Management capability, including alignment with <i>Halifax</i> -class Program Management elements, all DND Formations and assigned Units, and other <i>Halifax</i> -class ISS service providers, so that services can be planned and delivered efficiently;	Mandatory
PWS-528	b. to establish full support capability to execute all Work;	Mandatory
PWS-529	c. to transition service support from the interim OEM service support providers; and	Mandatory
PWS-530	d. to establish a performance management framework to initiate monitoring, reporting and assessment required to verify performance.	Mandatory
PWS-531	3.7.4.3 [M] The Contractor must develop, deliver and update a Start-Up Plan in accordance with DID-PMP-002.	Mandatory
PWS-532	3.7.4.4 [M] The Contractor must manage and perform the Work in accordance with the accepted Start-Up Plan.	Mandatory
PWS-533	3.7.5 Close-Out Plan	Heading
PWS-534	3.7.5.1 [O] The Contractor must develop and implement a Close-Out Plan that ensures the orderly transition of support from the current Contractor to Canada or a third party, or to initiate the orderly reduction and termination of services leading to the disposal of UWSS EG systems in a cost effective and timely manner.	Mandatory
PWS-535	3.7.5.2 [M] The Contractor must provide a Contract Close-Out Plan that specifies how the Contractor will:	Mandatory
PWS-536	a. coordinate with Canada when and how services will be terminated;	Mandatory
PWS-537	b. transfer Government Property to Canada or a third party;	Mandatory
PWS-538	c. dispose of the UWSS EG systems; and	Mandatory
PWS-	d. provide all records that relate to the UWSS EG systems.	Mandatory

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539		
PWS-540	3.7.5.3 [M] The Contractor must develop, deliver, and update a Close-Out Plan in accordance with DID-PMP-003.	Mandatory
PWS-541	3.7.5.4 [M] The Contractor must manage and perform the services in accordance with the accepted Close-Out Plan when notified by Canada.	Mandatory
PWS-542	3.7.6 Annual Operating Plan	Heading
PWS-543	3.7.6.1 [I] A key aspect of the management process will be the Annual Operating Plan (AOP) which will outline the work expected to be undertaken and completed over the next five (5) years of the contract. The Contractor will develop a process for creating the AOP which includes DND input at key decisions points. The AOP generated by the Contractor will need to take into consideration previous years' trends and future requirements. DND will approve the final AOP.	Information
PWS-544	3.7.6.2 [O] The Contractor must develop and implement an AOP that specifies the Contractor's work plan for the ISS of the UWSS EG and aligns this work plan to the needs of the RCN.	Mandatory
PWS-545	3.7.6.3 [I] The UWSU AOP is the Contractor's work plan. The AOP will evolve to reflect RCN operational requirements and UWSS EG sustainment requirements. The AOP includes the Core and Emergent work.	Information
PWS-546	3.7.6.4 [I] Canada will provide to the Contractor the forecasted annual budget to aid in the development of the AOP.	Information
PWS-547	3.7.6.5 [M] The Contractor must develop an AOP that covers a five (5) year period, aligns with Canada's Fiscal Year and is in line with the current and future fiscal years of the contract. The Contractor's AOP must be based on the assigned operational readiness levels for each <i>Halifax</i> -class frigate in order to establish the priority for ISS and the schedule of work plans for the Formations.	Mandatory
PWS-548	3.7.6.6 [M] The Contractor must identify the Core work in the AOP so that Canada can align the proposed work to the <i>Halifax</i> -class CPP.	Mandatory
PWS-549	3.7.6.7 [M] The Contractor must identify and prioritize the Emergent work in the AOP so that Canada can align the proposed work to the <i>Halifax</i> -class CPP.	Mandatory
PWS-550	3.7.6.8 [M] The Contractor must include in the AOP, in order of recommended priority, any new unfunded work that the contractor deems necessary to add to the program as future Emergent work and is to notify Canada of this new work within 30 days of its determination and entry into the AOP. Addition of this new work is subject to approval by Canada.	Mandatory
PWS-551	3.7.6.9 [M] The Contractor must break down the work in the AOP by East and West coast Formations down to the individual ship level.	Mandatory
PWS-552	3.7.6.10 [M] In the event of ship readiness level changes, schedule changes, delays in execution of Work, or unexpected changes in funding, the Contractor must adjust the AOP. This may require an adjustment to the AOP for the out-years to ensure that any deferred work can be considered as part of the next <i>Halifax</i> -class business cycle.	Mandatory

ID		Requirement Type
PWS-553	3.7.6.11 [M] The Contractor must develop, deliver and update the AOP in accordance with DID-PMP-004. All AOP updates and changes must be approved by the TA before any work updates or changes are implemented.	Mandatory
PWS-554	3.7.6.12 [M] The Contractor must update the AOP on a weekly basis to match the current CPP, each individual ship schedule, any approved contractor change requests and any changes requested by the TA.	Mandatory
PWS-555	3.7.6.13 [M] The Contractor must execute the Work in accordance with the accepted AOP.	Mandatory
PWS-556	3.7.6.14 [M] On a Monthly Basis, the Contractor must report progress and issues against activity plans and the overall AOP. DND will review progress/issue reports and provide feedback to the Contractor.	Mandatory
PWS-557	3.8 Integrated Master Schedule	Heading
PWS-558	3.8.1 [I] The Integrated Master Schedule (IMS) is a consolidated view of schedules in Work Breakdown Structure (WBS) element format that encompasses individual system overhaul schedules and ship docking work period schedules and a complete hierarchical dictionary of the goods, services and other tasks to be performed for the Contract as integrated into the class and individual ship scheduled activities. It constitutes the principal framework for the UWSU ISS program authorization, control of scheduled work and formal reporting of schedule status for the Contract.	Information
PWS-559	3.8.2 [M] The Contractor must develop, deliver and update an IMS in accordance with DID-PMP-005.	Mandatory
PWS-560	3.8.3 [M] The Contractor must produce the IMS using the Microsoft Project or Oracle Primavera software packages, compatible with the versions in use at DND.	Mandatory
PWS-561	3.8.4 [M] The Contractor must obtain Canada's approval of an amendment to the accepted IMS as part of the annual IMS review and update. The contractor may amend the IMS when:	Mandatory
PWS-562	a. the Contractor notifies Canada of any changes or errors or omissions to the IMS that requires immediate attention and may amend the IMS with Canada's approval; and	Mandatory
PWS-563	b. the Contractor may amend the IMS without first obtaining Canada's approval provided the changes are below the IMS reporting level and, are consistent with the intent of the approved IMS. The contractor must notify Canada of any changes within 20 working days of any changes being made.	Mandatory
PWS-564	3.8.5 [M] The Contractor must integrate into the IMS the high level aspects of the approved AOP work by coast as scheduled within the overall activity program of the SWPs and DWPs planned for <i>Halifax</i> -class frigates. The approved AOP work must be aligned with the coastal operational and work period schedules.	Mandatory
PWS-565	3.8.6 [M] The Contractor must use the accepted IMS as the schedule for managing and executing the work performed under this Contract.	Mandatory
PWS-	3.9 Risk Management	Heading

ID				Requirement Type
566				
PWS-567	3.9.1 [I] Risk management includes the ongoing identification and assessment of risks, the development, execution, and monitoring/evaluation of agreed risk response plans. The goal of risk management is to support the achievement of UWSU ISS goals through the active surveillance of risks and the timely implementations of mitigation strategies so that risks are reduced as low as reasonably practicable.			Information
PWS-568	3.9.2 [M] The Contractor must report identified potential problems before they occur so that risk-mitigation activities may be planned and implemented as needed to reduce the risk as low as reasonably practicable.			Mandatory
PWS-569	3.9.3 [M] The Contractor must implement a risk management process to manage the identification, qualification, quantification, mitigation and control of risks that is aligned with the Project Management Body of Knowledge (PMBOK) guidelines.			Mandatory
PWS-570	3.9.4 [I] Table 2 outlines the expected division of responsibilities for activities related to UWSU ISS Risk Management.			Information
PWS-571	Table 2 – Responsibility Matrix – Risk Management Responsibilities			Information
PWS-574	Management Component	Canada Responsibilities	Contractor Responsibilities	
	Problem and Issue Management	Report Problems Participate in Risk/Problem resolution forums. Review Progress	Provide a Technical Problem Management System (TPMS) Participate in Risk/Problem resolution forums. Report Progress	
PWS-581	3.10 Risk Management Plan			Heading
PWS-582	3.10.1 [I] The Risk Management Plan describes how the Contractor will manage risk and issues throughout the life of the contract.			Information
PWS-583	3.10.2 [M] The Contractor must develop, deliver, and update a Risk Management Plan in accordance with DID-PMP-006.			Mandatory
PWS-584	3.10.3 [M] The Contractor must manage and perform the Work in accordance with the accepted Risk Management Plan.			Mandatory
PWS-585	3.10.4 [M] 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.			Mandatory
PWS-586	3.10.5 [M] The Contractor must establish and maintain a Risk and Risk Issue Register, in accordance with DID-PMP-007, to record and rank risk issues as they arise for			Mandatory

ID		Requirement Type
	tracking and reporting.	
PWS-587	3.10.6 [M] The Contractor must highlight significant risks in Progress Reports in addition to a Risk Register.	Mandatory
PWS-588	3.10.7 [M] The Contractor must input all Risks and Risk Issues identified by the Contractor and Canada in the Register.	Mandatory
PWS-589	3.10.8 [M] The Contractor must make a current Risk and Risk Issue Register available to Canada on an ongoing basis.	Mandatory
PWS-590	3.10.9 [M] In order to ensure the provision of uninterrupted services and support to operations in the event of a loss to business, equipment or technical data by an incident or disaster, the Contractor must include a Business Continuity Section as part of the Contractor's Risk Management Plan.	Mandatory
PWS-591	3.11 Surge Management	Heading
PWS-592	3.11.1 [O] The Contractor must provide uninterrupted services and support to RCN during periods of unplanned urgent operational requirements.	Mandatory
PWS-593	3.11.2 [I] Work demand will surge periodically due to unplanned urgent operation requirements not defined in the AOP.	Information
PWS-594	3.11.3 [I] DND will provide information on operational changes as soon as they are known to the Contractor to assist in planning development.	Information
PWS-595	3.11.4 [M] The Contractor must manage and provide services to support the UWSS EG to accommodate situations when demand is outside normal activity rates where there could be an increase or a decrease in work requirements.	Mandatory
PWS-596	3.11.5 [M] The Contractor must develop, deliver and maintain a surge response plan in accordance with DID-PMP-008.	Mandatory
PWS-597	3.12 Life Cycle Cost (LCC) Management	Heading
PWS-598	3.12.1 [O] The Contractor must achieve the lowest attainable LCC for the UWSS EG as indicated by the conduct of LCC analysis.	Mandatory
PWS-599	3.12.2 [M] The Contractor must conduct LCC analysis to ensure that the lowest cost of sustaining the UWSS EG to the required level of performance is achieved.	Mandatory
PWS-600	3.12.3 [M] The Contractor must develop, deliver and update the LCC Management Plan (LCCMP). The plan must be in accordance with the DID-PMP-009.	Mandatory
PWS-601	3.12.4 [M] The Contractor must execute the accepted LCCMP.	Mandatory
PWS-602	3.12.5 [M] The Contractor must submit the LCC Program Report in accordance with the accepted LCCMP and CSPR DID-PMP-010.	Mandatory
PWS-603	3.12.6 [M] The Contractor must conduct LCC Program Reviews with Canada.	Mandatory
PWS-604	3.13 Naval Materiel Regulatory Requirements	Heading
PWS-	3.13.1 [O] The Contractor must ensure that the UWSS EG complies with all Naval	Mandatory

ID		Requirement Type
605	Material Regulatory requirements.	
PWS-606	3.13.2 [I] The DA 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 <i>Halifax</i> -class will be established by agreement between the Naval Materiel Regulatory Authority (NMRA) and the Design Authority and outlined in the HCCP.	Information
PWS-607	3.13.3 [I] Any deviations from DI that occur will be in accordance with NMRA and approved by Canada to ensure that risks are mitigated.	Information
PWS-608	3.13.4 [M] The Contractor must ensure that the UWSS EG installed on the <i>Halifax</i> -class frigates are maintained in accordance with each vessel's approved NMRA Certification Plan through the naval materiel regulatory process described in NMRSS.	Mandatory
PWS-609	3.13.5 [M] The Contractor must work with the UWSS EGPM and R&O to ensure that Class Certification and DI are maintained for the UWSS EG throughout the <i>Halifax</i> -class frigates' life.	Mandatory
PWS-610	3.13.6 [M] The Contractor must report any deviations from the DI as part of the DND Naval Materiel Risk Management (NMRM) process and must provide materiel state evidence to the UWSS EGPM to support the DND Naval Materiel Certification process.	Mandatory
PWS-611	3.14 Security Program Management	Heading
PWS-612	3.14.1 [O] In areas under control of the Contractor, the Contractor must ensure that the continuity of RCN missions is maintained in the presence of security incidents, disruptions and emergencies that occur for the UWSS EG.	Mandatory
PWS-613	3.14.2 [I] Requirements for facilities and personnel security clearances are identified in the contract.	Information
PWS-614	3.14.3 [M] The Contractor must protect UWSS EG assets including technology, components, and information from compromise by implementing countermeasures to mitigate risks posed by threats and vulnerabilities.	Mandatory
PWS-615	3.14.4 [M] The Contractor must apply the National Defence Security Orders and Directives (NDSOD) to the implementation of the asset protection.	Mandatory
PWS-616	3.14.5 [M] As part of the PMP, the contractor must develop a Security Plan in accordance with NDSODs to include Personnel security, gaining security clearances for new personnel, physical security of the facilities under Contractor Management, and electronic security of data, computers and networked resources under Contractor Management.	Mandatory
PWS-617	3.14.6 [M] The Contractor must protect assets using the guidelines specified in IT Security Risk Management: A Lifecycle Approach ITSG-33.	Mandatory
PWS-618	3.14.5 [M] The Contractor must establish a governance structure to provide effective and integrated security risk management.	Mandatory
PWS-619	3.14.6 [M] The Contractor must implement security as an integral component of all the Work.	Mandatory

ID		Requirement Type
PWS-620	3.14.7 [M] 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.	Mandatory
PWS-621	3.14.8 [M] The Contractor must institute and maintain procedures to ensure no counterfeit or non-compliant parts of assemblies of any kind are used.	Mandatory
PWS-622	3.15 Security Risk Management Activities	Heading
PWS-623	3.15.1 [M] The Contractor must implement a security risk management process.	Mandatory
PWS-624	3.15.2 [M] The Contractor must conduct the following security risk management activities:	Mandatory
PWS-625	a. Critical Program Information (CPI) Identification and Criticality Analysis;	Mandatory
PWS-626	b. Threat Analysis;	Mandatory
PWS-627	c. Vulnerability Assessment;	Mandatory
PWS-628	d. Risk Assessment; and	Mandatory
PWS-629	e. Countermeasure Implementation.	Mandatory
PWS-630	3.15.3 [M] 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.	Mandatory
PWS-631	3.15.4 [M] The contractor must develop a security risk mitigation plan showing how security risks for the UWSS EG will be mitigated and what countermeasures were taken to achieve the level of mitigation obtained.	Mandatory
PWS-632	3.15.5 [M] The Contractor must provide the security risk assessment in accordance with DID-PMP-011.	Mandatory
PWS-633	3.16 Security Incidents	Heading
PWS-634	3.16.1 [M] The Contractor must report all security incidents of loss, compromise, or theft of proprietary information or trade secrets involving Critical Program Information.	Mandatory
PWS-635	3.16.2 [M] 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.	Mandatory
PWS-636	3.16.3 [M] The Contractor must conduct a post-incident analysis.	Mandatory
PWS-	3.16.4 [M] The Contractor must report these security incidents immediately.	Mandatory

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637		
PWS-638	3.17 Quality and Assurance Management Plan	Heading
PWS-639	3.17.1 [I] The Contractor's Quality and Assurance Management Plan provides Canada with an understanding of the Contractor's quality assurance program and how it is applied to ensure that an effective quality program is executed during the performance of the contract.	Information
PWS-640	3.17.2 [M] The Contractor must develop, deliver and update the Quality and Assurance Management Plan and processes in accordance with DID-PMP-012.	Mandatory
PWS-641	3.17.3 [M] The Contractor must manage and execute the Work for the quality program in accordance with the accepted Quality and Assurance Management Plan.	Mandatory
PWS-642	3.18 General Safety	Heading
PWS-643	3.18.1 [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.	Information
PWS-644	3.18.2 [M] The Contractor must implement a general safety program conforming to the following references, when work is performed at government owned Facilities:	Mandatory
PWS-645	a. A-GG-040-004/AG-001 - General Safety Program, Hazardous Materials;	Mandatory
PWS-646	b. C-02-040-007/TS-001- General Safety Precautions;	Mandatory
PWS-647	c. C-02-040-009/AG-001- DND General Safety Standards;	Mandatory
PWS-648	d. Canada Labour Code, Part II;	Mandatory
PWS-649	e. Canadian Environmental Assessment Act;	Mandatory
PWS-650	f. Canadian Fisheries Act;	Mandatory
PWS-651	g. DAOD 5021-1 - Respiratory Protection; and	Mandatory
PWS-652	h. A-GG-040-001/AG-001 – General Safety Program, Volume 1, Policy and Program.	Mandatory
PWS-653	3.19 Government Property Management	Heading
PWS-654	3.19.1 [I] Canada will make available to the Contractor Government Property including Government Furnished Equipment (GFE), Government Supplied Material (GSM), Government Furnished Facilities (GFF), and Government Furnished Information (GFI) subject the terms and conditions of the Contract. The GFI, GSM and GFE available or required initially will be established at start-up and upon transition from	Information

ID		Requirement Type
	the UWSU acquisition project, and will be listed as prescribed for in DID-GFE-002 to this PWS. The Contractor may request additional GFE, GSM and GFI not listed in DID-GFE-002. Provision of additional GFE, GSM and GFI is subject to approval by the PA and the TA and will be subject to the terms and conditions of the Contract.	
PWS-655	3.19.2 [M] The Contractor must maintain a database of all Government property in its custody. The Contractor must add all GFE and GSM to the UWSU ISSC GSM/GFE Loan Agreement in accordance with DID-GFE-001 and must provide signed updates to the PA and DQA Loans whenever addition or deletion changes are made.	Mandatory
PWS-656	3.19.3 [M] The Contractor must initiate and complete a one hundred per cent (100%) manual stocktaking of all DND loaned materiel contained within the Contract Loan Account (CLA), and SPTATE at least once every two (2) years in accordance with A-LM-007-100/AG-001 and/or A-LM-184-001/JS-001.	Mandatory
PWS-657	3.19.4 [M] The Contractor must assist Canada in conducting physical audits of all Government property provided by Canada to the Contractor, upon Canada providing a notice of at least five (5) working days.	Mandatory
PWS-658	3.20 Maintenance of Support Agreements	Heading
PWS-659	3.20.1 [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.	Information
PWS-660	3.20.2 [M] The Contractor must obtain and manage any Technical Assistance Agreements, accreditations, and manufacturing license agreements required.	Mandatory
PWS-661	3.20.3 [M] 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 the Contractor must ensure that applicable documents are valid for the duration of the Contract.	Mandatory
PWS-662	3.21 Significant Incident Reporting	Heading
PWS-663	3.21.1 [M] The Contractor must advise Canada by Notice of Significant Incidents including, as a minimum, significant technical, supply or quality problems, anticipation of a significant schedule slippage or an accident involving the Work. The Notice must include a brief description of the incident and its impact, potential work-arounds and any other additional significant information.	Mandatory
PWS-664	3.21.2 [M] The Contractor must prepare and submit Significant Incident /Problem Reports in accordance with DID-PMP-013.	Mandatory
PWS-665	3.22 Verification	Heading
PWS-666	3.22.1 [I] Canada may conduct verification activities to ensure that the Contractor's Quality Plans and Processes are compliant and implemented as required under the contract. The verification activities may include but not be limited to witnessing or observing key quality conformance inspections, tests and trials, audits, or witnessing	Information

ID				Requirement Type
	of Contractor internal quality audits.			
PWS-667	3.23 Non-Conforming Product			Heading
PWS-668	3.23.1 [I] DND will return any product or material found to be defective or non-conforming to the Contractor.			Information
PWS-669	3.23.2 [M] The Contractor must provide in return to Canada a compliant product within the timeframe specified in the terms and conditions of the contract that the Defective or non-conforming product was procured.			Mandatory
PWS-1745	3.23.3 [M] The contractor must conduct a failure mode analysis for all non-conforming or defective components and provide a report to Canada that determines the causes, factors that lead to the failure and any recommended remedial actions required.			Mandatory
PWS-670	3.24 Non-Conforming Service			Heading
PWS-671	3.24.1 [I] DND will inform the Contractor of any Contractor service, or sub-contractor service, found to be defective or non-conforming.			Information
PWS-672	3.24.2 [M] The Contractor must make-good on any deficiencies within the timeframe specified in the terms and conditions of the contract that the non-conforming service was contracted.			Mandatory
PWS-673	3.25 UWSU Operational Capability Assessment			Heading
PWS-674	3.25.1 [I] Operational capability assessment is required to assess the capability state of the UWSS EG on each <i>Halifax</i> -class frigate based on its current materiel state in accordance with the agreed capability requirements.			Information
PWS-675	3.25.2 [I] Table 3 outlines the expected division of responsibilities for activities related to UWSU operational capability assessment.			Information
PWS-676	Table 3 – Responsibility Matrix – UWSU Operational Capability Assessment Responsibilities			Information
PWS-679	Management Component	Canada Responsibilities	Contractor Responsibilities	
	Capability Assessment Process	Approve Capability Assessment Process Integrate with <i>Halifax</i> -class Capability Assessment Processes	Propose Capability Assessment Mechanisms and Processes	
	Materiel States and Capability Assessments	Confirm Materiel State Confirm Capability	Determine Current Materiel State Assess Current Capability	
	Capability Forecasts	Provide Forecasting Parameters Confirm Forecast Materiel	Determine Current Materiel State Forecast Future Materiel	

ID				Requirement Type
		State Confirm Forecast Capability	State Forecast Future Capability	
PWS-694	3.25.3 [I] Materiel states for a given ship will be determined and capabilities must be assessed using the mechanisms and assessment processes proposed by the Contractor and approved by DND.			Information
PWS-695	3.25.4 [M] The Contractor must determine the current materiel state of the UWSS systems and related capability assessment for a given ship, when requested by DND.			Mandatory
PWS-696	3.25.5 [I] DND will review and approve the materiel states, capability assessments, and processes to be used for the UWSS EG, using inputs from the Contractor and RCN operational staff to ensure operational capability is met. DND will also integrate UWSS EG processes within overall <i>Halifax</i> -class capability assessment processes and will reconcile any issues using inputs from the Contractor and RCN operational staff.			Information
PWS-697	3.25.6 [I] Based on a given set of operational parameters and current materiel state, mechanisms will be established to forecast future capability.			Information
PWS-698	3.25.7 [M] The Contractor must conduct analysis of current and forecasted materiel states and DND will confirm the resulting forecasts of future materiel states and related future capability.			Mandatory
PWS-699	3.26 UWSU Equipment Breakdown Structure			Heading
PWS-700	3.26.1 [M] The Contractor must provide an equipment breakdown structure list, as developed and delivered under the UWSU Acquisition contract, in accordance with DID-EBL-001 and must deliver, update and maintain this list in order to maintain an accurate representation of the current fitted configuration of the UWSS EG.			Mandatory
PWS-701	3.26.2 [I] The equipment breakdown structure list will be used for updating DRMIS FLOC and Equipment breakdown structures, LCMM tracking lists, Maintainers listings, spares inventory reviews and as needed.			Information
PWS-702	4 Technical Schedule Management			Heading
PWS-703	4.1 General			Heading
PWS-704	4.1.1 [I] The UWSU Technical Schedule Management (TSM) aligns the Service Delivery Production requirements, such as the maintenance and work period requirements, with ship availability. It includes the collaboration between the RCN coastal Formations' materiel support program and the operational program of the RCN, supported by inputs from the UWSU System Authority and Contractor.			Information
PWS-705	4.1.2 [O] The Contractor must manage the UWSU ISSC within the operational program of the RCN and particularly within the DWPs and SWPs planned for <i>Halifax</i> -class frigates.			Mandatory
PWS-706	4.1.3 [I] Technical Schedule Management functions will be delivered primarily by the Contractor, as Management Function tasks.			Information

ID				Requirement Type
PWS-707	4.1.4 [I] Table 4 outlines the expected division of responsibilities for activities related to UWSU ISS technical schedule management.			Information
PWS-708	Table 4 – Responsibility Matrix – Technical Schedule Management Responsibilities			Information
PWS-711	Management Component	Canada Responsibilities	Contractor Responsibilities	
	Operational Schedules	Define ship availability for maintenance	Plan work within ship availability Identify schedule issues	
	Maintenance Work Period Schedules	Establish schedules for SWPs and DWPs	Provide input on content and timings of SWPs and DWPs Execute work within approved SWPs and DWPs	
	Unforeseen and Immediate Requirements	Identify and Prioritize ISS Requirements	Provide input to schedule unforeseen and immediate requirements Develop Plans Execute Work per Approved Plans	
PWS-726	4.1.5 [I] DND will forecast the operational schedules and related maintenance/work periods (SWPs and DWPs) for ships and share this information with the Contractor. The Contractor will plan and execute work within ship availability windows and identify any scheduling issues.			Information
PWS-727	4.1.6 [I] DND will identify and prioritize unforeseen work requirements. The Contractor must provide inputs and agree to develop plans to address these requirements. The Contractor must execute this work in accordance with approved plans.			Information
PWS-728	4.1.7 [M] The Contractor must provide TSM services for the UWSS EG to:			Mandatory
PWS-729	a. conduct planning, review and reporting activities related Programmed Work periods, Docking Work periods, Ship alongside and for Ship at sea;			Mandatory
PWS-730	b. assist in the planning and scheduling of Programmed Work Periods (PWP) including; Short Work Periods (SWP), Docking Work Periods (DWP) and Extended Docking Work Periods (EDWP) and Engineering Change Work Periods (ECWPs).;			Mandatory
PWS-731	c. review PWP work packages and schedules to ensure they are complete;			Mandatory
PWS-732	d. identify and implement early resolution to work package omissions, scheduling issues and conflicts;			Mandatory
PWS-733	e. review all scheduled work to be performed to ensure that all resources, components and material support required will be available at the start of the			Mandatory

ID		Requirement Type
	execution of the work package; and	
PWS-734	f. prepare contingency plans and incorporate schedule changes to accommodate unforeseen or immediate requirements.	Mandatory
PWS-735	4.1.8 [M] The Contractor must remain flexible to changes in vessel availability for ISS activities which in turn may affect the work of the Contractor and its Sub-contractors.	Mandatory
PWS-736	4.1.9 [M] The Contractor must manage, assess and update plans and schedules for all unforeseen and all unplanned, unscheduled and urgent operational requirements and assess and their potential impacts to AOP, SDAOP, PMP, and NMA certification.	Mandatory
PWS-737	4.2 Technical Schedule Management Planning, Review and Reporting	Heading
PWS-738	4.2.1 [M] The Contractor must provide TSM support in accordance with the accepted PMP.	Mandatory
PWS-739	4.2.2 [M] The Contractor must make available to Canada upon request, all associated plans, processes, procedures, instructions and data supporting the TSM;	Mandatory
PWS-740	4.2.3 [M] The Contractor must review TSM Support activities as part of the UWSU Performance Assessment Framework (PAF).	Mandatory
PWS-741	4.2.4 [M] The Contractor must report on TSM support activities as part of the monthly Combined Service Progress Report (CSPR) in accordance with DID-PMP-010.	Mandatory
PWS-742	4.3 Programmed Work Periods	Heading
PWS-743	4.3.1 [M] The Contractor must coordinate and cooperate with the Formations, the Fleet Maintenance Facilities and the SS to ensure that:	Mandatory
PWS-744	a. work can be completed by FMFs and Contractors in order of priority and as scheduled in the work package;	Mandatory
PWS-745	b. FMF and Contractor work is planned and sequenced to maximize productivity during alongside maintenance periods; and	Mandatory
PWS-746	c. records are updated, including the associated maintenance records and technical documentation to reflect the new material state of each <i>Halifax</i> -class frigate upon completion of the work.	Mandatory
PWS-747	4.3.2 [I] The FMFs submit a Business Plan (BP) to their respective Formations on or about 1 September for the next Fiscal Year. The BP identifies all alongside opportunities to conduct repairs and allocates resources to platforms or projects throughout the FY. The BP is updated in March. FMF Operation Managers manage the BP process, supported by inputs from FMF Project Leaders (PLs).	Information
PWS-748	4.3.3 [I] FMF PLs are responsible for managing delivery of services to the Fleet. FMF PLs provide project management for SWPs, DWPs, EDWPs and PWP and coordinate resource support for their assigned ships.	Information
PWS-749	4.3.4 [I] During the work period, the PL develops a ship Work Period Schedule (WPS), a work package, manages the work requirements, de-conflicts work, adjusts for arisings, incorporates new requirements, and reports progress. If work conflicts occur that cannot be resolved by FMF Operations, DND MARLANT/MARPAC N37 will be	Information

ID		Requirement Type
	engaged.	
PWS-750	4.3.5 [M] The Contractor must prepare the work program for each PWP in accordance with the AOP, in direct liaison with both the work period contractor and the FMF PL and in line with RCN operational requirements through a structured process and must liaise directly with them on matters for planning, executing, and close-out of UWSU work.	Mandatory
PWS-751	4.3.6 [M] The Contractor must inform Formations, via the FMF PL, of significant ISSC work, such as EC or production activity that requires the ships to be alongside for long periods, being planned over the next three years so it may be incorporated into the OPSKED and MSP. Wherever possible, significant ISSC work is to be scheduled into the PWP and EDWP programs to reduce impact on the RCN operational program.	Mandatory
PWS-752	4.3.7 [M] The Contractor must inform Formations, via the FMF PL, of ISSC work that will require FMF resources so that the requirement can be assessed and incorporated into the WPS. The assignment of FMF resources to support the Contractor's work will be based upon N37 priorities, and availability of FMF resources to support the work.	Mandatory
PWS-753	4.3.8 [M] During work period execution, to ensure the successful execution and timely completion of all ship work, the Contractor must:	Mandatory
PWS-754	a. report progress to the PL and PWP Contractor;	Mandatory
PWS-755	b. notify the PL and PWP Contractor if changes to the WPS may be required;	Mandatory
PWS-756	c. advise the PL and PWP Contractor of any conflicts with tasks being conducted by FMF or SS; and	Mandatory
PWS-757	d. attend ship work period planning and coordination meetings.	Mandatory
PWS-758	4.4 Docking Work Periods	Heading
PWS-759	4.4.1 [I] The CPM uses two work period contracts (WPC)s, one for each coast, to execute cyclical DWPs for each <i>Halifax</i> -class frigate. DWPs will be conducted at the shipyard specified by the WPC Contractors.	Information
PWS-760	4.4.2 [I] Under the WPCs, DND will chair a CI-IPT Working Group. The UWSU Contractor will be a member of the CI-IPT.	Information
PWS-761	4.4.3 [I] For each <i>Halifax</i> -class frigate, WPC Services will cover:	Information
PWS-762	a. planning and co-ordinating the work within ship availability;	Information
PWS-763	b. co-ordinating ship access and addressing safety routines;	Information
PWS-764	c. preparation of a ship-level Project Management Plan for each DWP; and	Information
PWS-	d. conducting WPC Docking Services between DND and Shipyard to transfer	Information

ID		Requirement Type
765	custody of each ship in a safe and efficient manner.	
PWS-766	4.4.4 [M] The Contractor must prepare a forecast of their work requirements for each DWP, to be submitted at the CI-IPT, along with any special safety or logistical requirements such as power, storage, and security.	Mandatory
PWS-767	4.4.5 [M] The Contractor must confirm to the WPC west coast and east coast contractors the approval of their work package no later than 30 days in advance of the start of the DWP.	Mandatory
PWS-768	4.5 Ship Alongside or At-Sea Availability	Heading
PWS-769	4.5.1 [I] The OPSKED will provide periods when the vessel is alongside the jetty and under a normal manned routine where UWSU work could be conducted. The vessel may also have periods at sea where UWSU work could be conducted.	Information
PWS-770	4.5.2 [M] The Contractor must coordinate with the designated RCN Formation Officer and have the approval of the SS and the DND TA prior to conducting work outside of a designated maintenance period. SS will decide if such work can be conducted as to prevent interfering with the ship's programme.	Mandatory
PWS-771	4.5.3 [I] During available periods, normal access is from 0745 to 1545, Monday through Friday as per SS regular working hours or as alternatively arranged by the Contractor with SS.	Information
PWS-772	4.5.4 [M] The contractor must coordinate with the FMF PL for any FMF resources that may be required to support UWSU work during ship alongside or at-sea work periods.	Mandatory
PWS-773	5 UWSU In-Service Support Service Delivery	Heading
PWS-774	5.1 General	Heading
PWS-775	5.1.1 [I] UWSU ISS Service Delivery includes a variety of support services and the enabling resources that provides specific service outcomes and outputs related to the direct support to UWSS EG including:	Information
PWS-776	a. Engineering Services;	Information
PWS-777	b. Production Maintenance Services;	Information
PWS-778	c. Material Management Services; and	Information
PWS-779	d. Material Repair and Overhaul.	Information
PWS-780	5.1.2 [I] Service delivery may occur during third line work periods, second line work periods, running repair during harbour availability or while deployed.	Information
PWS-781	5.1.3 [I] The goals of UWSU ISS Service Delivery are to:	Information

ID				Requirement Type
PWS-782	a. Deliver goods and services to the ship on schedule, within budget and to the specified level of quality. This Includes engineering design, development/procurement, installation, set-to-work and service delivery project management.			Information
PWS-783	b. Conduct 2nd and 3rd line preventative maintenance on the UWSS EG as defined in the DI; and			Information
PWS-784	c. Manage and conduct all corrective maintenance and repair in order to return the UWSS EG systems to specified serviceability levels in accordance with the DI.			Information
PWS-785	5.1.4 [M] In support of the UWSU ISS Service Delivery, the Contractor must:			Mandatory
PWS-786	a. Integrate and manage all Service Delivery activities in response to customer demands;			Mandatory
PWS-787	b. Provide appropriate planning data to support Technical Schedule Management; and			Mandatory
PWS-788	c. Provide the services necessary to meet the ships operational and material readiness requirements and as stated in CFCD 129.			Mandatory
PWS-789	5.2 Engineering Support Services			Heading
PWS-790	5.2.1 [I] Engineering Services include, but are not limited to, trouble shooting, specification development, engineering analysis and design, technical risk assessments, Business Case Analysis, technical advice and engineering support to installations, tests and trials.			Information
PWS-791	5.2.2 [I] UWSU engineering support services will be delivered primarily by the Contractor, as emergent tasks, recognizing that they will also use the engineering expertise and foreground knowledge of the UWSU suppliers and sub-contractors to deliver the required engineering support services.			Information
PWS-792	5.2.3 [I] DND's role in engineering includes an oversight role, and the linking of the Contractor engineering support with DND internal engineering and life cycle management processes.			Information
PWS-793	5.2.4 [I] These engineering support services apply to both the hardware and software forming the UWSS Equipment Group.			Information
PWS-794	5.2.5 [I] Table 5 presents the division of responsibility for Engineering Support Services.			Information
PWS-795	Table 5 Responsibility Matrix - Engineering Support Services			Information
PWS-798	Service Component	Canada Responsibilities	Contractor Responsibilities	
	System Engineering Processes	System Engineering Process Oversight	System Engineering Process Execution	
	Engineering Investigation and Studies	Request Advice	Provide Engineering Advice	
		Direct Investigations or	Recommend/Conduct	

ID				Requirement Type
		Studies Review/Approve Reports and Recommendations	Engineering Investigations or Studies	
	Engineering Change (EC) Development	Review EC development	Execute EC Process Develop, Produce, Install and Test ECs Support DND EC Installs	
	Installation of ECs & Upgrades	Install Minor ECs and Upgrades	Plan/execute approved EC and Upgrade (Hardware and Software) Installs	
	Value Engineering	Review Value Engineering Proposals Approve Recommendations	Define and Implement Value Engineering Processes Recommend Value Engineering changes	
	Engineering Tests and Trials	Define Test and Trial Program Conduct DND Tests and Trials	Develop DND Tests and Trial Documentation Support Conduct of DND Tests and Trials Perform Assessments Provide Recommendations	
PWS-825	5.2.6 [I] The UWSS EG and its support will be managed using system engineering processes and techniques. DND will provide System Engineering oversight of UWSU Contractor practices and results.			Information
PWS-826	5.2.7 [M] The Contractor must manage interface/integration between the UWSS EG and the overall Ship Design including interfacing ship systems. The Contractor will provide system engineering support for both hardware and software elements.			Mandatory
PWS-827	5.2.8 [I] DND will require engineering advice from the UWSU Contractor or its sub-contractors. DND will request advice and require engineering investigations and studies to be conducted by the Contractor; and will review/approve the results of such actions.			Information
PWS-828	5.2.9 [M] The Contractor must provide technical advice to DND through a Technical Investigation and Engineering Support (TIES) tasking and/or Special Investigation & Technical Studies (SITS) and may be requested to assist DND technical investigations.			Mandatory
PWS-	5.2.10 [M] The Contractor must report on Engineering Support activities as part of the			Mandatory

ID		Requirement Type
829	monthly CSPR in accordance with DID-PMP-010.	
PWS-830	5.2.11 Engineering Changes (EC)s	Heading
PWS-831	5.2.11.1 [I] Engineering Changes are required to maintain existing UWSU system capabilities and to implement new capabilities. DND will review Engineering Changes (EC) development using design review processes for ECs. DND may also generate new UWSS EG EC proposals for review.	Information
PWS-832	5.2.11.2 [M] Any Engineering Changes to an UWSU Configuration Item proposed by the Contractor must be provided via Engineering Change Proposal (ECP) in accordance with DID-ECM-001 to DND for review and approval, with recommendations and supporting data.	Mandatory
PWS-833	5.2.11.3 [M] The Contractor must ensure that the configuration of UWSU is controlled, and that changes to the configuration are made through an Engineering Change (EC) process.	Mandatory
PWS-834	5.2.11.4 [M] For any UWSU System ECs that affect either ship board or shore based installations, the UWSU Contractor must develop ship level EC packages that comply with DGMEPM EC processes and will plan and execute their installation and testing and verification.	Mandatory
PWS-835	5.2.11.5 [M] The Contractor must provide engineering support of EC installations conducted by the DND.	Mandatory
PWS-836	5.2.11.6 [I] The embodiment of EC to UWSS EG (and other activities) will require engineering tests and trials to be planned and conducted. DND will define and conduct required tests and trials.	Information
PWS-837	5.2.11.7 [M] The Contractor must develop DND tests and trial documentation, as requested and must support the conduct of DND tests and trials, perform engineering assessments of the data, and provide recommendations.	Mandatory
PWS-838	5.2.11.8 [M] The Contractor must establish and update all necessary material management and training support materials impacted by the EC.	Mandatory
PWS-839	5.2.11.9 [I] The installation of the UWSS EG in both shore facilities and on board <i>Halifax</i> -class frigates will be conducted via approved Engineering Change as emergent work tasks raised on the contractors AOP.	Information
PWS-840	5.2.12 Engineering Change Management	Heading
PWS-841	5.2.12.1 [O] The Contractor must conduct the EC development, installation and verification work accurately, timely, and cost effectively in accordance with planned engineering support as identified in the AOP.	Mandatory
PWS-842	5.2.12.2 [O] The Contractor must collaborate with the System Engineer, Design Authority, System Authority, OEM, EC Installing Agent, Design Agent and other stakeholders such that there is minimal intervention required by DND.	Mandatory
PWS-843	5.2.12.3 [I] Engineering Change Management will be delivered primarily by the Contractor, as a Management Function task.	Information

ID		Requirement Type
PWS-844	5.2.12.4 [M] The contractor must:	Mandatory
PWS-845	a. generate as part of his EC Process, an Engineering Change Management Plan (ECMP);	Mandatory
PWS-846	b. manage and perform the EC work in accordance with the accepted ECMP; and	Mandatory
PWS-847	c. develop, deliver, and update an ECMP in accordance with DID-ECM-002.	Mandatory
PWS-848	5.2.12.5 [M] The Contractor must plan and conduct ship-level EC development design reviews with participation by Canada.	Mandatory
PWS-849	5.2.12.6 [M] The Contractor must analyze DND-generated changes and provide feedback with supporting data to DND for review.	Mandatory
PWS-850	5.2.12.7 [M] The Contractor must raise all approved UWSS EG ECs as emergent work on the AOP and then implement the ECs approved by Canada as scheduled.	Mandatory
PWS-851	5.2.12.8 [M] The Contractor must write ship-level EC specifications in accordance with DID-ECM-003.	Mandatory
PWS-852	5.2.12.9 [M] The Contractor must ensure that ECs are compliant with the UWSS EG DI and the DI and verify that adequate DI margins are available and reserved.	Mandatory
PWS-853	5.2.12.10 [M] The contractor must create and manage an EC Register for the UWSS EG and must provide access to DND as necessary.	Mandatory
PWS-854	5.2.13 Engineering Change Implementations	Heading
PWS-855	5.2.13.1 [M] The Contractor must develop the EC implementation schedule with all stakeholders.	Mandatory
PWS-856	5.2.13.2 [O] In order to deliver the EC within the required implementation schedule, the Contractor must:	Mandatory
PWS-857	a. co-ordinate and deliver all materiel required for the EC at the installation site;	Mandatory
PWS-858	b. provide all the resources, engineering support and quality assurance required for the installation of the EC;	Mandatory
PWS-859	c. conduct, co-ordinate and support the verification of the implemented EC; and	Mandatory
PWS-860	d. generate an ECMP to complete the EC installation on schedule and as planned.	Mandatory
PWS-861	5.2.13.3 [M] The Contractor must manage deviations and waivers that were raised during the EC implementation.	Mandatory
PWS-862	5.2.13.4 [M] To ensure successful implementation of ECs, the Contractor must:	Mandatory
PWS-863	a. verify that the scheduled opportunity for installation is made available and reserved;	Mandatory
PWS-	b. verify that ECs are integrated into the total integrated Underwater Sensor	Mandatory

ID		Requirement Type
864	System(UWSS) using systems engineering best practices;	
PWS-865	c. confirm that adequate ship margins are available and reserved; and	Mandatory
PWS-866	d. confirm that adequate materials, HR resources and funding are available and reserved.	Mandatory
PWS-867	5.2.13.5 [M] Upon EC installation completion, the Contractor must complete a standard EC Certificate of Compliance and must certify that the EC has been implemented as specified in the EC specification and has met all requirements.	Mandatory
PWS-868	5.2.13.6 [I] Engineering services will be required to <u>install ECs and upgrades</u> . SS & FMF may perform minor EC and upgrade installations (e.g., installing a software patch); and may assist the Contractor in completion of more complex installations.	Information
PWS-869	5.2.13.7 [M] The Contractor must complete onboard installation of approved ECs and upgrades to both hardware and software, primarily during SWPs and DWPs, as scheduled in his AOP.	Mandatory
PWS-870	5.2.14 Engineering Investigations and Studies	Heading
PWS-871	5.2.14.1 [I] A range of in-service support engineering investigations and studies will be required. DND will require engineering advice from the Contractor, or via the contractor to its sub-contractors and the UWSS EG OEMs.	Information
PWS-872	5.2.14.2 [M] As and when requested, the Contractor must conduct TIES and make recommendations and reports using the EWR procedures.	Mandatory
PWS-873	5.2.14.3 [M] As and when requested, the Contractor must conduct SITS and make recommendations and reports using EWR procedures.	Mandatory
PWS-874	5.2.14.4 [M] As and when requested, the Contractor must provide technical advice and supporting technical data using EWR procedures.	Mandatory
PWS-875	5.2.15 Engineering Trials	Heading
PWS-876	5.2.15.1 [O] The Contractor must prove the UWSS EG system performance functionality via an integrated tests and trials plan.	Mandatory
PWS-877	5.2.15.2 [M] The Contractor must:	Mandatory
PWS-878	a. develop DND Integrated Test and Trial Plans and Procedures in accordance with the accepted SEMP;	Mandatory
PWS-879	b. support the conduct of DND trials;	Mandatory
PWS-880	c. perform engineering assessments of trial data; and	Mandatory
PWS-881	d. provide recommendations.	Mandatory
PWS-882	5.2.15.3 [I] DND will define trials requirements and will conduct trials as necessary.	Information

ID				Requirement Type
PWS-883	5.2.16 Value Engineering Services			Heading
PWS-884	5.2.16.1 [I] Supportability engineering is to be applied to address sustainability and availability issues and to introduce support changes related to approved ECs. DND will be the approving authority for Contractor supportability reports and recommendations.			Information
PWS-885	5.2.16.2 [M] The Contractor must apply value engineering practices to improve the UWSU support system throughout the in-service life of the UWSS, and recommend value engineering improvements.			Mandatory
PWS-886	5.2.16.3 [M] The Contractor must recommend ECs and/or EWRs to implement approved Value Engineering recommendations.			Mandatory
PWS-887	5.2.16.4 [M] The Contractor must share UWSS EG lessons learned and improvements with the other <i>Halifax</i> -class Contractors and Canada to enable future work to be conducted in a more efficient manner.			Mandatory
PWS-888	5.3 Production Maintenance Services			Heading
PWS-889	5.3.1 [I] Production Maintenance Services include the conduct of preventive and corrective maintenance, capability insertion, set-to-work, tests and trials.			Information
PWS-890	5.3.2 [I] UWSU ISS production maintenance services will be delivered primarily by the contractor as emergent tasks via EWR or DND 626 or raised as Core tasks on the AOP.			Information
PWS-891	5.3.3 [I] UWSU production maintenance services will be delivered using three lines of maintenance support organizations within DND and the UWSU Contractor providing three levels of maintenance services. The division of production services responsibilities between DND (including <i>Halifax</i> -class frigates) and the UWSU Contractor are summarized within Table 6 and is described further within this section.			Information
PWS-892	Table 6 Responsibility Matrix - Production Services - Maintenance			Information
PWS-895	Service Component	Canada Responsibilities	Contractor Responsibilities	
	Level One Maintenance	SS to conduct Level One maintenance	Support to SS as requested	
	Level Two Maintenance	FMFs to conduct assigned tasks Level Two Maintenance Assist ISS Contractor as requested.	Conduct assigned tasks Level Two Maintenance Conduct assigned tasks Assist FMF as requested	
	Level Three Maintenance	FMFs to conduct assigned existing Level Three Maintenance tasks on	Level Three repairs by Contractor to include:	

ID				Requirement Type
		<p>legacy equipment.</p> <p>Assist ISS Contractor as requested.</p> <p>FMFs as tasked by the EMT and as requested in assistance to the Contractor, conduct only specifically assigned Lvl 3 PM, CM and R&O Repairs activities on UWSS EG items</p>	<p>- All UWSS EG equipment. - Legacy equipment on an Emergent task request basis.</p> <p>All R&O Activities for UWSS EG.</p> <p>Any other level 3 maintenance activities on an EWR Basis.</p>	
	Additional Maintenance Support - Deployed Ship	FMFs Conduct In-Theatre Repair	Provide support as requested: In-Theatre Repair Mobile Repair Party FSR Support	
	Additional Maintenance Support - Home Ports	Provide as requested support	Provide as requested: Mobile Repair Party FSR Support On-Site Inspections and Surveys	
	Maintenance & Calibration of SPTATE	Report Maintenance and Calibration Requirements	Calibrate and Repair SPTATE	
PWS-922	5.3.4 [I] Maintenance will be conducted per approved Canadian Forces Technical Orders (CFTOs) and OEM approved manuals/bulletins passed through the Contractor.			Information
PWS-923	5.3.5 [I] All maintenance activities with periodicity of six (6) monthly or less are to be deemed SS responsibility unless operation of SPTATE, system access requirements or necessary skill level requirements prevent them from completing the Planned Maintenance (PM) procedure.			Information
PWS-924	5.3.6 [M] The Contractor must conduct a planned maintenance requirements review with DND to determine:			Mandatory
PWS-925	a. all of the planned maintenance activities that will be required by the UWSS EG;			Mandatory
PWS-926	b. which PM activities are to be conducted by SS;			Mandatory
PWS-927	c. which PM activities with periodicity greater than 6 monthly can be completed by SS with contractor or FMF assist;			Mandatory
PWS-928	d. which PM activities are to be conducted by FMFs or by FMFs with contractor assist; and			Mandatory

ID		Requirement Type
PWS-929	e. which PM activities are to be conducted exclusively by the contractor. PM items such as proprietary administrative software maintenance may be only doable by the contractor with SS support.	Mandatory
PWS-930	5.3.7 [M] The Contractor must plan all Contractor required planned maintenance activities as core work in its AOP. The Contractor must conduct all Contractor required work as scheduled and in conjunction with the ship or shore facility availability.	Mandatory
PWS-931	5.3.8 [M] The contractor must assist in the production, review and promulgation of maintenance program schedules, tasks and tasks lists for use by DND staff in the performance of their assigned maintenance responsibilities as provided and contained in applicable publications and documents.	Mandatory
PWS-932	5.3.9 [M] The Contractor must ensure that Production Services-Maintenance are performed in accordance with the NMR regulations as defined in CFTO C- 23-005-000/AG-001 Naval Materiel Regulation for Surface Ships.	Mandatory
PWS-1749	5.3.9.1 [M] The Contractor must conduct on-site inspections and surveys as requested.	Mandatory
PWS-933	5.3.10 [M] Since the Contractor's access to Dockyards and Shipyards is subject to Standing Operating Orders governing Dockyard and Shipyard access and activities, the Contractor must contact designated POCs to arrange clearance for personnel not already pre-cleared when these additional services are requested.	Mandatory
PWS-934	5.3.11 Maintenance Support Levels	Heading
PWS-935	5.3.11.1 [I] <u>Level One Maintenance Support</u> includes less complex maintenance routines that are performed to sustain the installed UWSU onboard ships. First level preventive & corrective maintenance will normally be conducted by RCN Ship Staff depending on their capabilities and capacity. DND's Second Line maintenance facilities (FMFs) may assist ship staff in completion of Level One tasks.	Information
PWS-936	5.3.11.2 [M] The Contractor must have the capability and capacity to provide First level assistance if necessary and to conduct on-site inspections and surveys as requested.	Mandatory
PWS-937	5.3.11.3 [I] <u>Level Two Maintenance Support</u> includes more complex maintenance activities performed on the installed UWSU and on removed assemblies. Second Level Preventive and Corrective Maintenance activities will be conducted by the RCN FMFs, with assistance from the Contractor if requested (mostly outboard equipment), or by the Contractor with assistance from FMF if requested (mostly inboard). Such support will primarily be provided during ship maintenance/work periods on site in home ports.	Information
PWS-938	5.3.11.4 [M] The Contractor must have the capability and capacity to provide Second Level Preventive and Corrective Maintenance assistance and activities if requested.	Mandatory
PWS-939	5.3.11.5 [I] <u>Level Three Maintenance Support</u> represents all in depth maintenance support services for the installed UWSS Equipment Group, assemblies and sub-	Information

ID		Requirement Type
	components.	
PWS-940	5.3.11.6 [M] The Contractor must manage and conduct all level 3 PM and CM and all Repair and Overhaul activities on all UWSU Installed Equipment.	Mandatory
PWS-941	5.3.11.7 [M] The Contractor must manage and conduct all level 3 PM and CM and all Repair and Overhaul activities on all shore based UWSU installations.	Mandatory
PWS-1684	5.3.11.8 [I] The FMF will conduct and manage Level Three Preventive and Corrective Maintenance and all Repair and Overhaul activities on all pre-existing legacy equipment's and systems and the Contractor, via EWR process, may be tasked to assist the FMF in completion of these maintenance activities. The FMFs may be requested to assist the Contractor in completion of UWSS EG Level Three maintenance activities.	Information
PWS-942	5.3.11.9 [M] The Contractor must have the capability and capacity to provide Level Three Preventive and Corrective Maintenance assistance and activities if requested via EWR process.	Mandatory
PWS-943	5.3.12 Additional Maintenance Support	Heading
PWS-944	5.3.12.1 [I] Deployed Ships, on occasion, may require additional maintenance support usually while alongside in another port worldwide. FMFs may provide in-theatre repair support, as directed by DND. The Contractor may be required to provide in-theatre repair support under low threat conditions, including the support of ship maintenance periods while deployed.	Information
PWS-945	5.3.12.2 [M] The Contractor must provide Mobile Repair Party; and FSR Support to ships and FMF in home ports or to deployed ships as requested. Since MRP and FSR requirements are normally required urgently, it is up to the Contractor to hold valid VCRs for any and all contractor staff required to visit any Canadian ports of call at all times.	Mandatory
PWS-946	5.3.12.3 [M] The Contractor must provide Surge maintenance and Overtime maintenance services on an as requested basis to meet operational requirements and priority RCN Schedule changes.	Mandatory
PWS-947	5.3.12.4 [M] The Contractor must provide material support to In-theatre and Deployed frigates in order to meet operational requirements and high priority demands for materials.	Mandatory
PWS-948	5.3.13 Special Purpose Tools & Test Equipment	Heading
PWS-949	5.3.13.1 [I] SPTATE used to support the UWSS EG will require maintenance and calibration. DND is responsible to hold SPTATE required for their assigned tasks and to report any maintenance and calibration requirements to the Contractor. The Contractor must maintain and calibrate the SPTATE. This includes providing DND replacement SPTATE in the event an item is beyond economic repair.	Information
PWS-950	5.3.13.2 [M] The Contractor must:	Mandatory
PWS-	a. manage SPTATE inventory and store SPTATE not allocated to a Unit;	Mandatory

ID		Requirement Type
951		
PWS-952	b. maintain, calibrate, repair, modify and certify all SPTATE in accordance with the applicable specifications; and	Mandatory
PWS-953	c. ensure that the SPTATE required for unit maintenance activities is available when required.	Mandatory
PWS-954	5.3.13.3 [M] The Contractor must report lost or damaged SPTATE that is under Contractor control to the PA.	Mandatory
PWS-955	5.3.13.4 [M] The Contractor must maintain a calibration register to track the calibration status of all SPTATE.	Mandatory
PWS-956	5.3.13.5 [I] DND will procure and retain ownership of all general purpose STTE that is required to conduct DND assigned maintenance.	Information
PWS-957	5.3.14 Maintenance Planning, Reporting and Reviews	Heading
PWS-958	5.3.14.1 [M] The Contractor must develop, deliver, and update a Production Maintenance Plan in accordance with DID-PMS-001.	Mandatory
PWS-959	5.3.14.2 [M] The Contractor must provide Production Maintenance Services in accordance with the accepted Maintenance Plan.	Mandatory
PWS-960	5.3.14.3 [M] The Contractor must make available to Canada, upon request, all associated plans, processes, procedures, instructions and data supporting production maintenance services within the Maintenance Plan.	Mandatory
PWS-961	5.3.14.4 [M] The Contractor must report on Maintenance within the monthly CSPR in accordance with DID-PMP-010 .	Mandatory
PWS-962	5.3.14.5 [M] The Contractor must conduct Naval Maintenance Effectiveness Reviews as specified in NaMMS.	Mandatory
PWS-963	5.3.14.6 [M] The Contractor must record Maintenance activities in DND's system of record (DRMIS).	Mandatory
PWS-964	5.4 Materiel Management Services	Heading
PWS-965	5.4.1 [I] Material Management Services includes the delivery of spares to the Canadian Forces Supply System and DND units and facilities, 3 rd line Repair and Overhaul (R&O), EC Initial Provisioning, Equipment Delivery and Contractor held spares inventory.	Information
PWS-966	5.4.2 [I] Material Management Services will be delivered primarily by the Contractor, as a Management Function or as Core Work tasks raised on the approved AOP.	Information
PWS-967	5.4.3 [I] UWSU materiel management services will be delivered using organizations within DND including ship staff, school staff, and home port Base Logistics (BLOG) organizations. These organizations are complemented by the Contractor's supply chain.	Information
PWS-968	5.4.4 [O] The Contractor must conduct materiel management activities to include supply chain, materiel ownership, materiel warehousing, materiel movement and distribution, materiel repair and overhaul, and materiel disposal. The outcome is to	Mandatory

ID				Requirement Type
	have the material resource available to meet the corrective, preventative, and planned maintenance when required by ship staff, FMF, shipyards, and other stakeholders.			
PWS-969	5.4.5 [O] The Contractor must ensure that materiel management work is accurate, timely and cost effective to meet the availability requirements.			Mandatory
PWS-970	5.4.6 [I] The division of materiel management responsibilities are summarized within Table 7 and it is described further within this section.			Information
PWS-971	Table 7 - Responsibility Matrix - Materiel Management Services			Information
PWS-974	Service Component	Canada Responsibilities	Contractor Responsibilities	
	DND Supply Chain	Provide DND organic and direct supply support	Fill DND supply demands as requested and deliver materiel to BLOG Receive materiel from DND through BLOG	
	Materiel Ownership	Own materiel that is installed or consumed Hold ISS Contractor-Owned Materiel after receipt at handover points	Procure all Materiel required for the UWSU Own all Materiel Until Installed or Consumed	
	Materiel Warehousing	Warehouse In DND Supply (that Includes Ship Stores)	Warehouse In Canada and Worldwide As Required	
	Materiel Movement and Distribution	Move materiel from designated Handover Points to Point of Use and vice versa	Move Materiel within its established Supply Chain to/from DND Handover Points	
	Materiel Disposal	Dispose of Select Consumable Items Return Materiel to the ISS Contractor for Disposal	Dispose of identified items	
	EC & Upgrade of Inventory Items	Ensure DND-held Inventory is changed/upgraded	Change/Upgrade Inventory	
	Supply Input to Engineering	Report Supply Actions and Problems	Conduct Sparing Analysis for Inventory Management Report Obsolescence Issues Maintain Data and Problem Reports	
	Materiel Repair & Overhaul (R&O)	Return Repairable items to Handover Points	Establish an R&O Pipeline Provide Repaired Materiel	

ID		Requirement Type
PWS-1009	5.4.7 [I] DND will leverage its organic supply chain capability. DND requires organic and direct support for supply chain management using Contractor owned/DND held materiel. DND will return removed materiel to the Contractor. The UWSU supply chain response will be triggered by demands raised by DND in DRMIS.	Information
PWS-1010	5.4.8 [M] The Contractor must use the DRMIS when requested by DND to transact supply issues and receipts between DND BLOG, <i>Halifax</i> -class ships and other DND Units.	Mandatory
PWS-1011	5.4.9 [M] The Contractor must procure all materiel needed to support the UWSS Equipment Group. The Contractor retains ownership of all materiel until it is installed in or consumed by the UWSU.	Mandatory
PWS-1012	5.4.10 [M] The Contractor must deliver materiel to, and return materiel from designated handover points which will normally be the DND BLOG supply organizations - DND may designate a ship as a handover point. DND will be the custodian of Contractor-owned materiel after its delivery. Once installed or consumed materiel ownership transfers to DND.	Mandatory
PWS-1013	5.4.11 [M] The Contractor must delivery material to meet operational requirements and planned maintenance requirements.	Mandatory
PWS-1014	5.4.12 [I] DND will warehouse materiel provided by the Contractor onboard DND ships; at the school and at home port supply depots in Halifax and Esquimalt. DND will report supply actions and any associated problem reports to the Contractor. DND will inform the contractor when material is available for pick-up from the designated handover points.	Information
PWS-1746	5.4.12.1 [M] The contractor must ensure all transactions to and from DND facilities or units are entered into and recorded in DRMIS.	Mandatory
PWS-1015	5.4.13 [M] The contractor must pick up materials from designated handover points within seven (7) working days.	Mandatory
PWS-1016	5.4.14 [M] The Contractor must provide technical data information to support the codification and cataloguing of UWSS EG materials and assets within DRMIS and DND systems of record.	Mandatory
PWS-1017	5.4.15 [M] The Contractor must prepare the End User Certificates and distribute as per Defence Administrative Order and Directive (DAOD) 3003-0 and DAOD 3013-1.	Mandatory
PWS-1018	5.4.16 [M] The Contractor must transport spares and equipment to foreign countries, arrange customs clearances, provide proper packaging and labelling of equipment for international shipments, and the identification and security of the material.	Mandatory
PWS-1019	5.4.17 [M] The contractor must purchase tracking and applicable coverage insurance for all shipments to foreign countries.	Mandatory
PWS-1020	5.4.18 Material Disposal	Heading
PWS-1021	5.4.18.1 [I] DND may dispose of some consumable items (where cost-effective), but all remaining materiel will be returned to handover points for disposal by the Contractor.	Information
PWS-	5.4.18.2 [M] The Contractor must dispose of systems and materiel returned for	Mandatory

ID		Requirement Type
1022	disposal, including addressing any HAZMAT and Demilitarization requirements.	
PWS-1023	5.4.18.3 [M] The Contractor must dispose of any surplus and obsolete inventory in accordance with regulatory requirements.	Mandatory
PWS-1024	5.4.18.4 [M] The Contractor must contact the UWSU EMT for authorization to dispose of materials in accordance with form CF1303 and the applicable demilitarization instruction and must, notify the Government QAR to witness disposal and provide a certificate of destruction for those materials.	Mandatory
PWS-1025	5.4.18.5 [M] The Contractor must develop, deliver and update a Disposal Management Plan (DMP) in accordance with DID-PMS-003.	Mandatory
PWS-1026	5.4.18.6 [M] The Contractor must execute the Disposal Program in accordance with the accepted DMP.	Mandatory
PWS-1027	5.4.18.7 [I] DND will provide oversight on the Contractor disposal plans and activities and on their execution.	Information
PWS-1028	5.4.18.8 [M] The Contractor must adhere to government Hazardous Material (HAZMAT) and environmental regulations when disposing and divesting of both Contractor and Canada owned UWSS EG systems, parts and consumables.	Mandatory
PWS-1029	5.4.18.9 [M] The Contractor must de-militarize materiel in accordance with Controlled Goods Program (CGP)/ITAR when disposing and divesting of both Contractor and Canada owned UWSS EG systems, parts and consumables.	Mandatory
PWS-1030	5.4.18.10 [M] The Contractor must adhere to export license regulations when disposing and divesting of both Contractor and Canada owned UWSS EG systems, parts and consumables.	Mandatory
PWS-1031	5.4.19 Materiel Management Planning and Reporting	Heading
PWS-1032	5.4.19.1 [M] The Contractor must develop, deliver, and update the Materiel Management Plan (MMP) in accordance with DID-MMP-001.	Mandatory
PWS-1033	5.4.19.2 [M] The Contractor must make available to Canada, upon request, all associated plans, processes, procedures, instructions and data supporting the Materiel Management Plan.	Mandatory
PWS-1034	5.4.19.3 [M] The Contractor must provide Materiel Management in accordance with the accepted MMP.	Mandatory
PWS-1035	5.4.19.4 [M] The Contractor must report on material management support and disposal activities as part of the monthly CSPR in accordance with DID-PMP-010.	Mandatory
PWS-1036	5.4.19.5 [M] The Contractor must forecast procurement requirements and include such forecasts within plans.	Mandatory
PWS-1037	5.4.19.6 [M] The Contractor must purchase additional repairable items to replace those identified and beyond repair, or to meet adjustments in stock levels required.	Mandatory
PWS-1038	5.4.19.7 [M] The Contractor must purchase non-repairable items to maintain required stock levels.	Mandatory
PWS-1039	5.4.19.8 [M] The Contractor must purchase other materiel services to meet the requirements of this Contract.	Mandatory

ID		Requirement Type
PWS-1040	5.4.19.9 [M] The Contractor must report to the Procurement authority (PA) and NDQAR/OCRS any equipment damaged due to preservation and packaging failures in shipments within two working days of its discovery.	Mandatory
PWS-1675	5.4.19.10 [M] The Contractor must provide a request or make recommendation to Canada to purchase items as listed in this section and must only purchase items by approval from Canada.	Mandatory
PWS-1676	5.4.19.11 [M] The Contractor must obtain a minimum of three industry quotes for all material items and services being purchased by the Contractor and must utilize the least expense quote where practicable or must provide justification and must obtain approval by Canada to use a high quoted source.	Mandatory
PWS-1677	5.4.19.12 [M] The Contractor's added purchase markup must be in accordance with the approved contract rates.	Mandatory
PWS-1041	5.4.20 Contractor Supply Chain Network	Heading
PWS-1042	5.4.20.1 [M] The Contractor must establish, manage and maintain a supply chain network.	Mandatory
PWS-1043	5.4.20.2 [M] The Contractor must include sub-contractor and OEM supply chain support in its supply chain network.	Mandatory
PWS-1044	5.4.20.3 [M] The Contractor must provide inventory management services for the UWSS EG including identification of shelf life issues, conducting material inspections and make sparing recommendations for DND organizations.	Mandatory
PWS-1045	5.4.20.4 [M] The Contractor must incorporate a supply system that conducts sparing analysis in support of inventory management actions; and provide data to enable additional supportability engineering analysis including detection of obsolescence issues.	Mandatory
PWS-1046	5.4.20.5 [M] The Contractor must ensure that all inventory items are updated to include any ECs applied to the installed UWSS Equipment Group.	Mandatory
PWS-1047	5.4.20.6 [M] The Contractor will warehouse sufficient UWSU materials to meet projected EC installations, preventive and corrective maintenance requirements and assigned strategic reserves which must reside in Canada.	Mandatory
PWS-1048	5.4.20.7 [M] The Contractor must comply with all applicable laws and regulations for warehousing of dangerous goods and hazardous substances.	Mandatory
PWS-1049	5.4.20.8 [M] The Contractor must warehouse and maintain inventory control over material subject to CGP/ITAR and export licenses separately from all other material and in accordance with A-LM-184-001/JS-001 8.5.10.	Mandatory
PWS-1050	5.4.20.9 [M] The Contractor must report to Canada materiel issued to DND subject to CGP/ITAR and export license control.	Mandatory
PWS-1051	5.5 Material Repair and Overhaul (R&O)	Heading
PWS-1052	5.5.1 [M] The Contractor must develop, maintain and update a UWSS EG R&O plan in accordance with DID-PMS-002.	Mandatory

ID		Requirement Type
PWS-1053	5.5.2 [M] The Contractor must implement the UWSS EG R&O services in accordance with the accepted UWSU R&O plan and Special Instructions – Repair and Overhaul Contractors A-LM-184-001/JS-001.	Mandatory
PWS-1054	5.5.3 [I] Material R&O activities will be delivered by the Contractor, as a Management Function of the contract. The contractor will charge for and be remunerated in accordance with the terms of the contract for all material items repaired on a per item basis.	Information
PWS-1055	5.5.4 [I] DND will return repairable items through the DND supply system to designated handover points. The Contractor must establish and maintain an R&O pipeline for all UWSU repairable components as required by their supportability engineering analysis.	Information
PWS-1056	5.5.5 [M] The Contractor must repair all unserviceable UWSS EG parts, assembly sets and SPTATE to return to serviceable condition.	Mandatory
PWS-1057	5.5.6 [M] The Contractor must conduct warranty actions.	Mandatory
PWS-1058	5.5.7 [M] The Contractor must conduct economic trade-off assessments to buy or repair UWSS EG parts.	Mandatory
PWS-1059	5.5.8 [M] The Contractor must establish and maintain a list of UWSU repairable assemblies and promulgate the repairable designation and updated repair costs within DRMIS to ensure repairable assemblies are properly quarantined and handled for returned. The contractor must provide this list in accordance with DID-MRC-001, UWSS EG Repairable Items and Maximum Repair Cost List, to this PWS contract.	Mandatory
PWS-1060	5.5.9 [M] The Contractor must repair and restore the equipment to a serviceable operating condition to meet the standards of performance and reliability described in the repair and test schemes (proposed by the contractor and approved by DND), technical orders, original procurement specifications and test sheets as applicable. When such standards are not described or when standards described are considered by the contractor to be inadequate, the contractor must submit the standards of performance and reliability, to which the contractor proposes to repair the equipment, through the quality assurance representative (QAR), to the DA/TA for approval.	Mandatory
PWS-1061	5.5.10 [M] The Contractor must only commence work when standards are defined and agreed upon by the DA.	Mandatory
PWS-1062	5.5.11 [M] The Contractor must conduct the following repair activities on every repair arising:	Mandatory
PWS-1063	a. Incoming inspections for mechanical and electrical components;	Mandatory
PWS-1064	b. Cleaning and testing as necessary to locate and isolate defects and deficiencies, and determining the nature and extent of the repair work required;	Mandatory
PWS-1065	c. Disassembling to the extent necessary to inspect for needed repairs of parts or sub-assemblies;	Mandatory

ID		Requirement Type
PWS-1066	d. Performing necessary repairs, including rework and/or replacement of parts or sub-assemblies;	Mandatory
PWS-1067	e. In-process inspection to ensure rectification of defects and deficiencies,	Mandatory
PWS-1068	f. Reassembling, calibrating, functionally testing, performing acceptance inspection as defined in the technical data package (TDP) and preparing for shipment; and	Mandatory
PWS-1069	g. Conducting final inspection in accordance with approved test procedures and quality plan.	Mandatory
PWS-1070	5.5.12 [I] Repaired items will be all components after repair and/or overhaul and will be marked and packaged in accordance with the latest issues of D-LM-008-036/SF-000 and A-LM-187-002/JS-001, or NATO equivalent.	Information
PWS-1071	5.5.13 [M] The Contractor must repair all items returned to the repair and overhaul facility and must incorporate all approved modifications and/or improvements.	Mandatory
PWS-1072	6 Life Cycle Materiel Management	Heading
PWS-1073	6.1 General	Heading
PWS-1074	6.1.1 [I] Life Cycle Materiel Management (LCMM) includes all the LCMM functions, required to effectively manage the UWSS EG through its life cycle. The goals of LCMM within the UWSU ISSC are to:	Information
PWS-1075	a. Maintain explicit assurance that the UWSS EG is performing in accordance with <i>Halifax</i> -class and resultant UWSU DI;	Information
PWS-1076	b. Maintain explicit assurance that the UWSS EG is operated and supported in accordance with DI;	Information
PWS-1077	c. Maintain accurate and quantitative understanding of the costs (labour, material, and time) to operate and support the UWSS EG in accordance with DI; and	Information
PWS-1078	d. Continuously strive to achieve UWSU ISS goals and objectives through performance management, continuous improvement, value engineering and innovation.	Information
PWS-1079	6.1.2 [I] The LCMM processes includes:	Information
PWS-1080	a. Management of Design Intent;	Information
PWS-1081	b. Maintenance Program Management;	Information
PWS-1082	c. Engineering Change Management;	Information
PWS-1083	d. Configuration Management;	Information

ID				Requirement Type
PWS-1084	e. Spares and Asset Inventory Management;			Information
PWS-1085	f. Supply Chain Management;			Information
PWS-1086	g. Technical Data Management;			Information
PWS-1087	h. Obsolescence Management; and			Information
PWS-1088	i. Disposal Management.			Information
PWS-1089	6.1.3 [I] LCMM Services will be delivered primarily by the Contractor, as a Management Function or as Core Work tasks raised on the approved AOP.			Information
PWS-1090	6.1.4 [I] Table 8 represents the division of responsibility for life cycle materiel management that sustain the UWSS EG.			Information
PWS-1091	Table 8 – Responsibility Matrix - Life Cycle Materiel Management Responsibilities			Information
PWS-1094	Management Component	Canada Responsibilities	Contractor Responsibilities	
	Design Intent	Act as System Authorities for UWSU systems	Work in a Naval Materiel Assurance (NMA) Environment Provide NMA Objective Quality Evidence (OQE) to DND	
	Maintenance Program Management	Review/Approve Supportability Analyses and Reports Validate Support Deliverables	Conduct Supportability Analyses Conduct Maintenance Effectiveness Reviews Develop/Introduce Support Changes Manage/Update Support Baselines including the UWSU LSAR	
	Life Cycle Materiel Management (Ship Class Design Authority)	Act as Class Design Authority	Provide Updated UWSU Technical Information for Ship Integration	
	Life Cycle Materiel Management (Systems Engineering Management)	Act as UWSU System Authority	Perform Systems Engineering Management	
	Engineering Change	Propose ECs	Propose ECs for Technical	

ID		Requirement Type
	Management	Review and Approve ECs
	Configuration Management - Control	Refresh, system improvements
	Configuration Management - Execution	Provide a Configuration Management System Prepare Changes for DND Approval Support the DND Approval Process
	Spares and Asset Inventory Management -	Provide CM Oversight Including Approval of Changes to DND Configuration Items Participate in CM Audits
	Supply Chain Management	Maintain CM System for All Configuration Items Conduct CM Audits
	Technical Data Management -Design Authority (DA)	Perform Inventory Management Provide the infrastructure and resources to procure all UWSU Materiel Procurement Processes
	Technical Data Management - Maintenance and Control	Manage DND Supply Chain Establish ISS Supply Chain including suppliers and sub-contractors Manage Sub-Contractors
	Technical Data Management -Export Control & Other Regulatory Regimes	Provide DND Data Access Integrate Data from the DA or the DA Contractors
	Obsolescence Management	Maintain UWSU Data Currency/Accuracy Exchange Data with DND, Suppliers and sub-contractors Obtain Access Rights

ID				Requirement Type
		Review Analyses for Obsolescence Issues Review/Approve Remedial Actions	Integrate Sub-Contractor Activities Manage UWSU Obsolescence Conduct Obsolescence Analyses Recommend Remedial Actions	
	Disposal Management	Disposal Management Oversight	Recommend Disposal aspects within ECs	
PWS-1153	6.1.5 [I] The UWSS EG is integrated within the overall <i>Halifax</i> -class design, and Life Cycle Materiel Management needs to recognize and enable this integration, via <i>Halifax</i> -class Design Agent contractor(s). DND is the <i>Halifax</i> -class Design Authority, supported by Design Agent Contractor(s) as required.			Information
PWS-1154	6.1.6 [M] The Contractor must provide updated technical information to enable the <i>Halifax</i> -class Design Authority, supported <i>Halifax</i> -class Design Agent contractor(s) and Shipyard(s), to integrate UWSU within the ship design.			Mandatory
PWS-1155	6.1.7 [I] The UWSS EG will be subject to Naval Materiel Assurance (NMA) requirements applied to RCN ships. DND is the System Authority for the UWSS EG.			Information
PWS-1156	6.1.8 [M] The Contractor must conduct engineering work to be compliant to the Naval Material Regulation for Surface Ships (NMRSS) (reference G). The Contractor must provide to the DND NMA the required NMRSS objective evidence to support NMA evaluations and decisions.			Mandatory
PWS-1157	6.2 Management of Design Intent			Heading
PWS-1158	6.2.1 [I] Management of Design Intent includes the validation of ship performance against the DI and the continuing alignment of the DI with actual ship performance. The goal of Management of Design Intent is to ensure the DI (in terms of fit-for-purpose, safety, and environmental compliance) is being achieved to the greatest extent practicable, to resolve deficiencies, and to continuously improve performance.			Information
PWS-1159	6.2.2 [O] The Contractor must perform Management of Design Intent activities to:			Mandatory
PWS-1160	a. evaluate the actual performance of the UWSS EG as compared with the performance specified in the DI;			Mandatory
PWS-1161	b. assess the risks of operating the UWSS EG outside of the DI;			Mandatory
PWS-1162	c. value the actual costs to operate the UWSS EG;			Mandatory
PWS-1163	d. manage ship-level margins;			Mandatory
PWS-	e. assess the degree to which the UWSS EG is operated in accordance with the DI;			Mandatory

ID		Requirement Type
1164	and	
PWS-1165	f. identify and leverage opportunities to continuously improve and optimize ship performance and support costs.	Mandatory
PWS-1166	6.2.3 [O] The Contractor must manage deviations from DI through a formal, structured risk management process ensuring appropriate visibility to Canada and ultimately informed decisions by the Design Authority (DA).	Mandatory
PWS-1167	6.2.4 [M] The contractor must provide ISS services that meet the current approved DI for the UWSS EG.	Mandatory
PWS-1168	6.3 Maintenance Program Management	Heading
PWS-1169	6.3.1 [I] Maintenance Program Management is the continuous improvement and optimization of a maintenance program for a ship or system based on the Class material state and maintenance outcomes.	Information
PWS-1170	6.3.2 [I] The goals of Maintenance Program Management are to:	Information
PWS-1171	a. achieve required availability and reliability targets;	Information
PWS-1172	b. limit maintenance to planned occasions;	Information
PWS-1173	c. minimize overall support costs;	Information
PWS-1174	d. reduce Corrective Maintenance to as low as reasonably practicable (ALARP) in order to minimize impacts (e.g., due to down-time) and through-life costs;	Information
PWS-1175	e. minimize the need to provide deployed support (e.g., through system reliability, system design and redundancy, SS capability to rectify);	Information
PWS-1176	f. minimize the need to deploy in-service support entities into operational theatre;	Information
PWS-1177	g. minimize the complexity of repair; and	Information
PWS-1178	h. support continuous improvement.	Information
PWS-1179	6.3.3 [I] The UWSS EG and its support will be managed using system engineering processes and techniques. DND will act as the UWSU System Authority. This system engineering management will apply to both hardware and software elements of the UWSU as well as all engineering support services provided under the UWSU ISSC.	Information
PWS-1180	6.3.4 [M] The Contractor must use system engineering management practices.	Mandatory
PWS-1750	6.3.4.1 [I] For in-service changes affecting UWSU, the Contractor will manage interface/integration between the UWSS EG and the overall Ship Design including interfacing ship systems.	Information
PWS-	6.3.5 [I] Supportability engineering will be applied during the in-service support	Information

ID		Requirement Type
1181	phase to address support issues; improve UWSU; and introduce support changes related to approve ECs. DND will review and approve Contractor supportability analyses and recommendations. DND will validate support deliverables for ECs.	
PWS-1182	6.3.6 [M] The Contractor must:	Mandatory
PWS-1751	a. conduct periodic Maintenance Effectiveness Reviews;	Mandatory
PWS-1752	b. conduct supportability analyses in support of problem resolution and EC development;	Mandatory
PWS-1753	c. develop and introduce changes to UWSU support, required by ECs and value engineering activities including updated CFTOs reflecting ship fit configurations and the approved maintenance plan; and	Mandatory
PWS-1754	d. manage and update support baselines in sync with product design baselines, including in-service LSAR datasets.	Mandatory
PWS-1183	6.3.7 [M] The Contractor must perform Maintenance Program Management to:	Mandatory
PWS-1184	a. evaluate the effectiveness of the maintenance program by comparing actual performance with known targets specified in the DI;	Mandatory
PWS-1185	b. evaluate the actual costs of the maintenance program;	Mandatory
PWS-1186	c. assess the degree to which the ship is maintained in accordance with the DI;	Mandatory
PWS-1187	d. assess the risks of departures from the DI; and	Mandatory
PWS-1188	e. identify and leverage opportunities to continuously improve performance and costs.	Mandatory
PWS-1189	6.3.8 [M] The Contractor must validate, prioritize, rationalize, and optimize maintenance requirements, using a goal/outcome based approach, within the DI in comparison to the actual operational system usage.	Mandatory
PWS-1190	6.4 Engineering Change Management	Heading
PWS-1191	6.4.1 [I] Engineering Change Management includes the management and implementation of engineering change as a result of the introduction of new capability or the sustainment of existing capability.	Information
PWS-1192	6.4.2 [I] The Engineering Change Management process spans from the development of the specification of requirement through to the installation and acceptance of the change on ship and includes the establishment of the necessary logistic support.	Information
PWS-1193	6.4.3 [I] The Goals of Engineering Change Management are to:	Information
PWS-1194	a. ensure that engineering changes (ECs) are achievable, affordable, and implementable prior to the expenditures of significant resources; and	Information

ID		Requirement Type
PWS-1195	b. successfully complete ECs on schedule, within budget, and to the specified quality standards (fit for purpose, safe environmentally compliant).	Information
PWS-1196	6.4.4 [I] DND will review and approve ECs for Configuration Items.	Information
PWS-1197	6.4.5 [I] Refer to section 5.3 through 5.4 of this PWS on ECs, management and implementation.	Information
PWS-1198	6.4.6 [M] The Contractor must ensure that the configuration of UWSU is controlled, and that changes to the configuration are made through an EC control process.	Mandatory
PWS-1199	6.5 Configuration Management	Heading
PWS-1200	6.5.1 [I] Configuration Management (CM) includes the processes of CM planning, configuration identification, change control, configuration status accounting, and certification and audits.	Information
PWS-1201	6.5.2 [I] The goal of CM is to ensure the approved configuration is maintained; to ensure safety, minimize costs and to maintain performance in accordance with the DI. This will be achieved by applying the appropriate levels of CM to ensure:	Information
PWS-1202	a. changes to baselines are implemented in a controlled, auditable fashion;	Information
PWS-1203	b. alignment between ships' configurations and the corresponding DI is maintained; and	Information
PWS-1204	c. a clear and accurate record of each ship's configuration is recorded and updated.	Information
PWS-1205	6.5.3 [I] DND has ownership of the UWSS EG as-maintained configuration will validate and approve requirements for all recommended changes to the configuration items proposed by the Contractor.	Information
PWS-1206	6.5.4 [M] The Contractor must operate a configuration management system for the UWSU and will be responsible for establishing, maintaining or recommending changes to configurations of supported systems and materiel, including items provided by suppliers and sub-contractors and other sub-contractors. The Contractor must prepare changes and submit them for DND approval. The Contractor must support execution of overall configuration management of the UWSS Equipment Group.	Mandatory
PWS-1207	6.5.5 [M] The Contractor's CM program must include the configuration management of: systems, equipment, hardware, firmware, software, technical data package and training within each UWSS EG and sub-systems baseline configuration.	Mandatory
PWS-1208	6.5.6 [M] The Contractor must perform configuration management in support of the implementation of ECs.	Mandatory
PWS-1209	6.5.7 [M] The Contractor must conduct Configuration Audits for each supported UWSU to verify conformance. DND will provide overall Configuration Oversight and participate in CM audits as required.	Mandatory
PWS-1210	6.5.8 [M] The Contractor must support the internal DND approval process with all necessary information to enable decisions.	Mandatory

ID		Requirement Type
PWS-1211	6.5.9 [M] The Contractor must prepare configuration changes and submit them for DND approval.	Mandatory
PWS-1212	6.5.10 [M] The contractor must provide support to the Naval Configuration Review Group (NCRG) reviews of UWSU Configuration changes by providing support, making recommendations, providing data and by assisting in the implementation of NCRG directions.	Mandatory
PWS-1213	6.6 Configuration Management Plan	Heading
PWS-1214	6.6.1 [M] The Contractor must develop, deliver, and update a Configuration Management Plan (CMP) in accordance with DID-LCM-001.	Mandatory
PWS-1215	6.6.2 [M] The Contractor must manage and perform the CM services in accordance with the accepted CMP.	Mandatory
PWS-1216	6.6.3 [M] The Contractor must manage the Technical Data assigned by Canada and must manage and confirm equipment baselines and the associated baseline of relate datasets.	Mandatory
PWS-1217	6.6.4 [M] The Contractor must produce, maintain and provide a UWSS EG Configuration Items Database as provided in DID-LCM-003 and must provide a CI Database report annually to DND.	Mandatory
PWS-1218	6.6.5 [M] The Contractor must include in the CMP, a configuration audit plan, and must conduct configuration audits and make configuration audit reports in accordance with that plan.	Mandatory
PWS-1219	6.7 Spares and Asset Inventory Management	Heading
PWS-1220	6.7.1 [I] Spares and Asset Inventory Management includes the necessary management of inventory and assets to provide the optimal delivery of maintenance spares, mission pack-up kits, war spares, SPTATE, and other support assets.	Information
PWS-1221	6.7.2 [I] The goal of Supply Chain Management is to provide direct support to ISS processes and activities (e.g., Spares and Asset Inventory Management, Engineering Services, Engineering Change Management, Service Delivery) in accordance with their respective goals and objectives.	Information
PWS-1222	6.7.3 [M] The Contractor must take the lead role in overall UWSU spares and asset inventory management. The Contractor must provide the infrastructure and resources to procure all materiel and services that is required to support the UWSU.	Mandatory
PWS-1223	6.7.4 [M] The Contractor must provide overall inventory management services for the joint DND/Contractor UWSU supply chain. This will include identification of recommended holdings for DND supply organizations.	Mandatory
PWS-1224	6.7.5 [I] DND will provide supply transaction histories and stock information to the Contractor for use in inventory management decisions. DND will manage its elements of the overall ISS Supply Chain to support the UWSS EG and contract obligations. DND's role will be limited to Contractor oversight and quality assurance of materiel processes of procured items.	Information

ID		Requirement Type
PWS-1225	6.7.6 [M] The Contractor must manage all aspects of their supply chain network, including their sub-contractors. This will also include the management by the Contractor of its repair and overhaul services.	Mandatory
PWS-1226	6.8 Obsolescence Management	Heading
PWS-1227	6.8.1 [I] Obsolescence Management includes the identification and mitigation of obsolescence and performance risks due to situations where equipment is no longer produced or supported by the OEM/supplier.	Information
PWS-1228	6.8.2 [I] The goal of Obsolescence Management is to ensure the ongoing supportability of naval material through the timely identification and mitigation of operations and maintenance performance risks due to obsolescence issues.	Information
PWS-1229	6.8.3 [M] The Contractor must develop, plan and execute Obsolescence Management which will include managing the activities of the OEMs and other sub-contractors. The Contractor must conduct analyses of obsolescence issues.	Mandatory
PWS-1230	6.8.4 [I] Any component changes recommended by the Contractor as a result of its obsolescence management effort must be approved by DND before being implemented by the Contractor.	Information
PWS-1231	6.8.5 [I] Technology Refresh (TR) is the process of updating system-level architecture and components (especially hardware) as a way to sustain a system and to address obsolescence. As it forms part of an overall obsolescence management strategy, TR maintains but does not increment capability.	Information
PWS-1232	6.8.6 [M] The Contractor must develop, plan and execute TR's, as approved by the DA, which will include managing the activities of the suppliers and sub-contractors and other sub-contractors. The Contractor must conduct analyses of obsolescence issues. Any component or system level changes recommended by the Contractor as a result of its obsolescence management effort must be approved by DND before being implemented by the Contractor.	Mandatory
PWS-1233	6.8.7 [M] The Contractor must develop, deliver and update an Obsolescence Management Plan in accordance with DID-LCM-002.	Mandatory
PWS-1234	6.8.8 [M] The Contractor must manage and perform obsolescence management services in accordance with the approved Obsolescence Management Plan.	Mandatory
PWS-1235	6.9 Technical Data Management	Heading
PWS-1236	6.9.1 [I] Technical Data Management includes the management of all DI and program data. It includes data access control, revision control, archiving, storage, retrieval, and dissemination.	Information
PWS-1237	6.9.2 [I] The goal of Technical Data Management is to provide the right information, to the right users at the right time to support ISS processes and activities contributing to their performance objectives.	Information
PWS-1238	6.9.3 [I] Technical data may flow from the Design Agent Contractor to the Contractor. DND will review Contractor technical data, including data from suppliers	Information

ID		Requirement Type
	and sub-contractors and other sub-contractors. DND will hold and internally distribute delivered technical data, supported by the Design Agent Contractor.	
PWS-1239	6.9.4 [M] The Contractor must maintain UWSU technical data current and control its content. This may be a two-way data flow both between the Contractor and DND and between the Contractor and 3 rd party suppliers and sub-contractors. Some technical data may need to conform to DND formats and content. The Contractor must obtain all necessary rights and licenses to access/transfer technical data.	Mandatory
PWS-1240	6.9.5 [M] The Contractor must provide Technical Data and Technical Data Support as required to enable the provision of Support Services under this Contract. Technical Data Support includes those activities and associated functions required to store, control, maintain, manage and distribute Technical Data in support of the contract.	Mandatory
PWS-1241	6.9.6 [M] The Contractor must adhere to export control and other regulatory regimes (e.g., security and protection of IP applied to UWSU technical data management.	Mandatory
PWS-1242	6.9.7 [I] DND will apply control/regulatory regime oversight of the Contractor technical data processes. UWSU system-level tech data needs to be integrated within and synchronized with the Design Agent ship-level technical data. Technical data will be subject to validation by DND and the Contractor.	Information
PWS-1243	6.9.8 [I] The DND Design Authority and Design Agent Contractor will access and provide UWSU-relevant data to DND stakeholders. The Design Agent must always have full access to the current TDP to integrate UWSU within the Ship design. Changes affecting UWSS EG ship interfaces require Design Authority approval.	Information
PWS-1244	6.9.9 [M] The Contractor must provide data/data access to the Design Authority and its Design Agent Contractor to enable integrated management of the UWSS within the ships.	Mandatory
PWS-1245	6.10 Disposal Management	Heading
PWS-1246	6.10.1 [I] Disposal Management includes the management of the disposal of systems, equipment, consumables, and support equipment that are no longer required, supportable, economically repairable, or fit-for purpose.	Information
PWS-1247	6.10.2 [M] The Contractor's disposal management will meet the DND disposal regulations and requirements. The Contractor must provide disposal and demilitarization plans to DND.	Mandatory
PWS-1248	6.10.3 [I] DND will provide oversight on the Contractor disposal management and on its execution of disposal actions.	Information
PWS-1249	6.10.4 [M] The Contractor must maintain UWSU disposal processes for configuration items. The Contractor must consider and recommend disposal aspects within EC analyses and include these within their disposal processes.	Mandatory
PWS-1250	6.10.5 [M] The Contractor must provide disposal and demilitarization plans to DND. DND will provide oversight on the Contractor disposal management and on its execution of disposal actions.	Mandatory

ID		Requirement Type			
PWS-1251	6.10.6 [M] The Contractor's disposal management must meet the DND disposal regulations and requirements.	Mandatory			
PWS-1252	6.10.7 [M] As and when required, the Contractor must prepare and submit disposal plans and decommissioning and disposal instructions for approval by the Technical Authority	Mandatory			
PWS-1253	6.11 Technical Problem Management Support	Heading			
PWS-1254	6.11.1 [O] The Contractor must identify all technical problems, implement timely resolutions and identify their residual risk.	Mandatory			
PWS-1255	6.11.2 [I] Technical problems related to the UWSS EG need to be managed and coordinated by the EMT. Within DRMIS, DND has an internal Technical Problem Management System (TPMS) and associated processes in place to present problems to the EMT and to track problem resolution.	Information			
PWS-1256	6.11.3 [M] The Contractor must establish, maintain and use a TPMS to track and report any problems and provide resolution status.	Mandatory			
PWS-1257	6.11.4 [I] DND will identify technical problems to the Contractor for investigation and recommendations. DND will monitor progress of issues within the Contractor TPMS, and participate in periodic reviews of technical issues.	Information			
PWS-1258	6.11.5 [I] Technical problems that cannot be reconciled or reconciled fully at the EMT level will be added to the Risk and Issue Register as specified in this PWS.	Information			
PWS-1259	6.11.6 [M] The Contractor must include the date/time of problem receipt by the Contractor and the date/time of problem resolution by the Contractor to DRMIS.	Mandatory			
PWS-1260	6.11.7 [M] The Contractor must:	Mandatory			
PWS-1261	a. implement recommended solutions to resolve problems in a timely manner;	Mandatory			
PWS-1262	b. link DND identified problems with associated Contractor identified problems;	Mandatory			
PWS-1263	c. provide status reports to DND on problems passed to the Contractor for resolution; and	Mandatory			
PWS-1264	d. assist the DND EMT staff in monitoring problem resolution and escalating issues.	Mandatory			
PWS-1265	7 Training Support and Personnel	Heading			
PWS-1266	7.1 Training Support Services	Heading			
PWS-1267	7.1.1 [I] A range of support services will be required to deliver and update RCN & DND training for UWSU as summarized in Table 9.	Information			
PWS-1268	Table 9 - Responsibility Matrix – Training Support Services	Information			
PWS-	<table> <tr> <th>Service Component</th><th>Canada Responsibilities</th><th>Contractor</th></tr> </table>	Service Component	Canada Responsibilities	Contractor	
Service Component	Canada Responsibilities	Contractor			

ID				Requirement Type
1271			Responsibilities	
	Training Delivery	Deliver Training at RCN Schools	Support Training Delivery For Engineering Changes as requested Support For Recurring Training Delivery as requested	
	Training Program Updates and Improvements	DND Schools Update Training with ISS Contractor Input	provide initial cadre training, instructor training and conversion training Provide training materials updates and improvements as required	
	Training Aids and Training Support Equipment	Report Issues Limited 1 st Level Maintenance Outboard 2 ^{nd/3rd} Level Maintenance and Updates	Inboard 2 ^{nd/3rd} Level Maintenance and Updates Review and provide feedback on DND training materials	
PWS-1286	7.1.2 [I] RCN training establishments (TEs) are responsible for most training delivery throughout the ISS phase and UWSS EG training has already been incorporated into core RCN training. Therefore, DND will deliver training to DND UWSS operators and maintainers during the ISSC.			Information
PWS-1287	7.1.3 [I] Training Services will be delivered primarily by the Contractor, as a Management Function or as Core Work tasks raised on the approved AOP.			Information
PWS-1288	7.1.4 [M] The ISSC contractor must provide any other training or advice as requested by DND, review and provide feedback on RCN training materials.			Mandatory
PWS-1289	7.1.5 [O] The Contractor must maintain and update the UWSS EG training systems, training material, and training courses with the current RCN operator and maintainer training processes and RCN Quality Standards Plans.			Mandatory
PWS-1290	7.1.6 [I] Canada will provide current versions of RCN operator and maintainer training processes and RCN Quality Standards Plans to the ISSC.			Information
PWS-1291	7.1.7 [I] RCN training staff will identify any issues with the contractors' software, hardware or training aids and perform limited first level maintenance on the items.			Information
PWS-1292	7.1.8 [M] The Contractor must provide software and hardware maintenance support including updates to these training aids.			Mandatory
PWS-1293	7.1.9 [M] When required by Canada, the Contractor must provide instructions and course material in both Official Languages (English and French).			Mandatory
PWS-1294	7.1.10 [M] The Contractor must liaise with DND to plan and co-ordinate training service delivery when and as requested.			Mandatory

ID		Requirement Type
PWS-1295	7.1.11 [M] As and when requested, using the EWR procedures, the Contractor must deliver UWSS EG operator and maintainer training to DND. The ISSC will provide qualified instructors that are qualified on the UWSS EG systems, to conduct the training.	Mandatory
PWS-1296	7.1.12 [M] As and when requested, using the EWR procedures, the Contractor must deliver UWSS EG instructor training to DND.	Mandatory
PWS-1755	7.1.13 [I] The ISSC will provide qualified instructors that are qualified on the UWSS EG systems, to conduct the training.	Information
PWS-1297	7.2 Defence Information Systems Training	Heading
PWS-1298	7.2.1 [I] Canada will provide initial training to the Contractor on Defence Resources Management Information System (DRMIS). Initial DND supplied training requirements and ongoing Contractor in-house training requirements must be identified in the Contractor's PMP.	Information
PWS-1299	7.2.2 [M] The Contractor must accept responsibility for costs associated with DRMIS training beyond the initial training provided by Canada.	Mandatory
PWS-1300	7.3 Other Mandated Training	Heading
PWS-1301	7.3.1 [M] The Contractor must ensure that all contracted or subcontracted personnel receive Environmental Awareness and Workplace Hazardous Material Information System (WHMIS) training required by law or by the PMP before conducting any portion of the work.	Mandatory
PWS-1302	7.3.2 [M] Prior to start of work at Dockyard locations, Contractor personnel must attend courses provided by the RCN to familiarize them with safety and emergency procedures to be followed in the Dockyard. Other safety training may be required depending on the work to be completed.	Mandatory
PWS-1303	7.3.3 [M] The Contractor must contact the MARLANT or MARPAC Safety and Environmental organizations to confirm training requirements.	Mandatory
PWS-1304	7.4 Personnel	Heading
PWS-1305	7.4.1 [M] The Contractor must undertake all necessary recruitment, training, security clearance preparation and other functions, as necessary, to ensure its personnel have the requisite skills, experience and qualifications to meet the requirements of the contract and conduct the Work.	Mandatory
PWS-1306	7.4.2 [M] The Contractor must identify, and update as required organizational and specifications for key staff positions and the appointed personnel for each of these positions, in accordance with the Contractors PMP.	Mandatory
PWS-1307	7.4.3 [M] If and as required, the Contractor must provide access clearance, a point of contact, office space and infrastructure for any government personnel co-located at a Contractor's facility.	Mandatory
PWS-	8 Electronic Information Management	Heading

ID				Requirement Type
1308				
PWS-1309	8.1 Information Management Services			Heading
PWS-1310	8.1.1 [I] A range of information management services are required within the UWSU ISSC and are provided by DND and the Contractor. These services are summarized in Table 10.			Information
PWS-1311	Table 10 - Responsibility Matrix – Information Management Support Services			Information
PWS-1314	Service Component	Canada Responsibilities	Contractor Responsibilities	
	Defence Resource Management Information System (DRMIS)	Record Transactions Link with ISS Contractor	Use DRMIS as required. DRMIS Configuration Management Maintained Stock levels monitored	
	UWSU Electronic Information Environment	Send/Receive Interfaced Transactions Share Information	Maintain the EIE server/website and control access Send/Receive Interfaced Transactions Share Information	
	Data Management	Validate, Verify and Transform Data	Manage Own/Sub-Contractor Data Assist DND Data Management as requested	
PWS-1329	8.1.2 [I] DRMIS is the DND enterprise management information system. As such, it will be used by DND and the Contractor to hold UWSU data and to report activities.			Information
PWS-1330	8.1.3 [I] DND will use DRMIS to record transactions in performance of their UWSU support services.			Information
PWS-1331	8.1.4 [M] The Contractor must maintain the UWSU physical and functional configuration in DRMIS.			Mandatory
PWS-1332	8.1.5 [M] The Contractor must utilize a linked Electronic Information Environment (EIE) with DND, as delivered under the UWSU capital project. The EIE will include a Collaborative Environment (CE) for sharing information and an Electronic Data Exchange (EDE) for interfaced data exchanges.			Mandatory
PWS-1333	8.1.6 [I] The UWSU information within both DND and Contractor information systems will need to be managed to ensure completeness, accuracy, and availability. DND will validate and verify data for data management.			Information
PWS-1334	8.1.7 [I] Electronic Information Management Services will be delivered primarily by the Contractor, as a Management Function or as Core Work tasks raised on the approved AOP.			Information
PWS-	8.1.8 [M] The Contractor must manage data used in support of UWSU, including data			Mandatory

ID		Requirement Type
1335	provided by suppliers and sub-contractors and other sub-contractors.	
PWS-1336	8.1.9 [I] DND may request assistance from the contractor in managing data held in DND.	Information
PWS-1337	8.2 Intellectual Property Management	Heading
PWS-1338	8.2.1 [M] The Contractor must specify in the PMP how their program and procedures will meet the IP and technical data obligations under the PWS.	Mandatory
PWS-1339	8.2.2 [M] The Contractor must work with the suppliers and sub-contractors to manage background and foreground IP in support of all ISS activities. The Contractor may need the IPR from OEM's and others to be able to conduct and provide in-service support of UWSS EG. The Contractor must report any IP issues and provide recommended solutions to DND.	Mandatory
PWS-1743	8.2.3 [M] The Contractor must ensure all deliverables to Canada are labeled according to any IP restrictions.	Mandatory
PWS-1340	8.3 Not Used	Heading
PWS-1341	Not Used	
PWS-1342	Not Used	
PWS-1343	Not Used	
PWS-1720	Not Used	
PWS-1344	Not Used	
PWS-1345	Not Used	
PWS-1346	8.4 Intellectual Property Reports	Heading
PWS-1347	8.4.1 [M] The Contractor must retain records of all IP provided by Canada and IP Licenses and any new foreground developed in the execution of this work.	Mandatory
PWS-1348	8.4.2 [M] The Contractor must submit an annual report in accordance with DID-EIM-001 that identifies any IP produced in relation to work produced under the ISSC.	Mandatory
PWS-1349	8.5 Controlled Goods Management	Heading
PWS-1350	8.5.1 [I] The Contractor and any sub-contractor are advised that, within Canada, only persons who are registered, exempt or excluded under the CGP are lawfully entitled to examine, possess or transfer CG.	Information
PWS-	8.5.2 [M] The Contractor must ensure that all the Work is performed in compliance	Mandatory

ID		Requirement Type
1351	with all CG laws and regulations of Canada. These include, but are not limited to, the following:	
PWS-1352	a. Export Control List under the Export and Import Permits Act;	Mandatory
PWS-1353	b. Defence Production Act;	Mandatory
PWS-1354	c. Controlled Goods Regulations;	Mandatory
PWS-1355	d. related DND references are DAODs 3003-0 and 3003-1; and	Mandatory
PWS-1356	e. Controlled Technology Access and Transfer (CTAT) Office.	Mandatory
PWS-1357	8.5.3 [M] The Contractor must enforce and comply with all applicable laws, export control laws and regulations as part of the CGP with regards to:	Mandatory
PWS-1358	a. the procurement of materiel designated as CG or subject to ITAR including Codification and Cataloguing of the materiel (as deemed necessary);	Mandatory
PWS-1359	b. Embedded Suppliers;	Mandatory
PWS-1360	c. disposal of CG;	Mandatory
PWS-1361	d. demilitarization of materiel designated CG;	Mandatory
PWS-1362	e. security clearances and training for personnel requiring CG certification; and	Mandatory
PWS-1363	f. reporting of any suspected loss or compromise of CG.	Mandatory
PWS-1364	8.5.4 [M] The Contractor must be responsible for contacting jurisdictional authorities and ensuring that regulatory and legislative requirements are identified and satisfied throughout the duration of the Contract.	Mandatory
PWS-1365	8.5.5 [M] The Contractor must provide Canada with all Controlled Goods Disposal/Demilitarization Certificates and End User Certificates.	Mandatory
PWS-1366	8.5.6 [M] The Contractor must develop, deliver and update a Controlled Goods Management Plan in accordance with DID-EIM-002.	Mandatory
PWS-1367	8.5.7 [M] The Contractor must manage the CGP in accordance with the accepted Controlled Goods Management Plan.	Mandatory
PWS-1368	8.5.8 [M] The Contractor must ensure the security, custody, storage and retrieval of all Technical Data complies with National Security Instructions, ITAR restrictions, Intellectual Property, Copyright restrictions and security requirements of A-SJ-100-001/AS-000.	Mandatory
PWS-1369	8.5.9 [M] The Contractor must maintain a registry of all CG and documents that have been approved for demilitarization under the Controlled Goods Act in accordance with	Mandatory

ID				Requirement Type
	DID-SSS-004 Controlled Goods Registry.			
PWS-1756	8.5.10 [M] The Contractor must make the registry available to Canada as and when requested.			Mandatory
PWS-1370	8.6 Technical Data Support Services			Heading
PWS-1371	8.6.1 [I] There are a range of support services related to upkeep/update of technical data content (in various formats including drawings and publications) for the UWSS EG and its ISS throughout the UWSU life cycle.			Information
PWS-1372	8.6.2 [I] Technical Data Support Services are summarized in Table 11.			Information
PWS-1373	Table 11 - Responsibility Matrix – Technical Data Support			Information
PWS-1376	Resource Component	Canada Responsibilities	Contractor Responsibilities	
	Technical Data Updates	Validate and Verify Updated Technical Data Audit Technical Data Report Technical Data Issues	Update Technical Data Resolve Technical Data Issues	
PWS-1383	8.6.3 [I] The UWSU technical data will need to be updated to reflect changes to the UWSS EG and its support by the Contractor. DND authorities will validate and verify updated technical data; supported by the Design Authority's Design Agent. DND will perform technical data audits and identify technical data issues.			Information
PWS-1384	8.6.4 [M] The Contractor must ensure that the configuration of the UWSS EG on the ships is controlled, that changes to the configuration are made through an Engineering Change, and that changes are reflected in the technical data held by the Contractor, suppliers and sub-contractor(s) and DND.			Mandatory
PWS-1385	8.7 Technical Data Management Plan (TDMP)			Heading
PWS-1386	8.7.1 [M] The Contractor must develop, deliver and update a TDMP in accordance with DID-EIM-003.			Mandatory
PWS-1387	8.7.2 [M] The Contractor must manage and provide Technical Data services in accordance with the accepted TDMP.			Mandatory
PWS-1388	8.7.3 [M] The Contractor must ensure that all Technical Data is managed in accordance with the accepted TDMP.			Mandatory
PWS-1389	8.7.4 [M] The Contractor must perform Technical Data validation and verification as required in the accepted TDMP.			Mandatory
PWS-1390	8.7.5 [M] The contractor must ensure that all technical data is current and conforms to DND formats and content in accordance with the accepted TDMP.			Mandatory
PWS-1391	8.8 Technical Data Management Information System (TDMIS)			Heading

ID		Requirement Type
PWS-1392	8.8.1 [M] The Contractor must utilize a TDMIS for the management of all Technical Data.	Mandatory
PWS-1393	8.8.2 [M] The Contractor must track revisions to the UWSS EG Technical Data, including ship particularization, such that revision levels and any other pertinent status indicators are recorded in the Contractor's TDMIS.	Mandatory
PWS-1394	8.8.3 [M] The Contractor must produce all new or revised UWSS EG Technical Data elements in the same format and languages used to develop the UWSS EG Technical Data.	Mandatory
PWS-1395	8.8.4 [M] The Contractor must advise Canada when a different data format needs to be used or translation is required.	Mandatory
PWS-1396	8.8.5 [M] The Contractor must provide DND with the capacity to access, view and validate Contractor Technical Data, including data from OEMs and other sub-contractors.	Mandatory
PWS-1397	8.8.6 [M] The contractor must maintain the In-Service Technical Data for both ship board and shore-based installations to represent the current configuration of the UWSS EG via the TDMIS and relevant Technical Data lists.	Mandatory
PWS-1398	8.9 Technical Data Translation Requirements	Heading
PWS-1399	8.9.1 [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.	Mandatory
PWS-1400	8.9.2 [M] The Contractor must deliver the Translation Accuracy Check Certificates for all translated technical publications.	Mandatory
PWS-1401	8.10 Management of UWSS / UDMS Software	Heading
PWS-1402	8.10.1 [I] Within DND, operational software is currently controlled by the East/West Coast Media Support Centres and is issued to SS on a per request basis. It is strictly controlled in accordance with Naval Order (NAVORD) 9244-2 Management of Naval Operational Software, 16 Oct 2015.	Information
PWS-1403	8.10.2 [M] The Contractor must:	Mandatory
PWS-1757	a. [M] maintain management and configuration control of all Naval Operational Software generated by or required for use by the UWSS;	Mandatory
PWS-1758	b. [M] maintain management and configuration control of all software Version Description Documents (VDD); and	Mandatory
PWS-1759	c. [M] maintain inventory control and stock levels of all software held on both master disks and on designated storage media required for installation.	Mandatory
PWS-1404	8.10.3 [M] The Contractor must maintain control of all software media held for the UWSS EG and will provide software installation media and installation services to the UWSU-fitted platforms on an as needed or as requested basis.	Mandatory

ID				Requirement Type
PWS-1405	8.10.4 [M] The Contractor must act as the software manager for all UWSU-fitted platforms and will track and maintain the operational condition of the software as installed and will provide software maintenance and software debugging services for the duration of the ISS contract.			Mandatory
PWS-1406	8.10.5 [M] The Contractor must categorize all software logged items as to severity:			Mandatory
PWS-1407	a. Low = minor annoyance to operators – administrator intervention to correct;			Mandatory
PWS-1408	b. Moderate = problem that prevents software from functioning correct or impedes functionality – administrator to debug and amend the program to correct; and			Mandatory
PWS-1409	c. Severe = causes software failure or impedes the system from performing accurately – immediate administrator correction or reinstallation required.			Mandatory
PWS-1410	8.10.6 [I] A range of software management services are required within the UWSU ISSC and are provided by DND and the Contractor. The responsibility for these services is summarized in Table 12.			Information
PWS-1411	Table 12 - Responsibility Matrix – Software Support Services			Information
PWS-1414	Resource Component	Canada Responsibilities	Contractor Responsibilities	
	Installed Operational Software	Validate and Verify Software Installation Version and Operability Operate the UWSS and monitor software functionality on an ongoing basis Log all software anomalies and errors encountered Report all software anomalies and errors logged to the ISS Contractor	Verify Operational Software is correctly installed as per Current Version Description Documentation Verify Categorize all software anomalies or error logged incidents provided by DND Categorize all software logged items as to severity Low, Moderate or Severe and will take the appropriate action necessary	
	Software Installation Media	Validate and Verify Software media held on each platform is valid to that specific platform Maintain physical security of Onboard platform held software and version	Maintain an inventory or ready to implement software at the correct revision level required for each of the installed ships and trainers Generate or obtain	

ID				Requirement Type
		description support documentation Report Media defects or loss to the ISS Contractor	software updates from the UWSS equipment OEM's as required to correct the known defects and as provided to solve obsolescence or other issues Provide and install software updates as necessary to the installed ships and trainers.	
	Software Engineering and Development	Provide access to Software development Test Facility to the Contractor	Conduct Software Systems Integration, development and testing of bug fixes and software patches	
	Software Administration	Operate the system administration tools in accordance with the Contractors direction Securely store media holdings Maintain current and next previous versions of all software related to the UWSU EG.	Conduct software maintenance activities using Software Admin Tools Develop and provide ADP policies and procedures •Develop system management Software procedures and tools and train ships staff and FMFs to conduct them •Conduct Media Storage and Control of all local and DND software holdings. Audit local and DND Software holdings	
	Software Acquisition and Upgrades	Request Software upgrades and revisions via EWR or DND626 requests	Acquisition and Upgrade of software must be managed through tasks	
	Software Configuration	Monitor and Verify that installed software and installation media matches the current version description documentation. Inventory and monitor East and West Coast	Maintain current configurations and proactively update the software version description and configuration documents to match new software updates as they are	

ID				Requirement Type
		Media Support Centre holdings of all UWSS Software	installed. Provide a master copy of all current version software installation disks to the coastal media support centres	
	Software Version Release	Monitor as review the Software version control tracking database. Audit software version and VDD to ensure inventory is correct and VDD documents are accurate. •Co-ordinate Software version trialing with the Contractor SS and the formations of each software version in accordance with the applicable regulations prior to operational release to the fleet. •Act as the approving authority to approved operational Software release to the Fleet.	Must produce new versions of UWSS EG Software Produce a Version Description Document for each software version produced. •Establish a version control and tracking database. •Provide copies to east and west coast media support centres for distribution •Conduct Software version trialing of each software version in accordance with the applicable regulations prior to operational release to the fleet.	
PWS-1445	8.10.7 [M] The Contractor must co-ordinate with the Coastal Media Libraries through ADM(Mat)/DGMEPM/DNCS 5 to manage all related software support services for configuration management and for delivery of updates to DND via the Coastal Media Libraries and then act as the installation control point for the required integration testing, obtaining operational release approvals and distribution to the ships or trainers.			Mandatory
PWS-1446	8.10.8 [M] The Contractor must manage, operate and maintain the computer resources, including any hardware and software provided as GFE.			Mandatory
PWS-1447	8.10.9 [I] Upgrades to operationally deployed software may only be performed when authorized by Canada and must be conducted in accordance with the requirements set out in NAVORD 9244-2. DND will request software changes via EWR and / or DND 626 task authorization forms.			Information
PWS-1448	8.10.10 [I] Software engineering, support and management services will be provided for the UWSS EG for the duration of the ISSC in order to maintain and update the various UWSU imbedded software, firmware required to operate and interface the			Information

ID		Requirement Type
	UWSS EG systems to the <i>Halifax</i> -class Combat Management System.	
PWS-1449	8.10.11 [M] The Contractor must produce, maintain and update a Software Support and Management Plan in accordance with DID-EIM-004.	Mandatory
PWS-1450	8.10.12 [M] The Contractor must provide Software Engineering in accordance with the Accepted Software Support and Management Plan.	Mandatory
PWS-1451	8.10.13 [M] The Contractor must be responsible for all aspects of the software development process including determination of and capturing requirements, making and tracking changes, production of software builds and version updates and formal testing.	Mandatory
PWS-1452	8.10.14 [M] The Contractor must generate a VDD for each software version that has been approved for release by DND, identifying the appropriate frigates it is applicable to and as directed by DND.	Mandatory
PWS-1453	8.10.15 [M] The Contractor must establish an electronic version tracking database to maintain a historical record for each software version, including interim and sub-versions that is kept current to the latest versions in service.	Mandatory
PWS-1454	8.10.16 [M] In conjunction with the Version Database, the Contractor must maintain the capability to produce ship specific builds of the UWSU software and all related Technical Data Package (TDP) Documentation.	Mandatory
PWS-1455	8.10.17 [M] The Contractor must provide one reproducible copy of all UWSU Naval combat software for each individual and / or combined software system to each of the two coastal media support centres.	Mandatory
PWS-1456	8.10.18 [I] where facilities exist, the coastal media support centres will reproduce copies locally for distribution to the frigates and shore facilities.	Information
PWS-1457	8.10.19 [M] In order to properly maintain the operational software, software interfaces and network infrastructure, the Contractor must:	Mandatory
PWS-1458	a. conduct software maintenance activities using Software Admin Tools;	Mandatory
PWS-1459	b. develop and provide ADP policies and procedures;	Mandatory
PWS-1460	c. develop system management Software procedures and tools and train ships staff and FMFs to conduct them;	Mandatory
PWS-1461	d. conduct Media Storage and Control of all local and DND software holdings; and	Mandatory
PWS-1462	e. audit local and DND Software holdings.	Mandatory
PWS-1463	8.11 Commercial Software	Heading
PWS-1464	8.11.1 [I] Commercial software includes standard commercial-off-the-shelf software packages, such as operating systems, and the software tool sets, including configuration management tools, software development tools, documentation and data management tools, testing and metrics generation tools, process control tools,	Information

ID		Requirement Type
	and general purpose tools.	
PWS-1465	8.11.2 [M] For any software Canada provides to the Contractor, the Contractor must:	Mandatory
PWS-1466	a. use all software in accordance with the respective software licensing agreement;	Mandatory
PWS-1467	b. act as the conducting authority and take responsibility for the installation, customization of procedures, script development, and optimization of user-changeable parameters; and	Mandatory
PWS-1657	c. notify Canada of any requirement to upgrade the software.	Mandatory
PWS-1468	9 Performance Monitoring and Assessment	Heading
PWS-1469	9.1 General	Heading
PWS-1470	9.1.1 [I] The UWSU ISSC will be performance managed and assessed against agreed objectives.	Information
PWS-1471	9.1.2 [O] The Contractor must provide objective evidence to prove its performance against the performance metrics specified in the Performance Requirement Specification (PRS) at Vol3, Annex B, Appendix 6.	Mandatory
PWS-1472	9.2 ISS Performance Management	Heading
PWS-1473	9.2.1 [I] The UWSU ISSC will be performance based to incentivize the Contractor to continuously improve the efficiency and effectiveness of the UWSS EG and its ISS. The purpose of the Performance Management Framework (PMF) is to instill an integrated equipment systems management approach that is performance oriented and outcome focused.	Information
PWS-1474	9.2.2 [I] Performance Management is fundamental to the UWSU ISSC. Performance Management will enable Canada to assess measure and monitor the Contractor's performance throughout the term of the contract.	Information
PWS-1475	9.2.3 [I] Canada will assess and validate the Contractor's reported performance. Canada may request additional objective evidence from the Contractor to substantiate the reported performance.	Information
PWS-1476	9.2.4 [I] The goals of ISS performance management are to provide timely, actionable situational awareness of performance to:	Information
PWS-1477	a. address variances and risks in a timely fashion;	Information
PWS-1478	b. capitalize on opportunities; and	Information
PWS-1479	c. support continuous improvement.	Information
PWS-	9.2.5 [I] Table 13 outlines the expected division of responsibilities for activities	Information

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1480	related to UWSU ISS performance management.			
PWS-1481	Table 13 – Responsibility Matrix – ISS Performance Management Responsibilities			Information
PWS-1484	Management Component	Canada Responsibilities	Contractor Responsibilities	
	Performance Management- Contract	Define Performance Framework Assess ISS Contractor Performance	Report Performance Recommend Key Performance Indicators (KPI) Adjustment	
	Performance Management General	Assess ISS Performance Approve Performance Measures Measure/Manage DND Internal ISS Performance Measure/Manage Integrated ISS Performance	Measure & Report Performance Recommend Performance Measure Adjustments Measure/Manage Internal ISS Contractor Performance	
PWS-1495	9.3 Performance Management Framework			Heading
PWS-1496	9.3.1 [I] DND and the Contractor will jointly define the PMF to be applied, and adjust it as necessary using the framework agreed upon in the Relational Charter.			Information
PWS-1497	9.3.2 [O] The Contractor must support and work within the contract's performance management framework to enable Canada to assess, measure and monitor the Contractor's performance throughout the term of the contract.			Mandatory
PWS-1498	9.3.3 [M] The Contractor must report performance and provide recommendations on their portion of the jointly defined Key Performance Indicators (KPI) to be used for assessment.			Mandatory
PWS-1499	9.3.4 [I] Canada and the Contractor will validate and implement the PMF during the Start-Up Phase. The PMF will be continuously reviewed and updated to improve the support services to the benefit of both Canada and the Contractor.			Information
PWS-1500	9.3.5 [I] The objective of a PMF is to measure and assess the performance of the Contractor to sustain the UWSS EG. The PMF will have performance indicators which include:			Information
PWS-1501	a. Strategic Performance Measures (SPMs);			Information
PWS-1502	b. Key Performance Indicators (KPIs); and			Information
PWS-1503	c. System Health Indicators (SHIs).			Information
PWS-1504	9.3.6 [I] SPMs provide DND with strategic overview for the performance levels of the ISS provided by the Contractor. Each SPM provides objective measures for an Annual			Information

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	review to evaluate the effectiveness of the ISS with respect to the strategic objectives. The set of SPMs that will be used are:	
PWS-1505	a. Available System;	Information
PWS-1506	b. Maintenance and Supply Targets Achieved;	Information
PWS-1507	c. Improving Performance;	Information
PWS-1508	d. Industry Technical Benefit and Value Proposition (ITB & VP); and	Information
PWS-1509	e. Timely and Accurate Data.	Information
PWS-1510	9.3.7 [I] KPIs are the primary method to measure performance for the application of incentives within the payment schedule. They measure performance with respect to the following outcomes:	Information
PWS-1511	a. Scheduled System Availability, ready to start and fully complete missions when requested within all regulatory standards;	Information
PWS-1512	b. ISSC Support System providing effective and efficient services, fully meeting support demands and value engineering, within budget constraints;	Information
PWS-1513	c. Effective Knowledge Management providing accurate information for decision making and event recording; and	Information
PWS-1514	d. LCC and Cost Control of ISS are within budget with respect to sufficiency of allocated funds and the accuracy of forecasting costs, identifying the cost drivers and over-budget items.	Information
PWS-1515	9.3.8 [I] SHIs are the equipment performance parameters that indicate the operability, reliability and maintenance compliance issues related to the UWSS EG. The following SHIs will be used:	Information
PWS-1516	a. Mission Diminished Operations;	Information
PWS-1517	b. Critical Failures;	Information
PWS-1518	c. Mean Time Between Critical Failures (MTBCF);	Information
PWS-1519	d. Corrective Maintenance Actions and Quality;	Information
PWS-1520	e. Top 10 Reliability Drivers;	Information
PWS-1521	f. Reliability Improvement;	Information
PWS-1522	g. Preventive Maintenance Compliance; and	Information

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PWS-1523	h. Top 10 Stock-out items.	Information
PWS-1524	9.3.9 [I] DND will review and approve the contractor provided performance measures and indicators to be applied for ISSC monitoring and assessment, and will provide their portion of the data and tracking requirements. DND will measure and manage its own performance as well as the resultant overall joint ISS performance.	Information
PWS-1525	9.3.10 [M] The Contractor must report performance and provide recommendations on the performance measures to be used for monitoring and assessment. The Contractor must measure and manage internal performance to meet UWSU ISSC requirements.	Mandatory
PWS-1526	9.3.11 [I] Throughout the contract term, the emphasis is on establishing and validating the performance measures, data collection, and implementation of data analysis to support SPMs, KPIs and SHIs. This will ensure that these indicators accurately reflect performance and for DND and the Contractor to agree that they can be applied for the purpose of contract incentives.	Information
PWS-1527	9.3.12 [I] It may be necessary to make changes to the performance assessment process or the performance measures. These changes will derive from Performance Assessment and Adjustment Reviews.	Information
PWS-1528	9.3.13 [M] The Contractor must establish and maintain the processes to implement the PMF which is specified in this Chapter and in DSD-PRS-001, Performance Requirement Specification (PRS).	Mandatory
PWS-1529	9.3.14 [M] Commencing at end of the initial start-up sub phase, the Contractor must collect performance data to support the PMF.	Mandatory
PWS-1530	9.4 Performance Management Plan (PfMP)	Heading
PWS-1531	9.4.1 [M] The Contractor must develop a PfMP that describes how the Contractor will manage their performance for the duration of the Contract.	Mandatory
PWS-1532	9.4.2 [M] The Contractor must describe the performance metrics data sources, performance metrics data collection methodology and a summary dashboard.	Mandatory
PWS-1533	9.4.3 [M] The Contractor must describe the verification, validation and certification of the performance metrics.	Mandatory
PWS-1534	9.4.4 [M] The Contractor must limit access to the performance metrics data to qualified personnel on a need to know basis.	Mandatory
PWS-1535	9.4.5 [M] The Contractor must develop, deliver and update a PfMP in accordance with DID-PMF-001.	Mandatory
PWS-1536	9.4.6 [M] The Contractor must manage and execute Performance Management in accordance with the accepted PfMP.	Mandatory
PWS-1537	9.5 Performance Assessment Reviews and Adjustments	Heading
PWS-1538	9.5.1 [M] The Contractor must provide requested additional objective evidence to support the performance assessment.	Mandatory

ID		Requirement Type
PWS-1539	9.5.2 [M] The Contractor must resolve discrepancies with Canada.	Mandatory
PWS-1540	9.5.3 [M] The Contractor must recommend adjustments to improve the performance assessment process when needed.	Mandatory
PWS-1541	9.5.4 [M] The Contractor must implement the approved adjustments to the Performance Assessment process and PfMP as a result of Performance Assessment and Adjustment Reviews.	Mandatory
PWS-1542	9.5.5 [M] The Contractor must conduct analysis and assessment and validate the adjustments made to the Performance Assessment process.	Mandatory
PWS-1543	9.5.6 [M] The Contractor must incorporate a Continuous Improvement Program in accordance with ISO 9001 and the requirements for performance based contracting with the aim to improve the UWSU program to achieve resource optimization while maintaining the DI of the supported systems.	Mandatory
PWS-1544	9.6 Performance Assessment Reporting	Heading
PWS-1545	9.6.1 [M] The Contractor must report performance assessment and improvement status in accordance with DID-PMF-002 Performance Assessment Report.	Mandatory
PWS-1546	9.6.2 [M] The Contractor must provide objective evidence to prove its performance against the performance metrics specified in the DSD-PRS-001, Performance Requirement Specification (PRS).	Mandatory
PWS-1547	9.6.3 [I] Canada will validate the Contractor's performance against the objective evidence provided.	Information
PWS-1548	9.6.4 [I] The purpose of Performance Assessment is to provide an evaluation of current ISS performance, process efficiency, system health, and PWS compliance.	Information
PWS-1549	9.6.5 [I] Performance Assessment forms the basis for awarding incentives to the Contractor.	Information
PWS-1550	9.6.6 [M] The Contractor must conduct Performance Assessment activities in accordance with the accepted PfMP.	Mandatory
PWS-1551	9.7 Measure, Analyze and Record Performance	Heading
PWS-1552	9.7.1 [M] To support the performance indicators, the Contractor must:	Mandatory
PWS-1553	a. compile a list of Materiel OPDEFs to include ship name/number, UWSS EG, date initiated, date rectified, duration in days, Materiel OPDEF description, capability lost, sub-system/equipment affected, OPDEF Category, number of OPDEF Days;	Mandatory
PWS-1554	b. determine the total number of operational days for each ship in the <i>Halifax</i> -class. It is calculated by counting the number of days, for each ship, that the ship is not in a scheduled work period as listed on the Managed Readiness Plan;	Mandatory
PWS-1555	c. conduct and provide to Canada an annual trend analysis of the OPDEFs per operational day for each OPDEF Category for each of the UWSS EG;	Mandatory

ID		Requirement Type
PWS-1556	d. compile a list to include ship name/number, UWSS EG, equipment/assembly, component that failed, effect on system, how and why it malfunctioned, corrective action taken;	Mandatory
PWS-1557	e. compile a list of UWSS EG components being returned for repair;	Mandatory
PWS-1558	f. conduct and provide to Canada an annual trend analysis of returned UWSS EG components that needed to be repaired;	Mandatory
PWS-1559	g. conduct a trend analysis of the number of Corrective Maintenance Actions for each component of each UWSS EG;	Mandatory
PWS-1560	h. conduct and provide to Canada an annual trend analysis of returned UWSS EG components where no failures were found;	Mandatory
PWS-1561	i. maintain records associated with the management of FSR deployment, including date/time of call-out receipt by the Contractor and date/time of FSR arrival on location;	Mandatory
PWS-1562	j. use Earned Value Management (EVM) to compute the Cost Performance Index and Schedule Performance Index to determine the cost and schedule performance of the AOP on a monthly basis;	Mandatory
PWS-1563	k. provide the results of the AOP EVM analysis to Canada on a monthly basis;	Mandatory
PWS-1564	l. quantify the benefits of all proposed and implemented changes from continuous improvements and value engineering;	Mandatory
PWS-1565	m. conduct and provide to Canada an annual trend analysis of the sum of quantified benefits of all proposed and implemented changes from continuous improvements and value engineering;	Mandatory
PWS-1566	n. list the non-compliant configuration issues in the reporting period identifying the quantity and description of the non-compliant configuration issues;	Mandatory
PWS-1567	o. conduct and provide to Canada an annual trend analysis of non-compliant configuration issues;	Mandatory
PWS-1568	p. On an annual basis, review the Contractor Held Inventory and identify and report any items that are or remain unaccounted for and must determine the value of said items in relation to the number of items held and in transit and provide a listing of same to DND; and	Mandatory
PWS-1569	q. Record a description of the cause, effect, non-compliance penalty, and rectification of the violation for each NMA violation that occurs.	Mandatory
PWS-1570	9.8 Performance Outcome Verification	Heading
PWS-1571	9.8.1 [M] The Contractor must report and present the resultant SPMs, KPIs, SHIs to Canada for validation.	Mandatory
PWS-1572	9.8.2 [M] The Contractor must compute the Composite Performance Payment in accordance with the PRS.	Mandatory
PWS-	9.8.3 [M] The Contractor must provide Canada with the results of the trend analysis	Mandatory

ID		Requirement Type
1573	of the number of Corrective Maintenance Actions highlighting the components of each UWSS EG that are at risk.	
PWS-1574	9.8.4 [M] Quarterly, the Contractor must calculate and report the SHIs, using the previous three month's data.	Mandatory
PWS-1575	9.8.5 [M] Quarterly, the Contractor must calculate and report the SHIs, using the cumulative data for the current calendar year.	Mandatory
PWS-1576	9.8.6 [M] Annually, at calendar year end, the Contractor must report the KPIs, using the data for the current calendar year.	Mandatory
PWS-1577	9.8.7 [M] Annually, at calendar year end, the Contractor must report the SPMs, using the previous 36 month's data.	Mandatory
PWS-1578	9.8.8 [M] The Contractor must write a SPM report annually, as described in the PRS.	Mandatory
PWS-1579	9.9 Performance Indicator Data	Heading
PWS-1580	9.9.1 [M] The Contractor must:	Mandatory
PWS-1581	a. retain copies of all data and information used in determining the SPM, KPI, SHI scores, including a clear record of the relevant date(s) and time(s) for each item of data and information;	Mandatory
PWS-1582	b. retain the data used for the calculation of the SPMs, KPIs, SHIs in accordance with the terms of the contract; and	Mandatory
PWS-1658	c. if requested by Canada, provide Canada with a copy of all or part of the data.	Mandatory
PWS-1583	10 Meetings	Heading
PWS-1584	10.1 Minutes and Agenda	Heading
PWS-1585	10.1.1 [I] The Contractor or Canada, by mutual agreement, may convene video or telephone conferences in lieu of face-to-face meetings.	Information
PWS-1586	10.1.2 [M] The Contractor must convene meetings at the Contractor's facility or at an alternate location as agreed to by Canada and the Contractor.	Mandatory
PWS-1587	10.1.3 [M] The Contractor must provide, at its location, a venue with the necessary facilities, including Video Conferencing and/or Teleconferencing systems to reduce the cost of hosting and holding meetings.	Mandatory
PWS-1588	10.1.4 [I] Minutes and Agenda items will be delivered primarily by the Contractor, as a Management Function task.	Information
PWS-1589	10.1.5 [M] The Contractor must produce a Meeting Agenda for all meetings in accordance with DID-MTG-001.	Mandatory
PWS-1590	10.1.6 [M] The Contractor must produce Minutes for all meetings in accordance with DID-MTG-002.	Mandatory
PWS-	10.2 Action Item Management	Heading

ID		Requirement Type
1591		
PWS-1592	10.2.1 [M] The Contractor must record action items arising from meetings, reviews or correspondence.	Mandatory
PWS-1593	10.2.2 [M] The Contractor must develop, deliver and update an Action Item Log in accordance with DID-MTG-003.	Mandatory
PWS-1594	10.3 Initial Kick-Off Meeting	Heading
PWS-1595	10.3.1 [I] The purpose of the Kick-Off Meeting is to review and clarify requirements. It is not a venue for making changes to the Contract.	Information
PWS-1596	10.3.2 [M] The Contractor must organize a Kick-Off Meeting with Canada no later than 60 calendar days after the end of the dormant period at a time and location that is mutually convenient to both Canada and the Contractor.	Mandatory
PWS-1597	10.3.3 [M] The Contractor must include, as a minimum, the following in the agenda for the Kick-Off Meeting:	Mandatory
PWS-1598	a. contractor briefing on the company and how it will be organized to manage the contract;	Mandatory
PWS-1599	b. roles and responsibilities of key personnel and points of contact;	Mandatory
PWS-1600	c. key contract terms;	Mandatory
PWS-1601	d. phases and Timelines;	Mandatory
PWS-1602	e. ISS Activities;	Mandatory
PWS-1603	f. communications - procedures for monitoring and reporting progress;	Mandatory
PWS-1604	g. procedures for managing risks and issues;	Mandatory
PWS-1605	h. contract administration and contract change procedures; and	Mandatory
PWS-1606	i. review of all plans submitted with the bid.	Mandatory
PWS-1607	10.4 Progress Review Meeting (PRM)	Heading
PWS-1608	10.4.1 [M] The Contractor must schedule, plan and organize PRMs quarterly.	Mandatory
PWS-1609	10.4.2 [M] The Contractor must convene PRMs as follows:	Mandatory
PWS-1610	a. Start-Up Phase – semi-monthly, or directed by Canada; and	Mandatory
PWS-	b. Steady-State – semi-annually, unless otherwise mutually agreed or directed by	Mandatory

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1611	Canada.	
PWS-1612	10.4.3 [I] PRMs will be co-chaired by Canada and the Contractor.	Information
PWS-1613	10.4.4 [I] The Contractor's major sub-contractors may attend as required by agreement between the Contractor and Canada. Canada may be accompanied to these meetings by outside consultants and other Contractors providing services to Canada.	Information
PWS-1614	10.4.5 [M] The Contractor must coordinate with the CA for all arrangements related to PRMs.	Mandatory
PWS-1615	10.4.6 [O] For each PRM, the contractor must address, as a minimum, the following items:	Mandatory
PWS-1616	a. progress since the last PRM;	Mandatory
PWS-1617	b. Integrated Master Schedule;	Mandatory
PWS-1618	c. project risks, associated mitigation, impact timeframe, contingency plan;	Mandatory
PWS-1619	d. action Items tracking and status updates from previous PRMs, other meetings and correspondence;	Mandatory
PWS-1620	e. technical issues;	Mandatory
PWS-1621	f. obsolescence forecasts;	Mandatory
PWS-1622	g. contractual issues;	Mandatory
PWS-1623	h. financial issues;	Mandatory
PWS-1624	i. activities planned for the next reporting period; and	Mandatory
PWS-1625	j. any such other items as may be required to affect the Contractor's solution or that the Contractor considers relevant to the work.	Mandatory
PWS-1626	10.5 Performance Assessment Meetings	Heading
PWS-1627	10.5.1 [I] The Performance Assessment Meetings will be used to review and assess the performance measurement data and metrics results and award the applicable incentives.	Information
PWS-1628	10.5.2 [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.	Information
PWS-	10.5.3 [M] The Contractor must schedule, plan and organize the Performance	Mandatory

ID		Requirement Type
1629	Assessment Meetings, chaired by Canada and the Contractor which coincides with the PRMs.	
PWS-1630	10.5.4 [M] The Contractor must prepare and include the following information for the Performance Assessment Meetings:	Mandatory
PWS-1631	a. report the measurement metrics as defined in Chapter 9;	Mandatory
PWS-1632	b. calculate the applicable performance award based on the Performance Management Framework as defined in Chapter 9; and	Mandatory
PWS-1633	c. Make recommendations for changes to the measurement indicators and the Performance Management Framework.	Mandatory
PWS-1634	10.6 Direct Liaison with Formations, Units and OEMs	Heading
PWS-1635	10.6.1 [I] Canada and the Contractor may convene meetings to:	Information
PWS-1636	a. co-ordinate inputs to the UWSS EGPP and CPP;	Information
PWS-1637	b. co-ordinate the development and approval of the AOP and schedule;	Information
PWS-1638	c. provide updates on operational activity;	Information
PWS-1639	d. resolve specific Material Management Services and technical problems;	Information
PWS-1640	e. discuss Performance Measurement and Assessment; and	Information
PWS-1641	f. provide decisions, if needed, or assess progress in specific areas of the Contract.	Information
PWS-1642	10.6.2 [M] The Contractor must liaise with RCN Formations and Units to coordinate the exchange of information for planning and coordinating approved work.	Mandatory
PWS-1643	10.6.3 [I] HMC Ships will be responsible to conduct the Preventive Maintenance program, report deficiencies and initiate material demands. They will also request additional, deployed or along-side augmentation of support services from the Contractor. The SS coordinate and assist the Contractor staff when aboard.	Information
PWS-1644	10.6.4 [I] In addition to performing Level Two and designated Level Three maintenance tasks in support of <i>Halifax</i> -class frigates, as outlined in the Guide to In-Service Support Contracts in HMCS Dockyards, May 2016, FMFs act as the lead in-service support provider for the <i>Halifax</i> -class, coordinating Ships' support activities in the Dockyards and providing some minor support services (e.g. cranes, rigging, material movement, and chemical cleaning) upon request. A Point of Contact (POC) for co-ordination of these activities will be provided after contract award. In addition, the UWSU Contractor provides material support and assistance to FMFs as requested through this POC.	Information

ID		Requirement Type
PWS-1645	10.6.5 [I] The Contractor provides direct support to RCN TAs for maintenance of training aids and to plan and co-ordinate training service delivery when and as requested. A POC will be appointed to co-ordinate these activities after contract award.	Information