Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy											Date: February 2016	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0603596N *I (U)LCS Mission Modules*							
COST ($ in Millions)	**Prior Years**	**FY 2015**	**FY 2016**	**FY 2017 Base**	**FY 2017 OCO**	**FY 2017 Total**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**Cost To Complete**	**Total Cost**
Total Program Element	105.682	172.602	203.143	160.058	-	160.058	72.820	54.940	43.170	30.956	Continuing	Continuing
3129: *LCS Mission Package Development*	105.682	172.602	203.143	160.058	-	160.058	72.820	54.940	43.170	30.956	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element (PE) provides funds for detailed design, development, issue resolution, certification, integration, and testing of the Littoral Combat Ship (LCS) Mission Modules (MM). LCS is a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats, and ensure naval and joint force access into contested littoral regions. It uses open-systems architecture design, modular weapons, sensor systems, and a variety of manned and unmanned vehicles to expand the battle space and project offensive power into the littoral.

The LCS MMs provide tailored warfighting capability for one at a time of the three focused mission areas:

MCM - provides capability to conduct minehunting (detection, localization, classification, identification, and neutralization) and mine sweeping operations for mine threats.
SUW - provides capability to conduct enhanced-range coordinated detection, tracking, classification, identification, and neutralization of groups of attacking, multiple, small boat threats, and to conduct maritime security missions.
ASW - provides capability to detect, classify, localize, and prosecute enemy submarines; counter diesel submarine threats in the littoral shallow waters and their associated deep water approaches; and to provide an escort capability for forces transiting through submarine threat areas.

B. Program Change Summary ($ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	176.948	206.149	125.761	-	125.761
Current President's Budget	172.602	203.143	160.058	-	160.058
Total Adjustments	-4.346	-3.006	34.297	-	34.297
• Congressional General Reductions	-	-0.036			
• Congressional Directed Reductions	-	-12.970			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.346	0.000			
• Program Adjustments	0.000	0.000	34.805	-	34.805
• Rate/Misc Adjustments	0.000	0.000	-0.508	-	-0.508

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Change Summary Explanation

FY16:
$10M increase is a result of a Congressional add for Small Business Tech Insertion.

$12.970M decrease is a result of a Congressional reduction to remove ASW operational assessment of non-requirements compliant development asset.

FY17:
Decrease in LCS Mission Modules RDTEN by $6.695M was required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

FY17 increase of $18.0M is a result of a realignment from OPN to RDT&E,N to support the rephasing of SUW and ASW test events.

FY17 increase of $8.3M supports the continued development of the Unmanned Influence Sweep System (UISS) as part of the MCM MP Increment III.

FY17 increase of $7.4M supports the train to qualify / train to certify (T2Q/T2C) requirements for the LCS Mission Modules.

FY17 increase of $7.8M was realigned from RMS OPN to accelerate unmanned system integration efforts in alignment with the Independent Review Team (IRT) recommendations.

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COST ($ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
3129: *LCS Mission Package Development*	105.682	172.602	203.143	160.058	-	160.058	72.820	54.940	43.170	30.956	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Program provides focused war fighting capabilities in littoral mine countermeasures, countering small boat threats, and littoral anti-submarine warfare to provide ensured access to enable the US Joint Force operations in the littorals. A mission package is a combination of warfare mission modules with specialized crew, support equipment, and vehicles including manned helicopters and unmanned maritime systems. They are packaged in a modular fashion so that they can be quickly swapped out pier side. Mission module development includes architectures, interfaces, and integration of mission systems. Mission systems integration also includes the procurement of the first mission packages to be used on the Flight 0 Littoral Combat Ships (LCS). Although the total quantity is under review due to LCS ship and Frigate quantity adjustments, the numerical distribution of mission packages across the LCS/Frigate fleet is not expected to change the Program of Record within the FYDP. The Navy will determine the numerical distribution of MCM, SUW, and ASW mission packages across the LCS/FF Fleet. The systems to be fielded as part of the mission packages and the required RDT&E efforts will not be affected by the LCS and FF quantity adjustments. The LCS will be focused-mission ships that have the ability to embark the SUW, MCM, or ASW mission packages. The Frigates will be multi-mission ships, with certain SUW and ASW war-fighting capabilities installed.

An incremental development approach to delivering capability allows the continued insertion of mature capabilities throughout the life of the program without the need for modifications to the sea frames. Future mission package increments will be considered when joint warfighting objectives or changing threats create new operational capability requirements that cannot be met by current mission package designs, or when new technological opportunities allow significant progress toward delivering cost effective, enhanced capabilities. Future mission module increments can be tested, constructed, and incorporated into existing mission packages, one of the most important benefits of LCS modular design.

The LCS Mine Countermeasures (MCM) mission package will counter deep, shallow, and tethered mines in the littoral without putting Sailors in the minefield. When the MCM mission package is embarked, LCS is capable of conducting detect-to-engage operations (hunting, sweeping, and neutralization) against very shallow and deep-water sea mine threats. The MCM mission package provides these capabilities through the use of sensors and weapons deployed from an MH-60S multi-mission helicopter and unmanned off-board vehicles. The MCM package consists of the following systems: Coastal Battlefield Reconnaissance & Analysis (COBRA), Airborne Laser Mine Detection System (ALMDS), Remote Multi-Mission Vehicle (RMMV) (as modified based on Independent Review Team (IRT) recommendations), AQS-20A Mine hunting Sonar, Airborne Mine Neutralization System (AMNS), Unmanned Influence Sweep System (UISS) (which is comprised of the Unmanned Surface Vehicle (USV) and the Unmanned Surface Sweep System (US3)), Surface Mine Countermeasures (SMCM), Unmanned Undersea Vehicle (UUV) with Low Frequency Broad Band (LFBB), support equipment, and support containers. The individual systems are combined into five modules: Organic Airborne Mine Countermeasures (OAMCM) Module, Remote Mine Hunting Module, Unmanned Influence Sweep Module, Coastal Mine Reconnaissance Module and the Buried Mine Module. The Organic Airborne Mine Countermeasures Module provides rapid mine hunting and clearing using the embarked MH-60 helicopter and Mine Countermeasure systems. The Remote Mine Hunting Module uses a Remote Multi-Mission Vehicle (RMMV) and AQS-20A to provide sustained mine hunting and clearing from the surface. The Influence Sweep Module provides endurance bottom sweep capability, the Coastal Mine Reconnaissance Module (CMRM) will allow detection of minefield patterns and obstacles from

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an embarked Fire Scout VTUAV, and the Buried Mine Module will allow detection of buried mines. When complete, the MCM mission package will provide full capability against floating, tethered, bottom, and buried mines.

The ASW mission package enables LCS to conduct detect-to-engage operations against modern submarines that pose a threat. Specific ASW capabilities include protecting forces in transit, protecting joint operating areas, and establishing ASW barriers.

ASW modules developed to provide the warfighter capabilities that can be employed for ASW area search as well as high value unit escort missions. Module components include a torpedo countermeasures system, a Variable Depth Sonar, and a Multi-Function Towed Array. The Aviation Module offers airborne threat localization and engagement capability through a Fire Scout VTUAV and an MH-60R with MK54 torpedoes. The individual systems are combined into three modules: Torpedo Defense Countermeasure; ASW Escort/Large area Clearance; and Aviation Module.

The SUW mission package increases firepower and offensive/defensive capabilities against large numbers of highly maneuverable, fast, small craft threats, giving LCS the ability to protect the sea lanes and move a force quickly through a choke point or other strategic waterway. With the SUW mission package embarked, LCS has enhanced detection and engagement capability against enemy small craft and similar littoral surface threats.

The SUW mission package is comprised of several modules including the Gun Mission Module (GMM). The GMM is comprised of two high velocity 30mm cannons and is augmented with the ship's 57mm gun to counter close in to mid-range threats. The Aviation Module uses the embarked MH-60R helicopter with Hellfire missile and the MQ-8B Fire Scout Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) for the detection, identification, and classification of surface contacts and to engage long range threats. The Maritime Security Module supports the embarkation of a Visit, Board, Search, and Seizure (VBSS) team. The Surface to Surface Missile Module (SSMM) will provide missile coverage for mid-range threats and small boats.

The LCS Mission Modules Common Equipment consists of enabling products required by all mission packages to provide common hardware interfaces, computer operating environment, communications systems, aviation interface systems, and portable development & integration test-sets. Common hardware interfaces include definition, installation, and control of mechanical, electrical, and cooling requirements common to all mission packages. The Mission Package Computing Environment (MPCE) provides common services and Operating Environment to support all Mission Package Application Software and Open Architecture Products. The Multi-Vehicle Communications System (MVCS) enables the control and data exchange of simultaneous unmanned mission vehicles and the Seaframes. Aviation interface systems include integration and management of data communications, data processing, and physical hardware interfaces such as common equipment and containers used by all mission packages. Development and integration test-sets provide a mobile operating environment installed in the Mission Package Portable Control Stations (MP-PCS) to serve as a surrogate Seaframe during mission package development and integration test events at test ranges.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: System Engineering	17.018	9.633	11.830	0.000	11.830
Articles:	-	-	-	-	-
FY 2015 Accomplishments:					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Conducted three (3) System Engineering Technical Reviews (SETR) as follows: Surface-to-Surface Missile Module (SSMM) CDR, and Antisubmarine Warfare (ASW) Mission Package CDR to ensure that each system under review could proceed into development, module integration, and test. Assessed each Configuration Item within each system under review to ensure each product had been captured in the appropriate detailed design documents. Established the initial Production Baseline for each system/module under review. Developed and/or updated SE documentation in support of Milestone C: Systems Engineering Plan; Information Assurance Strategy; Program Protection Plan; Programmatic Environmental, Safety, and Health Evaluation (PESHE); Clinger Cohen Act. Continued to align LCS MM requirements and development plans toward the Incremental KPP approach and in support of Net-Centric operations: Supported CPD Development for the MPs; MP Department of Defense Architecture Framework (DoDAF) Architectures. Continued the implementation of LCS MM M&S strategic plan to support performance prediction; validation of T&E plans; and/or training and stim/sim efforts. Continued Safety/ESOH risk/hazard analysis and mitigation tracking: Aligned hazards and MARs to product baseline; ESOH risk/hazard analysis and mitigation; Implemented DoD/DoN ESOH related directives and initiatives affecting the program to SE Team. Continued to provide HSI subject matter expertise into development and implementation of MP common systems (i.e. CSA, MPCC, feedback process); assessed and addressed HSI issues associated with Mission Packages; evaluated manpower and workload policies affected by new technology implementation; aligned MP HSI tasks and activities to MP SETR events; tracked and mitigated MP HSI risks and issues; updated and implemented the PMS 420 HSIP. Continued Implementation of the Corrosion Prevention and Control Plan (CPCP). Continued to provide Configuration Management for the PMS 420 LCS MM Program: identified and controlled Mission Package configurations via the PMS420 CCB; managed Test Observation Report (TOR); captured and tracked problems found during integration testing, Navy Core Testing (NCT), and ship visits.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continued to update the MP Reliability, Availability, Maintainability-Cost (RAM-C) Report (which comprises the RAM-C Analysis Report and the RAM-C Rationale Report) to assess LCS MP RAM metrics, influenced design of MP hardware and support-system design, and helped determine the optimal mix of hardware design, support-system design, and lifecycle cost. Coordinated with and assisted the PMS 420 APMs and LSEs with the scheduling, planning, and execution of SETRs. Verified that the LCS MPCE, the MMs, and MVCS were compliant with DoD and DON IA policies, and that such compliance is stated in their respective program Information Assurance Strategies, PRA artifacts, and other program documentation. Conducted analysis to determine the methodology and engineering design efforts required to create a federated architecture of Mission Package Application Software (MPAS) with the focus on integration into future LCS seaframes.					
FY 2016 Plans: Develop and/or update SE documentation in support of Milestone C: Systems Engineering Plan; Information Assurance Strategy; Program Protection Plan; PESHE; Clinger Cohen Act, Life Cycle Mission Data Plan Continue to align LCS MM requirements and development plans toward the Incremental KPP approach and in support of Net-Centric operations: Support CPD Development for the MPs; MP DODAF Architectures. Continue the implementation a LCS MM M&S strategic plan to support performance prediction; validation of T&E plans; and/or training and stim/sim efforts. Continue Safety/ESOH risk/hazard analysis and mitigation tracking: Align hazards and MARs to product baseline; ESOH risk/hazard analysis and mitigation; Implement DoD/DoN ESOH related directives and initiatives affecting the program to SE Team. Continue to provide HSI subject matter expert into development and implementation of MP common systems, i.e. CSA, MPCC, feedback process; assess and address HSI issues associated with Mission Packages; evaluate					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
manpower and workload policies affected by new technology implementation; align MP HSI tasks and activities to MP SETR events; track and mitigate MP HSI risks and issues; update and implement the PMS 420HSIP. Continue Implementation of the Corrosion Prevention and Control Plan (CPCP). Continue to provide Configuration Management for the PMS 420 LCS MM Program: identify and control Mission Package configurations via the PMS420 CCB; manage Test Observation Report (TOR); capture and track problems found during integration testing, Navy Core Testing (NCT), and ship visits. Continue to update the MP Reliability, Availability, Maintainability-Cost (RAM-C) Report (which comprises the RAM-C Analysis Report and the RAM-C Rationale Report) to assess LCS MP RAM metrics, influence design of MP hardware and support-system design, and help determine the optimal mix of hardware design, support-system design, and lifecycle cost. Coordinate with and assist the PMS 420 APMs and LSEs with the scheduling, planning, and execution of SETRs. Verify that the LCS MPCE, the MMs, and MVCS are compliant with DoD and DON IA policies, and that such compliance is stated in their respective program Information Assurance Strategies, PRA artifacts, and other program documentation. ***FY 2017 Base Plans:*** Conduct the following System Engineering Technical Reviews (SETR): MPCE 2.0 CDR MPCE 2.0 TRR MCM Increment III PDR MCM Increment III CDR MCM Increment IV CDR MCM Increment IV SRR Continue the overarching system engineering efforts as follows; Continue to develop and implement process to track lead/lag SE Metrics to include requirements, RTVM, and SRLs Continue to implement a Technical Performance Measure (TPM) Plan					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continue to support the Corrosion Prevention and Control Plan (CPCP) Continue to implement MBSE strategy on critical MP interfaces identified during the ASW SFR and SSMM assessment Continue to assist in TOR adjudication and prioritization Continue to standardize and improve Reliability, Availability and Maintainability (RAM) data collection Continue to Implement a LCS MMs M&S strategic plan to support performance prediction, validation of T&E plans, and/or training and stim/sim efforts Continue to support training in the development of the requirements set for the CMPT and associated stim/sim systems Continue to implement the Configuration Management Plan (CMP) to differentiate between developmental and product baselines and look to streamline CCB processes Continue to align hazards and Mishap Assessment Reports (MARs) to product baseline Conduct Safety Risk Assessment of new development technologies such as Common Software Architecture (CSA) Continue ESOH risk/hazard analysis and mitigation tracking Continue to implement the Hazardous Materials Management Plan (HMMP) ***FY 2017 OCO Plans:*** N/A					
Title: Program Management	4.533	4.252	4.300	0.000	4.300
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued PM efforts: business and administrative planning, organizing, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives that are not associated with specific hardware elements or included in systems engineering. ***FY 2016 Plans:*** Continue PM efforts: business and administrative planning, organizing, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives that are not associated with specific hardware elements or included in systems engineering. ***FY 2017 Base Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continue PM efforts: business and administrative planning, organizing, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives that are not associated with specific hardware elements or included in systems engineering. ***FY 2017 OCO Plans:*** N/A					
Title: System Test and Evaluation	33.305	17.901	29.130	0.000	29.130
Articles:	-	-	-	-	-
FY 2015 Accomplishments: MCM MP: Completed MCM MP Increment I developmental testing. Completed test planning and the Test Readiness Review (TRR) for MCM MP Increment I TECHEVAL. Executed MCM MP Increment I TECHEVAL and began analysis/report development. SUW MP: Conducted SUW MP Increment I & II IOT&E aboard LCS 2 variant. Began planning for integration testing of VTUAV with the SUW MP. Continued test planning for SUW MP Increment III (Surface-to-Surface Missile Module (SSMM)) test events planned for FY16 and FY17. Initiated SSMM live fire program with the Longbow Hellfire Missile. Executed the first Guided Test Vehicle (GTV) event, to include data analysis and reporting. ASW MP: Continued test planning for developmental testing of the ASW MP on the LCS platform in FY16. Conducted National Environmental Policy Act (NEPA) and environmental planning and coordination to support DT/ TECHEVAL/OT/FOTE. Conducted and supported Certification, Test, and Evaluation to include software certification/ assessment testing, reporting, and events such as MPRAs, MRAs, Test Readiness Reviews, WSESRB, etc in order to support fleet deployment upon completion of the IOT&E and FOTE events. ***FY 2016 Plans:*** MCM MP: Conduct MCM MP Increment II developmental testing of VTUAV/COBRA from Independence variant. SUW MP: Continue planning and executing SSMM live fire test program. Will execute a second GTV event with the Longbow Hellfire missile - includes planning, testing, data analysis, and reporting.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Conduct and Support Certification Test and Evaluation to include software certification/assessment testing, reporting, and events such as MPRAs, MRAs, MRRs, Test Readiness Reviews, WSESRB, etc in order to support test events and Fleet deployment upon completion of the IOT&E. ***FY 2017 Base Plans:*** Increase in Test and Evaluation from FY16 to FY17 is detailed in the efforts below and includes additional ASW MP testing. MCM MP: Plan and conduct MCM Increment II operational testing. Plan and conduct initial DT (LH&R) for MCM MP Increment II on both LCS variants. SUW MP: Finalize planning and execute DT, TECHEVAL and IOT&E for SSMM on LCS 1 variant. Plan and execute developmental testing for SSMM on LCS 2 variant. Plan for TECHEVAL and IOT&E of SSMM on LCS 2 variant in FY18. ASW MP: Plan and execute ASW DT and TECHEVAL on LCS 1 variant. Plan for IOT&E on Freedom variant in FY18. Plan for ASW DT and conduct ship checks for Independence variant. ***FY 2017 OCO Plans:*** N/A					
Title: Integration, Assemble, Test and Checkout	14.278	8.375	9.400	0.000	9.400
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Performed Mission Package - Seaframe Integration and Aviation Integration. Seaframe Integration provided services that supported the successful integration of the MCM, SUW, and ASW Mission Packages into both variants of LCS seaframes. Mission Package (MP) - Integration assessment reports to support MCM MP TECHEVAL on LCS 2. Integration assessment reports to support deployment of LCS 3 with SUW MP. Engineering studies and seaframe modifications to support SUW MP TECHEVAL and IOT&E on LCS 4. Engineering studies and seaframe modifications to support ASW MP TECHEVAL and IOT&E on LCS 5 and 6. Aviation Integration provided services that supported the successful integration of aviation assets of the MCM, SUW, and ASW Mission Packages into both variants of LCS seaframes. Hardware engineering for Aviation Support Containers, including roll-on/roll-off (RO/RO) Cabinets and Mezzanine. Hardware Engineering for VTUAV Global Command and Control System (GCCS) back-fits. Improve communications for TCDL within					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Combat to the Mission Packages. Software Engineering for the continued development of the Helo Support Function (HSF) and Mission Package Application Software (MPAS) with Aviation assets. Support and integration of VTUAV modifications including Advanced Precision Kill Weapon System and Radar RDC. Continued program level Integration, Assembly, Test & Checkout efforts of ECPs required to correct findings from Developmental and Operational test events. ***FY 2016 Plans:*** Perform Mission Package - Seaframe Integration and Aviation Integration. Seaframe Integration provides services that support the successful integration of the MCM, SUW, and ASW Mission Packages into both variants of LCS seaframes. Aviation Integration provides services that support the successful integration of aviation assets of the MCM, SUW, and ASW Mission Packages into both variants of LCS seaframes. FY16 will include the following efforts: - Continue Seaframe Change Management and Execution using Alteration Integration Team (AIT); - Continue ICD 2.0 and IDS 2.0 configuration management; - Continue integrating SUW Increment III (Surface-to-Surface Missile Module) onto both of the variants; - Conduct wakefield characterization testing from Freedom variant to support L&R integration of the USV, Knifefish, and any potential future organic offboard vehicles; - Conduct integration testing of MCM MP Increment II (VTUAV/COBRA) for Independence variant, including integration of COBRA Post Mission Analysis hardware into the mission package. This will also involve testing MCM MPAS software at the DIF. - Continue the integration of MCM MP Increment III (Unmanned Influence Sweep System (UISS)) into laydown plan and weight/stability analysis; - Begin integrating MCM MP Increment IV (Knifefish) into laydown plan and weight/stability analysis; begin ASW MP integration on Freedom variant and INDY variant; and continue to expand role of MSSIT for FIT checks and IV&V checks. ***FY 2017 Base Plans:*** Perform Mission Package - Seaframe Integration and Aviation Integration. Seaframe Integration provides services that support the successful integration of the MCM, SUW, and ASW Mission Packages into both variants of LCS seaframes. Aviation Integration provides services that support the successful integration of aviation assets of the MCM, SUW, and ASW Mission Packages into both variants of LCS seaframes.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
FY17 will include the following efforts: - Continue Seaframe Change Management and Execution using AIT for MPC GUID Mods, MPCE v1.9 Tech Refreshes for LCS 4, and MVCS v1.1.0 Baseline Upgrades; - Integrating SUW MP Increment III on Freedom variant to support DT event; - Integrating MCM MP Increment II on Freedom variant for Phase I and Phase 2 DT events; - Integrating MCM MP Increment III on INDY variant in support of DT event; - Integrating ASW MP on Freedom variant to support DT event; - MPAS-CMS Integration Testing at DIF & MSIC; - Conduct seaframe feasibility studies with both shipbuilders for ASW, MCM and SUW MP Integration; - MSSIT Test Kit Development for Aviation and Mission Package Interfaces; - Common Software Architecture Integration; - MPCE v1.9 INCOs on new ships; - Maintain ICD 2.0 and IDS Configuration Management. ***FY 2017 OCO Plans:*** N/A					
Title: Training Systems Development	16.425	15.915	12.750	0.000	12.750
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued development of training and training systems for MCM, SUW and ASW Mission Module Detachments in accordance with NTSPs. Performed vendor and interim training for formal MCM, SUW, and ASW test events. Funded training related detachment and replacement Sailor travel for vendor and interim formal training in accordance with CSPPs. Transitioned MCM and SUW tactical team training to NETC facilities and achieved initial capability at LCS Training facility for MCM and SUW tactical team training. Updated formal curriculum to incorporate findings from program test events, operations and classroom experience. Updated formal curriculum to incorporate findings from program test events, operations and classroom experience. Continued analysis of MCM and SUW training to validate effective training delivery and identify changes necessary to deliver training that will achieve Train to Certify KPP. Completed analysis to determine initial ASW training and trainer requirements and began development of ASW Training and trainers. Continued initial LCS ASW training using SQQ-89 courses. Developed curriculum and system changes to support incremental capability fielding plan. Commenced update of Common Mission Package Trainer (CMPT) for ASW and development of LCS ASW MM Fundamentals and CAPSTONE courses with a plan to achieve RFT in FY16. Train to Certify (T2C) capability					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
will be achieved in FY19 after all systems have been delivered, trainers in place and formal training has been developed and accepted. ***FY 2016 Plans:*** Continue development of training and training systems for MCM, SUW and ASW Mission Module Detachments in accordance with NTSPs. Perform vendor and interim training for formal MCM, SUW, and ASW test events. Fund training related detachment and replacement Sailor travel for vendor and interim formal training in accordance with CSPPs. Achieve initial capability at LCS Training facility for MCM and SUW mission bay training. Update formal curriculum to incorporate findings from program test events, operations and classroom experience. Update formal curriculum to incorporate findings from program test events, operations and classroom experience. Continue analysis of MCM and SUW training to validate effective training delivery and identify changes necessary to deliver training that will achieve Train to Certify KPP. Complete analysis to determine initial ASW training and trainer requirements and begin development of ASW Training and trainers. Continue initial LCS ASW training using SQQ-89 courses. Achieve RFT of LCS SUW MM Fundamentals and CAPSTONE courses at LTF. Commence training sailors at LTF Mission Bay Trainer which is expected to RFT late FY15. Achieve RFT of MK-50 GMM differences course at Dam Neck. Develop curriculum and system changes to support incremental capability fielding plan. Complete development of Common Mission Package Trainer (CMPT) for ASW software and Achieve RFT for LCS ASW MM Fundamentals and CAPSTONE courses. Train to Certify (T2C) capability will be achieved in FY19 after all systems have been delivered, trainers in place and formal training has been developed and accepted. ***FY 2017 Base Plans:*** Continue development of training and training systems for MCM, SUW and ASW Mission Module Detachments in accordance with NTSPs. Perform vendor and interim training for formal MCM, SUW, and ASW test events. Fund training related detachment and replacement Sailor travel for vendor and interim formal training in accordance with CSPPs. Achieve initial capability at LCS Training facility for MCM and SUW mission bay training. Update formal curriculum to incorporate findings from program test events, operations and classroom experience. Update formal curriculum to incorporate findings from program test events, operations and classroom experience. Continue analysis of MCM and SUW training to validate effective training delivery and identify changes necessary to deliver training that will achieve Train to Certify KPP. Continue development of ASW Training and trainers. Continue initial LCS ASW training using SQQ-89 courses.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Achieve RFT of LCS MCM Fundamentals and LCS SUW MM Fundamentals courses at LTF. Develop curriculum and system changes to support incremental capability fielding plan. Complete development of Common Mission Package Trainer (CMPT) for ASW software and Achieve RFT for LCS ASW MM Fundamentals, Planning and CAPSTONE courses. Train to Certify (T2C) capability will be achieved in FY19 after all systems have been delivered, trainers in place and formal training has been developed and accepted. ***FY 2017 OCO Plans:*** N/A					
Title: Program Technical Data	1.829	2.071	1.940	0.000	1.940
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Updated Program Technical Data packages to incorporate findings from SUW TECHEVAL and IOT&E test events. Finalized initial Integrated Logistics Support products in support of MCM MP TECHEVAL and IOT&E. Continued Technical Manual Management Activity to review, produce, and distribute technical documentation for the program. Completed development and began implementation of MPSF automated inventory management system (IMS) based on RFID solution. Prepared for inclusion of ASW into IMS. Began integrated logistics overarching support for the follow-on mission package increments. Provided overarching provisioning for Program. Developed the ASW MP and Surface-to-Surface Missile Module (SSMM) provisioning documentation to include: Allowance Parts Lists (APL) maintenance and development of Preliminary Allowance List (PALs) or Allowance Equipage Lists (AELs) as required for the ASW and SUW MPs. Updated existing provisioning packages as a result of Engineering Change Proposals (ECP) assessment or approvals. ***FY 2016 Plans:*** Finalize the technical data packages for the ASW MP. Coordinate and manage Acquisition Logistics engineering tasks. Update the reliability models including reliability growth, update the performance Based Logistics (PBL) strategy to reflect development and initial implementation of the ASW MP, Surface-to-Surface Missle Module (SSMM) and follow on MCM mission modules. Update program technical data packages to incorporate findings frrom MCM TECHEVAL event conducted in FY15. ***FY 2017 Base Plans:*** Update Program Technical Data Package (TDP) to incorporate findings from the MCM TECHEVAL. Update TDP for ASW MP modifications to support installation on the Independence variant. Finalize the TDP for MCM					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Increment III and IV. Incorporate developmental test finds into the SSMM TDP. Finalize the initial Integrated Logistics Support products in support of SUW Increment III (SSMM) TECHEVAL and IOT&E. ***FY 2017 OCO Plans:*** N/A					
Title: Common Equipment	7.864	22.330	8.650	0.000	8.650
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Conducted technology insertion for MPCE on LCS 1-4, Common Mission Package Trainer (CMPT) and Mission Package Portable Control Station (MPPCS). Continued development activities to evolve MPCE software architecture to a Service Oriented Architecture (SOA), MPCE v2.0, in support of the Common Software Architecture (CSA) Baseline. Updated MUS Design Documentation to align with MPCE 2.0 System Subsystem Specification (SSS). Mission Package Communications: Performed post-RTT modifications to HFGW hardware and software. Developed required logistics documentation for the HFGW radio. Completed MVCS v2.0.0. Integrated MVCS into MPCE, and support CSA requirements. Supported MVCS installation on UISS. Conducted and supported testing of MVCS on Knifefish. Implemented anti-jamming Requirements for MVCS.					
FY 2016 Plans: MPCE v1.9 - Continue hardware tech refresh activities at MP development sites and ship set deliveries for ships in accordance with Ship Project Directives (SPDs); - MPS/MPOE, Develop new software release of MPS/MPOE for MPAS integration on as required basis. Continue integration of Common Software Architecture (CSA) into the ASW MP. Continue evolving the MPCE software architecture to a Service Oriented Architecture (SOA), MPCE 2.0. Complete MPCE 2.0 System Subsystem Spec (SSS) documenting the merge of CSA SSS requirements with the MPCE SSS. Conduct tech refresh/insertion studies needed to sustain incremental MPCE capability upgrades. Identify technology refresh cycles and the hardware required to meet current requirements while addressing obsolescence and future MPCE SSS requirements. MVCS v1.2.0, develop software changes to support UISS and SMCM UUV integration and complete definition of requirements to integrate High Frequency Ground Wave (HFGW) radio. Small Business Technology Insertion (SBIR): Anti-Jam capability, magic filter technology transition into RT-1944 radio.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Technology trasition of next generation RT1944A/U LOS radio, seminal transition event (STE) to demonstrate increased bandwidth and communication relay capabilities. Continue implementation of Automated Test and Retest (ATRT) Development of Unmanned System Common Control (USCC) capabilities. Improvements for SIPRNET cross-platform communication and other cyber-security. ***FY 2017 Base Plans:*** Mission Package Computing Environment Conduct tech refresh of MPCE 1.9 hardware. Conduct MPCE activities required to support ASW MP certification. Conduct MPCE groom and TOR remediation activities to support ASW MP IOT&E and MCM MP Increment I (Freedom Variant) integration and test. Incorporate CR fixes into CSA Build 4 and initiate CSA Build 5. Multi Vehicle Communications Systems: MVCS 2.0, HW Conduct tech refresh/insertion studies needed to sustain incremental MVCS capability upgrades. Identify technology refresh cycles and the hardware required to meet current requirements while addressing obsolescence and future MVCS SSS requirements. MVCS Software v3.0 In support in MCM MP Increment III and IV, deliver updates for UISS and Knifefish integration. Commence monitoring by MPCE Utility Services (MUS), define initial AJ software capabilities and integrate CSA updated Resolve radio obsolesce issues associated with the PRC-117. Conduct transition studies for the High Frequency Ground Wave (HFGW) radio. ***FY 2017 OCO Plans:*** N/A					
Title: Mine Countermeasures (MCM) Mission Package	18.965	18.211	24.308	0.000	24.308
Articles:	-	-	-	-	-
FY 2015 Accomplishments: MCM MP Increment I (ALMDS, AMNS, RMMV, AN/AQS-20): Conducted grooming, prepared and executed TECHEVAL. Initiated integration and engineering for MCM MP capabilities on Freedom variant. MCM MP Increment II (VTUV/COBRA): Initiated integration on the Independence variant.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
MCM MP Increment III (UISS): Initiated the UISS EDM contract. Initiated integration of UISS into the MCM MP. Conducted the UISS Systems Requirements Review (SRR). Resolved hardware PTRs identified during testing through development of ACSNs. In support of MCM mission package, incorporated the following items into MPAS: Corrected software PTRs identified during MCM MP testing, and initiated UISS software integration. Performed systems engineering (risk management, information assurance, human systems integration, safety), configuration management, and Integrated Logistics Support in support. ***FY 2016 Plans:*** MCM MP Increment I (ALMDS, AMNS, RMMV, AN/AQS-20): Start the implementation of Independent Review Team (IRT) recommendations, which is examining using alternative mission systems to meet the MCM minehunting requirements. Continue to conduct integration, engineering, and test planning for MCM capabilities on the Freedom variant. MCM MP Increment II (VTUAV/COBRA): Continue the integration/developmental testing of VTUAV/COBRA on the Independence variant to support an FY17 operational test. MCM MP Increment III (UISS): Complete the design and development of UISS EDMs. Conduct contractor testing of the Unmanned Surface Vehicle (USV) and Unmanned Surface Sweep System (USSS) EDMs. Develop UISS mission module specifications and conduct Systems Engineering Technical Reviews (SETRs). Initiate UISS integration into the MCM MP. MCM MP Increment IV (Knifefish): Complete the design and development of Knifefish EDMs and Knifefish support containers. Conduct contractor testing of the Knifefish EDMs. Develop mission module specifications and conduct Systems Engineering Technical Reviews (SETRs) as planned. In support of MCM mission package, incorporate the following items into MCM MPAS: Correction of software PTRs identified during testing, integration of MEDAL EA, and upgrade MPAS Operating Systems to maintain IA compliance. Perform systems engineering (risk management, information assurance, human systems integration, safety), configuration management, and Integrated Logistics Support. ***FY 2017 Base Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
MCM MP increases from FY16 to FY17 to account for increased efforts as a result of the Independent Review Team (IRT) to identify alternate vehicles for the MCM MP. MCM MP Increment I (ALMDS, AMNS, RMMV, AN/AQS-20): Continue the implementation of Independent Review Team recommendations. MCM MP Increment II (VTUAV/COBRA): Conduct operational testing of VTUAV/COBRA. MCM MP Increment III (UISS): Complete integration of UISS into MCM MP and prepare for developmental testing on an LCS platform. For MCM MP Increment IV (Knifefish): Initiate integration of Knifefhish into MCM MP to include launch and recovery testing from an LCS platform. In support of MCM mission package, incorporate the following items into MCM MPAS: Correction of software PTRs identified during MCM MP testing, integration of NSAM and UISS software and upgrade MPAS Operating Systems to maintain IA compliance. Perform systems engineering (risk management, information assurance, human systems integration, safety), configuration management and Integrated Logistics Support. Test Net-Centric Sensor Analysis for MIW (NSAM) software to verify integration of AQS-20 P3I into MCM MP. ***FY 2017 OCO Plans:*** N/A					
Title: Anti-Submarine Warfare (ASW) Mission Package	20.523	50.357	21.140	0.000	21.140
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Prepared detailed Technical Data Package (TDPs) for Mission Module Engineering Development Model (EDM) weight reduction Preliminary Design Reviews (PDR) Q3 FY15 and executed the Mission Package PDR event in Q4FY15. Initiated the development of the Escort Mission Module (EMM) ASW Mission Package (MP) Mission Modules (MM) in accordance with approved Preliminary Design. Initiated the development of a draft ASW Mission Package Capabilities Production Document (CPD) and provided engineering, modeling and analysis support to refine/clarify Capabilities Development Document (CDD) Key Performance Parameters (KPPs) and Additional Attributes (AAs).					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Initiated the PEO LCS Rapid Technology Insertion (RTI) ASW Mission Package Weight Reduction Initiative (RFP # N66604-14-R-1120) proposal evaluation and made Phase I Base Contract awards. Executed Base Contract Transition Study and exercised and prepared for Option I ward in Q1FY16. Option I procures the test asset articles and addresses the ship integration issues to support ASW Mission Package embarkation. Continued Light Weight Tow (LWT) torpedo countermeasure mission module wet end and system control software development. Started procurement of LWT EDM components. Supported development of LWT over boarding and retrieval system. Initiated the Technical Data Package development in support of LWT installation onboard LCS. Continued Escort Mission Module acoustic processing, aviation integration support software, and Mission Package Application Software (MPAS) development to support testing and software certification and follow on Advance Development Model shipboard risk mitigation testing. Initiated the ASW MP end-to-end (E2E) integration test events at Land Based Integration Test (LBIT) and PAX River SAIL for Aviation integration, LM and GD CMS integration, and performance validation testing. Executed ASW MP Detachment training. Planned, prepared and performed Safety and Hazard analysis, Environmental Analysis, HSI Evaluations, and Reliability Assessment. Updated current LCS 1 Temporary Alteration/Non-Permanent Change (TEMPALT/NPC) to support ASW Mission Package embarkation on LCS-1 in FY16. Oversaw and supported execution of shipboard industrial work in accordance with ASW MP TEMPALT/NPC Completed the engineering and design development for FREEDOM variant SHIPALT/PC TDP to enable embarkation of the ASW MP. ***FY 2016 Plans:*** Develop testing objectives, conduct performance prediction modeling and prepare test plans to support the start execution of an ASW Mission Package TECHEVAL in FY17. Oversee and support execution of shipboard industrial work in accordance with ASW Mission Package Ship Alteration Permanent Change (SHIPALT/PC) Technical Data Package (TDP) and any additional Mission Module installation ECPs.					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Closeout ASW Mission Package Engineering Development Model (EDM)/weight reduction PDR by completing engineering efforts to resolve or adjudicate PDR Request for Action (RFA). Prepare detailed Technical Data Package (TDP) for Mission Package Critical Design Review (CDR) and execute the CDR event. Complete development of a draft ASW Mission Package Capabilities Production Document (CPD) and provide engineering, modeling, and analysis support to OPNAV as CPD is staffed though JROC review and approval process. Continue management of PEO LCS Rapid Technology Insertion (RTI) initiative Phase II (EDM Assessment) and complete procurement of test asset fabrication and integration to support continuation of Phase II component and system level validation testing and ASW Mission Package / Ship integration. Continue to develop final ship integration approaches to support LCS Ship Alteration Permanent Change (SHIPALT/PC) Technical Data Package (TDP) development. Complete Light Weight Tow (LWT) torpedo countermeasure mission module wet end and system control software development. Complete procurement of test assets and acquire necessary test spares to support ship integration. Continue development of initial ASW Mission Package system operator training materials and course curriculum to support Train to Qualify and Train to Certify requirements. Support development and exploitation of component and system level modeling and simulation capabilities to enable high fidelity virtual reality training. Continue Escort Mission Module acoustic processing, aviation integration support software, and Mission Package Application Software (MPAS) development and maturation to support IOT&E software certification and follow on shipboard testing FY18. ***FY 2017 Base Plans:*** Complete RTI Phase II which includes pre production test article through contractor level testing. Participate in RTI phase II design reviews and feasibility testing to verify performance. Upon completion of RTI Phase II, exercise RTI Phase III in support of ship or Mission Module integration, testing, Validation and Verification (V&V), certification and delivery. Conduct mission module and mission package level Land Based Integration Test (LBIT) end-to-end (E2E) integration testing, including events at PAX River SAIL for Aviation integration, Combat Management System					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
(CMS) integration and performance validation testing in support of ASW MP TECHEVAL and begin planning for ASW MP IOT&E. Perform Find, Fix, and Repair (FFR) of identified hardware and software issues prior to the IOT&E software certification in Q3 FY17 and Developmental Testing/Operational Testing on INDEPENDENCE variant platforms. Develop FY18 testing objectives, conduct performance prediction modeling and prepare test plans to support the execution of an ASW Mission Package operational testing of the ASW MP. Support EDM Lightweight Tow/LCS integration. Prepare Modular Testing Vehicle (MTV) torpedoes to support in-water testing of integrated Support Lightweight Tow DT/OT at Canadian Fleet Maritime Experimental Testing Range (CFMETR). Award AN/SLQ-61 LRIP/PRA contract, production system development. Continue development of ASW Mission Package system operator training materials and course curriculum to support Train to Qualify and Train to Certify requirements. Continue development of component and system level modeling and simulation capabilities to enable high fidelity virtual reality training. Deliver Operations and Maintenance and Fundamentals courseware to LCS Training Facility. Conduct Factory training events in support of formal courseware development. Deliver Interactive Electronic Technical Manual (IETM) to support EMM normal and casualty modes, system Employment. Deliver Preventive and Corrective Maintenance to include Maintenance Requirement Cards (MRC). Conduct ILS certification. Deliver Allowance equipage Lists (AEL) and Allowance Parts Lists (APL). Establish repair capability. Complete Supportability Analysis Tasks and Maintenance Planning. Continue Escort Mission Module acoustic processing, Aviation integration support software and Command and Control software development to support IOT&E software certification in Q3 FY17 and follow on shipboard testing. Initiate safety analysis of the ASW EDM systems developed under the RTI initiative and conduct integration safety analyses on the Independence variant. ***FY 2017 OCO Plans:***					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
N/A					
Title: Surface Warfare (SUW) Mission Package	34.869	51.269	34.690	0.000	34.690
Articles:	-	-	-	-	-

FY 2015 Accomplishments:
Conducted SSMM Critical Design Review (CDR). Continued developmental testing to categorize modifications to the current MPAS baseline. Continued modifications to MPAS to support continued SSMM development. Continued planning the SSMM environmental confidence level testing. Continued development of the detailed launcher design that supports the SSMM Increment II concept.

Find/Fix/Repair technical issues associated with GMM and MPAS identified during TECHEVAL and IOT&E test events onboard LCS 3 in FY14. Conducted TECHEVAL and IOT&E in Q4FY15 on LCS 4.

Maintained configuration control of SUW MP data, hardware, and software. Collected data and performed analysis associated with the SUW MP Reliability, Maintainability, and Availability (RMA) program. Conducted combat system certification, MP certification, obtained WSESRB/SSSTRP approval, IA approvals, and conducted shipboard test events with each seaframe manufacturer. Supported DT from LCS 2 variant, and OT from LCS 2 variant.

FY 2016 Plans:
Continue developmental testing to categorize modifications to the current MPAS baseline. Continue modifications to MPAS to support continued SSMM development. Complete planning and execute the SSMM environmental confidence level testing. Execute engineering and developmental testing of SSMM. Continue development of the detailed launcher design that supports the SSMM concept. Find/Fix/Repair technical issues associated with SSMM and MPAS identified during STF and DT events.

FY 2017 Base Plans:
Conduct combat system certification, MP certification, obtain WSESRB/SSSTRP approval, IA approvals, and conduct shipboard test events with each seaframe manufacturer. Conduct SUW Increment III TECHEVAL and IOT&E on the Freedom variant FY17 and prepare for TECHEVAL and IOT&E on Independence variant FY18. Prepare for deployment of the SUW Increment III (SSMM EDM-2).

Complete all Integrated Logistics Support (ILS) products in support SUW Increment III IOC. Deliver all Interactive Electronic Technical Manuals (IETM) to support SSMM normal and casualty modes, and SSMM installation and employment. Complete and deliver all Maintenance Requirements Cards (MCR). Conduct ILS certification.

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Deliver all Provisioning Documentation to include Allowance equipage Lists (AEL) and Allowance Parts Lists (APLs). Procure all testing spares required to support SUW Increment III TECHEVAL and IOT&E. Begin integration of VTUAV into SUW MP MPAS. ***FY 2017 OCO Plans:*** N/A					
Title: Reliability, Availability and Maintainability	2.993	2.829	1.920	0.000	1.920
Articles:	-	-	-	-	-
FY 2015 Accomplishments: Continued to monitor Reliability Growth and updated plans as necessary. Continued to refine RAM model assumptions based on actual data and conducted multiple sensitivity analysis to quantify the effect of alternate sparing philosophies (i.e., more onboard spares, complete spare system, etc.) based on mission module availability. Refined modeling of MCM, SUW, and ASW MPs. Continued utilizing FRACAS to feed back product and process improvements to the Systems Engineering and ILS organizations. Drafted RAM-C Analysis Report as necessary. Updated RAM-C Rationale Report as necessary.					
FY 2016 Plans: Continue the systematically management and elimination of failures and failure modes through identification, classification, analysis and removal or mitigation. Continue the refinement of the MCM, SUW, and ASW RAM models by integration actual data collected during mission package TECHEVAL and Initial Operational Test and Evaluation (IOT&E) and conduct multiple sensitivity analysis to quantify the effect of alternate sparing philosophies (i.e., more onboard spares, complete spare system, etc.) based on mission module availability. Conduct reliability testing of the ASW MP and Surface-to-Surface Missile Module (SSMM). Conduct root cause analysis and recommend corrective action on all discovered failure modes. Continue utilizing FRACAS to feedback MCM, SUW and MCM product and process improvements to the Systems Engineering and ILS organizations. Update RAM-C Rationale Report as necessary.					
FY 2017 Base Plans: Continue to compile system and package level Reliability and Maintenance (RAM-C) data to support reliability engineering and a prioritized initial spares list. Continue the systematically management and elimination of failures and failure modes through identification, classification, analysis and removal or mitigation. Continue the refinement of the MCM, SUW, and ASW RAM					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
models by integration actual data collected during mission package TECHEVAL and Initial Operational Test and Evaluation (IOT&E) and conduct multiple sensitivity analysis to quantify the effect of alternate sparing philosophies (i.e., more onboard spares, complete spare system, etc.) based on mission module availability. Conduct reliability testing of the ASW MP and Surface-to-Surface Missile Module (SSMM). Conduct root cause analysis and recommend corrective action on all discovered failure modes. Continue utilizing FRACAS to feedback MCM, SUW and MCM product and process improvements to the Systems Engineering and ILS organizations. Update RAM-C Rationale Report as necessary. Continue to implement the Failure Reporting, Analysis, and Corrective Action System (FRACAS) and Failure Review Boards (FRBs) ***FY 2017 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	172.602	203.143	160.058	0.000	160.058

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• 1600: *LCS Common Mission Modules Equipment*	30.938	23.061	27.840	-	27.840	39.682	23.387	16.504	22.384	Continuing	Continuing
• 1601: *LCS MCM Mission Modules*	15.270	67.451	57.146	-	57.146	161.605	197.738	103.456	203.284	Continuing	Continuing
• 1602: *LCS ASW Mission Modules.*	0.000	0.000	31.952	-	31.952	53.465	53.722	54.717	55.812	Continuing	Continuing
• 1603: *LCS SUW Mission Modules*	14.750	35.228	22.466	-	22.466	43.885	40.384	41.306	42.130	Continuing	Continuing
• 1605: *Remote Minehunting System (RMS)*	0.000	53.077	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

The LCS Mission Module Acquisition Strategy is employing an incremental procurement approach to allow for the rapid introduction of additional capabilities as system technology matures. This phased plan provides incremental fielding of capability through the introduction of mature programs of record into the respective Mission Packages until the full baseline capability defined in the Capability Development Document (CDD) is reached.

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E. Performance Metrics

Program Completed Milestone B January 2014
Conducted the SUW MP TECHEVAL/IOT&E aboard LCS 1 variant.
Conducted SUW MP DT, TECHEVAL and IOT&E on LCS 2 variant
Conducted MCM Increment I TECHEVAL on LCS 2 variant

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy			Date: February 2016
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
1.1 System Engineering	WR	NSWC PC : Panama City, FL	1.081	3.088	Oct 2014	2.000	Oct 2015	3.327	Nov 2016	-		3.327	Continuing	Continuing	Continuing
1.1 System Engineering	WR	NSWC DD : Dahlgren, VA	0.405	2.574	Oct 2014	1.000	Oct 2015	2.000	Nov 2016	-		2.000	Continuing	Continuing	Continuing
1.1 System Engineering	C/CPFF	Northrop Grumman : Bethpage, NY	2.097	4.461	Dec 2014	2.500	Dec 2015	4.000	Dec 2016	-		4.000	Continuing	Continuing	Continuing
1.1 System Engineering	WR	SPAWAR PAC : San Diego, CA	0.850	3.581	Oct 2014	1.500	Jan 2016	1.500	Dec 2016	-		1.500	Continuing	Continuing	Continuing
1.1 System Engineering	WR	NUWC NPT : Newport, RI	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.1 System Engineering	C/CPFF	CACI : Fairfax, VA	0.319	0.828	Dec 2014	1.000	Jan 2016	0.000		-		0.000	Continuing	Continuing	Continuing
1.1 System Engineering	C/CPFF	AAC : Uniontown, PA	0.000	0.637	Dec 2014	0.000		0.000		-		0.000	0.000	0.637	-
1.1 System Engineering	WR	NSWC PHD : Port Hueneme, CA	0.000	0.765	Nov 2014	0.000		0.000		-		0.000	0.000	0.765	-
1.1 System Engineering	WR	NSWC Carderock : Bethesda, MD	0.174	0.956	Oct 2014	0.400	Nov 2015	1.000	Nov 2016	-		1.000	0.000	2.530	-
1.1 System Engineering	C/CPFF	JHU/APL : Laurel, MD	0.287	0.127	Dec 2014	0.000		0.000		-		0.000	0.000	0.414	-
1.4 Integration, Assembly, Test and Check	WR	NAWC AD : Patuxent River, MD	0.108	1.175	Oct 2014	0.300	Oct 2015	0.950	Mar 2017	-		0.950	Continuing	Continuing	Continuing
1.1 System Engineering	C/CPFF	Lockheed Martin : Riviera Beach, FL	0.000	0.000		1.233	Dec 2015	0.000		-		0.000	0.000	1.233	-
1.4 Integration, Assembly, Test and Checkout	C/CPFF	Northrop Grumman : Bethpage, NY	0.086	0.587	Dec 2014	0.575	Dec 2015	0.250	Jan 2017	-		0.250	0.000	1.498	-
1.4 Integration, Assembly, Test and Check	WR	SPAWAR PAC : San Diego, CA	0.000	0.000		0.580	Dec 2015	0.750	Jan 2017	-		0.750	Continuing	Continuing	Continuing
1.4 Integration, Assembly, Test and Check	WR	NUWC NPT : Newport, RI	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.4 Integration, Assembly, Test and Check	WR	NSWC PC : Panama City, FL	0.106	0.294	Oct 2014	0.300	Oct 2015	0.750	Jan 2017	-		0.750	Continuing	Continuing	Continuing
1.4 Integration, Assembly, Test and Check	WR	SUPSHIP Gulfcoast : Pascagoula, MS	0.000	0.000		2.500	Jan 2016	0.000		-		0.000	Continuing	Continuing	Continuing

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Product Development ($ in Millions)

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1.4 Integration, Assembly, Test and Check	WR	SUPSHIP Bath : Bath, ME	0.000	0.000		1.495	Mar 2016	0.000		-		0.000	Continuing	Continuing	Continuing
1.4 Integration, Assembly, Test and Check	WR	NSWC DD : Dahlgren, VA	0.112	2.577	Oct 2014	0.300	Oct 2015	1.200	Mar 2017	-		1.200	Continuing	Continuing	Continuing
1.4 Integration, Assembly, Test and Checkout	WR	NSWC PHD : Port Hueneme, CA	0.000	0.658	Oct 2014	0.320	Dec 2015	0.225	Jan 2017	-		0.225	0.000	1.203	-
1.4 Integration, Assembly, Test and Checkout	WR	NSWC Crane : Crane, Indiana	0.144	1.469	Oct 2014	0.280	Nov 2015	0.000		-		0.000	0.000	1.893	-
1.4 Integration, Assembly, Test and Checkout	WR	NSWC Carderock : Bethesda, MD	0.285	6.392	Oct 2014	0.300	Nov 2015	1.000	Dec 2016	-		1.000	0.000	7.977	-
1.4 Integration, Assembly, Test and Checkout	C/CPFF	CACI : Fairfax, VA	0.118	0.832	Dec 2014	0.950	Jan 2016	0.525	Jan 2017	-		0.525	0.000	2.425	-
1.4 Integration, Assembly, Test and Checkout	Sub Allot	CECOM Bldg 1207 : Various	0.073	0.294	Oct 2014	0.475	Jan 2016	0.250	Feb 2017	-		0.250	0.000	1.092	-
1.4 Integration, Assembly, Test and Check	C/CPFF	Lockheed Martin : Various	0.000	0.000		0.000		3.307	Feb 2017	-		3.307	0.000	3.307	-
1.4 Integration, Assembly, Test and Checkout	WR	NAVAIR : Lakehurst	0.000	0.000		0.000		0.200	Mar 2017	-		0.200	0.000	0.200	-
1.12 Common Equipment Development	C/CPFF	Northrop Grumman : Bethpage, NY	0.736	0.392	Dec 2014	0.745	Jan 2016	0.544	Dec 2016	-		0.544	Continuing	Continuing	Continuing
1.12 Common Equipment Development	WR	NSWC PC : Panama City, FL	2.217	2.105	Oct 2014	6.582	Oct 2015	4.425	Nov 2016	-		4.425	Continuing	Continuing	Continuing
1.12 Common Equipment Development	WR	NUWC NPT : Newport, RI	0.279	0.343	Oct 2014	0.550	Oct 2015	0.402	Dec 2016	-		0.402	Continuing	Continuing	Continuing
1.12 Common Equipment Development	WR	NSWC DD : Dahlgren, VA	0.561	0.343	Oct 2014	0.600	Oct 2015	0.438	Nov 2016	-		0.438	Continuing	Continuing	Continuing
1.12 Common Equipment Development	WR	NAVAIR PMA266 : Patuxent River, MD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.12 Common Equipment Development	C/CPFF	AAC : Uniontown, PA	0.306	2.747	Dec 2014	1.701	Jan 2016	1.242	Feb 2017	-		1.242	0.000	5.996	-
1.12 Common Equipment Development	WR	PMW 760 : Various	0.233	0.245	Nov 2014	0.000		0.173	Jan 2017	-		0.173	0.000	0.651	-

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
1.12 Common Equipment Development	WR	SPAWAR PACIFIC : San Diego, CA	0.372	0.783	Nov 2014	0.950	Dec 2015	0.694	Dec 2016	-		0.694	0.000	2.799	-
1.12 Common Equipment Development	Sub Allot	PMW 760 : San Diego, CA	0.000	0.000		0.238	Nov 2015	0.000		-		0.000	0.000	0.238	-
1.12 Common Equipment Development	TBD	SBIR : Various	0.000	0.000		10.154	Mar 2016	0.000		-		0.000	0.000	10.154	-
1.12 Common Equipment Development	C/CPFF	ARL/UT : Austin, TX	0.171	0.490	Dec 2014	0.000		0.000		-		0.000	0.000	0.661	-
1.12 Common Equipment Development	C/CPFF	Progeny : Manassas, VA	0.000	0.000		1.000	Jan 2016	0.730	Mar 2017	-		0.730	0.000	1.730	-
1.13 MCM MP	WR	NSWC PC : Panama City, FL	8.358	11.346	Oct 2014	2.211	Oct 2015	13.119	Nov 2016	-		13.119	Continuing	Continuing	Continuing
1.13 MCM MP	WR	NSWC CD : Little Creek, VA	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.13 MCM MP	Sub Allot	PMS 406 : Various	3.629	8.232	Dec 2014	16.000	Jan 2016	11.000	Mar 2017	-		11.000	0.000	38.861	-
1.13 MCM MP	Sub Allot	PMS 495 : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.13 MCM MP	C/CPFF	Lockheed Martin : Riviera Beach, FL	4.782	0.000		0.000		0.000		-		0.000	0.000	4.782	-
1.14 ASW MP	Sub Allot	PEO IWS5 : Various	17.402	7.918	Oct 2014	8.300	Jan 2016	4.870	Mar 2017	-		4.870	0.000	38.490	-
1.14 ASW MP	WR	NUWC NPT : Newport, RI	5.407	3.360	Oct 2014	6.588	Oct 2015	5.600	Dec 2016	-		5.600	0.000	20.955	-
1.14 ASW MP	TBD	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.14 ASW MP	WR	CDSA Dam Neck : Virginia Beach, VA	0.802	0.587	Oct 2014	0.807	Oct 2015	3.500	Dec 2016	-		3.500	0.000	5.696	-
1.14 ASW MP	C/CPFF	Northrop Grumman : Bethpage, NY	0.374	1.273	Dec 2014	3.500	Jan 2016	3.417	Feb 2017	-		3.417	0.000	8.564	-
1.14 ASW MP	C/CPFF	SPA : Washington, DC	0.000	0.587	Jun 2015	0.600	Dec 2015	0.250	Jan 2017	-		0.250	0.000	1.437	-
1.14 ASW MP	Sub Allot	EDM Contractor : Various	0.000	2.568	Oct 2014	28.800	Jan 2016	2.500	Mar 2017	-		2.500	0.000	33.868	-
1.14 ASW MP	WR	NSWC PCD : Panama City, FL	0.000	0.117	Oct 2014	0.000		0.000		-		0.000	0.000	0.117	-

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
1.14 ASW MP	WR	NSWC DD : Dahlgren, VA	0.000	0.196	Oct 2014	0.250	Nov 2015	0.000		-		0.000	0.000	0.446	-
1.14 ASW MP	C/CPFF	CACI : Arlingrton, VA	0.000	0.343	Dec 2014	0.258	Jan 2016	0.000		-		0.000	0.000	0.601	-
1.14 ASW MP	WR	NUWC KPT : Keyport, WA	0.000	0.441	Oct 2014	0.154	Nov 2015	0.000		-		0.000	0.000	0.595	-
1.14 ASW MP	WR	SSC PAC : San Diego, CA	0.000	3.133	Oct 2014	1.100	Dec 2015	0.000		-		0.000	0.000	4.233	-
1.15 SUW MP	WR	NSWC DD : Dahlgren, VA	11.350	9.361	Oct 2014	9.500	Oct 2015	7.500	Nov 2016	-		7.500	Continuing	Continuing	Continuing
1.15 SUW MP	WR	NSWC PHD : Port Hueneme, CA	4.009	5.128	Oct 2014	12.000	Dec 2015	2.000	Nov 2016	-		2.000	Continuing	Continuing	Continuing
1.15 SUW MP	WR	SPAWAR PACIFIC : San Diego, CA	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.15 SUW MP	C/CPFF	JAMS PO : Various	0.000	0.000		0.000		6.480	Feb 2017	-		6.480	0.000	6.480	-
1.15 SUW MP	C/CPFF	Northrop Grumman : Bethpage, NY	8.700	17.981	Dec 2014	20.000	Dec 2015	15.960	Jan 2017	-		15.960	0.000	62.641	-
1.15 SUW MP	Sub Allot	PEO IWS 3 : Various	0.000	0.000		7.319	Dec 2015	2.500	Feb 2017	-		2.500	0.000	9.819	-
1.15 SUW MP	WR	NAWC WD : Ridgecrest, CA	3.868	1.958	Oct 2014	2.000	Jan 2016	0.000		-		0.000	0.000	7.826	-
1.15 SUW MP	WR	NSWC CD : Crane, IN	0.000	0.196	Oct 2014	0.200	Dec 2015	0.000		-		0.000	0.000	0.396	-
1.15 SUW MP	WR	NSWC Corona : Corona, CA	0.000	0.245	Oct 2014	0.250	Nov 2015	0.250	Jan 2017	-		0.250	0.000	0.745	-
1.16 MP-PCS Equipment	WR	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.19 Pre-Production Engineering	WR	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.20 Irregular Warfare Module	C/CPFF	Northrop Grumman : Bethpage, NY	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.20 Irregular Warfare Module	WR	SPARWAR PAC : San Diego, CA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.1.7 System Engineering RAM-C Project	WR	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	79.801	113.713		160.365		108.828		-		108.828	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
1.5 Training Systems Development	WR	NAWC TSD : Orlando, FL	0.803	2.007	Oct 2014	0.750	Jan 2016	1.042	Mar 2017	-		1.042	Continuing	Continuing	Continuing
1.5 Training Systems Development	WR	NSWC PC : Panama City, FL	0.486	1.615	Oct 2014	2.500	Nov 2015	2.385	Nov 2016	-		2.385	Continuing	Continuing	Continuing
1.5 Training Systems Development	WR	NSWC PHD : Port Hueneme, CA	0.728	1.266	Oct 2014	1.500	Nov 2015	0.462	Dec 2016	-		0.462	Continuing	Continuing	Continuing
1.5 Training Systems Development	C/CPFF	AAC : Uniontown, PA	0.738	2.890	Dec 2014	3.500	Jan 2016	3.465	Feb 2017	-		3.465	Continuing	Continuing	Continuing
1.5 Training Systems Development	C/CPFF	CACI : Fairfax, VA	0.370	0.734	Dec 2014	1.250	Jan 2016	0.000		-		0.000	0.000	2.354	-
1.5 Training Systems Development	C/CPIF	TBD-PSS : Washington, DC	0.000	0.000		0.000		1.121	Nov 2016	-		1.121	0.000	1.121	-
1.5 Training Systems Development	WR	CSCS : Dahlgren, VA	0.853	1.713	Oct 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.5 Training Systems Development	C/CPFF	Northrop Grumman : Bethpage, NY	0.204	1.084	Dec 2014	0.350	Jan 2016	0.541	Jan 2017	-		0.541	0.000	2.179	-
1.5 Training Systems Development	WR	CNSF : San Diego, CA	0.370	0.734	Oct 2014	0.900	Dec 2015	0.555	Jan 2017	-		0.555	Continuing	Continuing	Continuing
1.5 Training Systems Development	WR	NSWC, Dahlgren : Dahlgren, VA	0.000	0.269	Oct 2014	0.275	Oct 2015	0.000	Nov 2016	-		0.000	0.000	0.544	-
1.5 Training Systems Development	WR	NUWC, Newport : Newport, RI	0.000	1.224	Oct 2014	0.070	Oct 2015	0.072	Feb 2017	-		0.072	0.000	1.366	-
1.5 Training Systems Development	WR	JHU/APL : Laurel, MD	0.000	0.979	Nov 2014	0.500	Feb 2016	0.000	Feb 2017	-		0.000	0.000	1.479	-
1.5 Training Systems Development	Sub Allot	Various : Various	0.000	0.000		1.520	Oct 2015	1.957	Mar 2017	-		1.957	0.000	3.477	-

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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
1.5 Training Systems Development	C/BA	CDSA, Dam Neck : Dam Neck, VA	0.000	1.713	Oct 2014	2.800	Oct 2015	1.150	Jan 2017	-		1.150	0.000	5.663	-
1.6 Program Technical Data	WR	NSWC PC : Panama City, FL	0.000	0.613	Oct 2014	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.6 Program Technical Data	C/CPFF	Northrop Grumman : Bethpage, NY	0.133	0.942	Dec 2014	2.071	Jan 2016	1.440	Jan 2017	-		1.440	0.000	4.586	-
1.6 Program Technical Data	C/CPIF	TBD-PSS : Washington, DC	0.000	0.000		0.000		0.500	Dec 2016	-		0.500	0.000	0.500	-
1.6 Program Technical Data	WR	CACI : Fairfax, VA	0.110	0.274	Dec 2014	0.000		0.000		-		0.000	0.000	0.384	-
1.1.10 Reliability, Maintainability, and Availability	C/CPFF	CACI : Fairfax, VA	0.178	0.734	Dec 2014	0.921	Jan 2016	0.000		-		0.000	Continuing	Continuing	Continuing
1.1.10 Reliability, Maintainability, and Availability	WR	NSWC PC : Panama City, FL	0.708	0.881	Oct 2014	0.217	Nov 2015	0.225	Nov 2016	-		0.225	Continuing	Continuing	Continuing
1.1.10 Reliability, Maintainability, and Availability	WR	NUWC, NPT : Newport, RI	0.074	1.129	Oct 2014	0.116	Oct 2015	0.150	Dec 2016	-		0.150	Continuing	Continuing	Continuing
1.1.10 Reliability, Maintainability, and Availability	C/BA	NSWC, Dahlgren : Dahlgren, VA	0.890	0.250	Oct 2014	0.233	Nov 2015	0.200	Nov 2016	-		0.200	0.000	1.573	-
1.1.10 Reliability, Maintainability, and Availability	WR	NAVSEALOGCEN : Norfolk, VA	0.000	0.000		0.731	Oct 2015	0.620	Dec 2016	-		0.620	0.000	1.351	-
1.1.10 Reliability, Maintainability, and Availability	C/CPFF	Northrop Grumman : Bethpage, NY	0.000	0.000		0.152	Dec 2015	0.225	Jan 2017	-		0.225	0.000	0.377	-
1.1.10 Reliability, Maintainability, and Availability	WR	CDSA Dam Neck : Virginia Beach, VA	0.000	0.000		0.116	Oct 2015	0.125	Dec 2016	-		0.125	0.000	0.241	-
1.1.10 Reliability, Maintainability, and Availability	WR	NSWC PHD : Port Hueneme, CA	0.000	0.000		0.343	Nov 2015	0.350	Dec 2016	-		0.350	0.000	0.693	-

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Support ($ in Millions)

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1.1.10 Reliability Maintainance	C/CPIF	ESS-TBD : Washington DC	0.000	0.000		0.000		1.031	Dec 2016	-		1.031	0.000	1.031	-
		Subtotal	6.645	21.051		20.815		17.616		-		17.616	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
1.3 System Test and Evaluation	WR	NSWC PCD : Panama City, FL	6.146	11.469	Oct 2014	0.000		8.000	Nov 2016	-		8.000	0.000	25.615	-
1.3 System Test and Evaluation	WR	NSWC DD : Dahlgren, VA	3.250	7.348	Oct 2014	6.000	Oct 2015	4.000	Nov 2016	-		4.000	0.000	20.598	-
1.3 System Test and Evaluation	WR	NUWC NPT : Newport, RI	0.485	0.743	Oct 2014	0.800	Oct 2015	1.600	Nov 2016	-		1.600	0.000	3.628	-
1.3 System Test and Evaluation	WR	NSWC PHD : Port Hueneme, CA	5.160	7.768	Oct 2014	5.500	Dec 2015	7.820	Jan 2017	-		7.820	0.000	26.248	-
1.3 System Test and Evaluation	WR	SPAWAR PAC : San Diego, CA	0.808	1.150	Nov 2014	1.300	Jan 2016	2.000	Dec 2016	-		2.000	0.000	5.258	-
1.3 System Test and Evaluation	WR	COMOPTEVFOR : Norfolk, VA	0.546	1.148	Nov 2014	1.300	Jan 2016	1.300	Mar 2017	-		1.300	0.000	4.294	-
1.3 System Test and Evaluation	WR	PMA 266 : Patuzent River, MD	0.226	0.352	Dec 2014	0.400	Dec 2015	0.407	Mar 2017	-		0.407	0.000	1.385	-
1.3 System Test and Evaluation	C/BA	Silver Ships : Theodore, AL	0.355	0.548	Dec 2014	0.000		0.000		-		0.000	0.000	0.903	-
1.3 System Test and Evaluation	C/BA	CNSF : Norfolk, VA	0.161	0.250	Nov 2014	0.000		0.000		-		0.000	0.000	0.411	-
1.3 System Test and Evaluation	C/BA	NAWC WD : Point Mugu, CA	1.617	2.333	Nov 2014	2.030	Jan 2016	3.000	Feb 2017	-		3.000	0.000	8.980	-
1.3 System Test and Evaluation	C/BA	NSWC Corona : Corona, CA	0.000	0.196	Nov 2014	0.571	Dec 2015	1.000	Jan 2017	-		1.000	0.000	1.767	-
		Subtotal	18.754	33.305		17.901		29.127		-		29.127	0.000	99.087	-

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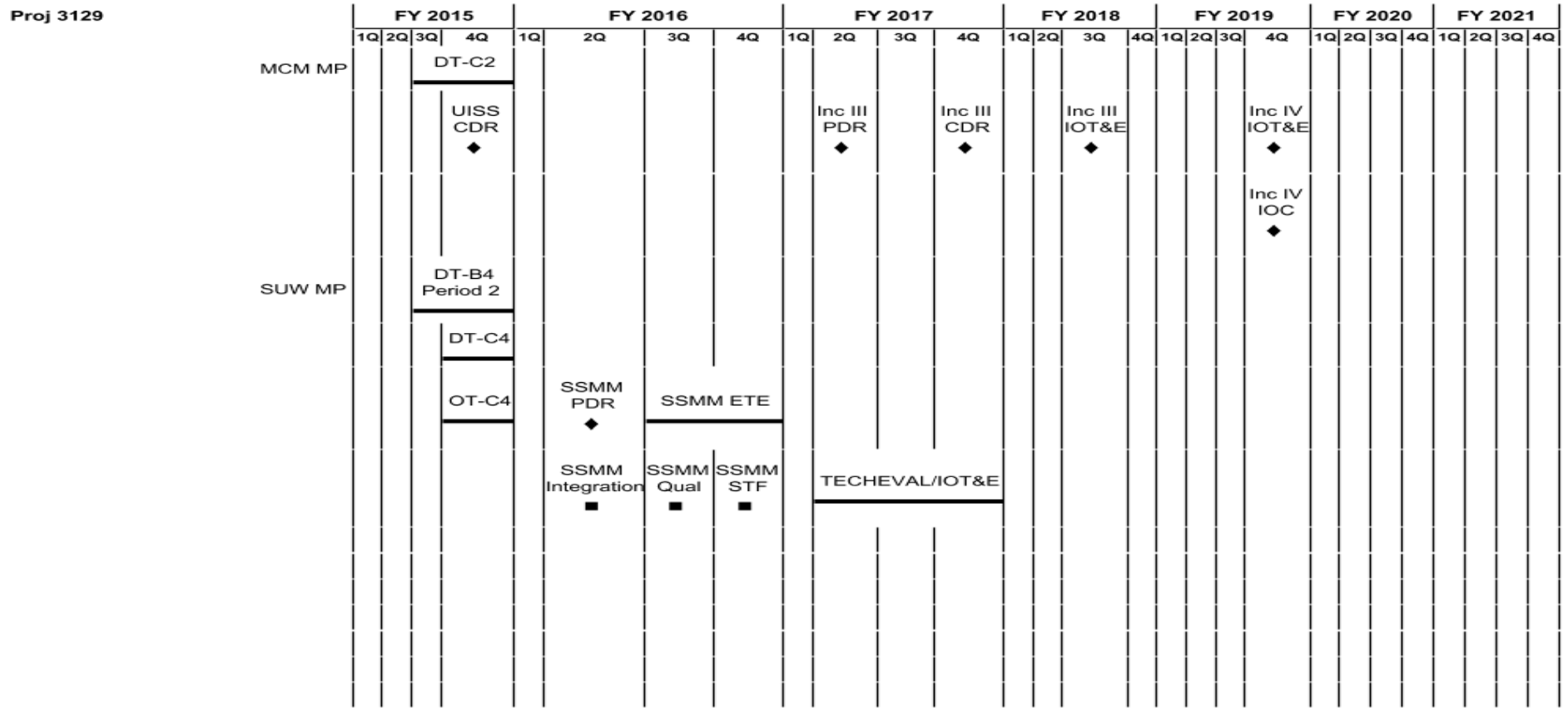
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2015 Cost	FY 2015 Award Date	FY 2016 Cost	FY 2016 Award Date	FY 2017 Base Cost	FY 2017 Base Award Date	FY 2017 OCO Cost	FY 2017 OCO Award Date	FY 2017 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.2 Program Management	C/CPFF	CACI : Fairfax, VA	0.482	4.533	Dec 2014	2.683	Jan 2016	0.000		-		0.000	0.000	7.698	-
1.2 Program Management	WR	NSWC PCD : Panama City, FL	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.2 Program Management	WR	NSWC DD : Dahlgren, VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
1.2 Program Management	FFRDC	Mitre : McLean, VA	0.000	0.000		1.379	Nov 2015	1.300	Jan 2017	-		1.300	0.000	2.679	-
1.2 Program Management	C/CPIF	TBD - PSS : Washington DC	0.000	0.000		0.000		1.937	Nov 2016	-		1.937	0.000	1.937	-
1.2 Program Management	C/CPFF	NSWC Crane : Various	0.000	0.000		0.000		1.250	Dec 2016	-		1.250	0.000	1.250	-
		Subtotal	0.482	4.533		4.062		4.487		-		4.487	0.000	13.564	-

	Prior Years	FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	105.682	172.602		203.143		160.058		-		160.058	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603596N / *(U)LCS Mission Modules*	**Project (Number/Name)** 3129 / *LCS Mission Package Development*



2017PB - 0603596N - 3129

Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603596N / *(U)LCS Mission Modules*	**Project (Number/Name)** 3129 / *LCS Mission Package Development*

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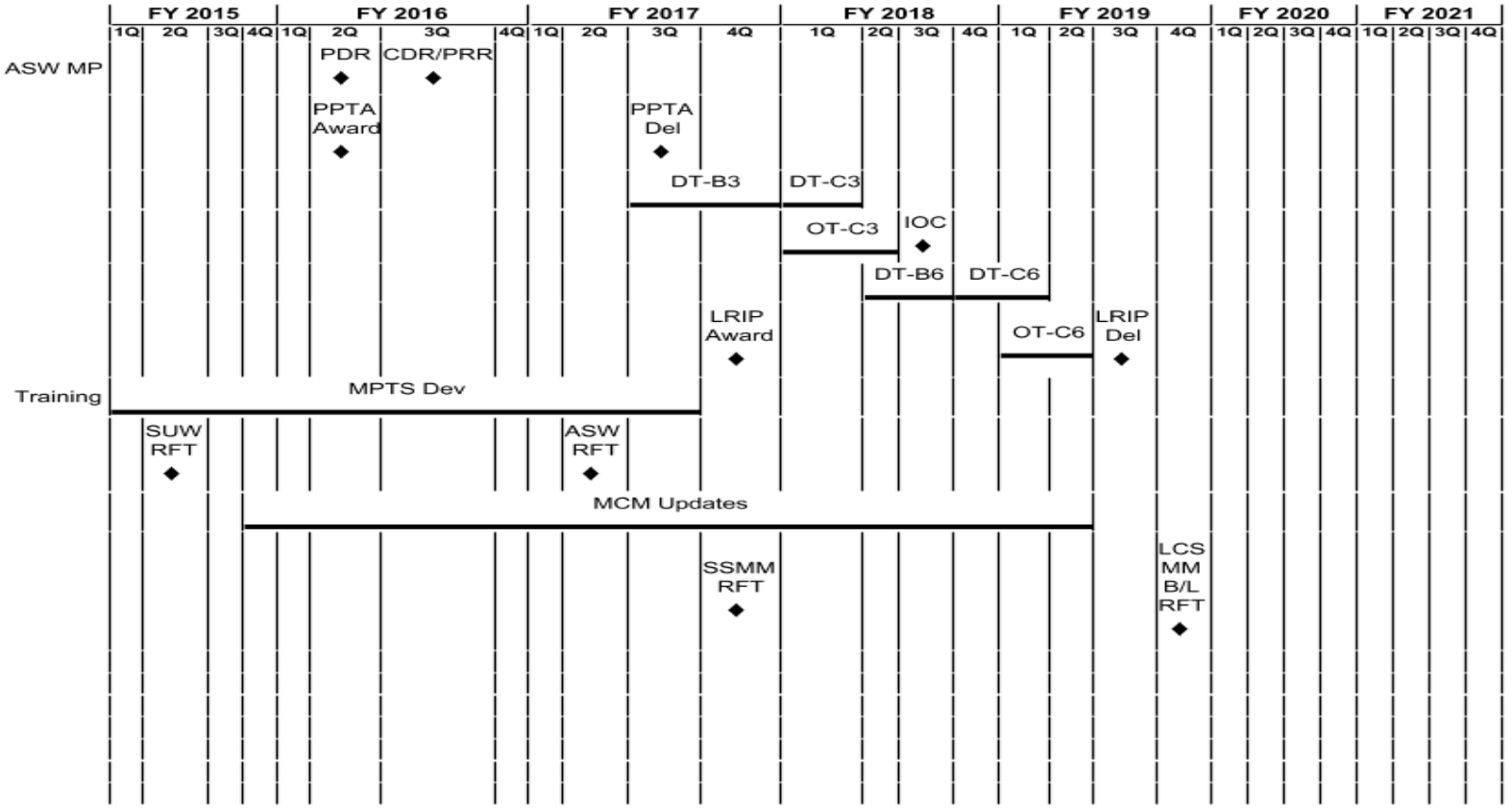

2017PB - 0603596N - 3129

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603596N / *(U)LCS Mission Modules*	**Project (Number/Name)** 3129 / *LCS Mission Package Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3129				
MCM MP: MCM MP Increment I TECHEVAL DT-C2 (Independence Variant)	3	2015	4	2015
MCM MP: UISS Program of Record: CDR	4	2015	4	2015
MCM MP: MCM MP Increment III Delta PDR	2	2017	2	2017
MCM MP: MCM MP Increment III Delta CDR	4	2017	4	2017
MCM MP: MCM Increment III IOT&E	3	2018	3	2018
MCM MP: MCM Increment IV IOT&E	4	2019	4	2019
MCM MP: MCM MP Increment IV IOC	4	2019	4	2019
SUW MP: SUW Increment I & II Developmental Testing DT - B4 Pr. 2 (Independence Variant)	3	2015	4	2015
SUW MP: SUW Increment I & II TECHEVAL DT-C4 (Independence Variant)	4	2015	4	2015
SUW MP: SUW MP Increment I & II IOT&E OT-C4 (Independence Variant)	4	2015	4	2015
SUW MP: SUW MM SSMM PDR	2	2016	2	2016
SUW MP: SUW MM (SSMM End-to-End Testing)	3	2016	4	2016
SUW MP: Surface-to-Surface Missle Module Functional Integration Test (FIT) on LCS	2	2016	2	2016
SUW MP: SSMM Qualification Testing Complete	3	2016	3	2016
SUW MP: SSMM Structural Test Fire	4	2016	4	2016
SUW MP: SSMM TECHEVAL/IOT&E	2	2017	4	2017
Page 2				
ASW MP: ASW MP PDR	2	2016	2	2016
ASW MP: ASW MP CDR/PRR	3	2016	3	2016
ASW MP: ASW MP Pre-Production Test Article (PPTA) Award	2	2016	2	2016
ASW MP: ASW MP PPTA 1 Delivery	3	2017	3	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy		Date: February 2016
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603596N / *(U)LCS Mission Modules*	**Project (Number/Name)** 3129 / *LCS Mission Package Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ASW MP: ASW MP DT-B3 (Freedom Variant)	3	2017	4	2017
ASW MP: ASW MP TECHEVAL DT-C3 (Freedom Variant)	1	2018	1	2018
ASW MP: ASW MP IOT&E OT-C3 (Freedom Variant)	1	2018	2	2018
ASW MP: ASW MP IOC	3	2018	3	2018
ASW MP: ASW MP DT-B6 (Independence Variant)	2	2018	3	2018
ASW MP: ASW MP TECHEVAL DT-C6 (Independence Variant)	4	2018	1	2019
ASW MP: ASW MP IOT&E OT-C6 (Independence Variant)	1	2019	2	2019
ASW MP: ASW MP LRIP 1 Award	4	2017	4	2017
ASW MP: ASW MP LRIP 1 Delivery	3	2019	3	2019
Training: Mission Package Training System (MPTS) HW/SW Development	1	2015	3	2017
Training: SUW LTF Initial Ready For Training	2	2015	2	2015
Training: ASW LTF Initial Ready For Training	2	2017	2	2017
Training: MCM Courseware Update (RMMV, UISS, Knifefish)	4	2015	2	2019
Training: SUW Courseware Update (SSMM) RFT	4	2017	4	2017
Training: Initial LCS MM Baseline Final Ready for Training RFT	4	2019	4	2019

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