Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy											Date: February 2018	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604757N *I Ship Self Def (Engage: Soft Kill/EW)*							
COST ($ in Millions)	**Prior Years**	**FY 2017**	**FY 2018**	**FY 2019 Base**	**FY 2019 OCO**	**FY 2019 Total**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**Cost To Complete**	**Total Cost**
Total Program Element	1,250.077	108.630	103.391	120.507	-	120.507	97.029	71.110	41.758	43.045	Continuing	Continuing
0954: *Shipboard EW Improvement Program*	484.685	10.690	16.013	15.835	-	15.835	16.026	16.393	16.673	17.013	Continuing	Continuing
2190: *NULKA Decoy*	65.537	1.925	4.181	3.975	-	3.975	5.234	5.384	7.509	7.683	Continuing	Continuing
3227: *SEWIP Block 2*	222.848	0.303	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	223.151
3316: *Advanced Offboard EW*	125.853	27.540	45.867	64.796	-	64.796	54.073	26.105	10.561	10.983	Continuing	Continuing
3321: *SEWIP Block 3*	351.154	68.172	37.330	35.901	-	35.901	21.696	23.228	7.015	7.366	Continuing	Continuing

A. Mission Description and Budget Item Justification

The FY 2019 funding request was reduced by $0.357 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

0954 - The Surface Electronic Warfare Improvement Program (SEWIP) is segmented into Block 1A, Block 1B, Block 2, Block 3, and Soft Kill Coordination System (SKCS). Block 1A upgraded the AN/SLQ-32 pulse-processing computers and the display consoles allowing the system to more quickly identify threats and better display the information to the operator. Block 1B added adjunct sensors for special signal intercept, including Specific Emitter Identification (SEI), and High Gain High Sensitivity (HGHS) (Block 1B3), a critical improvement for the threat correlation, situational awareness, and extending the battle space. Block 2 enhanced Surface Electronic Warfare (EW) and provided improved Anti-Ship Missile Defense (ASMD) and situational awareness through an improved Electronic Support (ES) receiver, antenna, and combat system interface. The addition of Block 2 to Block 1B3 forms the AN/SLQ-32 (V)6. Block 3 will provide an enhanced electronic attack capability to improve ASMD and counter-targeting. The addition of Block 3 to AN/SLQ-32 (V)6 forms the AN/SLQ-32(V)7 system. EW Rapid Capability Insertion Process (RCIP) identifies system and mission capability gaps by analyzing EW baseline and fleet requirements, prioritizes those gaps based on fleet input and critical technology maturity, and develops upgrades to the AN/SLQ-32(V) product line to address those gaps. The SKCS will provide SK weapon coordination and enhanced situational awareness to the AN/SLQ-32 (V)6 with EW/radar track association to support SK engagement decisions, including Radar Cued Engagements (RCE) and Electronic Attack (EA) with both onboard EA, provided by AN/SLQ-32 (V)7, and off-board EA. RCIP also integrates Future Naval Capability (FNC) programs into SEWIP.

2190 - The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Future efforts involve development of the capability for high value unit protection. Increased funding beginning in FY18 is required for DLP technology refresh to address obsolescence issues.

3227 - SEWIP Block 2 is developing an upgraded antenna, receiver, and combat system interface for AN/SLQ-32. The upgrades are necessary in order to pace the threat, improving detection, accuracy, and mitigation of Electromagnetic Interference (EMI).

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy	Date: February 2018
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604757N *I Ship Self Def (Engage: Soft Kill/EW)*

3316 - The Advanced Offboard EW (AOEW) program is for the development of long duration off-board decoys integrated with onboard systems for EW coordination to counter identified EW gaps (additional details classified) in response to an urgent operational need from the Fleet that has been approved by the CNO for execution. Currently no counter to the threat exists. In FY12, the program began with a Rapid Response Effort (RRE) and a Decoy Development Effort (DDE) RRE development was completed in FY14. The RRE consisted of the evaluation and integration of commercially available decoys. The DDE consists of the development and evaluation of a long duration, active electronic offboard decoy system (payload) integrated on an existing flight vehicle (MH-60R/MH-60S), integration with ship and air systems, and a government software development effort to integrate AOEW into the Soft Kill Coordination System (SKCS) to gain maximum effectiveness from the decoy through coordination with an onboard system.

The DDE Preliminary Design contract was awarded Dec 2016 followed by a System Requirements Review (SRR)/System Functional Review (SFR) leading to a Preliminary Development Review (PDR) all in FY17. The Engineering Manufacturing and Development (EMD) Option was awarded in Sep 2017. Following the arrival of Engineering Development Model (EDMs) the Factory Qualification Test (FQT) will be completed to support development testing and NAVAIR flight certification. Initial Operational Test & Evaluation (IOT&E) is planned in FY21 to support the Full Rate Production (FRP) decision in FY22.

When the DDE Preliminary Design contract award shifted from June 2016 to Dec 2016, the EDM contract delivery requirements were re-phased to deliver the capability to the Fleet as soon as possible. MH-60R and MH-60S were originally scheduled to be integrated and flight tested in the same fiscal year (FY19), but integration and flight testing of the MH-60S has been shifted to FY21.

The funding increase in FY19 is primarily due to system integration and certification testing for two platforms. AOEW requires integration into two separate host platforms, the MH-60R/S helicopter and the ship which drives additional software and testing requirements. In FY19, there is testing for both standard shipboard certification testing (NAVSEA) as well as flight certification testing (NAVAIR) related to system integration. Further, the program will fund the development of the software Avionics Operating Program (AOP) update to the helicopter and development of Soft Kill Coordinator Subsystem (SKCS) for integration with AN/SLQ-32(V)6. Additionally, material for the first four EDMs (1-4) will be purchased in FY19. Material for the remaining two EDMs (5-6) will be purchased in FY20. The integration to two platforms, helicopter and ship, coupled with the material purchase in FY19 drives the increased funding requirement.

3321 - SEWIP Block 3 is developing an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide the AN/SLQ-32(V)7 system for all surface ships (CVN, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new construction platforms.

The SEWIP Block 3 Acquisition leverages technology developed under the Office of Naval Research's (ONR) Integrated Topside (InTop) Science and Technology (S&T) effort. SEWIP Block 3 will continue to expand the integrated shipboard combat system by providing a new integrated EA transmitter, array, and associated EA techniques. The AN/SLQ-32(V)7 integrates the new EA countermeasure (SEWIP Block 3) with the AN/SLQ-32(V)6. The AN/SLQ-32(V)6 includes an Electronic Support(ES) receiver (SEWIP Block 2), a High Gain High Sensitivity (HGHS) receiver (SEWIP Block 1B3), a Specific Emitter Identifier (SEI) receiver (SEWIP Block 1B2), display console, and backend electronics. SEWIP Block 3 includes a government software development and integration effort for a SoftKill Coordinator (SKC) to manage EA engagements. SEWIP Block 3 is developing an Electronic Warfare Test Bed (EWTB) to validate system performance.

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy	Date: February 2018
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604757N *I Ship Self Def (Engage: Soft Kill/EW)*

SEWIP Block 3 developed and deployed a limited interim capability, starting in 2014, of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) systems to support CNO Urgent Operational Needs (UON). Block 3T (AN/SLQ-59) is the TEWM system supporting the 7th fleet UON. TEWM Speed to Fleet (STF) (AN/SLQ-62) is the TEWM system supporting the 6th fleet UON. A capability enhancement upgrade for the AN/SLQ-62 was developed in FY2017.

B. Program Change Summary ($ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	114.211	103.391	125.015	-	125.015
Current President's Budget	108.630	103.391	120.507	-	120.507
Total Adjustments	-5.581	0.000	-4.508	-	-4.508
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	7.500	0.000			
• SBIR/STTR Transfer	-2.748	0.000			
• Program Adjustments	0.000	0.000	-1.690	-	-1.690
• Rate/Misc Adjustments	0.000	0.000	-2.818	-	-2.818
• Congressional General Reductions Adjustments	-0.011	-	-	-	-
• Congressional Directed Reductions Adjustments	-10.322	-	-	-	-

Change Summary Explanation

Added FY 2017 funding in support of SEWIP Block 3.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
0954: *Shipboard EW Improvement Program*	484.685	10.690	16.013	15.835	-	15.835	16.026	16.393	16.673	17.013	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

0954 - The Surface Electronic Warfare Improvement Program (SEWIP) is segmented into Block 1A, Block 1B, Block 2, Block 3, and Soft Kill Coordination System (SKCS). Block 1A upgraded the AN/SLQ-32 pulse-processing computers and the display consoles allowing the system to more quickly identify threats and better display the information to the operator. Block 1B added adjunct sensors for special signal intercept, including Specific Emitter Identification (SEI), and High Gain High Sensitivity (HGHS) (Block 1B3), a critical improvement for the threat correlation, situational awareness, and extending the battle space. Block 2 enhanced Surface Electronic Warfare (EW) and provided improved Anti-Ship Missile Defense (ASMD) and situational awareness through an improved Electronic Support (ES) receiver, antenna, and combat system interface. The addition of Block 2 to Block 1B3 forms the AN/SLQ-32 (V)6. Block 3 will provide an enhanced electronic attack capability to improve ASMD and counter-targeting. The addition of Block 3 to AN/SLQ-32 (V)6 forms the AN/SLQ-32(V)7 system. EW Rapid Capability Insertion Process (RCIP) identifies system and mission capability gaps by analyzing EW baseline and fleet requirements, prioritizes those gaps based on fleet input and critical technology maturity, and develops upgrades to the AN/SLQ-32(V) product line to address those gaps. The SKCS will provide Soft Kill (SK) weapon coordination and enhanced situational awareness to the AN/SLQ-32 (V)6 with EW/radar track association to support SK engagement decisions, including Radar Cued Engagements (RCE) and Electronic Attack (EA) with both onboard EA, provided by AN/SLQ-32 (V)7, and off-board EA. RCIP also integrates Future Naval Capability (FNC) programs into SEWIP.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Electronic Warfare Rapid Capability Insertion Process (EW RCIP)	10.690	16.013	15.835	0.000	15.835
Articles:	-	-	-	-	-
FY 2018 Plans: - Continue RCIP #4 Aegis Baseline 9.C2 SKCS integration efforts with AN/SLQ-32 to address platform gaps for automatic and semi-automatic engagements using NULKA decoys and the onboard Electronic Attack (EA) (AN/SLQ-32 (V)7) and offboard EA systems; Continue to provide software upgrades every four months utilizing the agile flexible software development process; Initiate and complete software development and system integration and testing activities for software builds 5, 6 and 7 to enhance the onboard EA and offboard EA controllers to provide more complex and coordinated EA capabilities in accordance with approved critical design and the softkill capability improvement phasing plan; Continue combat system level integration and testing activities with AEGIS by completing element certification in support of AEGIS ACB BL 9.2.0 (Phase 0) while starting Combat System (CS) integration and testing activities with AEGIS ACB BL 9.2.1 (Phase 1) in support of the Baseline					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
9.2.1 demonstration; Initiate pre-design and design activities to support integration with Ship Self Defense System (SSDS), Fast Frigate (FF), Offshore Patrol Cutter (OPC), and Solid State Laser (SSL) weapon system. - Initiate the transition of future naval capability (FNC) program Softkill Performance and Real-Time Assessment (SPARTA) into SKCS; Develop the interface, architecture and algorithms required for SPARTA transition into SKCS; Develop algorithms to measure key features observed in Softkill (SK) engagements and measure EA effectiveness; Develop algorithms to provide real-time assessment of SK performance to SEWIP; Initiate the development of improved fleet weapons coordination, informed Hard Kill(HK)/SK prioritization, weapons conservation, and enhanced operator battlespace awareness by contributing integral feedback regarding non-kinematic performance; Assess the results and readiness of the SPARTA demonstration for insertion into SKCS pre-design materials. - Continue RCIP #5 improvements to increase EW Tactical Simulation (TACSIM) capabilities; Perform system integration activities with Ship Self Defense System (SSDS), SKCS, ACB-16, and the onboard Surface Electronic Warfare Team Trainer (SEWTT); Perform software updates in tactical simulator to provide advanced training capabilities based on future system requirements. Complete TACSIM Phase 2: develop SLQ-32 simulation and interactive operator training allowing for response to system-generated tactical scenarios. Update AN/SLQ-32(V)6 tactical build with SEI and HGHS simulation. Develop training scenarios for Battle Force Electronic Warfare Trainer (BEWT) and SEWTT utilizing a common High Level Architecture (HLA) source. Initiate the TACSIM Phase 3 effort to incorporate AN/SLQ-(V)6 Build 6 with SKCS into the training interface, and add enhanced combat system simulation that would support training for SKCS scenarios with tracking and response tactics for incoming threats. - Continue Algorithm Development of Enhanced Processing Techniques (ADEPT) improvements to SEWIP emitter processing; Perform integration efforts with AN/SLQ-32(V)6 systems and evaluate and analyze ADEPT and AN/SLQ-32(V)6 integration test results; Update software based on future requirements. - Initiate RCIP #6 improvements which focus on increasing the AN/SLQ-32 (V)6 operator's tactical situational awareness. Develop a commercial upgrade of the field-programmable gate arrays (FPGA), in the AN/SLQ-32(V)6 that will enable the system to keep pace with advanced threats and advanced processing algorithms and enhance the Electronic Support (ES) mission of the AN/SLQ-32(V)6; Add advanced capabilities to the built-in-test (BIT) effectiveness by updating the architecture and software with enhancements to the operator's tactical awareness of current EW system operation status that are targeted at increasing the operator's confidence in system performance and ability to successfully carry out shipboard repairs. - Develop SEWTT V5.1 capabilities; Develop countermeasure training to support bearing only cued launches, electronic sense cued launches, and auto, semi-auto, and manual launches; Develop training to support organic and distributed training of Electronic Attack (EA) pod for persistent Anti-Ship Missile Defense (ASMD); Develop					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
additional SKCS integration; Develop SLQ-32 operator training for correct configuration of default platform type (DPT) and effective countermeasure deployment against incoming threats. - Continue Electro Optics/Infrared (EO/IR) development; Initiate and provide systems engineering process improvements and address identified performance gaps. Develop additional surface EO/IR concepts of operation, tactics, and design by modeling threat behavior and its reaction to fleet tactics. - Develop an advanced AN/SLQ-32(V)6 electronic warfare (EW) testing system to provide improved capability for the operator to assess and validate optimal system performance; Create the automated test framework through the design and development of advanced algorithms and framework testing scenarios; Demonstrate performance of the advanced test system and operator interaction on an EW hardware system. - Identify additional EW technology shortfalls and capability gaps based on the current and emerging ASM threats and fleet requirements; solicit industry, University Affiliate Research Centers or government activities for technical solutions; Evaluate and select RCIP technology candidates; evaluate RCIP technologies production readiness.					
FY 2019 Base Plans: - Continue RCIP #4 Aegis baseline 9.C2 integration efforts with AN/SLQ-32 to address platform gaps for automatic and semi-automatic engagements using Nulka decoys and the onboard Electronic Attack (EA) (AN/SLQ-32 (V)7) and offboard EA systems; Continue to provide software upgrades every four months; Initiate and complete software development and system integration and testing activities for software builds 8, 9 and 10, which provide enhanced EA capabilities, including the addition of offboard EA resources, AOEW emitter/track association, AOEW HK/SK interoperability, AN/SLQ-32(V)7 and AOEW combination techniques, solid state laser (SSL) weapon system support, OPC support, FF support, and Nulka decoy grouping, in accordance with the approved critical design and SK capability phasing plan.; Continue integration and testing activities in support of AEGIS ACB 16 baseline by completing element certification in support of AEGIS ACB BL 9.2.1 (Phase 1), while starting CS integration with AEGIS ACB BL 9.2.2 (Phase 2) in support of the Baseline 9.2.2 demonstration; Complete SKCS Formal Qualification Testing (FQT) for builds 8, 9, and 10, and system integration events with AN/SLQ-32(V)6, AN/SLQ-32(V)7 and Offboard EW; Begin SSDS ACB 20 integration support efforts. - Continue the transition of the Future Naval Capability (FNC) program, Softkill Performance and Real-Time Assessment (SPARTA) into SKCS; Utilize developed algorithms to measure key features observed in Softkill (SK) engagements and EA effectiveness and perform real-time assessment of SK performance. Complete the development of improved fleet weapons coordination, informed Hard Kill(HK)/SK prioritization, weapons conservation, and enhanced operator battlespace awareness by continuing to contribute integral feedback regarding non-kinematic performance. Continue to develop and update the interface, architecture and algorithms					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
required for full transition into SKCS, taking into account ongoing SKCS build and capability completions. Continue to assess the results and readiness of the SPARTA demonstration for transition into an SKCS Build. - Continue RCIP #5 improvements to increase EW Tactical Simulation (TACSIM) capabilities to include system integration with Ship Self Defense System (SSDS), SKCS, ACB-16, and the onboard Surface Electronic Warfare Team Trainer (SEWTT); Complete TACSIM Phase 3 effort by implementing the improvements through integration and testing, installation, and verification of completed upgrades. Complete the efforts to incorporate AN/SLQ-(V)6 Build 6 with SKCS, and the enhanced combat system simulation supporting training for SKCS scenarios with tracking and response tactics for incoming threats. Initiate TACSIM Phase 4 development efforts to integrate new EA systems into the tactical training programs. - Continue Algorithm Development of Enhanced Processing Techniques (ADEPT) improvements to SEWIP emitter processing; Initiate integration efforts with AN/SLQ-32(V)7 system and the High Gain Antenna subsystem; Continue to update software based on future requirements. - Continue RCIP #6 improvements to AN/SLQ-32(V)6 Electronic Warfare system to increase the operator's tactical situational awareness; Continue with the effort to add advanced capabilities to the built-in-test (BIT) effectiveness through update of the architecture and software enhancements to improve EW operator tactical awareness. Add enhanced capabilities to the upgrade of the field-programmable gate arrays (FPGA) to include providing inputs for circuit board redesigns, create final end-item shipboard products, validate FPGA performance, and incorporate updates to FPGA and circuit card assemblies based on performance and technical reviews. Initiate efforts to improve the understanding and classification of complex emitters, increase system performance against anti-ship cruise missiles (ASCMs), and perform passive ranging of radio frequency (RF) emitting platforms. - Initiate AN/SLQ-32(V)6 Software Algorithm Enhancements to the SEWIP software baseline: Develop requirements for updating the mapping of Product Line Architecture (PLA) messages to support enhanced SKCS and SLQ-32(V)6 Human Machine Interface (HMI) functionalities; Improve the baseline to add functionality for automatically supporting multiple versions of the Data Adaption Processor (DAP) and the PLA; Initiate improvements to the AN/SLQ-32(V)6 pulse processing and de-interleaving algorithms by determining system limitations and requirements for electronic systems processing upgrades, to classify complex emitter signals with an improved response time. - Identify additional EW technology shortfalls and capability gaps based on the current and emerging ASM threats and fleet requirements; solicit industry, University Affiliate Research Centers or government activities for					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
technical solutions; Evaluate and select RCIP technology candidates; Evaluate RCIP technologies production readiness. ***FY 2019 OCO Plans:*** - N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** - Decrease in FY19 due to minor program and rate adjustments.					
Accomplishments/Planned Programs Subtotals	10.690	16.013	15.835	0.000	15.835

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OPN/2312: *OPN BA-2 AN/SLQ-32(V)*	244.001	240.433	420.344	-	420.344	554.399	693.782	498.954	478.252	1,262.099	5,175.418
• 24575N & 72827N/1C2C: *OMN BA-1 AN/SLQ-32(V)*	7.533	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	58.489
• 24575N & 72827N/1C1C: *OMN BA-1 AN/SLQ-32(V)*	0.000	7.955	7.827	-	7.827	8.191	8.376	9.013	9.076	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Rapid Capability Insertion Process(RCIP) is a process that identifies candidate capability gap/technology solution pairs, refines the value proposition description for each pair, prioritizes projects for funding and executes projects that result in improved capability transitioned to the fleet.

E. Performance Metrics

Successfully identify RCIP capabilities.
Successfully identify and assess RCIP Science & Technology candidates.
Successfully demonstrate and validate RCIP capabilities.
Complete SKCS Builds in accordance with the Agile Software Development process.
Complete installation of TACSIM upgrades.
Transition the Future Naval Capability program Softkill Performance and Real-Time Assessment (SPARTA) into SKCS.
Complete ADEPT integration efforts with AN/SLQ-32(V)6 systems.
Complete AN/SLQ-32(V)6 EA tactical situational awareness improvements.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

Complete AN/SLQ-32(V)6 Software Algorithm Enhancements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Ancillary Hardware Development	Various	Various : Various	151.420	0.000		0.000		0.000		-		0.000	0.000	151.420	-
ESE Development	SS/CPFF	Northrop Grumman : Goleta, CA	13.037	0.000		0.000		0.000		-		0.000	0.000	13.037	-
ICAD Development	SS/CPFF	GD-AIS : Fairfax, VA	11.747	0.000		0.000		0.000		-		0.000	0.000	11.747	-
ESE Development (Block 1A)	SS/CPFF	Northrop Grumman : Goleta, CA	0.471	0.000		0.000		0.000		-		0.000	0.000	0.471	-
System Integrator	C/CPAF	GD-AIS : Fairfax, VA	13.798	0.000		0.000		0.000		-		0.000	0.000	13.798	-
1B Development	SS/CPIF	GD-AIS : Fairfax, VA	86.292	0.000		0.000		0.000		-		0.000	0.000	86.292	-
Q-70 Mods	C/CPFF	LM-EAGAN : Eagan, MN	3.491	0.000		0.000		0.000		-		0.000	0.000	3.491	-
Block 2 Study/ Development	C/CPIF	BAE : Nashua, NH	0.336	0.000		0.000		0.000		-		0.000	0.000	0.336	-
ALQ210 Integration	WR	NSWC Dahlgren : Dahlgren, VA	10.345	0.000		0.000		0.000		-		0.000	0.000	10.345	-
Rapid Capability Insertion Process (RCIP) #1	C/CPIF	Lockheed Martin : Syracuse, NY	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	-
RCIP #1	WR	NSWC Dahlgren : Dahlgren, VA	0.650	0.000		0.000		0.000		-		0.000	0.000	0.650	-
RCIP #2	SS/CPFF	Northrop Grumman : Goleta, CA	2.514	0.000		0.000		0.000		-		0.000	0.000	2.514	-
RCIP #2	SS/FFP	GD-AIS : Fairfax, VA	0.734	0.000		0.000		0.000		-		0.000	0.000	0.734	-
RCIP #3	SS/CPFF	EWA-GSI : Fairmont, WV	1.978	0.000		0.000		0.000		-		0.000	0.000	1.978	-
RCIP #3	WR	ONR/ACI : Washington, DC	3.130	0.000		0.000		0.000		-		0.000	0.000	3.130	-
RCIP #4	SS/CPFF	APL : Laurel, MD	1.348	1.548	Nov 2016	1.989	Nov 2017	1.217	Nov 2018	-		1.217	Continuing	Continuing	Continuing
RCIP #4	WR	NSWC Dahlgren : Dahlgren, VA	2.603	3.945	Nov 2016	3.730	Nov 2017	3.392	Nov 2018	-		3.392	Continuing	Continuing	Continuing
RCIP #5	WR	NSWC Dahlgren : Dahlgren, VA	1.235	1.115	Nov 2016	2.458	Nov 2017	2.297	Nov 2018	-		2.297	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
RCIP #6	WR	NSWC Crane : Crane, IN	0.000	0.000		1.750	Jan 2018	2.263	Nov 2018	-		2.263	Continuing	Continuing	Continuing
AN/SLQ-32(V)6 Software Algorithm Enhancements	TBD	TBD : TBD	0.000	0.000		0.000		1.102	Nov 2018	-		1.102	0.000	1.102	-
SEWTT Development	SS/CPFF	EWA : Fairmont, WV	0.000	0.100	May 2017	0.591	Jan 2018	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	307.129	6.708		10.518		10.271		-		10.271	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Integrated Logistics Support	WR	NSWC Crane, DD, NRL, APL : Crane, IN; Dahlgren, VA; Washington, DC; Laurel,MD	9.912	0.000		0.000		0.000		-		0.000	0.000	9.912	-
Block 1 Integrated Logistics Support	WR	NSWC Crane : Crane, IN	3.418	0.000		0.000		0.000		-		0.000	0.000	3.418	-
Block 1 Integrated Logistics Support	WR	NSWC DD : Dahlgren, VA	0.293	0.000		0.000		0.000		-		0.000	0.000	0.293	-
Block 1 Government Engineering Support	WR	NSWC Crane, DD, NRL, APL : Crane, IN; Dahlgren, VA; Washington, DC; Laurel,MD	34.783	0.000		0.000		0.000		-		0.000	0.000	34.783	-
Block 1 Government Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	5.738	0.874	Nov 2016	1.140	Nov 2017	0.911	Nov 2018	-		0.911	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	NSWC Crane : Crane, IN	5.034	0.180	Jan 2017	0.529	Nov 2017	0.849	Nov 2018	-		0.849	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	NRL : Washington, DC	3.133	0.680	Nov 2016	0.701	Nov 2017	0.547	Nov 2018	-		0.547	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Government Engineering Support	SS/CPFF	APL : Laurel, MD	2.343	0.522	Feb 2017	0.056	Jan 2018	0.307	Nov 2018	-		0.307	0.000	3.228	-
Block 1 Government Engineering Support	WR	SWRMC : San Diego, CA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	-
Block 1 Government Engineering Support	WR	MIT : Hanscom AFB, MA	0.516	0.119	May 2017	1.377	Jan 2018	1.230	Nov 2018	-		1.230	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	MITRE : Aberdeen Proving Ground, MD	0.527	0.000		0.000		0.000		-		0.000	0.000	0.527	-
Block 1 Government Engineering Support	WR	NUWC Keyport : Keyport, WA	0.253	0.000		0.000		0.000		-		0.000	0.000	0.253	-
Block 1 SIPRNET Access	WR	ARL : Adelphi, MD	0.092	0.000		0.000		0.000		-		0.000	0.000	0.092	-
Block 1B3 Install on test ship	WR	NSSA Norfolk : Norfolk, VA	0.857	0.000		0.000		0.000		-		0.000	0.000	0.857	-
Block 1B3 Integration	WR	Lockheed Martin : Syracuse, NY	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Block 1 Government Engineering Support	WR	DISA : Fort Meade, MD	0.000	0.000		0.150	Jan 2018	0.000		-		0.000	0.000	0.150	-
		Subtotal	68.099	2.375		3.953		3.844		-		3.844	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Integration and Test	WR	NSWC Crane, DD, NRL : Crane, IN; Dahlgren, VA; Washington, DC	0.853	0.000		0.000		0.000		-		0.000	0.000	0.853	-
Developmental Test & Evaluation	Various	Various : Various	8.958	0.000		0.000		0.000		-		0.000	0.000	8.958	-
Block 1A Test Planning/ T&E Events	WR	NSWC Crane, DD, NRL : Crane,	11.036	0.000		0.000		0.000		-		0.000	0.000	11.036	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		IN; Dahlgren, VA; Washington, DC													
Block 1B Test Planning/ T&E Events	WR	NSWC Crane, DD, NRL, NAVAIR, OPTEVFOR, NSWC PHD : Crane, IN; Dahlgren, VA; Washington, DC; MD; CA	9.567	0.000		0.000		0.000		-		0.000	0.000	9.567	-
Block 1B Test Planning/ T&E Events	WR	NSWC Dahlgren : Dahlgren, VA	3.231	0.000		0.000		0.000		-		0.000	0.000	3.231	-
Block 1B Test Planning/ T&E Events	WR	NSWC Crane : Crane, IN	3.026	0.000		0.000		0.000		-		0.000	0.000	3.026	-
Block 1B Test Planning/ T&E Events	WR	NRL : Washington, DC	5.365	0.000		0.000		0.000		-		0.000	0.000	5.365	-
Block 1B Test Planning/ T&E Events	WR	OPTEVFOR : Norfolk, VA	0.612	0.000		0.000		0.000		-		0.000	0.000	0.612	-
Block 1B Test Planning/ T&E Events	WR	JITC : Indian Head, MD	0.288	0.000		0.000		0.000		-		0.000	0.000	0.288	-
(V)4 ESE Test Planning/ T&E Events	WR	NSWC Crane, DD, NRL : Crane, IN; Dahlgren, VA; Washington, DC	0.686	0.000		0.000		0.000		-		0.000	0.000	0.686	-
(V)4 ESE Test Planning/ T&E Events	WR	NSWC Dahlgren : Dahlgren, VA	0.609	0.000		0.000		0.000		-		0.000	0.000	0.609	-
(V)4 ESE Test Planning/ T&E Events	WR	NSWC Crane : Crane, IN	1.153	0.000		0.000		0.000		-		0.000	0.000	1.153	-
(V)4 ESE Test Planning/ T&E Events	WR	NRL : Washington, DC	1.808	0.000		0.000		0.000		-		0.000	0.000	1.808	-
(V)4 ESE Test Planning/ T&E Events	WR	OPTEVFOR : Norfolk, VA	0.192	0.000		0.000		0.000		-		0.000	0.000	0.192	-
RCIP Test Planning/T&E Events	WR	NSWC Dahlgren : Dahlgren, VA	1.502	0.394	Jan 2017	0.500	Nov 2017	0.342	Nov 2018	-		0.342	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
RCIP Test Planning/T&E Events	WR	NSWC Crane : Crane, IN	0.889	0.000		0.000		0.000		-		0.000	0.000	0.889	-
RCIP Test Planning/T&E Events	WR	NRL : Washington, DC	1.729	0.000		0.000		0.000		-		0.000	0.000	1.729	-
RCIP Test Planning/T&E Events	SS/CPFF	APL : Laurel, MD	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-
RCIP Test Planning/T&E Events	WR	COMOPTEVFOR : Norfolk, VA	0.000	0.104	May 2017	0.169	Jan 2018	0.205	Nov 2018	-		0.205	Continuing	Continuing	Continuing
		Subtotal	51.604	0.498		0.669		0.547		-		0.547	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, D.C.	32.702	0.000		0.000		0.000		-		0.000	0.000	32.702	-
Block 1 Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, D.C.	0.399	0.362	Jan 2017	0.110	Nov 2017	0.494	Nov 2018	-		0.494	Continuing	Continuing	Continuing
Block 1 Program Management Support	SS/CPIF	SPA (BRIDGE) : Washington, DC	1.064	0.209	Jan 2017	0.000		0.000		-		0.000	0.000	1.273	-
Block 1 Program Management Support	C/CPIF	SPA : Washington, DC	0.000	0.500	Aug 2017	0.544	Nov 2017	0.639	Nov 2018	-		0.639	Continuing	Continuing	Continuing
Block 1 Program Managment Support	C/CPIF	CACI (SEAPORT) : Washington, DC	0.165	0.000		0.179	Nov 2017	0.000		-		0.000	0.000	0.344	-
Block 1 Program Management Support	WR	NSWC Crane, DD, NRL : Crane, IN; Dahlgren, VA; Washington, DC	17.310	0.000		0.000		0.000		-		0.000	0.000	17.310	-
Block 1 Program Management Support	WR	NSWC Crane : Crane, IN	1.636	0.000		0.000		0.000		-		0.000	0.000	1.636	-
Block 1 Program Management Support	WR	NSWC Dahlgren : Dahlgren, VA	1.662	0.000		0.000		0.000		-		0.000	0.000	1.662	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 0954 / *Shipboard EW Improvement Program*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Program Management Support	WR	NRL : Washington, DC	0.977	0.000		0.000		0.000		-		0.000	0.000	0.977	-
Block 1 Program Management Support	SS/CPFF	APL : Laurel, MD	0.527	0.000		0.000		0.000		-		0.000	0.000	0.527	-
Block 1 Travel	WR	NAVSEA Program Office Travel : Washington, DC	1.285	0.038	Jan 2017	0.040	Nov 2017	0.040	Nov 2018	-		0.040	Continuing	Continuing	Continuing
Block 1 DoD Acquistion Workforce Fund	Various	Various : Various	0.126	0.000		0.000		0.000		-		0.000	0.000	0.126	-
		Subtotal	57.853	1.109		0.873		1.173		-		1.173	Continuing	Continuing	N/A

	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	484.685	10.690		16.013		15.835		-		15.835	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

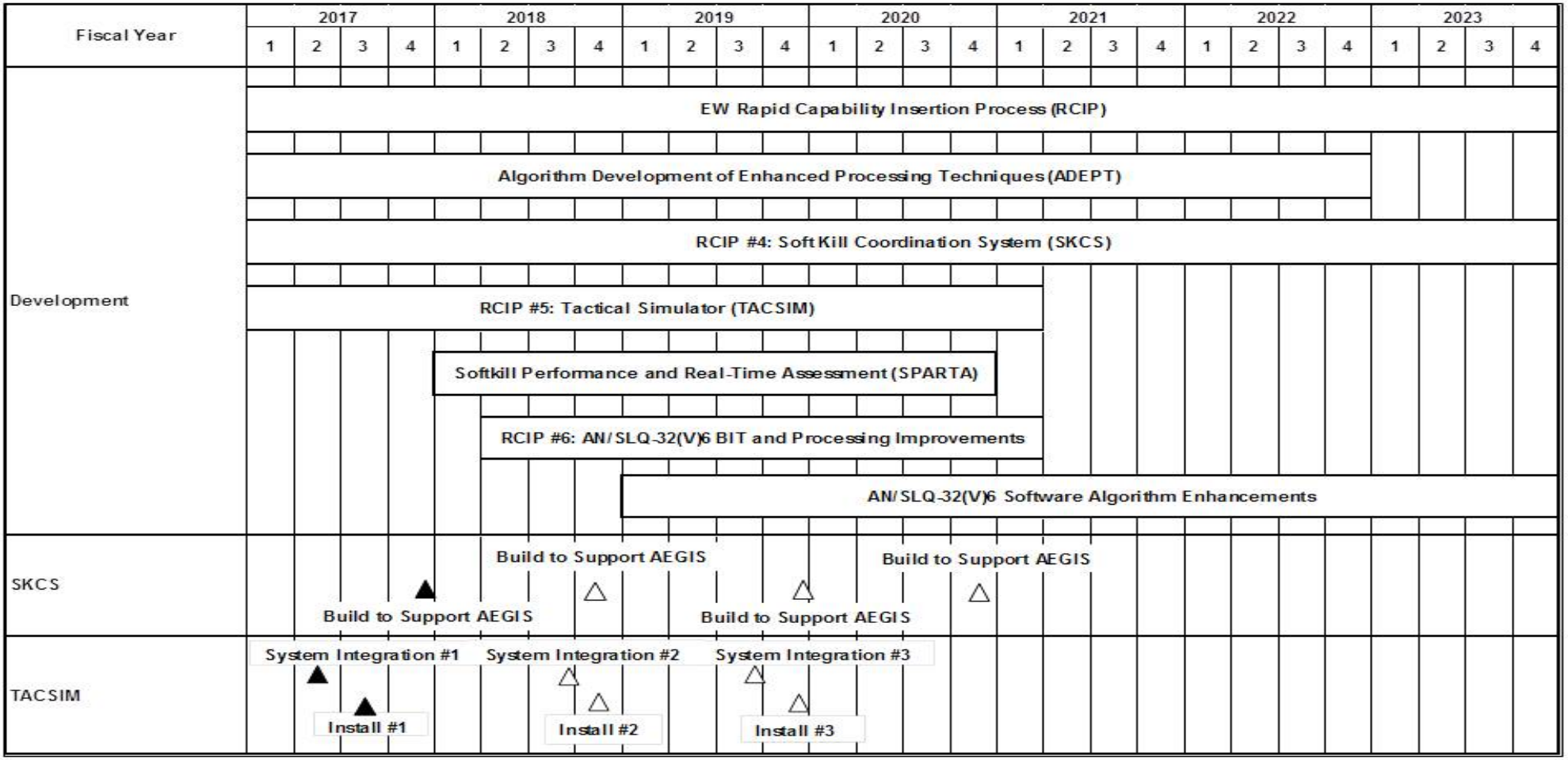


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 0954 / *Shipboard EW Improvement Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0954				
EW Rapid Capability Insertion Process (RCIP)	1	2017	4	2023
Algorithm Development of Enhanced Processing Techniques (ADEPT)	1	2017	4	2022
RCIP #4: SKCS	1	2017	1	2023
RCIP #5 TACSIM	1	2017	4	2020
TACSIM System Integrations and Installs 1-3	2	2017	4	2019
SKCS SW Builds to Support Aegis	4	2017	4	2020
Softkill Performance and Real-Time Assessment (SPARTA)	1	2018	4	2020
RCIP #6: AN/SLQ-32(V)6 BIT and Processing Improvements	2	2018	1	2021
AN/SLQ-32(V)6 Software Algorithm Enhancements	1	2019	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 2190 / *NULKA Decoy*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
2190: *NULKA Decoy*	65.537	1.925	4.181	3.975	-	3.975	5.234	5.384	7.509	7.683	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Future efforts involve development of the capability for high value unit protection. Increased funding beginning in FY18 is required for DLP technology refresh to address obsolescence issues.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: NULKA Decoy Subsystem	1.925	4.181	3.975	0.000	3.975
Articles:	-	-	-	-	-
FY 2018 Plans: - Evaluate intelligence on new and existing threats. Update Nulka Fly Out Tactics to maximize Nulka performance and effectiveness. - Commence DLP technology refresh to address obsolescence issues.					
FY 2019 Base Plans: - Continue to evaluate intelligence on new and existing threats. Continue to update Nulka Fly Out Tactics to maximize Nulka performance and effectiveness. - Continue DLP technology refresh to address obsolescence issues.					
FY 2019 OCO Plans: N/A					
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease is due to minor program and rate adjustments.					
Accomplishments/Planned Programs Subtotals	1.925	4.181	3.975	0.000	3.975

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 2190 / *NULKA Decoy*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OPN/5231: *Ship Missile Support Equipment*	62.792	66.407	32.250	-	32.250	78.075	67.227	66.813	71.054	Continuing	Continuing
• OMN/12CR0 (1C2C): *Nulka*	5.717	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• OMN/11CD0 (1C1C): *Nulka*	0.000	6.044	6.087	-	6.087	6.370	6.528	7.321	7.512	Continuing	Continuing

Remarks

OPN Controls reflect the following Line Item 5231 Project Units (PU's) under the 'ANTI-SHIP MISSILE DECOY SYSTEM' program: VV001, VV002, VV003, VV004, VV830, VV831, VV832, and VV833.

D. Acquisition Strategy

NULKA is a joint cooperative program between United States and Australia in full rate production.

E. Performance Metrics

Successfully complete Decoy Launch Processor (DLP) technology refresh.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 2190 / *NULKA Decoy*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	Lockheed Martin : Sippican, MA	6.692	0.000		0.000		0.000		-		0.000	0.000	6.692	-
Primary Hardware Development	MIPR	BAE Systems : Australia	7.382	0.000		0.000		0.000		-		0.000	0.000	7.382	-
Systems Engineering	WR	NRL : Washington, DC	19.672	0.250	Dec 2016	0.655	Jan 2018	0.700	Nov 2018	-		0.700	Continuing	Continuing	Continuing
Systems Engineering	WR	NWAD : China Lake, CA	0.120	0.000		0.000		0.000		-		0.000	0.000	0.120	-
MK 53 System Eng Changes	C/FFP	Sechan : PA	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	-
Systems Engineering	WR	NSWC Dahlgren : Dahlgren, VA	10.267	1.200	Nov 2016	2.816	Nov 2017	2.551	Nov 2018	-		2.551	Continuing	Continuing	Continuing
Systems Engineering	WR	NSMA : VA	0.360	0.000		0.000		0.000		-		0.000	0.000	0.360	-
Systems Engineering	WR	NSWC Crane : IN	6.581	0.224	Dec 2016	0.200	Nov 2017	0.204	Nov 2018	-		0.204	Continuing	Continuing	Continuing
		Subtotal	51.224	1.674		3.671		3.455		-		3.455	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	NRL : Washington, DC	1.514	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Development	WR	NSWC Dahlgren : Dahlgren, VA	2.908	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Development	MIPR	BAE Systems : Australia	1.009	0.000		0.000		0.000		-		0.000	0.000	1.009	-
		Subtotal	5.431	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 2190 / *NULKA Decoy*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC Dahlgren : Dahlgren, VA	1.275	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	NRL : Washington, DC	1.681	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Assets	WR	NRL : Washington, DC	1.504	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Support	WR	OPTEVFOR : Norfolk, VA	0.050	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Support	WR	BAE Systems : Australia	0.050	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	4.560	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	2.014	0.000		0.000		0.000		-		0.000	0.000	2.014	Continuing
Program Management Support	SS/CPIF	SPA (BRIDGE) : Washington, DC	0.094	0.000		0.000		0.000		-		0.000	0.000	0.094	-
Program Management Support	C/FFP	AT&T Gov't Solutions (SEAPORT): : Washington, DC	1.147	0.000		0.000		0.000		-		0.000	0.000	1.147	-
Program Management Support	C/CPIF	Gryphon Technology (SEAPORT) : Washington, DC	0.226	0.000		0.000		0.000		-		0.000	0.000	0.226	-
Program Management Support	C/CPIF	ICI (SEAPORT) : Washington, DC	0.086	0.035	Jan 2017	0.100	Jan 2018	0.102	Nov 2018	-		0.102	0.000	0.323	-
Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	0.067	0.086	Jan 2017	0.100	Jan 2018	0.102	Nov 2018	-		0.102	0.000	0.355	-
Program Management Support	C/CPIF	SPA : Washington, DC	0.000	0.095	Aug 2017	0.300	Jan 2018	0.306	Nov 2018	-		0.306	0.000	0.701	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 2190 / *NULKA Decoy*

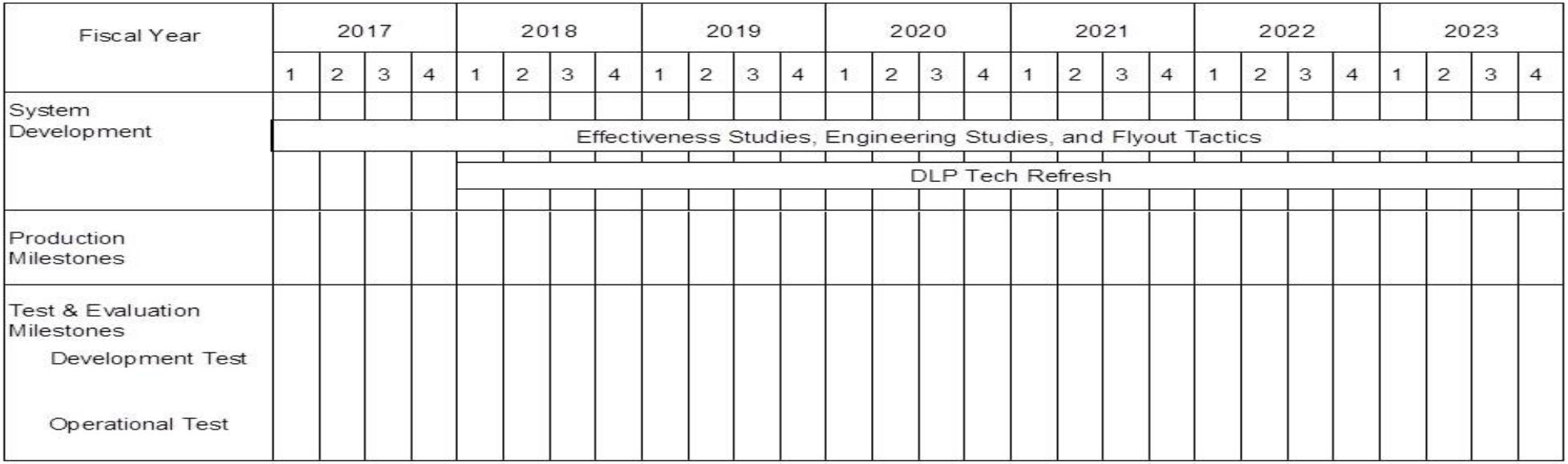
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NAVSEA Program Office Travel : Washington, DC	0.673	0.010	Apr 2017	0.010	Jan 2018	0.010	Nov 2018	-		0.010	Continuing	Continuing	Continuing
Program Management Support	WR	DISA : Pensacola, FL	0.000	0.025	Sep 2017	0.000		0.000		-		0.000	0.000	0.025	-
DoD Acquisition Workforce Fund (DAWDF)	Various	Various : Various	0.015	0.000		0.000		0.000		-		0.000	0.000	0.015	-
		Subtotal	4.322	0.251		0.510		0.520		-		0.520	Continuing	Continuing	N/A

	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	65.537	1.925		4.181		3.975		-		3.975	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 2190 / *NULKA Decoy*



DLP - Decoy Launch Processor

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 2190 / *NULKA Decoy*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2190				
Effectiveness Studies, Engineering Studies, and Flyout Tactics	1	2017	4	2023
DLP Tech Refresh	1	2018	1	2023

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3227 / *SEWIP Block 2*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3227: *SEWIP Block 2*	222.848	0.303	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	223.151
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The SEWIP Block 2 program is developing an upgraded antenna, receiver, and combat system interface for AN/SLQ-32. The upgrades are necessary in order to pace the threat, improving detection, accuracy, and mitigation of EMI.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: SEWIP Block 2	0.303	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2018 Plans: N/A OCO: N/A FY2018-FY2023 funds were realigned to SEWIP Block 1 (PU 0954) for RCIP efforts, as SEWIP Block 2 achieved FRP in 4th quarter FY2016. ***FY 2019 Base Plans:*** N/A ***FY 2019 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	0.303	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OPN/2312: *OPN BA-2 AN/SLQ-32(V)*	244.001	240.433	420.344	-	420.344	554.399	693.782	498.954	478.252	1,262.099	5,175.418

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3227 / *SEWIP Block 2*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OMN/0204575N/1C2C: *OMN BA-1 AN/SLQ-32(V)6*	11.375	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	25.894
• OMN/0204575N/1C1C: *OMN BA-1 AN/SLQ-32(V)6*	0.000	12.025	11.924	-	11.924	12.481	12.738	12.506	12.704	Continuing	Continuing

Remarks

D. Acquisition Strategy

SEWIP will develop Block upgrades to AN/SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and Sub-Block will be developed and contracted in an individual yet coordinated and overlapping fashion.

E. Performance Metrics

Successfully achieve Block 2 MS C / LRIP DR.
Successfully complete Block 2 Initial Operational Test & Evaluation (IOT&E).
Successfully achieve Block 2 Full Rate Production (FRP) DR.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3227 / *SEWIP Block 2*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 E&MD	C/CPIF	Lockheed Martin : Syracuse, NY	107.833	0.000		0.000		0.000		-		0.000	0.000	107.833	-
Block 2 Preliminary Development	C/CPIF	Lockheed Martin : Syracuse, NY	17.211	0.000		0.000		0.000		-		0.000	0.000	17.211	-
Block 2 SEWTT Development	SS/CPFF	EWA-GSI : Fairmont, WV	1.432	0.000		0.000		0.000		-		0.000	0.000	1.432	-
Block 2 SEWTT Development	WR	NSWC Crane : Crane, IN	0.047	0.000		0.000		0.000		-		0.000	0.000	0.047	-
		Subtotal	126.523	0.000		0.000		0.000		-		0.000	0.000	126.523	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Integrated Logistics Support	WR	NSWC Crane, DD, NRL, APL : Crane, IN; Dahlgren, VA; Washington DC; Laurel, MD	1.309	0.000		0.000		0.000		-		0.000	0.000	1.309	-
Block 2 Integrated Logistics Support	WR	NSWC Crane : Crane, IN	4.246	0.000		0.000		0.000		-		0.000	0.000	4.246	-
Block 2 Government Engineering Support	WR	NSWC Crane, DD, NRL, APL : Crane, IN; Dahlgren, VA; Washington DC; Laurel, MD	14.710	0.000		0.000		0.000		-		0.000	0.000	14.710	-
Block 2 Government Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	12.036	0.000		0.000		0.000		-		0.000	0.000	12.036	-
Block 2 Government Engineering Support	WR	NSWC Crane : Crane, IN	6.372	0.000		0.000		0.000		-		0.000	0.000	6.372	-
Block 2 Government Engineering Support	WR	NRL : Washington, DC	4.314	0.000		0.000		0.000		-		0.000	0.000	4.314	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3227 / *SEWIP Block 2*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Government Engineering Support	SS/CPFF	APL : Laurel, MD	5.745	0.303	Feb 2017	0.000		0.000		-		0.000	0.000	6.048	Continuing
Block 2 - Combat System Integration	SS/CPFF	Raytheon : San Diego, CA	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Block 2 - MSMO Cost	WR	NSSA Norfolk : Norfolk, VA	1.431	0.000		0.000		0.000		-		0.000	0.000	1.431	-
Block 2 - Mast Study	WR	SUPSHIP : Bath, ME	0.033	0.000		0.000		0.000		-		0.000	0.000	0.033	-
Block 2 - Fleet Support	WR	NSSA SURFLANT : Norfolk, VA	0.030	0.000		0.000		0.000		-		0.000	0.000	0.030	-
Block 2 - Range Cost	WR	NUWC NEWPORT : Newport, RI	0.018	0.000		0.000		0.000		-		0.000	0.000	0.018	-
		Subtotal	50.494	0.303		0.000		0.000		-		0.000	0.000	50.797	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Test Planning/T&E Events	WR	NSWC Crane, DD, NRL : Crane, IN; Dahlgren, VA; Washington DC;	2.523	0.000		0.000		0.000		-		0.000	0.000	2.523	-
Block 2 Test Planning/T&E Events	WR	NSWC Crane : Crane, IN	4.772	0.000		0.000		0.000		-		0.000	0.000	4.772	-
Block 2 Test Planning/T&E Events	WR	NSWC Dahlgren : Dahlgren, VA	4.303	0.000		0.000		0.000		-		0.000	0.000	4.303	-
Block 2 Test Planning/T&E Events	WR	NRL : Washington, DC	5.521	0.000		0.000		0.000		-		0.000	0.000	5.521	-
Block 2 Test Planning/T&E Events	WR	Surface Combat Systems Center : Wallops Island, VA	0.662	0.000		0.000		0.000		-		0.000	0.000	0.662	-
		Subtotal	17.781	0.000		0.000		0.000		-		0.000	0.000	17.781	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3227 / *SEWIP Block 2*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	5.568	0.000		0.000		0.000		-		0.000	0.000	5.568	-
Block 2 Program Management Support	WR	NSWC Crane, DD, PHD, NRL : Crane, IN; Dahlgren, VA; PHD CA; Washington DC;	15.892	0.000		0.000		0.000		-		0.000	0.000	15.892	-
Block 2 Program Management Support	WR	NSWC Dahlgren : Dahlgren, VA	1.596	0.000		0.000		0.000		-		0.000	0.000	1.596	-
Block 2 Program Management Support	WR	NSWC Crane : Crane, IN	1.331	0.000		0.000		0.000		-		0.000	0.000	1.331	-
Block 2 Program Management Support	WR	NRL : Washington, DC	0.627	0.000		0.000		0.000		-		0.000	0.000	0.627	-
Block 2 Program Management Support	MIPR	Navy Post GraduateSchool : Monterey, CA	0.174	0.000		0.000		0.000		-		0.000	0.000	0.174	-
Block 2 Program Management Support	SS/CPFF	APL : Laurel, MD	1.962	0.000		0.000		0.000		-		0.000	0.000	1.962	-
Block 2 Program Management	WR	NSWC PHD : Port Hueneme, CA	0.091	0.000		0.000		0.000		-		0.000	0.000	0.091	-
Block 2 Travel	WR	NAVSEA Program Office Travel : Washington, DC	0.672	0.000		0.000		0.000		-		0.000	0.000	0.672	-
Block 2 DoD Acquisition Workforce Fund	Various	Various : Various	0.137	0.000		0.000		0.000		-		0.000	0.000	0.137	-
		Subtotal	28.050	0.000		0.000		0.000		-		0.000	0.000	28.050	N/A

	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	222.848	0.303		0.000		0.000		-		0.000	0.000	223.151	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3227 / *SEWIP Block 2*

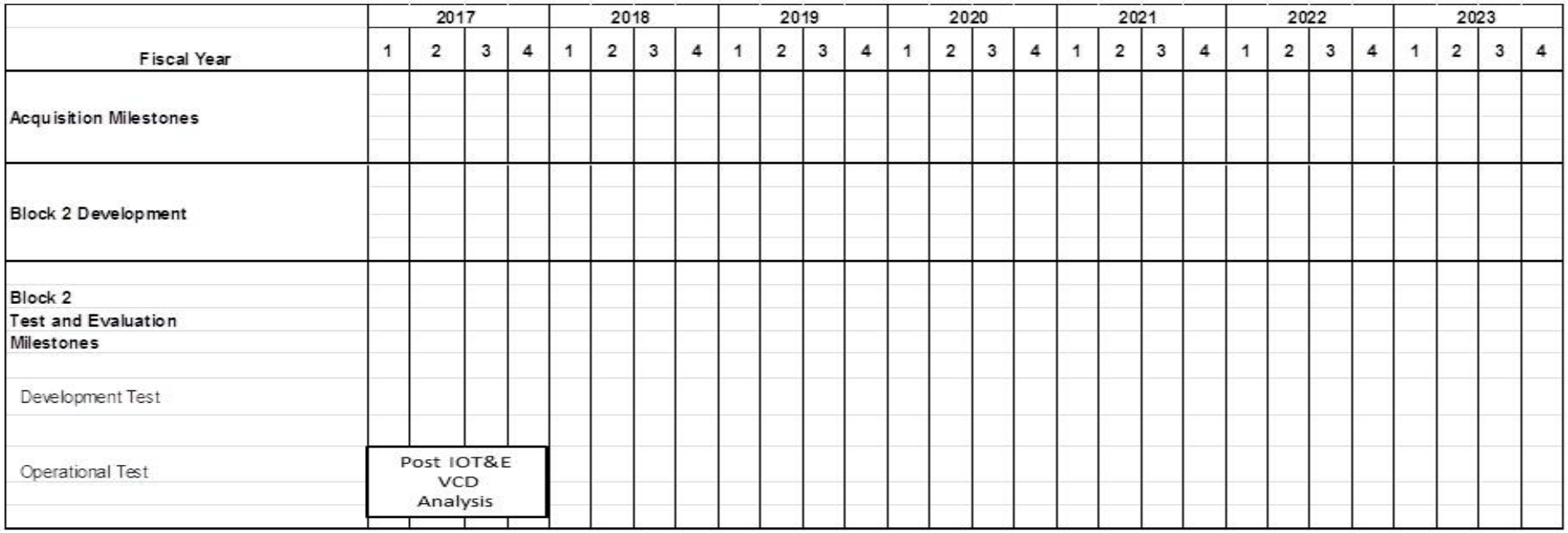


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3227 / *SEWIP Block 2*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3227				
Post IOT&E VCD Analysis	1	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3316 / *Advanced Offboard EW*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3316: *Advanced Offboard EW*	125.853	27.540	45.867	64.796	-	64.796	54.073	26.105	10.561	10.983	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

3316 - The Advanced Offboard EW (AOEW) program is for the development of long duration off-board decoys integrated with onboard systems for EW coordination to counter identified EW gaps (additional details classified) in response to an urgent operational need from the Fleet that has been approved by the CNO for execution. Currently no counter to the threat exists. In FY12, the program began with a Rapid Response Effort (RRE) and a Decoy Development Effort (DDE) RRE development was completed in FY14. The RRE consisted of the evaluation and integration of commercially available decoys. The DDE consists of the development and evaluation of a long duration, active electronic offboard decoy system (payload) integrated on an existing flight vehicle (MH-60R/MH-60S), integration with ship and air systems, and a government software development effort to integrate AOEW into the Soft Kill Coordination System (SKCS) to gain maximum effectiveness from the decoy through coordination with an onboard system.

The DDE Preliminary Design contract was awarded Dec 2016 followed by a System Requirements Review (SRR)/System Functional Review (SFR) leading to a Preliminary Development Review (PDR) all in FY17. The Engineering Manufacturing and Development (EMD) Option was awarded in Sep 2017. Following the arrival of Engineering Development Model (EDMs) the Factory Qualification Test (FQT) will be completed to support development testing and NAVAIR flight certification. Initial Operational Test & Evaluation (IOT&E) is planned in FY21 to support the Full Rate Production (FRP) decision in FY22.

When the DDE Preliminary Design contract award shifted from June 2016 to Dec 2016, the EDM contract delivery requirements were re-phased to deliver the capability to the Fleet as soon as possible. MH-60R and MH-60S were originally scheduled to be integrated and flight tested in the same fiscal year (FY19), but integration and flight testing of the MH-60S has been shifted to FY21.

The funding increase in FY19 is primarily due to system integration and certification testing for two platforms. AOEW requires integration into two separate host platforms, the MH-60R/S helicopter and the ship which drives additional software and testing requirements. In FY19, there is testing for both standard shipboard certification testing (NAVSEA) as well as flight certification testing (NAVAIR) related to system integration. Further, the program will fund the development of the software Avionics Operating Program (AOP) update to the helicopter and development of Soft Kill Coordinator Subsystem (SKCS) for integration with AN/SLQ-32(V)6. Additionally, material for the first four EDMs (1-4) will be purchased in FY19. Material for the remaining two EDMs (5-6) will be purchased in FY20. The integration to two platforms, helicopter and ship, coupled with the material purchase in FY19 drives the increased funding requirement.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: AOEW - Decoy Development Effort (DDE) Government Engineering	18.540	26.252	40.820	0.000	40.820
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
FY 2018 Plans: - Conduct Gate 6 - Conduct IBR for Engineering Material and Development - Continue interoperability analysis to ensure all system of systems are compatible - Continue tactics analysis and development - Continue integration of ship and air interfaces - Continue SKCS development and integration specific to AOEW - Continue development of AOP to update MH-60R and MH-60S software necessary for AOEW decoy and Helicopter Integration - Continue sustainment and training plan development - Continue test and M&S plan development - Support the AOEW Decoy Critical Design Review (CDR) - Conduct System of Systems CDR - Continue support for M&S development for Electronic Warfare Test Bed (EWTB) - Continue Surface Electronic Warfare Team Trainer (SEWTT) functionality development for the AOEW Decoy - Commence Engineering Data Requirements Agreement Plan (EDRAP) Development. The Engineering Data Requirements Agreement Plan (EDRAP) is the requirements document for NAVAIR Flight Certification. - Continue NAVAIR MH-60R flight certification planning - Commence development of Capabilities Production Document (CPD) - Support AOP PDR - Commence installation planning - Commence integration planning of AOEW, MH-60R, Combat Management System (CMS), Common Data Link Management System (CDLMS), SKCS, Link-16, and AOP					
FY 2019 Base Plans: - Commence MS-C planning and documentation preparation - Conduct Integrated Logistics Assessment (ILA) - Conduct Technology Readiness Assessment (TRA) - Continue interoperability analysis to ensure all system of systems are compatible - Continue tactics analysis and development - Continue integration of ship and air interfaces - Complete SKCS development specific to AOEW					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
- Continue development of AOP to update MH-60R and MH-60S software necessary for AOEW decoy and Helicopter Integration - Commence support of Trouble Report (TR) resolution for AOP software deliveries - Continue integration planning and commence testing of AOEW, MH-60R, CMS, CDLMS, SKCS, Link-16, and AOP - Continue sustainment and training plan development - Commence identification of and update of test assets needed to support Operational Testing - Continue test and M&S plan development - Continue support for M&S development for EWTB - Continue SEWTT functionality development for the AOEW Decoy - Support Factory Qualification Test (FQT) - Support Developmental Test (DT) Assist - Conduct technique verification - Conduct development testing (DT-B2 thru DT-B3b) - Conduct configuration management of Engineering Development Model (EDM) assets and baselines in support of programmatic needs - Complete EDRAP Development - Commence NAVAIR MH-60R flight certification testing of EDMs. Flight certification is a year-long test evolution required by NAVAIR to ensure Safety of Flight and to certify the interoperability between the MH-60R and the AOEW decoy. Flight certification tests include: Ground and Flight Jettison Test, Flight Test for Mission Performance / Spec Compliance Flight Test, Functional Software Test, and Decoy Fit and Egress Test - Commence NAVAIR MH-60S flight certification planning - Continue development of CPD - Conduct AEGIS integration planning to align program baselines - Commence support for Production Readiness Review (PRR) planning - Continue installation planning					
FY 2019 OCO Plans: N/A					
FY 2018 to FY 2019 Increase/Decrease Statement:					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Increase in FY19 is primarily due to system integration and certification testing for two platforms (MH-60R helicopter and ship). System integration includes development of AOP and updates to SKCS. Certification testing includes flight testing (NAVAIR) and standard shipboard certification testing (NAVSEA).					
Title: AOEW - Decoy Development Effort (DDE) Development	9.000	19.615	23.976	0.000	23.976
Articles:	-	-	-	-	-
FY 2018 Plans: - Continue E&MD - Commence Engineering Development Model (EDM) Hardware and Software development and integration - Support Integrated Baseline Review (IBR) for E&MD - Support System of Systems Critical Design Review (CDR) - Support integration planning of AOEW, MH-60R, CMS, CDLMS, SKCS, Link-16, and AOP - Develop AOEW emulators - Develop AOEW techniques generator - Conduct Critical Design Review (CDR) - Commence assembly of AOEW mass models for NAVAIR testing - Commence assembly of AOEW EDMs 1 and 2 - Commence MH-60 R/S helicopter software development - Procure material for mass models 1 through 4 - Support AOP to update MH-60R and MH-60S software necessary for AOEW decoy and Helicopter Integration - Support NAVAIR flight certification planning. Flight certification is a year-long test evolution required by NAVAIR to ensure Safety of Flight and to certify the interoperability between the MH-60S and the AOEW decoy. Flight certification tests include: Ground and Flight Jettison Test, Flight Test for Mission Performance / Spec Compliance Flight Test, Functional Software Test, and Decoy Fit and Egress Test - Support battery certification					
FY 2019 Base Plans: - Continue E&MD - Complete EDM Hardware and Software development and integration - Conduct Factory Qualification Test (FQT) of EDMs 1 and 2 - Conduct Developmental Test (DT) Assist - Support integration planning and testing of AOEW, MH-60R, CMS, CDLMS, SKCS, Link-16, and AOP - Procure material for EDMs 1 through 4					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
- Procure material for mass models 5 through 7 - Support NAVAIR flight certification testing. Flight certification is a year-long test evolution required by NAVAIR to ensure Safety of Flight and to certify the interoperability between the MH-60S and the AOEW decoy - Continue support of battery certification - Commence Production Readiness Review (PRR) planning - Commence delivery of AOEW mass models for NAVAIR testing - Commence delivery of AOEW EDMs - Support AOP to update MH-60R and MH-60S software necessary for AOEW decoy and Helicopter Integration ***FY 2019 OCO Plans:*** N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** Increase in FY19 is primarily due to the procurement of material for EDMs and mass models.					
Accomplishments/Planned Programs Subtotals	27.540	45.867	64.796	0.000	64.796

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OMN/12CR0 (1C2C): *SLQ-59, SLQ-62, and MK-59 Decoy Launching Systems*	3.368	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• OMN/11CD0 (1C1C): *SLQ-59, SLQ-62, and MK-59 Decoy Launching Systems*	0.000	3.398	3.293	-	3.293	3.374	3.382	2.745	3.027	Continuing	Continuing
• OPN/5231: *Ship Missile Support Equipment*	0.000	0.000	0.000	-	0.000	0.000	6.068	35.998	35.589	Continuing	Continuing

Remarks

OPN Controls reflect the following Line Item 5231 Project Unit (PU) under the 'ANTI-SHIP MISSILE DECOY SYSTEM' program: VV500.

D. Acquisition Strategy

The AOEW DDE decoy is being competitively contracted and developed, and builds on technologies and concepts currently in development by ONR.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

E. Performance Metrics

For DDE:
Achieve Milestone (MS) B
Award Preliminary Design/E&MD contract.
Conduct System Requirements Review (SRR)
Conduct System Functional Review (SFR)
Conduct Preliminary Design Review (PDR)
Conduct Critical Design Review (CDR)
Achieve Milestone (MS) C
Conduct Initial Operational Test and Evaluation (IOT&E)
Conduct Developmental Test (DT) Assist
Conduct DDE Test and Certification
Conduct Full Rate Production (FRP)/Decision Review (DR)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3316 / *Advanced Offboard EW*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Analysis of Alternatives	WR	CNA : Alexandria, VA	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	Continuing
Concept Analysis and Integration Assessment	SS/CPFF	APL : Laurel, MD	10.667	1.040	Nov 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Concept Analysis and Technology Studies	WR	MIT-LL : Boston, MA	3.780	1.077	Nov 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Concept Development and Technology Studies	WR	NRL : Washington, D.C.	24.867	0.989	May 2017	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Technology Development and Systems Requirements	WR	NSWC Dahlgren : Dahlgren, VA	12.364	1.610	Nov 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Requirements and Integration Studies	WR	NSWC Crane : Crane, IN	2.233	0.000		0.000		0.000		-		0.000	0.000	2.233	Continuing
DDE Avionics Development	WR	NAVAIR : Patuxent River, MD	2.791	0.402	Nov 2016	2.750	Nov 2017	6.810	Nov 2018	-		6.810	Continuing	Continuing	Continuing
RRE Hardware Development	C/CPIF	Airborne Systems : UK	8.364	0.000		0.000		0.000		-		0.000	0.000	8.364	Continuing
DDE Preliminary Design/ E&MD	C/CPIF	Lockheed Martin : Syracuse, NY	0.000	9.000	Nov 2016	19.615	Nov 2017	23.976	Nov 2018	-		23.976	Continuing	Continuing	Continuing
Ship Integration	WR	SPAWAR : San Diego, CA	0.400	1.360	Nov 2016	1.070	Jan 2018	0.000		-		0.000	0.000	2.830	-
		Subtotal	66.766	15.478		23.435		30.786		-		30.786	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Development Support	WR	NRL : Washington, DC	8.121	1.040	May 2017	4.515	Nov 2017	5.863	Nov 2018	-		5.863	Continuing	Continuing	Continuing
Government Development and Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	6.575	2.160	Nov 2016	4.635	Nov 2017	6.553	Nov 2018	-		6.553	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3316 / *Advanced Offboard EW*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NSWC Crane : Crane, IN	9.180	2.150	Nov 2016	3.018	Nov 2017	3.829	Nov 2018	-		3.829	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC Carderock : Bethesda, MD	0.743	0.025	Nov 2016	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering Support	SS/CPFF	APL : Laurel, MD	1.251	2.492	Nov 2016	3.179	Nov 2017	4.147	Nov 2018	-		4.147	Continuing	Continuing	Continuing
Government Development Support	WR	NAVAIR : Patuxent River, MD	2.525	0.828	Nov 2016	2.000	Nov 2017	2.743	Nov 2018	-		2.743	Continuing	Continuing	Continuing
Logistics/Training	C/CPFF	Pioneering Evolution : Arlington, VA	0.166	0.000		0.000		0.000		-		0.000	0.000	0.166	-
RRE Installation	WR	Planning Yard : Yokosuka, Japan	0.034	0.000		0.000		0.000		-		0.000	0.000	0.034	-
RRE Installation	SS/CPFF	Planning Yard : Bath, ME	4.275	0.000		0.000		0.000		-		0.000	0.000	4.275	-
EW UON	WR	Cherry Point Army : Aberdeen Proving Ground, MD	0.022	0.000		0.000		0.000		-		0.000	0.000	0.022	-
EW UON	WR	Cherry Point Navy : Cherry Point, NC	0.148	0.000		0.000		0.000		-		0.000	0.000	0.148	-
EW UON	WR	NSWC Indian Head : Indian Head, MD	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
EW UON	WR	NSSA Norfolk : Norfolk, VA	0.070	0.000		0.000		0.000		-		0.000	0.000	0.070	-
RRE Installation	WR	Norfolk Naval Shipyard : Norfolk, VA	2.064	0.000		0.000		0.000		-		0.000	0.000	2.064	-
RRE Installation	WR	Det-Naples : Naples, Italy	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
Logistics/Training	SS/CPFF	EWA : Fairmont, WV	0.767	0.000		0.000		0.000		-		0.000	0.000	0.767	-
RRE Installation	WR	FLC ROTA : Rota, Spain	0.055	0.000		0.000		0.000		-		0.000	0.000	0.055	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3316 / *Advanced Offboard EW*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering Support	WR	MIT-LL : Boston, MA	0.000	0.000		0.800	Nov 2017	0.720	Nov 2018	-		0.720	0.000	1.520	-
Program Management Support	WR	DISA : Pensacola, FL	0.000	0.055	Sep 2017	0.000		0.000		-		0.000	0.000	0.055	-
		Subtotal	36.546	8.750		18.147		23.855		-		23.855	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning and Development Testing	WR	NRL : Washington, DC	3.819	0.329	May 2017	0.339	Nov 2017	0.750	Nov 2018	-		0.750	Continuing	Continuing	Continuing
Test Planning and Development Testing	WR	NSWC/Dahlgren : Dahlgren, VA	2.992	0.221	Nov 2016	0.327	Nov 2017	0.359	Nov 2018	-		0.359	Continuing	Continuing	Continuing
Test Planning and Development Testing	WR	NSWC Crane : Crane, IN	1.153	0.086	Nov 2016	0.169	Nov 2017	0.150	Nov 2018	-		0.150	Continuing	Continuing	Continuing
Test Planning and Development Testing	WR	NAVAIR : Patuxent River, MD	0.373	0.116	Nov 2016	0.500	Nov 2017	6.760	Nov 2018	-		6.760	Continuing	Continuing	Continuing
Test Planning and Development Testing	WR	OPTEVFOR : Norfolk, VA	0.330	0.264	Nov 2016	0.305	Jan 2018	0.305	Nov 2018	-		0.305	Continuing	Continuing	Continuing
Test and Evaluation	WR	Navy Post Graduate School : Monterey, CA	0.090	0.000		0.000		0.000		-		0.000	0.000	0.090	-
EW UON Test and Evaluation	C/FPAF	SRF Rota : Rota, Spain	1.728	0.000		0.000		0.000		-		0.000	0.000	1.728	-
EW UON Test and Evaluation	WR	NSSA Norfolk : Norfolk, VA	0.018	0.000		0.000		0.000		-		0.000	0.000	0.018	-
EW UON Test and Evaluation	WR	SUPSHIP Bath : Bath, ME	1.166	0.000		0.000		0.000		-		0.000	0.000	1.166	-
		Subtotal	11.669	1.016		1.640		8.324		-		8.324	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

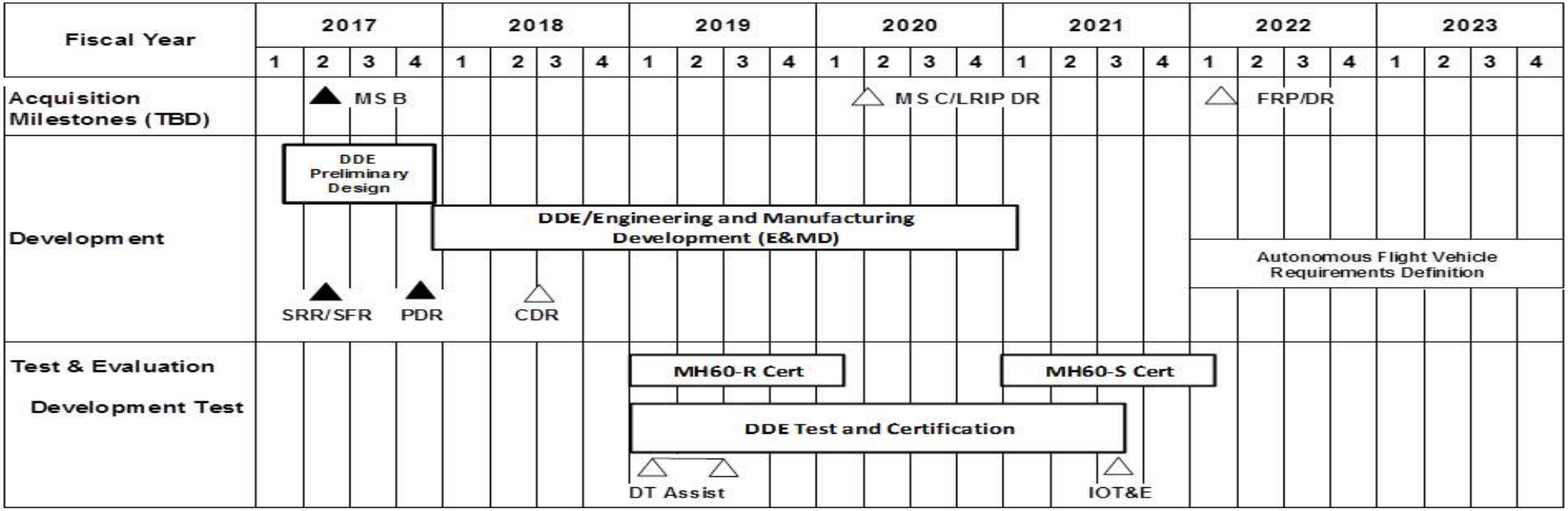
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	CSC (SEAPORT) : Washington, DC	0.315	0.000		0.000		0.000		-		0.000	0.000	0.315	-
Program Management Support	C/CPIF	CACI (SEAPORT) : Washington, DC	0.355	0.503	Nov 2016	0.477	Jan 2018	0.350	Nov 2018	-		0.350	0.000	1.685	-
Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	7.866	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support	SS/CPIF	SPA (BRIDGE) : Washington, DC	1.330	0.334	Nov 2016	0.000		0.000		-		0.000	0.000	1.664	-
Program Management Support	C/CPIF	SPA : Washington, DC	0.028	0.793	Aug 2017	1.484	Jan 2018	1.000	Nov 2018	-		1.000	0.000	3.305	-
Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	0.878	0.525	Nov 2016	0.573	Jan 2018	0.411	Nov 2018	-		0.411	0.000	2.387	-
Program Management Support	C/CPIF	STRATEGIC INSIGHT (SEAPORT) : Washington, DC	0.000	0.041	Mar 2017	0.041	Jan 2018	0.000		-		0.000	0.000	0.082	-
Travel	WR	NAVSEA Program Office Travel : Washington, DC	0.100	0.100	Nov 2016	0.070	Jan 2018	0.070	Nov 2018	-		0.070	Continuing	Continuing	Continuing
		Subtotal	10.872	2.296		2.645		1.831		-		1.831	Continuing	Continuing	N/A

	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	125.853	27.540		45.867		64.796		-		64.796	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*



DDE: Decoy Development Effort

FRP/DR: Full Rate Production/Decision Review

NOTE: MH60-R and MH60-S Flight Cert Split

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3316 / *Advanced Offboard EW*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3316				
DDE Preliminary Design	1	2017	4	2017
Milestone (MS) B	2	2017	2	2017
System Requirements Review (SRR)	2	2017	2	2017
System Functional Review (SFR)	2	2017	2	2017
Preliminary Design Review (PDR)	4	2017	4	2017
DDE / E&MD	4	2017	1	2021
Critical Design Review (CDR)	3	2018	3	2018
Developmental Test (DT) Assist	1	2019	2	2019
MH60-R Certification	1	2019	1	2020
DDE Test and Certification	1	2019	3	2021
Milestone (MS) C / LRIP DR	2	2020	2	2020
MH60-S Certification	1	2021	1	2022
Initial Operational Test and Evaluation (IOT&E)	3	2021	3	2021
Full Rate Production (FRP) / Decision Review (DR)	1	2022	1	2022
Autonomous Flight Vehicle Requirements Definition	1	2022	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3321 / *SEWIP Block 3*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
3321: *SEWIP Block 3*	351.154	68.172	37.330	35.901	-	35.901	21.696	23.228	7.015	7.366	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

SEWIP Block 3 is developing an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide the AN/SLQ-32(V)7 system for all surface ships (CVN, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new construction platforms.

The SEWIP Block 3 Acquisition leverages technology developed under the Office of Naval Research's (ONR) Integrated Topside (InTop) Science and Technology (S&T) effort. SEWIP Block 3 will continue to expand the integrated shipboard combat system by providing a new integrated EA transmitter, array, and associated EA techniques. The AN/SLQ-32(V)7 integrates the new EA countermeasure (SEWIP Block 3) with the AN/SLQ-32(V)6. The AN/SLQ-32(V)6 includes an Electronic Support(ES) receiver (SEWIP Block 2), a High Gain High Sensitivity (HGHS) receiver (SEWIP Block 1B3), a Specific Emitter Identifier (SEI) receiver (SEWIP Block 1B2), display console, and backend electronics. SEWIP Block 3 includes a government software development and integration effort for a SoftKill Coordinator (SKC) to manage EA engagements. SEWIP Block 3 is developing an Electronic Warfare Test Bed (EWTB) to validate system performance.

SEWIP Block 3 developed and deployed a limited interim capability, starting in 2014, of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) systems to support CNO Urgent Operational Needs (UON). Block 3T (AN/SLQ-59) is the TEWM system supporting the 7th fleet UON. TEWM Speed to Fleet (STF) (AN/SLQ-62) is the TEWM system supporting the 6th fleet UON. A capability enhancement upgrade for the AN/SLQ-62 was developed in FY2017.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: SEWIP Block 3 Government Engineering	6.959	11.993	20.377	0.000	20.377
Articles:	-	-	-	-	-
FY 2018 Plans: - Continue supporting Engineering Development Model (EDM) hardware and software development and integration. - Commence preparations and conduct Milestone C. - Commence support of Formal Qualification Testing (FQT). - Conduct DT Assist. - Commence test planning for Initial Operational Test & Evaluation (IOT&E). - Continue implementation of Wallops Island test facilities and improvements (includes power handling upgrades, cooling infrastructure, antenna mounting platform, cabling, connections, security fencing).					

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
- Continue procurement of special test equipment (includes Combat Electromagnetic Environment Simulator, Techniques Generator, command and control test trailer, and referee receiver). - Continue the EWTB model development and verification/validation of model performance. - Continue integrated topside design activities with DDGs. - Commence planning and development of training curriculum. - Support platform integration activities to ensure compatibility with AEGIS Combat Systems. - Support to SKC software integration for EA functionality builds (2-7). - Support Production Readiness Review (PRR). - Conduct Delta Integrated Baseline Review (IBR) FY18 Government Engineering funding decreased based on refinement of FY18 estimates and to cover increased SEWIP Block 3 development cost. ***FY 2019 Base Plans:*** - Complete supporting Engineering Development Model (EDM) hardware and software development and integration; accept EDM. - Complete support of FQT. - Commence Land Based test events at Wallops. - Continue EWTB model development and verification/validation of model performance. - Continue integrated topside design activities with DDGs. Resume platform integration studies for large deck installations with (CVN/LHDs). - Continue test planning for IOT&E. - Continue planning & development of training curriculum. - Continue to support platform integration activities to ensure compatibility with Aegis Combat Systems. Resume integration studies for SSDS Combat Systems. - Support System Verification Review/Functional Configuration Audit (SVR/FCA). ***FY 2019 OCO Plans:*** N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** - Increase in FY19 is due to the planning and conduct of Government testing of the Engineering Development Model (EDM) at Wallops Land Based Testing facility.					
Title: SEWIP Block 3 Development	60.963	25.337	15.524	0.000	15.524

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Articles:	-	-	-	-	-
FY 2018 Plans: - Continue EDM hardware and software development and integration. - Commence FQT. - Support DT Assist - Continue integrated topside design activities with DDGs. - Continue support for model and simulation development for EWTB. - Continue platform integration activities to ensure compatibility with AEGIS Combat Systems. - Commence Surface Electronic Warfare Team Trainer (SEWTT) EA functionality development for AN/SLQ-32(V)7. - Conduct PRR - Support Delta IBR Note: FY18 SEWIP Block 3 Development funding increased due to additional effort for system design (antenna, cooling, power)and higher than anticipated material cost. ***FY 2019 Base Plans:*** - Complete EDM hardware and software development and integration. - Complete FQT. - Support Land Based test events at Wallops. - Continue support for model and simulation development for EWTB. - Continue integrated topside design activities with DDGs. - Continue platform integration activities to ensure compatibility with Aegis Combat Systems. - Resume platform integration studies for large deck installations (CVN/LHD) and SSDS combat system. - Continue Surface Electronic Warfare Team Trainer (SEWTT) EA functionality development for AN/SLQ-32(V). - Conduct SVR/FCA. ***FY 2019 OCO Plans:*** N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** - Decrease in FY19 is due to the completion of E&MD in Q2 FY19.					
Title: Transportable EW Module (TEWM) Speed To Fleet (STF) (AN/SLQ-62) Development	0.200	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
FY 2018 Plans: N/A ***FY 2019 Base Plans:*** N/A ***FY 2019 OCO Plans:*** N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** N/A					
Title: TEWM Speed to Fleet (STF) (AN/SLQ-62) Systems Engineering	0.050	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2018 Plans: N/A ***FY 2019 Base Plans:*** N/A ***FY 2019 OCO Plans:*** N/A ***FY 2018 to FY 2019 Increase/Decrease Statement:*** N/A					
Accomplishments/Planned Programs Subtotals	68.172	37.330	35.901	0.000	35.901

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OPN/2312: *AN/SLQ-32*	244.001	240.433	420.344	-	420.344	554.399	693.782	498.954	478.252	1,262.099	5,175.418

Remarks

D. Acquisition Strategy

SEWIP will develop block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each block and sub-block will be developed and contracted in an individual yet coordinated and overlapping fashion. Specifically, SEWIP Block 3 involves the transitioning and

Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

leveraging of work performed under the Integrated Topside (INTOP) program sponsored by ONR, which focused on designing/architecting an integrated Electronic Attack (EA), Information Operations (IO), and Line of Site (LOS) Comms system for Naval Surface Platforms. SEWIP Block 3 also leverages work performed under the TEWM program that is sponsored by NRL that focuses on technique development and active engagement analysis/modeling for Naval surface combatants. TEWM includes Block 3T (AN/SLQ-59) system supporting the 7th fleet UON and TEWM STF (AN/SLQ-62) system supporting the 6th fleet UON.

E. Performance Metrics

Achieve Block 3 Milestone (MS) B.
Complete Block 3T and Speed to Fleet (STF) development.
Complete Block 3T and STF integration and testing.
Award Preliminary Design Contract.
Conduct Delta CDR.
Achieve Block 3 Long Lead Material (LLM) Authorization.
Complete Engineering & Manufacturing Development (E&MD).
Complete TEWM Speed To Fleet (STF) AN/SLQ-62 Upgrade.
Complete DT Assist.
Complete Production Readiness Review (PRR).
Achieve Block 3 MS C / Low Rate Initial Production (LRIP) Decision Review (DR).
Complete Formal Qualification Test (FQT).
Complete System Verification Review/Functional Configuration Audit (SVR/FCA)
Complete Test Readiness Review (TRR).
Complete TECHEVAL.
Complete Initial Operational Test & Evaluation (IOT&E).
Achieve Block 3 Full Rate Production (FRP) DR.
Complete Follow-on Operational Test & Evaluation (FOT&E).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Technology Demonstration	C/CPFF	Northrop Grumman: Linthicum, MD : Raytheon: Tewksbury, MA	37.195	0.000		0.000		0.000		-		0.000	0.000	37.195	-
Block 3T Primary Hardware Development	C/CPFF	ITT Exelis : Alexandria, VA	54.624	0.000		0.000		0.000		-		0.000	0.000	54.624	-
Block 3 SEWTT Development	SS/CPFF	EWA-GSI : Fairmont, WV	1.619	0.000		0.200	Mar 2018	0.200	Nov 2018	-		0.200	Continuing	Continuing	Continuing
TEWM STF Primary Hardware Development	WR	NRL : Washington, DC	7.691	0.200	Nov 2016	0.000		0.000		-		0.000	0.000	7.891	-
Block 3 Preliminary Design/E&MD	C/CPIF	Northrop Grumman : Baltimore, MD	75.077	60.963	Oct 2016	25.137	Oct 2017	15.324	Oct 2018	-		15.324	Continuing	Continuing	Continuing
		Subtotal	176.206	61.163		25.337		15.524		-		15.524	Continuing	Continuing	N/A

Remarks

FY17 system development increase due to antenna design complexity and higher volume and cost of materials than originally planned.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Integrated Logistics Support	WR	NSWC Crane : Crane, IN	9.252	0.300	Oct 2016	1.176	Nov 2017	2.750	Nov 2018	-		2.750	Continuing	Continuing	Continuing
Block 3 Integrated Logistics Support	WR	NSWC Carderock : Bethesda, MD	0.165	0.000		0.000		0.000		-		0.000	0.000	0.165	-
Block 3 Integrated Logistics Support	WR	NSWC Corona : Corona, CA	0.000	0.000		0.059	Nov 2017	0.000		-		0.000	0.000	0.059	-
Block 3 Integrated Logistics Support	WR	NAVSEALOGCEN : Mechanicsburg, PA	0.181	0.093	Jul 2017	0.248	Mar 2018	0.216	Nov 2018	-		0.216	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	21.402	0.680	Oct 2016	0.629	Nov 2017	1.000	Nov 2018	-		1.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3321 / *SEWIP Block 3*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Government Engineering Support	WR	NSWC Crane : Crane, IN	7.523	0.459	Nov 2016	1.440	Nov 2017	1.000	Nov 2018	-		1.000	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	NRL : Washington, DC	18.780	1.097	Nov 2016	0.950	Nov 2017	1.500	Nov 2018	-		1.500	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	SS/CPFF	APL : Laurel, MD	23.237	0.721	Nov 2016	0.516	Mar 2018	1.000	Nov 2018	-		1.000	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	MIT-LL : Cambridge, MA	4.794	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	GTRI : Atlanta, GA	1.040	0.000		0.000		0.000		-		0.000	0.000	1.040	-
Block 3 Feasibility Studies	WR	BIW : Bath, ME	0.249	0.261	Jan 2017	0.000		0.000		-		0.000	0.000	0.510	-
Block 3 Platform Integration Studies	WR	Norfolk Naval Shipyard (NNSY) : Norfolk, VA	0.040	0.000		0.000		0.000		-		0.000	0.000	0.040	-
Block 3 Platform Integration Studies	WR	SUPSHIP Gulf Coast : Pascagoula, MS	0.062	0.000		0.000		0.000		-		0.000	0.000	0.062	-
Block 3 Platform Integration Studies	WR	NSWC Philadelphia : Philadelphia, PA	0.033	0.106	Apr 2017	0.157	Mar 2018	0.245	Nov 2018	-		0.245	0.000	0.541	-
Block 3 Platform Integration Studies	WR	NAVSEA 05 (Alion) : Washington, DC	0.297	0.000		0.000		0.000		-		0.000	0.000	0.297	-
Block 3 Platform Integration Studies	WR	NAVSEA 05 (CSRA) : Washington, DC	0.149	0.000		0.000		0.000		-		0.000	0.000	0.149	-
Block 3 Platform Integration Studies	WR	Lockheed Martin : Moorstown, NJ	0.000	0.202	Jan 2017	0.000		0.000		-		0.000	0.000	0.202	-
Block 3T Systems Engineering	WR	NRL : Washington, DC	20.532	0.000		0.000		0.000		-		0.000	0.000	20.532	-
TEWM STF Systems Engineering	WR	NRL : Washington, DC	5.691	0.050	Nov 2016	0.000		0.000		-		0.000	0.000	5.741	-
TEWM STF Systems Engineering	WR	NSWC Crane : Crane, IN	0.329	0.000		0.000		0.000		-		0.000	0.000	0.329	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	113.756	3.969		5.175		7.711		-		7.711	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Test Planning/T&E Events	WR	NSWC Dahlgren : Dahlgren, VA	3.894	0.300	Jan 2017	0.170	Nov 2017	2.000	Nov 2018	-		2.000	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	WR	NSWC Crane : Crane, IN	2.311	0.280	Jan 2017	0.363	Mar 2018	1.316	Nov 2018	-		1.316	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	WR	NRL : Washington, DC	9.368	0.640	Jan 2017	3.130	Nov 2017	4.000	Nov 2018	-		4.000	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	SS/CPFF	APL : Laurel, MD	0.350	0.399	Jan 2017	1.115	Nov 2017	2.000	Nov 2018	-		2.000	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	WR	COMOPTEVFOR : Norfolk, VA	0.165	0.011	Jan 2017	0.189	Mar 2018	0.333	Nov 2018	-		0.333	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	WR	Surface Combat Systems Center : Wallops Island, VA	0.000	0.356	Oct 2016	0.000		1.775	Nov 2018	-		1.775	0.000	2.131	-
NAVFAC	WR	NAVFAC Mid-Atlantic : Norfolk, VA	0.000	0.167	May 2017	0.596	Jan 2018	0.000		-		0.000	Continuing	Continuing	Continuing
TEWM Testing	WR	NRL : Washington, DC	10.641	0.000		0.000		0.000		-		0.000	0.000	10.641	-
TEWM STF Testing	WR	NRL : Washington, DC	4.199	0.000	May 2017	0.000		0.000		-		0.000	0.000	4.199	-
		Subtotal	30.928	2.153		5.563		11.424		-		11.424	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

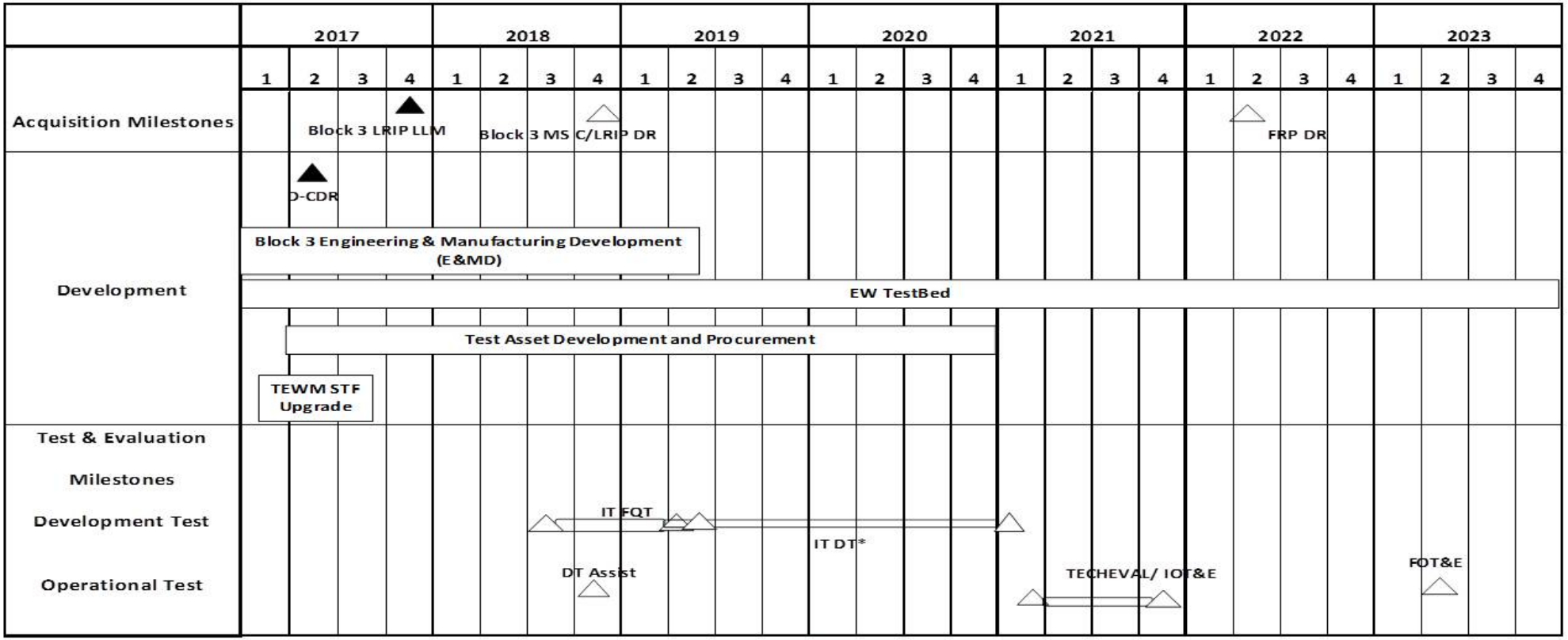
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	18.883	0.000		0.000		0.000		-		0.000	0.000	18.883	-
Block 3 Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	0.970	0.421	Jan 2017	0.230	Feb 2018	0.235	Nov 2018	-		0.235	Continuing	Continuing	Continuing
Block 3 Program Management Support	C/CPIF	CACI (SEAPORT) : Washington, DC	0.422	0.000	Jan 2017	0.086	Feb 2018	0.088	Nov 2018	-		0.088	Continuing	Continuing	Continuing
Block 3 Program Management Support	C/CPIF	Strategic Insight (SEAPORT) : Washington, DC	0.044	0.000		0.000		0.000		-		0.000	0.000	0.044	-
Block 3 Program Management Support	SS/CPIF	SPA (BRIDGE) : Washington, DC	1.138	0.188	Dec 2016	0.000		0.000		-		0.000	0.000	1.326	-
Block 3 Program Management Support	C/CPIF	SPA : Washington, DC	0.000	0.074	Aug 2017	0.432	Feb 2018	0.442	Nov 2018	-		0.442	Continuing	Continuing	Continuing
Block 3 Program Management Support	WR	NSWC Dahlgren : Dahlgren, VA	4.151	0.063	Jan 2017	0.060	Nov 2017	0.057	Nov 2018	-		0.057	Continuing	Continuing	Continuing
Block 3 Travel	WR	NAVSEA Program Office : Washington, DC	0.332	0.015	Jan 2017	0.065	Feb 2018	0.080	Nov 2018	-		0.080	Continuing	Continuing	Continuing
Block 3 Program Management Support	WR	NRL : Washington, DC	1.982	0.063	Jan 2017	0.061	Nov 2017	0.057	Nov 2018	-		0.057	Continuing	Continuing	Continuing
Block 3 Program Management Support	WR	DISA : Pensacola, FL	0.667	0.000		0.261	Mar 2018	0.226	Nov 2018	-		0.226	0.000	1.154	-
Block 3 Program Management Support	WR	NSWC Crane : Crane, IN	1.675	0.063	Jan 2017	0.060	Nov 2017	0.057	Nov 2018	-		0.057	Continuing	Continuing	Continuing
		Subtotal	30.264	0.887		1.255		1.242		-		1.242	Continuing	Continuing	N/A

	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	351.154	68.172		37.330		35.901		-		35.901	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*



* Includes the folowing test events: : Land Test-Block 3 Stand-Alone Operation, Flight Test-Threat Engagements (over water), IA / Maint Demo (Dry Run), CMS Integration (Aegis), DDG-51 Combat System Certification (Aegis Integration), Environment, EMI, RCS, and Shock Tests

** TECHEVAL and IOT&E shifted to align testing with combat system certification process

Acronyms: D-CDR - Delta CDR; DR-Decision Review; DT-Developmental Test; EDM - Engineering Development Modle; FOT&E-Follow-on Operational Test & Evaluation; FQT-Formal Qualification Testing; FRP-Full Rate Production; HWQT-Hardware Qualification Testing; IOT&E-Initial Operational Test & Evaluation; IT-Integrated Testing; LLM-Long Lead Material; LRIP-Low Rate Initial Production; MS-Milestone; OA-Operational Assessment; STF-Speed To Fleet; TEWM-Transportable EW Module; TRR-Test Readiness Review

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3321 / *SEWIP Block 3*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3321.L24				
Block 3 Engineering and Manufacturing Development (E&MD)	1	2017	2	2019
EW Testbed	1	2017	4	2023
TEWM Speed to Fleet Upgrade	1	2017	3	2017
Test Asset Development and Procurement	2	2017	4	2020
Delta CDR	2	2017	2	2017
Block 3 LRIP LLM	4	2017	4	2017
IT-FQT	3	2018	2	2019
DT Assist	4	2018	4	2018
Block 3 MS C/LRIP DR	4	2018	4	2018
IT-DT	2	2019	1	2021
Block 3 TECHEVAL and IOT&E	1	2021	4	2021
Block 3 FRP DR	2	2022	2	2022
Block 3 FOT&E	2	2023	2	2023