Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy											Date: March 2023	
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 2022**	**FY 2023**	**FY 2024 Base**	**FY 2024 OCO**	**FY 2024 Total**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**Cost To Complete**	**Total Cost**
Total Program Element	746.350	64.200	97.537	125.206	-	125.206	134.320	84.442	53.439	53.828	Continuing	Continuing
0954: *Shipboard EW Improvement Program*	83.902	15.384	20.432	53.503	-	53.503	68.521	44.645	17.632	17.753	Continuing	Continuing
2190: *NULKA Decoy*	57.343	6.667	6.211	5.326	-	5.326	6.087	5.667	6.017	5.769	Continuing	Continuing
3068: *Long Endurance Electronic Decoy (LEED)*	0.000	10.637	38.363	39.364	-	39.364	35.330	22.625	22.619	23.007	Continuing	Continuing
3316: *Advanced Offboard EW*	325.062	28.221	26.321	18.107	-	18.107	18.084	5.460	1.140	1.170	Continuing	Continuing
3321: *SEWIP Block 3*	280.043	3.291	6.210	8.906	-	8.906	6.298	6.045	6.031	6.129	Continuing	Continuing

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. Block 1B added adjunct sensors, including Specific Emitter Identification (SEI), and High Gain High Sensitivity (HGHS) (Block 1B3), a critical improvement for extending the battle space. Block 2 enhanced Surface Electronic Warfare (EW) and provided improved Anti-Ship Missile Defense (ASMD) and situational awareness (SA) 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 Onboard Electronic Attack (EA) 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. The SKCS will provide SK weapon coordination and enhanced situational awareness to the AN/SLQ-32(V)6 and (V)7 with EW/radar track association to support Softkill (SK) engagement decisions. 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. RCIP also integrates Future Naval Capability (FNC) programs into SEWIP.

The FY24 budget request supports continued development, test and integration of SKCS with AEGIS Baseline (BL) 9 and BL 10, year four efforts for RCIP #7 which analyzes and designs hardware upgrades to improve signal throughput and system reliability, and continues RCIP #8 to improve anti-ship missile defense capability of SLQ-32(V)6/7 when operating with other netted EW sensors and effectors. RCIP #9 has been added in FY23 to initiate Shipboard EW Self-Protection improvements.

Scaled Onboard Electronic Attack (SOEA) is an incremental development program added under PU 0954 by the USN to provide an advanced Electronic Attack (EA) capability against anti-ship missiles. SOEA will assimilate into the Surface Electronic Warfare Improvement Program (SEWIP) family of shipboard Electromagnetic Warfare systems. The program is intended to be scalable for Surface Combatants with size, weight, power, and cooling (SWaP-C) constraints that cannot support AN/SLQ-32(V)7 (SEWIP Block 3) installation. SOEA development executes under a Middle Tier Rapid Prototyping acquisition strategy pursuant to Section 804 of the FY16 National Defense Authorization Act.

SOEA's acquisition strategy for the first increment consists of two phases: Preliminary Prototyping and Integrated System Development. The first phase includes prototyping of critical technology elements (CTEs) via the Defense Microelectronics Agency (DMEA) to prove out and validate critical performance capability, system

architecture functionality, and supportability requirements. The second phase will utilize a competitive, Other Transaction Authority (OTA) contract to build on the CTEs, incorporate design modularity, establish critical external interfaces for system and platform integration, and complete software development. Phase 2 will deliver integrated Engineering Development Models (EDMs) to a Land Based Test Site (LBTS) and rapid field initial Production Representative Units (PRUs).

The SOEA Middle Tier Acquisition (MTA) leverages technology developed by the Office of Naval Research's (ONR) and Naval Research Laboratory (NRL).

SOEA will continue to expand the integrated shipboard combat system by providing new integrated EA capability. SOEA will be integrated with AN/SLQ-32(V)6. SOEA includes a government software development and integration effort for a Soft-Kill Coordinator System (SKCS) to manage EA engagements. SOEA will leverage and expand the Electronic Warfare Test Bed (EWTB) developed under SEWIP Block 3.

The FY24 budget request for SOEA includes procurement of preliminary prototypes to prove out and validate critical performance capability, system architecture functionality, and supportability requirements. Funding also supports failure mode analyses and platform integration studies, as well as initiation activities for the second phase of development.

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 counters 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.

The FY24 budget request includes Decoy Launcher Processor (DLP) technology refresh to address threat studies as well as address obsolescence issues. The Objective Architecture development will continue which provides improved Nulka decoy deployment as well as Soft Kill Coordination System (SKCS) integration.

3068 - The Long Endurance Electronic Decoy (LEED) program will deliver an expendable long endurance autonomous off-board decoy Countermeasure system, comprised of a flight vehicle and Radio Frequency (RF) payload with modular capability allowing for rapid modification of the Electronic Warfare (EW) payload. LEED development executes under a middle tier rapid prototyping acquisition strategy pursuant to Section 804 of the FY16 National Defense Authorization Act. LEED will integrate with SLQ-32 and address EW gaps in response to a fleet requirement to counter Anti-Ship Missile (ASM) threats. LEED will provide the fleet with enhanced EW coordination and capability, including the ability to stretch engagement timelines and counter heterogeneous missile attacks.

The overarching LEED strategy consists of two phases including a Middle Tier of Acquisition Rapid Prototyping (MTA RP) phase followed by Major Capability Acquisition. The MTA RP phase will include Preliminary and Intergrated Countermeasure Prototype Development (FY21-FY25), and Integrated System Testing (FY24-FY25). The MTA RP phase includes the development and test of operational-level Countermeasure prototypes, launch systems, and control software that demonstrate and validate critical capabilities, including flight performance, control, and RF functionality. Data collected from the initial prototypes will be used to develop Engineering Development Models (EDMs) for Qualification Testing to support a Milestone C decision for Low Rate Initial Production (LRIP) as LEED enters the Major Capability Acquisition phase. LRIP will be executed under a follow-on production OTA and will include the procurement and fielding of production representative units for at-sea capability assessments (FY28) of the Countermeasure system, while LEED transitions to full production and sustainment.?

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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)*

LEED will be developed alongside the Office of Naval Research (ONR) Long Endurance Airborne Platform (LEAP) Project, which began in FY21. LEED will leverage technologies developed and matured under the ONR LEAP Project.

The FY24 budget request supports LEED countermeasure prototype final test demonstrations and integrated countermeasure development at the prime contractor, including material purchases, system/subsystem integration, integrated system demonstration testing and system performance testing.

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. In FY 2012, the program began with a Rapid Response Effort (RRE) which was completed in FY 2014. The RRE consisted of the evaluation and integration of commercially available decoys. The Decoy Development Effort (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.

In the DDE/E&MD Contract effort, which commenced in 2017, the program is developing and integrating Engineering Development Models (EDMs) with the System of Systems (SOS) partners to include conduct of Factory Qualification Testing (FQT), preparation for the program's test phase ramping up in Q2FY23, and FY23 delivery of the Technical Data Package (TDP). Schedule shifts in program testing and delivery of TDP are due to test complexity.

As part of the MH-60R/S Flight Certification effort, the program is required to complete NAVAIR Avionics Operating Program (AOP) software development and Flight Certification, which are critical to support fielding of the AOEW decoy. The AOP software supports integration of the AOEW decoy with the MH-60R/S airframe and is required for successful completion of Flight Certification. AOP software development was completed in FY21. Flight Certification testing includes Ground and Flight Jettison, Flight Test for Mission Performance / Spec Compliance Flight Test, Functional Software Test, and Decoy Fit and Egress Test, which ensures operational Safety of Flight and is critical to successful decoy fielding.

The FY24 budget request supports NAVAIR conduct of Avionics Operating Program (AOP) MH-60R and MH-60S Software Testing necessary for AOEW Decoy and Helicopter Integration into the baseline and NAVAIR Air Worthiness and Flight Certification.

3321 - SEWIP Block 3 is developing an advanced Electronic Attack (EA) capability to keep pace with the evolving Anti-Ship Missile Defense (ASMD) threat and counter targeting required for the AN/SLQ-32(V) system. 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

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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 via modeling and simulation.

The FY24 funding request for SEWIP Block 3 will focus on the conduct of TECHEVAL and Initial Operational Test & Evaluation (IOT&E). Additionally, training curriculum development, EWTB model upgrades, and development efforts will continue and increase for High Power Amplifier (HPA) efficiency to reduce required power and fuel consumption.

B. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	65.307	92.687	93.096	-	93.096
Current President's Budget	64.200	97.537	125.206	-	125.206
Total Adjustments	-1.107	4.850	32.110	-	32.110
• Congressional General Reductions	-	-0.150			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	5.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.018	0.000			
• SBIR/STTR Transfer	-1.088	0.000			
• Program Adjustments	0.000	0.000	31.178	-	31.178
• Rate/Misc Adjustments	-0.001	0.000	0.932	-	0.932

Change Summary Explanation

FY22 funding decrease of $1.107M is due to a decrease for SBIR reductions ($1.088M), miscellaneous rate adjustment reductions ($0.001M), and reprogrammings ($0.018M).
FY23 increase is due to additional funding for shipboard EW self-protection ($5M) and FFRDC reductions ($0.150M).
FY24 funding increase of $32.110M is due to additional funding for Scaled Onboard Electronic Attack ($31.178M) and an increase for rate/miscellaneous adjustments ($0.932M).

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy												Date: March 2023
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 2022**	**FY 2023**	**FY 2024 Base**	**FY 2024 OCO**	**FY 2024 Total**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**Cost To Complete**	**Total Cost**
0954: *Shipboard EW Improvement Program*	83.902	15.384	20.432	53.503	-	53.503	68.521	44.645	17.632	17.753	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. Block 1B added adjunct sensors, including Specific Emitter Identification (SEI), and High Gain High Sensitivity (HGHS) (Block 1B3), a critical improvement for extending the battle space. Block 2 enhanced Surface Electronic Warfare (EW) and provided improved Anti-Ship Missile Defense (ASMD) and situational awareness (SA) 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 Onboard Electronic Attack (EA) 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. The SKCS will provide SK weapon coordination and enhanced situational awareness to the AN/SLQ-32(V)6 and (V)7 with EW/radar track association to support Softkill (SK) engagement decisions. 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. RCIP also integrates Future Naval Capability (FNC) programs into SEWIP.

The FY24 budget request supports continued development, test and integration of SKCS with AEGIS Baseline (BL) 9 and BL 10, year four efforts for RCIP #7 which analyzes and designs hardware upgrades to improve signal throughput and system reliability, and continues RCIP #8 to improve anti-ship missile defense capability of SLQ-32(V)6/7 when operating with other netted EW sensors and effectors. RCIP #9 has been added in FY23 to initiate Shipboard EW Self-Protection improvements.

Scaled Onboard Electronic Attack (SOEA) is an incremental development program added by the USN to provide an advanced Electronic Attack (EA) capability against anti-ship missiles. SOEA will assimilate into the Surface Electronic Warfare Improvement Program (SEWIP) family of shipboard Electromagnetic Warfare systems. The program is intended to be scalable for Surface Combatants with size, weight, power, and cooling (SWaP-C) constraints that cannot support AN/SLQ-32(V)7 (SEWIP Block 3) installation. SOEA development executes under a Middle Tier Rapid Prototyping acquisition strategy pursuant to Section 804 of the FY16 National Defense Authorization Act.

SOEA's acquisition strategy for the first increment consists of two phases: Preliminary Prototyping and Integrated System Development. The first phase includes prototyping of critical technology elements (CTEs) via the Defense Microelectronics Agency (DMEA) to prove out and validate critical performance capability, system architecture functionality, and supportability requirements. The second phase will utilize a competitive, Other Transaction Authority (OTA) contract to build on the CTEs, incorporate design modularity, establish critical external interfaces for system and platform integration, and complete software development. Phase 2 will deliver integrated Engineering Development Models (EDMs) to a Land Based Test Site (LBTS) and rapid field initial Production Representative Units (PRUs).

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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*

SOEA will continue to expand the integrated shipboard combat system by providing new integrated EA capability. SOEA will be integrated with AN/SLQ-32(V)6. SOEA includes a government software development and integration effort for a Soft-Kill Coordinator System (SKCS) to manage EA engagements. SOEA will leverage and expand the Electronic Warfare Test Bed (EWTB) developed under SEWIP Block 3.

The FY24 budget request for SOEA includes procurement of preliminary prototypes to prove out and validate critical performance capability, system architecture functionality, and supportability requirements. Funding also supports failure mode analyses and platform integration studies, as well as initiation activities for the second phase of development.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Scaled Onboard Electronic Attack (SOEA)	0.000	0.000	38.178	0.000	38.178
Articles:	-	-	-	-	-
FY 2023 Plans: N/A					
FY 2024 Base Plans: - Complete Middle Tier Acquisition (MTA) Designation #1 Documentation - Conduct MTA Designation Review #1 - Award multiple Defense Microelectronics Agency (DMEA) contracts to prototype critical technology elements (CTEs) - Commence test planning to collect evidence for verification of requirements - Commence platform integration studies - Commence modularity specifications development - Commence technical and contractual planning for Phase 2 system development and FY25 Other Transaction Authority (OTA) award - Commence MTA Phase 1 preliminary prototypes to prove out and validate critical performance capability, system architecture functionality, and supportability requirements.					
FY 2024 OCO Plans: N/A					
FY 2023 to FY 2024 Increase/Decrease Statement: The FY24 increase is due to the Scaled Onboard Electronic Attack (SOEA) being established and funded starting in FY24. USN added the SOEA development to PU 0954 beginning in FY24 to address the requirement to provide an advanced Electronic Attack (EA) capability against anti-ship missiles for Surface Combatants with					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
size, weight, power, and cooling (SWaP-C) constraints that cannot support AN/SLQ-32(V)7 (SEWIP Block 3) installation.					
Title: Electronic Warfare Rapid Capability Insertion Process (EW RCIP)	15.384	20.432	15.325	0.000	15.325
Articles:	-	-	-	-	-
FY 2023 Plans: - Continue RCIP #4 SKCS (Soft-kill Coordination System) efforts to address platform gaps for automatic and semi-automatic engagements using Nulka decoys, onboard Electronic Attack (EA) (AN/SLQ-32 (V)7), and offboard EA systems; Continue and complete software development and system integration and testing activities for delivery of completed software builds with capabilities including coordination of Nulka and combination engagements with AN/SLQ-32(V)6, AN/SLQ-32(V)7, and offboard EW for enhanced coordination technique deployment; Continue integration and testing activities in support of AEGIS ACB 20 (Baseline 10) by participating in AEGIS ACB 20 integration events and preparing a fully tested software build for element certification; Complete SKCS Factory Qualification Testing (FQT) for a software build in support of AN/ SLQ-32(V)6 FQT, and continue to participate in system integration events with AN/ SLQ-32(V)6, AN/SLQ-32(V)7 and Offboard EW; Continue SSDS ACB 20, Offshore Patrol Cutter (OPC), and Constellation-class Frigate (FFG X) integration support efforts. Continue development of SKCS automated software test lab using cloud computing resources. - Continue SEWTT development of trainer enhancements including additional SKCS, and Offboard EW capabilities; Initiate development of trainer enhancements for SLQ-32(V)7's Onboard EA. Complete testing, integration, and documentation of the enhanced trainer and update associated training materials. - In support of the Propagation Channel Assessment and Prediction (PCAP) FNC transition, complete software development activities for an AN/SLQ-32(V)6 Signal Nominal Range (SNR) Tool including coding of a Tactical Computer Software Configuration Item (CSCI) for the SEWIP program to include the SNR tool functionality into the EW operator tactical interfaces. PCAP capability was successfully demonstrated at July 2022 RIMPAC event. Environmental propagation effects were successfully generated. AIS and ADS-B tracks were properly displayed and correlated to SLQ-32 tracks. - Continue RCIP #7 HW Processing & Reliability improvements which focus on increasing the AN/SLQ-32(V)6 operator's tactical situational awareness and confidence in both system performance and availability; Evaluate the current state of system components and analyze candidate hardware upgrades to increase system emitter processing throughput, reduce false detections/classifications, increase system fault tolerance and simplify maintenance. Develop a system product baseline in preparation for implementation of a system prototype.					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Initiate collaborative development with the SLQ-32 Signal Identification Improvement (SI2) Future Naval Capability (FNC). - Continue RCIP #8 Netted Electronic Warfare Directed Engagement Logic (NEWDEL) improvements to the AN/ SLQ-32(V)6 and AN/SLQ-32(V)7 to improve EW operator control and awareness of EW assets connected via tactical data links. Develop a Tactical Computer Software Configuration Item (CSCI) for the AN/SLQ-32(V)6 and (V)7 to monitor and control netted EW assets for improved anti-ship missile defense performance. - Identify additional EW technology shortfalls and capability gaps based on the current and emerging Anti-Ship Missile (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; Develop execution plans for selected candidates based on evaluated readiness and countermeasure technology prioritization. - Initiate RCIP #9 Shipboard EW Self-Protection improvements against Anti-Ship Missiles (ASMs). Leverage previous Navy and industry investments in successful technology developments and enhance the industrial capacity to tailor relevant technology to provide EW capacity and capability needs to counter emerging threats.					
FY 2024 Base Plans: - Continue RCIP #4 SKCS efforts to address platform gaps for automatic and semi-automatic engagements using Nulka decoys, onboard Electronic Attack (EA) (AN/SLQ-32 (V)7), and offboard EA systems; Continue and complete software development and system integration and testing activities for delivery of completed software builds with capabilities including coordination of Nulka and combination engagements with AN/SLQ-32(V)6, AN/SLQ-32(V)7, and offboard EW for enhanced coordination technique deployment; Continue integration and testing activities in support of AEGIS ACB 20 (Baseline 10) by participating in AEGIS ACB 20 integration events and preparing a fully tested software build for element certification; Complete SKCS FQT for a software build in support of AN/SLQ-32(V)6 FQT, and continue to participate in system integration events with AN/ SLQ-32(V)6, AN/SLQ-32(V)7 and Offboard EW; Continue SSDS ACB 20, OPC, and FFG(X) integration support efforts. Continue development of SKCS automated software test lab using cloud computing resources. - Continue SEWTT development of trainer enhancements including additional SKCS, and Offboard EW capabilities; Continue development of trainer enhancements for SLQ-32(V)7's Onboard EA. - Continue RCIP #7 HW Processing & Reliability improvements which focus on increasing the AN/SLQ-32(V)6 operator's tactical situational awareness and confidence in both system performance and availability; Evaluate the current state of system components and analyze candidate hardware upgrades to increase system emitter processing throughput, reduce false detections/classifications, increase system fault tolerance and simplify					

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
maintenance. Develop a system product baseline in preparation for implementation of a system prototype. Initiate collaborative development with the SLQ-32 Signal Identification Improvement (SI2) FNC. - Continue RCIP #8 Netted Electronic Warfare Directed Engagement Logic (NEWDEL) improvements to the AN/ - SLQ-32(V)6 and AN/SLQ-32(V)7 to improve EW operator control and awareness of EW assets connected via tactical data links. Develop a Tactical Computer Software Configuration Item (CSCI) for the AN/SLQ-32(V)6 and (V)7 to monitor and control netted EW assets for improved anti-ship missile defense performance. - Identify additional EW technology shortfalls and capability gaps based on the current and emerging Anti-Ship Missile (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; - Develop execution plans for selected candidates based on evaluated readiness and countermeasure technology prioritization. - Complete RCIP #9 Shipboard EW Self-Protection improvements against Anti-Ship Missiles (ASMs). ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease from FY23 to FY24 is due to reduction in tasking that better aligns with Navy priorities.					
Accomplishments/Planned Programs Subtotals	15.384	20.432	53.503	0.000	53.503

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• OPN/2312: *OPN BA-2 AN/SLQ-32(V)*	313.817	292.417	329.513	-	329.513	278.251	513.853	594.041	606.214	3,871.034	8,905.177
• OMN PE 0204575N: *OMN BA-1 AN/SLQ-32(V)*	4.337	4.741	4.979	-	4.979	5.043	5.370	5.476	5.586	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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*

D. Acquisition Strategy

RCIP matures, develops and validates technology solutions to address requirements gaps for insertion into SEWIP Block upgrades. Technology solutions result in Government owned technical data packages with Government owned data rights. Solutions are incorporated into the SEWIP Block technical data packages for incorporation into production and/or back-fit of fielded systems. Acquisition strategy supports full and open completion for technical solutions.

SOEA development executes under a middle tier rapid prototyping acquisition strategy pursuant to Section 804 of the FY16 National Defense Authorization Act. The acquisition strategy for SOEA is based on the validated SOEA Top Level Requirements (TLR) document and ASN(RDA) Middle Tier Acquisition and Acquisition Agility Interim Guidance Update Memorandum (10 Jan 2019) and will be finalized with successful completion of an Acquisition Decision Memorandum (ADM) for Middle Tier of Acquisition (MTA) Rapid Prototyping Designation in the Q1FY24.

To accomplish the SOEA development, Defense Microelectronics Agency (DMEA) contracting and Other Transaction Authority (OTA) agreements will be utilized for system development by one or more vendors in a cooperative acquisition approach with the Office of Naval Research (ONR), Naval Research Laboratory (NRL) and industry partners. SOEA acquisition leverages technology developed by the Office of Naval Research's (ONR) and Naval Research Laboratory (NRL).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
RCIP #4 SKCS	SS/CPFF	JHU APL : Laurel, MD	9.971	2.061	Nov 2021	1.830	Feb 2023	1.794	Dec 2023	-		1.794	Continuing	Continuing	Continuing
RCIP #4 SKCS	WR	NSWC Dahlgren : Dahlgren, VA	20.675	4.912	Nov 2021	4.866	Oct 2022	5.012	Nov 2023	-		5.012	Continuing	Continuing	Continuing
RCIP #5 TACSIM	WR	NSWC Dahlgren : Dahlgren, VA	5.310	0.224	Nov 2021	0.000		0.000		-		0.000	0.000	5.534	-
SEWTT Development	SS/CPFF	EWA : Fairmont, WV	1.770	0.549	Sep 2022	0.242	Dec 2022	0.249	Nov 2023	-		0.249	Continuing	Continuing	Continuing
CESARS	WR	NRL : Washington, DC	1.411	0.000	May 2022	0.000		0.000		-		0.000	0.000	1.411	-
PCAP	WR	NRL : Washington DC	0.527	0.116	May 2022	0.025	Mar 2023	0.000		-		0.000	0.000	0.668	-
PCAP	C/CPFF	LM : Syracuse, NY	0.570	0.166	May 2022	0.025	Mar 2023	0.000		-		0.000	0.000	0.761	-
RCIP #7 HW Processing & Reliability Improvements	C/CPFF	LM : Syracuse, NY	2.480	3.546	Jan 2022	4.202	Oct 2022	3.180	Nov 2023	-		3.180	Continuing	Continuing	Continuing
AN/SLQ-32(V)6 and (V)7 SW Algorithm Enhancements	MIPR	MIT : Hanscom AFB, MA	0.976	0.328	Jan 2022	0.000		0.000		-		0.000	0.000	1.304	-
RCIP #4 SKCS	C/CPFF	IDT : San Jose, CA	0.350	0.251	Nov 2021	0.229	Feb 2023	0.100	Apr 2024	-		0.100	Continuing	Continuing	Continuing
RCIP #8 Netted EW Improvements	SS/CPFF	JHU APL : Laurel, MD	0.000	0.000		0.230	Feb 2023	0.496	Dec 2023	-		0.496	Continuing	Continuing	Continuing
RCIP #8 Netted EW Improvements	WR	NSWC Dahlgren : Dahlgren, VA	0.000	0.000		0.542	Oct 2022	0.983	Nov 2023	-		0.983	Continuing	Continuing	Continuing
RCIP#9 Shipboard EW Self-Protection Improvements	C/FFP	Cobham : Dorset, England, UK	0.000	0.000		5.000	Apr 2023	0.000		-		0.000	0.000	5.000	-
SOEA Rapid Prototype Development #1	SS/FFP	TBD : TBD	0.000	0.000		0.000		9.071	Apr 2024	-		9.071	0.000	9.071	-
SOEA Rapid Prototype Development #2	SS/FFP	TBD : TBD	0.000	0.000		0.000		9.072	May 2024	-		9.072	0.000	9.072	-
SOEA Rapid Prototype Development #3	SS/FFP	TBD : TBD	0.000	0.000		0.000		9.071	Apr 2024	-		9.071	0.000	9.071	-
		Subtotal	44.040	12.153		17.191		39.028		-		39.028	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Remarks

- In FY23, RCIP #8 is initiating for Netted Electronic Warfare Directed Engagement Logic (NEWDEL).
- Increase in RCIP #8 from FY23 to FY24 is due to additional tasking for the design, build and integration of the Netted Electronic Warfare Directed Engagement Logic (NEWDEL) Computer Software Configuration Item (CSCI) for the AN/SLQ-32(V)6 and (V)7.
- Decrease in RCIP #7 from FY23 to FY24 is due to a shift in the start of qualification testing during original equipment manufacturer (OEM) product development to Q2 of FY25.
- RCIP #9 has been added in FY23 to initiate Shipboard EW Self-Protection improvements.
- Increase from FY23 to FY24 is due to the start of SOEA in FY24. Funding supports the middle tier rapid prototyping strategy for the procurement of preliminary prototypes to prove out and validate critical performance capability, system architecture functionality, and supportability requirements. Funding also supports failure mode analyses and platform integration studies, as well as initiation activities for the second phase of development.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Government Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	8.199	0.180	Nov 2021	0.192	Nov 2022	0.198	Nov 2023	-		0.198	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	NSWC Crane : Crane, IN	6.764	0.487	Dec 2021	0.438	Nov 2022	0.451	Nov 2023	-		0.451	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	NRL : Washington, DC	4.517	0.000		0.000		0.000		-		0.000	0.000	4.517	Continuing
Block 1 Government Engineering Support	SS/CPFF	APL : Laurel, MD	4.048	0.265	Nov 2021	0.287	Nov 2022	0.296	Nov 2023	-		0.296	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	MIPR	MIT : Hanscom AFB, MA	3.420	0.669	Jan 2022	0.598	Nov 2022	0.687	Nov 2023	-		0.687	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	MIPR	DISA : Fort Meade, MD	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
SOEA Integrated Logistics Support	WR	NSWC Crane : Crane, IN	0.000	0.000		0.000		0.250	Nov 2023	-		0.250	0.000	0.250	-
SOEA Systems Engineering Support	WR	NSWC Crane : Crane, IN	0.000	0.000		0.000		0.500	Nov 2023	-		0.500	0.000	0.500	-
SOEA Systems Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	0.000	0.000		0.000		1.000	Nov 2023	-		1.000	0.000	1.000	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOEA Systems Engineering Support	WR	NRL : Washington, DC	0.000	0.000		0.000		5.984	Oct 2023	-		5.984	0.000	5.984	-
SOEA Systems Engineering Support	SS/CPFF	APL : Laurel, MD	0.000	0.000		0.000		1.000	Nov 2023	-		1.000	0.000	1.000	-
SOEA Platform Integration Studies	C/BA	TBD : Not Specified	0.000	0.000		0.000		0.500	Nov 2023	-		0.500	0.000	0.500	-
		Subtotal	26.998	1.601		1.515		10.866		-		10.866	Continuing	Continuing	N/A

Remarks

- FY23 to FY24 increase supports the Middle Tier Acquisition strategy to procure prototypes, awarding Defense Microelectronics Agency (DEMA) contracts, starting platform integration studies, starting modularity specification development, technical and contract planning for Phase 2 of the SOEA development.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NSWC Dahlgren : Dahlgren, VA	3.623	0.429	Nov 2021	0.455	Nov 2022	0.799	Nov 2023	-		0.799	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	0.889	0.000		0.000		0.230	Nov 2023	-		0.230	0.000	1.119	-
Developmental Test & Evaluation (DT&E)	WR	NRL : Washington, DC	2.476	0.000		0.000		0.500	Nov 2023	-		0.500	0.000	2.976	-
Developmental Test & Evaluation (DT&E)	SS/CPFF	APL : Laurel, MD	0.100	0.000		0.251	Nov 2022	0.559	Nov 2023	-		0.559	0.000	0.910	-
Developmental Test & Evaluation (DT&E)	WR	COMOPTEVFOR : Norfolk, VA	0.104	0.178	Nov 2022	0.000		0.050	Nov 2023	-		0.050	0.000	0.332	-
		Subtotal	7.192	0.607		0.706		2.138		-		2.138	Continuing	Continuing	N/A

Remarks

- FY23 to FY24 increase is due to cost for hardware and recurring software license upgrades to the Softkill Coordination Subsystem integration and test laboratory at NSWC Dahlgren. These upgrades are necessary to maintain compatibility with the combat system.
- Test and evaluation increase from FY23 to FY24 is due to the start of SOEA development efforts. Increase is for SOEA test planning and for verification of requirements. Total SOEA and RCIP/Block 1 costs per activity are reflected in FY24.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, D.C.	1.698	0.000		0.405	Mar 2023	0.417	Nov 2023	-		0.417	Continuing	Continuing	Continuing
Block 1 Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	1.606	0.818	Jan 2022	0.385	Nov 2022	0.397	Nov 2023	-		0.397	Continuing	Continuing	Continuing
Block 1 Program Management Support	C/CPIF	CACI (SEAPORT) : Washington, DC	0.962	0.000		0.000		0.000		-		0.000	0.000	0.962	-
Block 1 Travel	WR	NAVSEA Program Office Travel : Washington, DC	1.406	0.005	Sep 2022	0.020	Jan 2023	0.021	Nov 2023	-		0.021	Continuing	Continuing	Continuing
Block 1 Program Management Support	C/CPIF	BAH (SEAPORT) : Washington, DC	0.000	0.200	Jun 2022	0.210	Mar 2023	0.216	Nov 2023	-		0.216	0.000	0.626	-
SOEA Program Management	C/CPFF	SPA (SEAPORT) : Washington, DC	0.000	0.000		0.000		0.250	Nov 2023	-		0.250	0.000	0.250	-
SOEA Program Management	C/CPFF	TBD BFM Support (SEAPORT) : TBD	0.000	0.000		0.000		0.150	Nov 2023	-		0.150	0.000	0.150	-
SOEA Program Management.	WR	NAVSEA Program Office Travel : Washington, DC	0.000	0.000		0.000		0.020	Nov 2023	-		0.020	0.000	0.020	-
		Subtotal	5.672	1.023		1.020		1.471		-		1.471	Continuing	Continuing	N/A

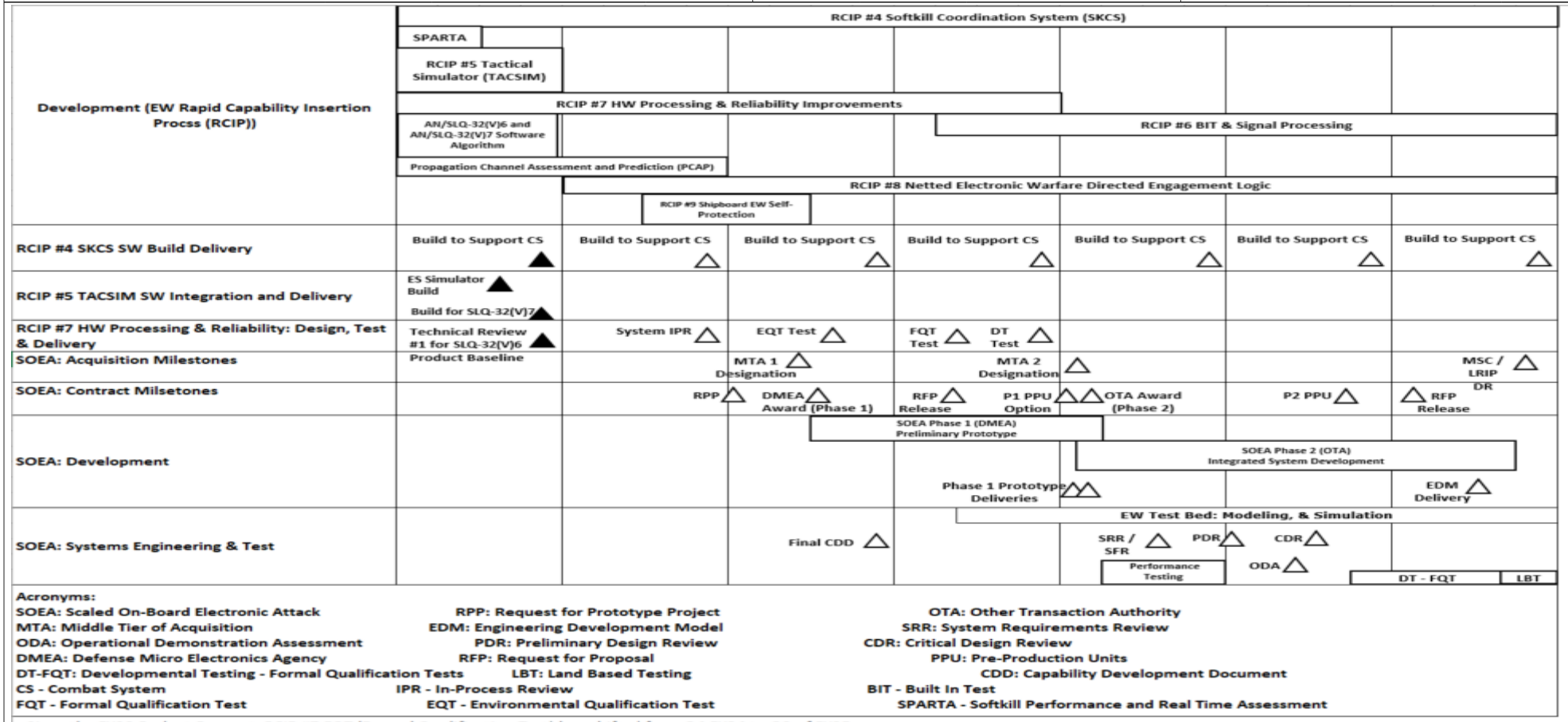
Remarks

- Increase in management services from FY23 to FY24 is due to additional requirements for SOEA starting in FY24. Increase supports SOEA verification of requirements, platform integration studies, specification development and financial management.

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	83.902	15.384		20.432		53.503		-		53.503	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
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*



Acronyms:

SOEA: Scaled On-Board Electronic Attack	RPP: Request for Prototype Project	OTA: Other Transaction Authority
MTA: Middle Tier of Acquisition	EDM: Engineering Development Model	SRR: System Requirements Review
ODA: Operational Demonstration Assessment	PDR: Preliminary Design Review	CDR: Critical Design Review
DMEA: Defense Micro Electronics Agency	RFP: Request for Proposal	PPU: Pre-Production Units
DT-FQT: Developmental Testing - Formal Qualification Tests	LBT: Land Based Testing	CDD: Capability Development Document
CS - Combat System	IPR - In-Process Review	BIT - Built In Test
FQT - Formal Qualification Test	EQT - Environmental Qualification Test	SPARTA - Softkill Performance and Real Time Assessment

- Since the FY23 Budget Request, RCIP #7 FQT (Formal Qualification Test) has shifted from Q4 FY24 to Q2 of FY25.
- Since the FY23 Budget Request, RCIP #7 DT Test (Development Testing) has been added to the schedule, and commences in Q4 of FY25.
- Since the FY23 Budget Request, RCIP #4, #6 and #8 will continue through the FYDP.
- Since the FY23 Budget Request, RCIP #9 Shipboard EW Self-Protection has been added to the schedule, and commences in Q3 of FY23.
- Since the FY23 Budget Request, Scaled Onboard EA has been added to the schedule, and commences in Q1 of FY24.

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
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				
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): EW Rapid Capability Insertion Process (RCIP)	1	2022	4	2028
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #4: SKCS	1	2022	4	2028
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): Softkill Performance and Real-Time Assessment (SPARTA)	1	2022	2	2022
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #5 TACSIM	1	2022	4	2022
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): AN/SLQ-32(V)6 and AN/SLQ-32(V)7 Software Algorithm Enhancements	1	2022	4	2022
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): Propagation Channel Assessment and Prediction (PCAP)	1	2022	4	2023
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #4 SKCS SW Build Delivery	1	2022	4	2028
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #5 TACSIM SW Integration and Delivery	1	2022	4	2022
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #7: HW Processing & Reliability Improvements	2	2022	4	2025
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #7: HW Processing & Reliability Improvements - System Prototype Delivery	4	2022	4	2025
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #8 Netted Electronic Warfare Directed Engagement Logic (NEWDEL)	1	2023	4	2028
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #6: BIT and Signal Processing	2	2025	4	2028
Electronic Warfare Rapid Capability Insertion Process (EW RCIP): RCIP #9 Shipboard EW Self-Protection	3	2023	2	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
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*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Scaled Onboard Electronic Attack (SOEA): Request for Prototype Project (RPP)	1	2024	2	2024
Scaled Onboard Electronic Attack (SOEA): Middle Tier Acquisition Phase 1 Designation	2	2024	2	2024
Scaled Onboard Electronic Attack (SOEA): Defense Micro Electronics Agency (DMEA) Contract	3	2024	1	2026
Scaled Onboard Electronic Attack (SOEA): EW Test Bed Modeling & Simulation	2	2025	4	2028
Scaled Onboard Electronic Attack (SOEA): Preliminary Prototype Deliveries	1	2026	1	2026
Scaled Onboard Electronic Attack (SOEA): Middle Tier Acquisition Phase 2 Designation	1	2026	1	2026
Scaled Onboard Electronic Attack (SOEA): Other Transactional Authority (OTA) Phase 2 Contract	1	2026	3	2028
Scaled Onboard Electronic Attack (SOEA): MTA Phase 1 Pre-Production Prototype Procurement Option Award	1	2026	1	2026
Scaled Onboard Electronic Attack (SOEA): MTA Phase 1 Performance Testing	2	2026	4	2026
Scaled Onboard Electronic Attack (SOEA): MTA Phase 2 System Requirements Review (SRR)/ System Functional Review (SFR)	3	2026	3	2026
Scaled Onboard Electronic Attack (SOEA): MTA Phase 2 Preliminary Design Review (PDR)	1	2027	1	2027
Scaled Onboard Electronic Attack (SOEA): MTA Phase 1 Operational Demonstration Assessment (ODA)	2	2027	2	2027
Scaled Onboard Electronic Attack (SOEA): MTA Phase 2 Critical Design Review (CDR)	3	2027	3	2027
Scaled Onboard Electronic Attack (SOEA): MTA Phase 2 Pre-Production Units Option Award	3	2027	3	2027
Scaled Onboard Electronic Attack (SOEA): Milestone C / LRIP DR	4	2028	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
2190: *NULKA Decoy*	57.343	6.667	6.211	5.326	-	5.326	6.087	5.667	6.017	5.769	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 counters 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.

The FY24 budget request includes Decoy Launcher Processor (DLP) technology refresh to address threat studies as well as address obsolescence issues. The Objective Architecture development will continue which provides improved Nulka decoy deployment as well as Soft Kill Coordination System (SKCS) integration.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: NULKA Decoy Subsystem	6.667	6.211	5.326	0.000	5.326
Articles:	-	-	-	-	-
FY 2023 Plans: - Continue engineering and effectiveness studies to evaluate new and existing threats; update Fly-Out Tactics table for specific platforms (as appropriate) - Continue to develop and test new Nulka library files to support new platforms with SKCS (as appropriate) - Continue DLP technology refresh to design and develop hardware obsolescence solutions - Support Nulka Objective Architecture integration with SKCS - Complete the development and test of Decoy Launch Controller (DLC) - Continue to develop and test Nulka Launch Management (NLMt) to support the Nulka Objective Architecture - Complete Factory Qualification Testing (FQT) to improve employment of Nulka system					
FY 2024 Base Plans: - Continue engineering and effectiveness studies to evaluate new and existing threats; update Fly-Out Tactics table for specific platforms (as appropriate) - Continue to develop and test new Nulka library files to support new platforms with SKCS (as appropriate) - Continue DLP technology refresh to design and develop hardware obsolescence solutions - Continue to support Nulka Objective Architecture integration with SKCS					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Continue to develop Nulka Launch Management (NLMt) to support the Nulka Objective Architecture ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** FY23 to FY24 decrease is due to reduction in Nulka Decoy development in order to fund higher Navy priorities.					
Accomplishments/Planned Programs Subtotals	6.667	6.211	5.326	0.000	5.326

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• OPN/5530: *Anti-Ship Missile Decoy System*	76.994	86.264	56.630	-	56.630	80.039	93.436	129.073	131.621	942.752	1,706.317
• OMN/11CD0 (1C1C): *NULKA*	7.248	7.849	8.262	-	8.262	8.188	8.205	8.372	8.542	Continuing	Continuing

Remarks

D. Acquisition Strategy

Nulka is a joint cooperative program between United States and Australia.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NRL : Washington, DC	24.585	1.782	Nov 2021	1.854	Oct 2022	1.761	Nov 2023	-		1.761	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC Dahlgren : Dahlgren, VA	19.407	3.431	Oct 2021	3.510	Jan 2023	2.867	Nov 2023	-		2.867	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC Crane : Crane, IN	10.341	0.971	Oct 2021	0.371	Oct 2022	0.297	Nov 2023	-		0.297	Continuing	Continuing	Continuing
		Subtotal	54.333	6.184		5.735		4.925		-		4.925	Continuing	Continuing	N/A

Remarks

FY23 to FY24 decreased funding is due to reduction in Nulka Decoy development to fund higher Navy priorities.

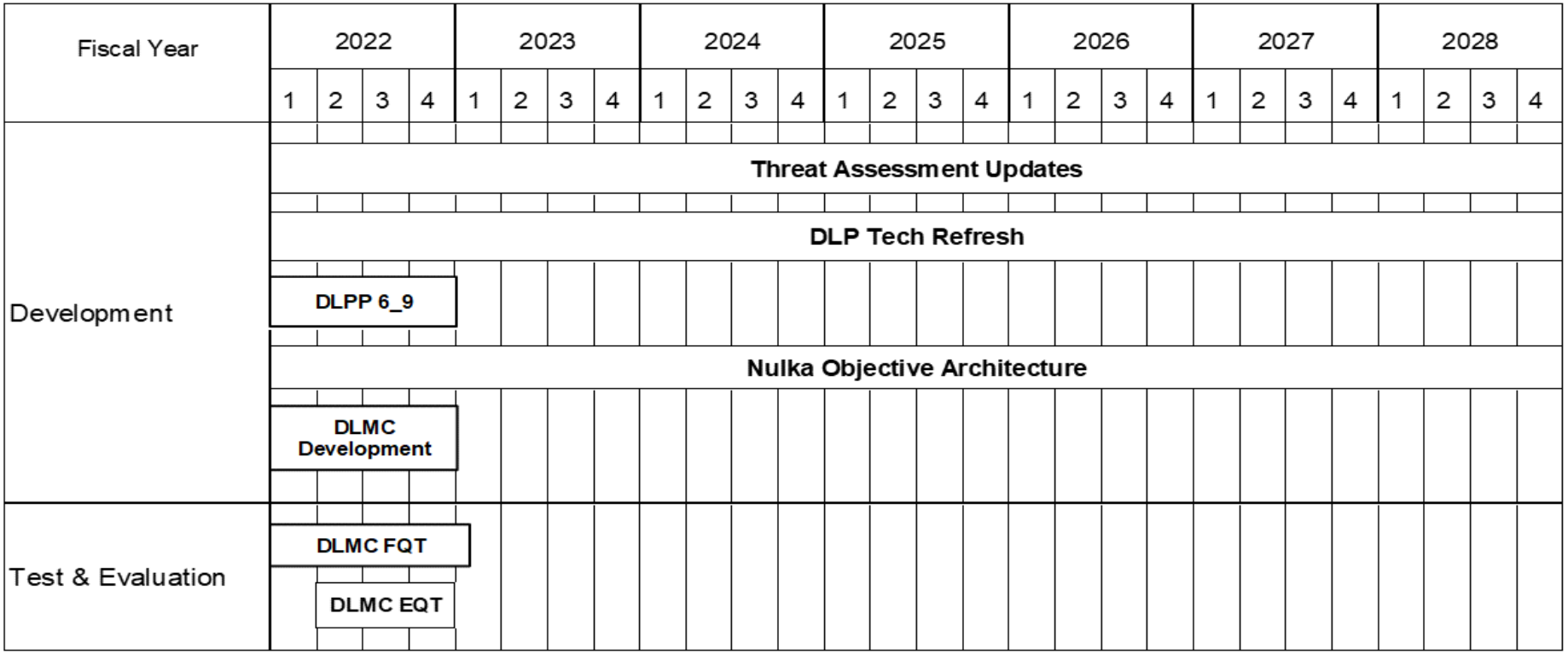
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	ICI (SEAPORT) : Washington, DC	0.323	0.000		0.000		0.000		-		0.000	0.000	0.323	-
Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	0.677	0.136	Jun 2022	0.139	Feb 2023	0.116	Nov 2023	-		0.116	Continuing	Continuing	Continuing
Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	1.287	0.322	Jun 2022	0.329	Feb 2023	0.275	Nov 2023	-		0.275	Continuing	Continuing	Continuing
Travel	Allot	NAVSEA Program Office Travel : Washington, DC	0.723	0.025	Aug 2022	0.008	Feb 2023	0.010	Nov 2023	-		0.010	Continuing	Continuing	Continuing
		Subtotal	3.010	0.483		0.476		0.401		-		0.401	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	57.343	6.667		6.211		5.326		-		5.326	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
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*



Acronyms: DLMC - Decoy Launch Message Convertor; DLP - Decoy Launch Processor; DLPP - Decoy Launch Processor Program; EQT - Environmental Qualification Testing; FQT - Factory Qualification Testing

Note: DLMC FQT completion delayed from Q4 FY22 to Q1 FY23 due to circuit card production delays.

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
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				
Threat Assessment Updates	1	2022	4	2028
Decoy Launch Processor (DLP) Tech Refresh	1	2022	4	2028
Decoy Launch Processor Program (DLPP 6_9)	1	2022	4	2022
Nulka Objective Architecture	1	2022	4	2028
Decoy Launch Message Convertor (DLMC) Development	1	2022	4	2022
DLMC Facotry Qualification Testing (FQT)	1	2022	1	2023
DLMC Environmental Qualification Testing (EQT)	2	2022	4	2022

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3068 / *Long Endurance Electronic Decoy (LEED)*	

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3068: *Long Endurance Electronic Decoy (LEED)*	0.000	10.637	38.363	39.364	-	39.364	35.330	22.625	22.619	23.007	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

This project is a new start in FY 2022

A. Mission Description and Budget Item Justification

3068 - The Long Endurance Electronic Decoy (LEED) program will deliver an expendable long endurance autonomous off-board decoy Countermeasure system, comprised of a flight vehicle and Radio Frequency (RF) payload with modular capability allowing for rapid modification of the Electronic Warfare (EW) payload. LEED development executes under a middle tier rapid prototyping acquisition strategy pursuant to Section 804 of the FY16 National Defense Authorization Act. LEED will integrate with SLQ-32 and address EW gaps in response to a fleet requirement to counter Anti-Ship Missile (ASM) threats. LEED will provide the fleet with enhanced EW coordination and capability, including the ability to stretch engagement timelines and counter heterogeneous missile attacks.

The overarching LEED strategy consists of two phases including a Middle Tier of Acquisition Rapid Prototyping (MTA RP) phase followed by Major Capability Acquisition. The MTA RP phase will include Preliminary and Integrated Countermeasure Prototype Development (FY21-FY25) and Integrated System Testing (FY24-FY25). The MTA RP phase includes the development and test of operational-level Countermeasure prototypes, launch systems, and control software that demonstrate and validate critical capabilities, including flight performance, control, and RF functionality. Data collected from the initial prototypes will be used to develop Engineering Development Models (EDMs) for Qualification Testing to support a Milestone C decision for Low Rate Initial Production (LRIP) as LEED enters the Major Capability Acquisition phase. LRIP will be executed under a follow-on production OTA and will include the procurement and fielding of production representative units for at-sea capability assessments (FY28) of the Countermeasure system, while LEED transitions to full production and sustainment.

LEED will be developed alongside the Office of Naval Research (ONR) Long Endurance Airborne Platform (LEAP) Project, which began in FY21. LEED will leverage technologies developed and matured under the ONR LEAP Project.

The FY24 budget request supports LEED countermeasure prototype final test demonstrations and integrated countermeasure development at the prime contractor, including material purchases, system/subsystem integration, integrated system demonstration testing and system performance testing.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Long Endurance Electronic Decoy (LEED)	10.637	38.363	39.364	0.000	39.364
Articles:	-	-	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3068 / *Long Endurance Electronic Decoy (LEED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
FY 2023 Plans: - Continue the first phase of LEED Countermeasure Development with development and testing of a LEED Countermeasure prototype. - Complete hardware purchases and execute non-recurring engineering design, software development, and contract support activities in order to develop, test and deliver a functional Countermeasure system that meets specified TPMs. - Develop test procedures and facilities to demonstrate Countermeasure prototype performance that meets specified TPMs, with a focus on RF performance and vehicle flight performance test procedures. - Conduct preliminary demonstration testing of the Countermeasure prototype to assess key risk areas against a subset of TPMs with a focus on RF functionality, and utilize results to inform final prototype development activities in preparation for formal Countermeasure Performance Testing. - Conduct the Countermeasure Critical Design Review (CDR). - Conduct formal Countermeasure Performance Testing to measure Countermeasure prototype performance against all TPMs and government approved requirements. - Integrate the payload and flight vehicle into a functional Countermeasure. - Continue developing preliminary concepts for a ship launch system, based on feasibility studies and Countermeasure development, for modification of an existing decoy ship launch system. - Continue developing modeling and simulation tools to support threat and countermeasure performance assessments. - Continue execution of an IPT to support requirements, systems engineering, testing, and product support: Coordinate and conduct government led testing events; Support the development of test procedures and testing facilities, monitor and engage in Prime Contractor performance, attend and provide technical support for Contractor-led testing events, and assess all testing outcomes for effectiveness; Utilize modeling and simulation tools to support threat and countermeasure performance assessments; Commence ship design and ship integration planning activities. - Initiate technical and contractual planning activities for integrated LEED Countermeasure development.					
FY 2024 Base Plans: - Complete LEED initial Countermeasure prototype development, including final testing. - Complete delivery of initial Countermeasure prototype. - Continue LEED Countermeasure development of Integrated Countermeasure prototypes. - Coordinate and conduct the System Critical Design Review (CDR). - Develop a detailed system design through the System CDR and update to Countermeasure CDR products.					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3068 / *Long Endurance Electronic Decoy (LEED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Perform spares analysis. - Develop a laboratory version of the payload. - Conduct formal testing to collect evidence for verification of requirements. - Initiate integration, testing, and checkout activities for the EDM Countermeasure, launcher subsystem, and integrated system testing. - Continue developing preliminary concepts for modification of an existing decoy ship launch system. - Continue developing modeling and simulation tools to support threat and countermeasure performance assessments. - Continue execution of an IPT to support requirements, systems engineering, testing, and product support: Coordinate and conduct government led testing events; Support the development of test procedures and testing facilities, monitor and engage in Prime Contractor performance, attend and provide technical support for Contractor-led testing events, and assess all testing outcomes for effectiveness; Utilize modeling and simulation tools to support threat and countermeasure performance assessments; Commence ship design and ship integration planning activities. - Continue technical and contractual planning activities for integrated LEED Countermeasure development. - Initiate planning and execution activities for the transition to major capability acquisition for initial production, including preparation for a milestone decision. - Develop Countermeasure tactics and SKCS control algorithms. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase from FY23 to FY24 is due to the additional scope and complexity required for system integration and testing activities.					
Accomplishments/Planned Programs Subtotals	10.637	38.363	39.364	0.000	39.364

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3068 / *Long Endurance Electronic Decoy (LEED)*

D. Acquisition Strategy

LEED development executes under a middle tier rapid prototyping acquisition strategy pursuant to Section 804 of the FY16 National Defense Authorization Act. The acquisition strategy for LEED is based on the validated LEED Top Level Requirements document and ASN(RDA) Middle Tier Acquisition and Acquisition Agility Interim Guidance Update Memorandum (10 Jan 2019) and was finalized with successful completion of an Acquisition Decision Memorandum (ADM) for Middle Tier of Acquisition (MTA) Rapid Prototyping Designation in Q1FY23.

To accomplish the LEED Countermeasure Development, Other Transaction Authority (OTA) agreements will be utilized for development by one or more vendors in a cooperative acquisition approach with the Office of Naval Research (ONR). ONR initiated technology maturation efforts in FY21 as part of their LEAP project, which LEED will capitalize on. The FY21 ONR efforts allowed for the matured technologies in LEAP to be leveraged sooner by LEED and support the overall LEED development and fielding timeline. The OTA agreement for initial Countermeasure development was awarded to Prime Contractor Lockheed Martin via NSWC Dahlgren Naval Surface Technology Innovation Consortium (NSTIC). This OTA agreement will be utilized through initial Countermeasure development, with the plan to use a follow-on production OTA for Low Rate Initial Production (LRIP), while transitioning to Major Capability Acquisition with a Milestone (MS) C Decision. LEED will use Federal Acquisition Regulation (FAR)-based contracting, within Major Capability Acquisition, for Full Rate Production (FRP).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3068 / *Long Endurance Electronic Decoy (LEED)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LEED Rapid Development	C/CPFF	NSWC Dahlgren : Dahlgren, VA	0.000	9.326	Apr 2022	29.270	Oct 2022	29.320	Nov 2023	-		29.320	Continuing	Continuing	Continuing
		Subtotal	0.000	9.326		29.270		29.320		-		29.320	Continuing	Continuing	N/A

Remarks

- Performing Activity changed from Lockheed Martin to NSWC Dahlgren due to OTA agreement for initial Countermeasure development being awarded to Prime Contractor Lockheed Martin via NSWC Dahlgren Naval Surface Technology Innovation Consortium (NSTIC).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support	WR	NSWC Dahlgren : Dahlgren, VA	0.000	0.031	Apr 2022	0.401	Oct 2022	0.449	Nov 2023	-		0.449	Continuing	Continuing	Continuing
Technical Support	WR	NSWC Crane : Crane, IN	0.000	0.103	Apr 2022	0.967	Oct 2022	1.089	Nov 2023	-		1.089	Continuing	Continuing	Continuing
Technical Support	WR	NRL : Washington, DC	0.000	0.206	May 2022	1.057	Jan 2023	1.191	Nov 2023	-		1.191	Continuing	Continuing	Continuing
Systems Engineering Support	SS/CPFF	APL : Laurel, MD	0.000	0.129	May 2022	1.316	Dec 2022	1.482	Nov 2023	-		1.482	Continuing	Continuing	Continuing
Technical Support	MIPR	MT-LL : Boston, MA	0.000	0.000		0.987	Nov 2022	1.111	Nov 2023	-		1.111	Continuing	Continuing	Continuing
		Subtotal	0.000	0.469		4.728		5.322		-		5.322	Continuing	Continuing	N/A

Remarks

- FY23 to FY24 increase is due to continued ramp up of Government oversight and support of Prime Contractor Countermeasure development integration efforts.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NRL : Washington, DC	0.000	0.214	Apr 2022	1.057	Jan 2023	1.191	Nov 2023	-		1.191	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	Project (Number/Name) 3068 / *Long Endurance Electronic Decoy (LEED)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	0.000	0.026	Apr 2022	0.967	Jan 2023	1.089	Nov 2023	-		1.089	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NSWC Dahlgren : Dahlgren, VA	0.000	0.000		0.401	Jan 2023	0.452	Nov 2023	-		0.452	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	OPTEVFOR : Norfolk, VA	0.000	0.000		0.000		0.050	Nov 2023	-		0.050	0.000	0.050	-
		Subtotal	0.000	0.240		2.425		2.782		-		2.782	Continuing	Continuing	N/A

Remarks

- FY23 to FY24 increase is due to continued ramp up of Government oversight and support of prime contractor test events and demonstrations.

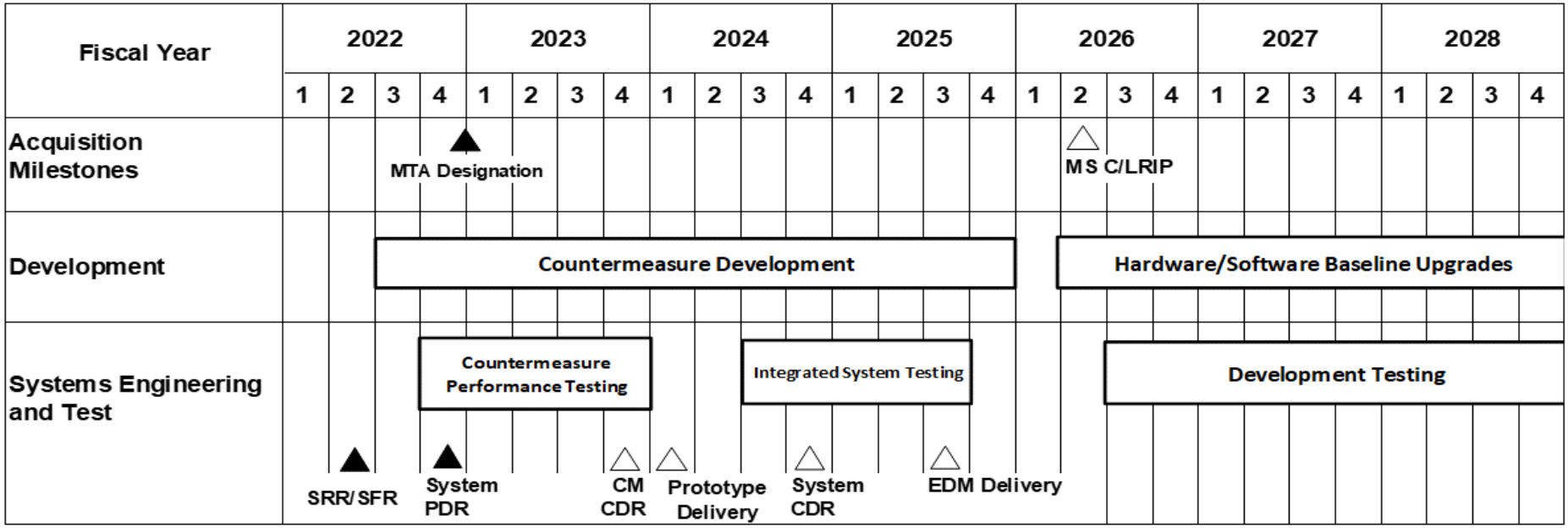
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	0.000	0.281	Apr 2022	0.950	Mar 2023	0.950	Nov 2023	-		0.950	Continuing	Continuing	Continuing
Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	0.000	0.281	Apr 2022	0.950	Mar 2023	0.950	Nov 2023	-		0.950	Continuing	Continuing	Continuing
Travel	Sub Allot	NAVSEA Program Office : Washington, DC	0.000	0.040	Apr 2022	0.040	Mar 2023	0.040	Nov 2023	-		0.040	Continuing	Continuing	Continuing
		Subtotal	0.000	0.602		1.940		1.940		-		1.940	Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	10.637		38.363		39.364		-		39.364	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3068 / *Long Endurance Electronic Decoy (LEED)*



Acronyms: CDR - Critical Design Review; CM - Countermeasure; EDM - Engineering Development Model; LRIP - Low-Rate Initial Production; MS - Milestone; MTA - Middle Tier Acquisition; PDR - Preliminary Design Review; SFR - System Functional Review; SRR - System Requirements Review

Notes:
MTA designation shifted from Q3 FY22 to Q1 FY23 due to late release of FY22 funds. CM CDR shifted two quarters, Prototype Delivery shifted one quarter and the Integrated System Testing now starts in FY24. These schedule changes are based on current established OTA (awarded Q4FY21) and alignment with the Prime Contractor's current Integrated Master Schedule (IMS). Removed Phase 2 and 3 Awards to align with countermeasure development completing under the current established developmental OTA awarded to Lockheed Martin via NSWC Dahlgren Naval Surface Technology Innovation Consortium (NSTIC).

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604757N / *Ship Self Def (Engage: Soft Kill/EW)*	**Project (Number/Name)** 3068 / *Long Endurance Electronic Decoy (LEED)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3068				
System Requirements Review (SRR)/System Functional Review (SFR)	2	2022	2	2022
Countermeasure Development	3	2022	4	2025
Countermeasure Performance Testing	4	2022	4	2023
System Preliminary Design Review (PDR)	4	2022	4	2022
Middle Tier Acquisition (MTA) Designation	1	2023	1	2023
Countermeasure Critical Design Review (CDR)	4	2023	4	2023
Prototype Delivery	1	2024	1	2024
Integrated System Testing	3	2024	3	2025
System Critical Design Review (CDR)	4	2024	4	2024
Engineering Development Model (EDM) Delivery	3	2025	3	2025
MS C / LRIP	2	2026	2	2026
Hardware/Software Baseline Updates	2	2026	4	2028
Development Testing	3	2026	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3316: *Advanced Offboard EW*	325.062	28.221	26.321	18.107	-	18.107	18.084	5.460	1.140	1.170	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. In FY 2012, the program began with a Rapid Response Effort (RRE) which was completed in FY 2014. The RRE consisted of the evaluation and integration of commercially available decoys. The Decoy Development Effort (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.

In the DDE/E&MD Contract effort, which commenced in 2017, the program is developing and integrating Engineering Development Models (EDMs) with the System of Systems (SOS) partners to include conduct of Factory Qualification Testing (FQT), preparation for the program's test phase ramping up in Q2FY23, and FY23 delivery of the Technical Data Package (TDP). Schedule shifts in program testing and delivery of TDP are due to test complexity.

As part of the MH-60R/S Flight Certification effort, the program is required to complete NAVAIR Avionics Operating Program (AOP) software development and Flight Certification, which are critical to support fielding of the AOEW decoy. The AOP software supports integration of the AOEW decoy with the MH-60R/S airframe and is required for successful completion of Flight Certification. AOP software development was completed in FY21. Flight Certification testing includes Ground and Flight Jettison, Flight Test for Mission Performance / Spec Compliance Flight Test, Functional Software Test, and Decoy Fit and Egress Test, which ensures operational Safety of Flight and is critical to successful decoy fielding.

The FY24 budget request supports NAVAIR conduct of Avionics Operating Program (AOP) MH-60R and MH-60S Software Testing necessary for AOEW Decoy and Helicopter Integration into the baseline and NAVAIR Air Worthiness and Flight Certification.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: AOEW - Decoy Development Effort (DDE) Government Engineering	10.586	15.794	16.616	0.000	16.616
Articles:	-	-	-	-	-
FY 2023 Plans: - Complete Support of Development of TDP - Complete support of Security Software development - Complete Battery Certification					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Complete support of AOEW Model Development - Continue identification of and update of test assets needed to support Operational Testing - Continue Technique Verification Test Planning - Continue tactics development and continue tactics analysis - Commence and complete support of FQT - Continue integration of ship and air interfaces - Continue interoperability analysis to ensure all System Of Systems (SOS) are compatible - Commence and complete test planning for PAX chamber test (one government-led DT Test event) - Conduct one government-led Developmental Testing event (PAX chamber test) and commence test analysis - Commence integration test planning for Dahlgren open air test - Continue testing of AOP to update MH-60R/S software necessary for AOEW decoy and helicopter integration - Continue Engineering Data Requirements Agreement Plan (EDRAP) development - Continue NAVAIR MH-60R/S Flight Certification Testing - Continue sustainment and training plan development - Continue Installation Planning - Commence update of Improved Control and Displays (ICADs) - Commence test and operational library development - Continue SKCS development					
FY 2024 Base Plans: - Continue identification of and update of test assets needed to support Operational Testing - Complete Technique Verification Test Planning (one government-led DT Test event) - Conduct one government-led Developmental Test Event (Technique Verification) and commence test analysis - Continue tactics development and continue tactics analysis - Continue integration of ship and air interfaces - Continue interoperability analysis to ensure all SOS are compatible - Complete integration test planning for Dahlgren open air test (one government-led DT Test) - Conduct one government-led Developmental Test Event (Dahlgren open air test) and commence test analysis - Complete test analysis for three government-led Developmental Test Events - Continue testing of AOP to update MH-60R/S software necessary for AOEW decoy and helicopter integration - Complete EDRAP development - Continue NAVAIR MH-60R/S Flight Certification Testing - Continue sustainment and training plan development					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Continue Installation Planning - Complete update of ICADs - Commence and complete Environmental Qualification Test (EQT) - Continue test and operational library development - Complete SKCS development ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase for Government Engineering in FY24 is due to conduct of two (2) Developmental Test events led by the government and conduct of Environmental Qualification Test.					
Title: AOEW - Decoy Development Effort (DDE) Development	17.635	10.527	1.491	0.000	1.491
Articles:	-	-	-	-	-
FY 2023 Plans: - Complete EDM Hardware and Software development and integration - Complete assembly and delivery of one EDM (with arrays) - Complete delivery of one EDM (without arrays) - Complete development of TDP - Complete Security Software development - Complete Support of Battery Certification - Complete AOEW Model Development - Complete Support of Technique Verification - Conduct FQT - Continue Integration Support of Ship and Air Interfaces - Commence and complete Support of Test Planning for PAX Chamber Test (DT Testing) - Commence and complete support of one government-led Developmental Testing Event (PAX Chamber Test) - Commence and complete support of Integration Test Planning for Dahlgren Open Air Test (DT Test event) - Continue support of Avionics Operating Program (AOP) MH-60R and MH-60S Software Testing Necessary for AOEW Decoy and Helicopter Integration - Continue support for NAVAIR Flight Certification Testing - Continue support of Sustainment and Training Plan Development - Commence and complete support of ICAD update					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Commence and complete support of test and operational library development - Complete support of SKCS development ***FY 2024 Base Plans:*** - Complete integration support of Ship and Air interfaces - Complete support of Avionics Operating Program (AOP) MH-60R and MH-60S Software Testing Necessary for AOEW Decoy and Helicopter Integration - Complete support for NAVAIR Flight Certification Testing - Complete support of Sustainment and Training Plan Development ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Decrease for Development Engineering in FY24 is due to the FY23 delivery of two (2) EDMs, and completion of Security Software Development and Model Development.					
Accomplishments/Planned Programs Subtotals	28.221	26.321	18.107	0.000	18.107

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• OPN/5530: *Anti-ship Missile Decoy System*	76.994	86.264	56.630	-	56.630	80.039	93.436	129.073	131.621	942.752	1,706.317
• OMN/11CD0 (1C1C): *AOEW*	0.000	5.997	9.726	-	9.726	10.536	11.250	12.063	12.307	Continuing	Continuing

Remarks

D. Acquisition Strategy

A sole-source contract is planned in FY23-FY24 for LRIPs and Design Agent services. A competitive contract is planned for production of additional LRIPs and Full-Rate Production (FRP) units in FY25-FY29.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Concept Analysis and Integration Assessment	SS/CPFF	APL : Laurel, MD	11.707	0.000		0.000		0.000		-		0.000	0.000	11.707	Continuing
Concept Analysis and Technology Studies	MIPR	MIT-LL : Boston, MA	4.857	0.000		0.000		0.000		-		0.000	0.000	4.857	Continuing
Concept Development and Technology Studies	WR	NRL : Washington, D.C.	25.856	0.000		0.000		0.000		-		0.000	0.000	25.856	Continuing
Technology Development and Systems Requirements	WR	NSWC Dahlgren : Dahlgren, VA	14.595	0.000		0.000		0.000		-		0.000	0.000	14.595	Continuing
DDE Avionics Development	WR	NAVAIR : Patuxent River, MD	17.667	0.402	Nov 2021	1.636	Oct 2022	1.377	Nov 2023	-		1.377	Continuing	Continuing	Continuing
DDE Preliminary Design/ E&MD	C/CPIF	Lockheed Martin : Syracuse, NY	149.216	17.635	Dec 2021	10.527	Oct 2022	1.491	Nov 2023	-		1.491	Continuing	Continuing	Continuing
Ship Integration	WR	SPAWAR : San Diego, CA	0.975	0.000		0.000		0.000		-		0.000	0.000	0.975	-
Ship Integration	WR	NSWC Dahlgren : Dahlgren, VA	0.330	0.000		0.000		0.000		-		0.000	0.000	0.330	-
		Subtotal	225.203	18.037		12.163		2.868		-		2.868	Continuing	Continuing	N/A

Remarks

- Since the FY23 budget request, funding within FY23 was internally realigned from Support and T&E to Product Development to support DDE Preliminary Design/E&MD for the completion of EDM Hardware and Software development and integration, conduct of FQT, support of Battery Certification, and finalization of TDP.
- FY23 to FY24 funding for DDE Preliminary Design/E&MD decreases due to the delivery of two (2) EDMs and completion of Security Software Development and Model Development.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Development Support	WR	NRL : Washington, DC	20.297	1.437	Nov 2021	2.140	Nov 2022	1.226	Nov 2023	-		1.226	Continuing	Continuing	Continuing
Government Development and Engineering Support	WR	NSWC Dahlgren : Dahlgren, VA	15.561	0.866	Nov 2021	0.848	Nov 2022	1.944	Nov 2023	-		1.944	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NSWC Crane : Crane, IN	19.449	1.396	Nov 2021	3.402	Nov 2022	2.102	Nov 2023	-		2.102	Continuing	Continuing	Continuing
Logistics/Training	SS/CPFF	EWA : Fairmont, WV	1.616	0.000		0.000		0.000		-		0.000	0.000	1.616	Continuing
Government Engineering Support	WR	NSWC Carderock : Bethesda, MD	1.494	0.000		0.183	Jan 2023	0.000		-		0.000	0.000	1.677	-
Systems Engineering Support	SS/CPFF	APL : Laurel, MD	8.333	0.275	Apr 2022	0.605	Mar 2023	0.257	Nov 2023	-		0.257	Continuing	Continuing	Continuing
Government Development Support	WR	NAVAIR : Patuxent River, MD	6.725	0.301	Nov 2021	1.345	Nov 2022	1.056	Nov 2023	-		1.056	Continuing	Continuing	Continuing
Systems Engineering Support	MIPR	MIT-LL : Boston, MA	0.034	0.000		0.000		0.000		-		0.000	0.000	0.034	-
Program Management Support	MIPR	DISA : Pensacola, FL	0.195	0.000		0.000		0.000		-		0.000	0.000	0.195	-
Installation Support	WR	SUPSHIP : Bath, ME	0.098	0.014	Feb 2022	0.127	Mar 2023	0.000		-		0.000	0.000	0.239	-
Integrated Logistics Assessment	WR	NSWC PHD : Port Hueneme, CA	0.021	0.000		0.000		0.000		-		0.000	0.000	0.021	-
Integrated Logistics Assessment	WR	NSWC Panama City : Panama City Beach, FL	0.009	0.000		0.000		0.000		-		0.000	0.000	0.009	-
Integrated Logistics Assessment	WR	NAVSUP WSS : Philadelphia, PA	0.004	0.000		0.000		0.000		-		0.000	0.000	0.004	-
Integrated Logistics Assessment	WR	NSWC IHEOD : Indian Head, MD	0.011	0.000		0.000		0.000		-		0.000	0.000	0.011	-
MRTS Support	WR	NAWC TSD : Orlando, FL	0.015	0.000		0.000		0.000		-		0.000	0.000	0.015	-
Ship Integration	WR	NIWC PAC : San Diego, CA	0.028	0.000		0.000		0.000		-		0.000	0.000	0.028	-
		Subtotal	73.890	4.289		8.650		6.585		-		6.585	Continuing	Continuing	N/A

Remarks

- FY23 to FY24 funding for Support decreased due to the completion of Battery Certification, support of FQT, and support of Security Software Development and Model Development.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
- Since the FY23 budget request, FY23 funding was internally realigned from Support to Product Development for the completion of EDM Hardware and Software development and integration, conduct of FQT, support of Battery Certification, and finalization of TDP.															

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NRL : Washington, DC	6.148	0.708	Nov 2021	1.997	Oct 2022	2.371	Nov 2023	-		2.371	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NSWC/Dahlgren : Dahlgren, VA	4.617	1.032	Oct 2021	1.525	Oct 2022	2.298	Nov 2023	-		2.298	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	1.471	0.000		0.127	Oct 2022	0.210	Nov 2023	-		0.210	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NAVAIR : Patuxent River, MD	8.615	3.860	Nov 2021	1.584	Oct 2022	3.569	Nov 2023	-		3.569	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	OPTEVFOR : Norfolk, VA	0.819	0.275	Dec 2021	0.200	Mar 2023	0.146	Nov 2023	-		0.146	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	SS/CPFF	APL : Laurel, MD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	21.670	5.875		5.433		8.594		-		8.594	Continuing	Continuing	N/A

Remarks

- FY23 to FY24 funding for Test and Evaluation increases due to the conduct of two (2) Developmental Test Events in FY24.
- Since the FY23 budget request, FY23 funding was internally realigned from T&E to Product Development for the completion of EDM Hardware and Software development and integration, conduct of FQT, support of Battery Certification, and finalization of TDP.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	CACI (SEAPORT) : Washington, DC	1.170	0.000		0.000		0.000		-		0.000	0.000	1.170	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy		Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	SPA : Washington, DC	0.821	0.000		0.000		0.000		-		0.000	0.000	0.821	-
Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	1.693	0.000		0.000		0.000		-		0.000	0.000	1.693	-
Program Management Support	C/CPIF	STRATEGIC INSIGHT (SEAPORT) : Washington, DC	0.058	0.000		0.000		0.000		-		0.000	0.000	0.058	-
Program Management Support	WR	NSWC Indian Head : Indian Head, MD	0.053	0.000		0.000		0.000		-		0.000	0.000	0.053	-
Travel	Allot	NAVSEA Program Office Travel : Washington, DC	0.239	0.020	Oct 2021	0.075	Jan 2023	0.060	Nov 2023	-		0.060	Continuing	Continuing	Continuing
Cost Management Support	C/CPIF	CACI (SEAPORT) : Washington, DC	0.265	0.000		0.000		0.000		-		0.000	0.000	0.265	-
		Subtotal	4.299	0.020		0.075		0.060		-		0.060	Continuing	Continuing	N/A

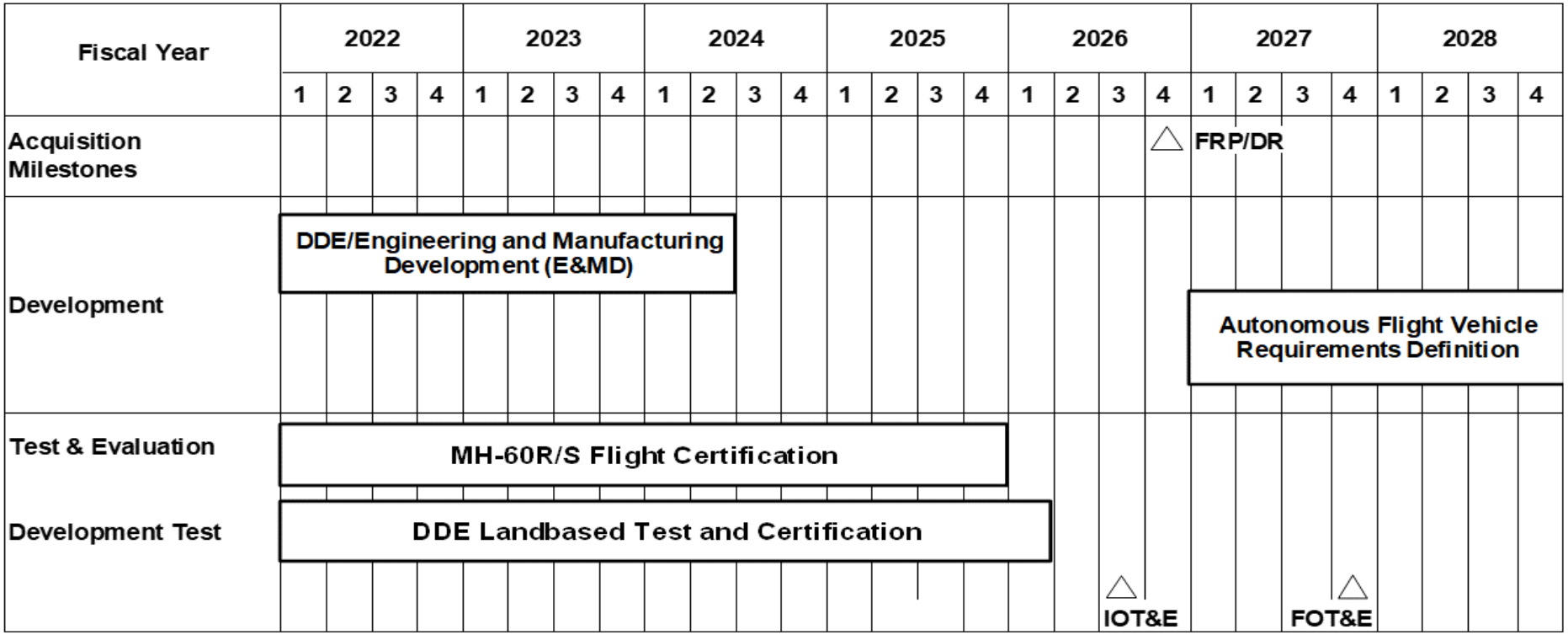
Remarks

- Since the FY23 budget request, FY23 funding for travel increased to support Security Software Development, AOEW Model Development, the conduct of FQT in New York, and the conduct of NAVAIR MH-60R/S Flight Certification Testing.

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	325.062	28.221		26.321		18.107		-		18.107	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
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*



Acronyms: DDE - Decoy Development Effort; DR - Decision Review; FOT&E - Follow-on Operational Test and Evaluation; FRP - Full Rate Production; IOT&E - Initial Operational Test and Evaluation

Notes:
Since the FY23 budget request, DDE/Engineering and Manufacturing Development (E&MD) extended from Q4FY23 to Q2FY24 due to continued Integration Support of Ship and Air Interfaces, Support of AOP Software Testing, and Support of NAVAIR Flight Certification Testing.

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
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 / E&MD	1	2022	2	2024
MH60-R/S Flight Certification	1	2022	4	2025
DDE Land-Based Test and Certification	1	2022	1	2026
Initial Operational Test and Evaluation (IOT&E)	3	2026	3	2026
Full Rate Production (FRP) / Decision Review (DR)	4	2026	4	2026
Autonomous Flight Vehicle Requirements Definition	1	2027	4	2028
Follow-On Operational Test and Evaluation (FOT&E)	4	2027	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
3321: *SEWIP Block 3*	280.043	3.291	6.210	8.906	-	8.906	6.298	6.045	6.031	6.129	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

SEWIP Block 3 is developing an advanced Electronic Attack (EA) capability to keep pace with the evolving Anti-Ship Missile Defense (ASMD) threat and counter-targeting required for the AN/SLQ-32(V) system. 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 new integrated EA transmitters, arrays, 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 the 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 via modeling and simulation.

The FY24 funding request for SEWIP Block 3 will focus on the conduct of TECHEVAL and Initial Operational Test & Evaluation (IOT&E). Additionally, training curriculum development, EWTB model upgrades, and development efforts will continue and increase for High Power Amplifier (HPA) efficiency to reduce required power and fuel consumption.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: SEWIP Block 3 Government Engineering	2.884	4.272	6.544	0.000	6.544
Articles:	-	-	-	-	-
FY 2023 Plans: - Complete Land Based Testing (LBT) events at Wallops Island. - Continue EWTB model upgrades and verification/validation of model performance. - Continue test planning for TECHEVAL/IOT&E. - Commence HPA energy efficiency engineering design and development. - Continue monitoring of software and hardware fixes/upgrades. - Continue monitoring training curriculum development.					
FY 2024 Base Plans: - Continue EWTB model upgrades and verification/validation of model performance.					

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Continue test planning and conduct TECHEVAL/IOTE. - Continue HPA energy efficiency engineering design and development. - Continue monitoring of software and hardware fixes/upgrades. - Continue monitoring training curriculum development. - Commence preparation and conduct of Full Rate Production Decision Review (FRP DR). ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** The increase in FY24 is due to executing TECHEVAL/IOT&E, continued HPA efficiency engineering design and development efforts, and preparing for FRP. The program's primary focus in FY24 is executing TECHEVAL/ IOT&E.					
Title: SEWIP Block 3 Development	0.407	1.938	2.362	0.000	2.362
Articles:	-	-	-	-	-
FY 2023 Plans: - Continue upgrades of software and hardware baseline based on LBT results. - Continue developing the SEWIP Block 3 training modules of the Surface EW Tactical Trainer (SEWTT). - Commence HPA energy efficiency engineering design and development. ***FY 2024 Base Plans:*** - Continue upgrades of software and hardware baseline based on LBT results - Continue effort to complete the SEWIP Block 3 training modules of the SEWTT. - Continue HPA energy efficiency engineering design and development. ***FY 2024 OCO Plans:*** N/A ***FY 2023 to FY 2024 Increase/Decrease Statement:*** Increase in FY24 is due to efforts associated with HPA efficiency engineering design and development efforts.					
Accomplishments/Planned Programs Subtotals	3.291	6.210	8.906	0.000	8.906

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
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*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• OPN/2312: *AN/SLQ-32*	313.817	292.417	329.513	-	329.513	278.251	513.853	594.041	606.214	3,871.034	8,905.177
• OMN PE 0204575N: *AN/SLQ-32*	4.464	16.609	18.611	-	18.611	19.664	17.961	19.822	20.225	Continuing	Continuing

Remarks

D. Acquisition Strategy

SEWIP developed Block upgrades to AN/SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and sub-Block was developed and contracted in an individual yet coordinated and overlapping fashion. Specifically, SEWIP Block 3 involves the transitioning and 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. The SEWIP Block 3 acquisition strategy included a full and open competition for EM&D and the first LRIP units. As part of EMD and LRIP, the OEM delivered a level III, build-to-print Technical Data Package (TDP) to support full and open competition for additional LRIP and FRP units.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 SEWTT Development	SS/CPFF	EWA-GSI : Fairmont, WV	2.326	0.407	Jun 2022	0.705	Feb 2023	0.362	Nov 2023	-		0.362	Continuing	Continuing	Continuing
Block 3 Preliminary Design/E&MD	C/CPIF	Northrop Grumman : Baltimore, MD	267.436	0.000		1.233	Feb 2023	2.000	Nov 2023	-		2.000	Continuing	Continuing	Continuing
		Subtotal	269.762	0.407		1.938		2.362		-		2.362	Continuing	Continuing	N/A

Remarks

- Product Development increase in FY23 from the FY23 budget request is due to additional training module requirements within the Surface EW Tactical Trainer (SEWTT).
- Product Development increase in FY24 is due to continued efforts associated with HPA efficiency engineering design and development.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Integrated Logistics Support	WR	NSWC Corona : Corona, CA	0.023	0.000		0.000		0.000		-		0.000	0.000	0.023	-
Block 3 Government Engineering Support	MIPR	MIT-LL : Cambridge, MA	4.794	0.000		0.000		0.000		-		0.000	0.000	4.794	-
Block 3 Feasibility Studies	WR	BIW : Bath, ME	0.510	0.000		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	0.212	0.000		0.000		0.000		-		0.000	0.000	0.212	-
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	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Platform Integration Studies	WR	Lockheed Martin : Moorstown, NJ	0.202	0.000		0.000		0.000		-		0.000	0.000	0.202	-
		Subtotal	6.289	0.000		0.000		0.000		-		0.000	0.000	6.289	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NSWC Dahlgren : Dahlgren, VA	0.378	0.000		0.000		0.000		-		0.000	0.000	0.378	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	0.051	0.266	Jan 2022	0.341	Nov 2022	0.075	Nov 2023	-		0.075	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	WR	NSWC Crane : Crane, IN	0.000	0.000		0.000		0.342	Nov 2023	-		0.342	0.000	0.342	-
Developmental Test & Evaluation (DT&E)	WR	NRL : Washington, DC	1.254	1.353	Feb 2022	2.509	Dec 2022	0.374	Nov 2023	-		0.374	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	WR	NRL : Washington, DC	0.000	0.000		0.000		4.500	Nov 2023	-		4.500	0.000	4.500	-
Developmental Test & Evaluation (DT&E)	SS/CPFF	APL : Laurel, MD	0.767	0.000		0.275	Dec 2022	0.050	Nov 2023	-		0.050	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	SS/CPFF	APL : Laurel. MD	0.000	0.000		0.000		0.075	Nov 2023	-		0.075	0.000	0.075	-
Developmental Test & Evaluation (DT&E)	WR	COMOPTEVFOR : Norfolk, VA	0.070	0.448	Feb 2022	0.245	Jun 2023	0.050	Nov 2023	-		0.050	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	WR	COMOPTEVFOR : Norfolk, VA	0.000	0.000		0.000		0.310	Nov 2023	-		0.310	0.000	0.310	-
Developmental Test & Evaluation (DT&E)	WR	Surface Combat Systems Center : Wallops Island, VA	1.028	0.505	Apr 2022	0.628	Feb 2023	0.457	Nov 2023	-		0.457	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	USACE (DREN) : Wallops Island, VA	0.090	0.000		0.021	Dec 2022	0.021	Nov 2023	-		0.021	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy			Date: March 2023
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*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NAVFAC Mid-Atlantic : Norfolk, VA	0.192	0.000		0.000		0.000		-		0.000	0.000	0.192	-
		Subtotal	3.830	2.572		4.019		6.254		-		6.254	Continuing	Continuing	N/A

Remarks

- Test & Evaluation decrease in FY23 from the FY23 budget request is due to reduced Land-Based Test Site (LBTS) NRE infrastructure requirements.
- Test and Evaluation increase in FY24 is due to executing TECHEVAL/IOT&E and continued HPA efficiency engineering design and development efforts. The program's primary focus in FY24 is executing TECHEVAL/IOT&E.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2022 Cost	FY 2022 Award Date	FY 2023 Cost	FY 2023 Award Date	FY 2024 Base Cost	FY 2024 Base Award Date	FY 2024 OCO Cost	FY 2024 OCO Award Date	FY 2024 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Program Management Support	C/CPIF	TMB (SEAPORT) : Washington, DC	0.027	0.124	Feb 2022	0.100	Dec 2022	0.115	Nov 2023	-		0.115	Continuing	Continuing	Continuing
Block 3 Program Management Support	C/CPIF	BAH (SEAPORT) : Washington, DC	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Block 3 Program Management Support	C/CPIF	SPA (SEAPORT) : Washington, DC	0.105	0.128	Dec 2021	0.100	Dec 2022	0.115	Nov 2023	-		0.115	Continuing	Continuing	Continuing
Block 3 Travel	Sub Allot	NAVSEA Program Office : Washington, DC	0.030	0.060	Dec 2021	0.053	Feb 2023	0.060	Nov 2023	-		0.060	Continuing	Continuing	Continuing
		Subtotal	0.162	0.312		0.253		0.290		-		0.290	Continuing	Continuing	N/A

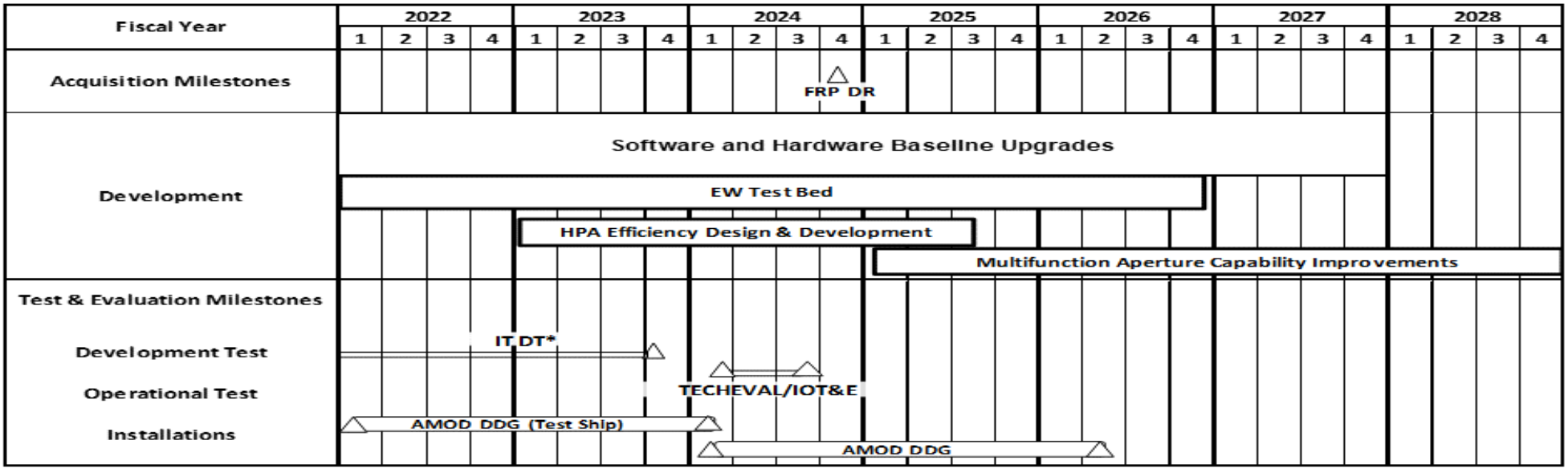
Remarks

- Management Services increase in FY24 is due to planned oversight and monitoring required for HPA efficiency engineering design and development oversight.

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	280.043	3.291		6.210		8.906		-		8.906	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
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 following 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**

Acronyms: DR-Decision Review; DT-Developmental Test; FRP-Full Rate Production; IOT&E-Initial Operational Test & Evaluation; IT-Integrated Testing; FQT- Formal Qualification Test; AMOD- Aegis Modernization; HPA - High Power Amplifier; FOT&E - Follow-on Test & Evaluation

Note 1: Since the FY23 budget request, High Power Amplifier (HPA) efficiency design & development has been added to the schedule and commences in 1QTRFY23.

Note 2: Since the FY23 budget request, Multifunction Improvements has been added to the schedule and commences in 1QTRFY25.

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
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				
EW Testbed	1	2022	4	2026
IT-DT	1	2022	4	2023
Software and Hardware Baseline Upgrades	1	2022	4	2027
AMOD DDG (Test Ship)	1	2022	1	2024
HPA Efficiency Design & Development	1	2023	3	2025
AMOD DDG	1	2024	2	2026
Block 3 TECHEVAL and IOT&E	1	2024	3	2024
Block 3 FRP DR	4	2024	4	2024
Multifunction Aperture Capability Improvements	1	2025	4	2028