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

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>
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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	5,197.019	321.118	345.489	453.311	-	453.311	469.226	426.331	335.068	330.575	Continuing	Continuing
1447: <i>Surf Combatant Combat System Imp</i>	5,126.834	314.186	329.110	445.124	-	445.124	458.121	416.322	327.380	323.091	Continuing	Continuing
3357: <i>Aegis Training Improvement Program</i>	70.185	6.932	6.379	8.187	-	8.187	11.105	10.009	7.688	7.484	Continuing	Continuing
9999: <i>Congressional Adds</i>	0.000	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.000

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** 180

**Note**

Specific Project Increases for FY24 are summarized below:

- Aegis Capability Package (CP)2026 (\$19.365M increase over FY23) begins development to implement necessary warfighter improvements to pace the threat.
- Aegis DDG 51 Class Flight III Baseline (BL) 10 Upgrades (\$48.024M increase over FY23) to support multiple concurrent efforts integrating SPY-6 radar variants as part of the New Construction and Modernization programs. In FY24, Aegis BL 10.0 (DDG 125/126) will be completing its testing efforts integrating SPY-6(V)1 Anti-Air Warfare (AAW) functionality, Aegis BL 10.1 (DDG 128 and follows) will be conducting Code Development and Integration testing of Integrated Air and Missile Defense (IAMD) capabilities with the SPY-6(V)1 radar, and Aegis BL 10.M (first ship: DDG 91) will complete early requirements mapping, system architecture, systems engineering, and early code development as required to integrate the SPY-6(V)4 radar.
- Combat System Test Bed (CSTB) (\$7.541M increase over FY23) to complete 13 M&S tool updates to incorporate weapons, sensor, and threat models; execute model verification and validation and conduct analyses to enable the tool to supplement Developmental Test (DT) and Operational Test (OT) at-sea data in support of Initial Operational Test and Evaluation (IOT&E) requirements for Aegis DDG and FFG configurations.
- MK-6 MOD X Computing Infrastructure (CI) (\$20.537M increase over FY23) to implement Infrastructure as a Service (IaaS) within the TI 16 MOD 0 and MOD 1 hardware configurations, enabling proliferation of ICS CI Software Deliveries.
- Software Factory (\$39.000M increase over FY23) to enable refactoring Aegis and Ship Self Defense System (SSDS) legacy computer programs existing capabilities into a single Integrated Combat System (ICS) configuration.
- Aegis Training Improvements and Integration (\$1.343M increase over FY23) to update Advance Training Domain (ATD) products to implement code changes within the training domain to ensure shipboard training is provided to maintain sailor readiness within the tactical environment and effectively operate the ship.

**A. Mission Description and Budget Item Justification**

This project delivers Aegis Combat System (ACS) upgrades and integrates new capabilities to rapidly enhance the combat effectiveness of Arleigh Burke class destroyers (DDG 51) and Constellation class frigates (FFG 62) in order to confront an increasing array of strategic, operational, and tactical challenges.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Previous President's Budget	331.820	347.233	373.469	-	373.469
Current President's Budget	321.118	345.489	453.311	-	453.311
Total Adjustments	-10.702	-1.744	79.842	-	79.842
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-11.744			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.022	0.000			
• SBIR/STTR Transfer	-10.680	0.000			
• Program Adjustments	0.000	0.000	75.914	-	75.914
• Rate/Misc Adjustments	0.000	0.000	3.928	-	3.928

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 9999: *Congressional Adds*

Congressional Add: *Enabling Condition-Based Maintenance Plus (CBM+)*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	<b>FY 2022</b>	<b>FY 2023</b>
	0.000	10.000
	0.000	10.000
	0.000	10.000

**Change Summary Explanation**

The Total K1447 Control Adjustments for FY 2023-2024 are as follows:

FY23 funding request was reduced by \$11.744M for AEGIS CP 2024 delay.

FY24 funding request was reduced by \$7.003M for Inflation Adjustment, Total Force Management and NAVSEA adjustments.

FY24 funding request was increased by \$13.000M for AEGIS CP 2026.

FY24 funding request was increased by \$7.026M for Combat System Test Bed (CSTB) Model Updates.

FY24 funding request was increased by \$39.000M for Software Factory.

FY24 funding request was increased by \$26.137M for Infrastructure as a Service (IaaS).

The Total K3357 Control Adjustments for FY 2023-2024 are as follows:

FY24 funding request was increased by \$0.144M for Inflation Adjustment, Total Force Management and NAVSEA adjustments.

FY24 funding request was increased by \$0.950M to support Fleet Training Wholeness. Funding increase develops and fields an AEGIS integrated ship and shore LVC test and training architecture supporting all phases of training to enable Unit and Strike Group, in-port and at-sea high-end fight combat systems tactical training and debrief for Aegis FFG, DDG, and CG.

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**Appropriation/Budget Activity**  
1319: *Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)*

**R-1 Program Element (Number/Name)**  
PE 0604307N / *Surface Combatant Cmbt Sys Eng*

FY24 funding request was increased by \$1.488M to design, development, and test of Advanced Training Domain (ATD)/Internal Training Domain (ITD) modifications aligned to the ICS architecture to deliver LVC training in-stride with Combat System deliveries from the SW Factory.

The Total 9999 Control Adjustments for FY 2023 are as follows:  
FY23 funding request was increased by \$10.000M for Enabling Condition-Based Maintenance Plus (CBM+).

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy										<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>				<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1447: <i>Surf Combatant Combat System Imp</i>	5,126.834	314.186	329.110	445.124	-	445.124	458.121	416.322	327.380	323.091	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
<b>Project MDAP/MAIS Code:</b> 180												

**A. Mission Description and Budget Item Justification**

AEGIS BL 10.0 provides critical warfighter improvements on AEGIS FLT III DDGs, delivering in FY24. AEGIS BL 10.0 combat system development efforts include integration of the Air and Missile Defense Radar (AMDR) SPY-6(V)1 radar while building upon AEGIS BL 9 to form the AEGIS FLT III DDG Combat System. BL 10.0 delivers previous BL 9 Common Source Library (CSL) capabilities plus SPY-6(V)1; Mk 160 Gun Combat System (GCS) concurrent engagements; Close in Weapon System (CIWS) sensor integration; Tactical Data Link (TDL) J3.4 message; and the Missile Defense Agency's Ballistic Missile Defense 6.0 (BMD 6.0) program. Fields to new construction FLT III DDGs beginning FY24 in support of Air and Missile Defense Commander (AMDC) fleet requirement.

AEGIS BL 10.1 continues combat system development efforts to include integration of SPY-6(V)1 radar performance updates, BMD 6.0.1, MK 6 MOD 1 hardware, and Cybersecurity updates. Fields to new construction FLT III DDGs beginning FY26 in support of the AMDC fleet requirement, BMD Flight Test Missions, and Full Operational Capability (FOC).

AEGIS BL 10.M will provide similar combat system capabilities to AEGIS FLT IIA Destroyers, integrating the SPY-6(V)4 radar and associated warfighting improvements. Fields to modernization FLT IIA DDG's in FY27.

AEGIS BL 9.2.2 delivered in FY21 integrated previous CSL capabilities plus Surface Electronic Warfare Improvement Program (SEWIP) BLK 2 integration (auto association); MH-60R integration; Advanced Training Doman; Boundary Defense Capability; Integrated Air and Missile Defense (IAMD) mission planner; Above Water Sensor Coordinator; Agile Moondog, Sirocco, Sundog part 1, Silent Squall part 1, and Vortex; Advanced Calibration Experiment; Cyber enhancements (cyber resource services, boundary proxy service, Security Information and Event Management (SIEM), network device integrity, update manager); and BMD 5.1.3.1 (MDA-developed).

AEGIS Capability Package (CP) 2022 builds upon previous CSL capabilities, integrating Multi Mission Signal Processor (MMSP)-Restoration (AMOD DDG only); AEGIS Linear Processing System (ALPS); High-Energy Laser with Integrated Optical-Dazzler and Surveillance (HELIOS); SM-2 Blk IIIC initial capability; Agile Firestorm; Mk 38 Mod 4 Engineering Operational Sequencing System (EOSS) integration; and BMD 5.1.4 (MDA-developed) capabilities. A variant, CP 2022-2, will deliver to DDG 91 to support its modernization test program, including first-of capabilities in FY24. Dependent on SEWIP BLK 3 Integration effort.

AEGIS Capability Package 2024 delivers previous CSL capabilities, integrating additional warfighting improvements to include Evolved Sea Sparrow Missile (ESSM) BLK 2 Optimized, Elevated Radar Advanced Experiment (ERACE) integration, SEWIP BLK 3 Test Certification, Cooperative Engagement Capability (CEC) BLK II Integration Capability Group 3 (CIG 3), urgent fleet needs, and BMD 5.1.5 with SBT Inc 3 (MDA-developed). Dependent on SEWIP BLK 3 Integration effort.

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SEWIP BLK 3 Integration brings non-kinetic electronic attack capability into the AEGIS Weapons Systems inventory, expanding the number of threats the AEGIS Fleet can counter. Electronic attack is a cornerstone capability that will meet the urgent operational needs of the Fleet as the pace and complexity of emerging threats continues to escalate.

AEGIS Capability Package 2026 delivers previous CSL capabilities plus additional warfighting improvements necessary to improve operational effectiveness and address future threats. Specific warfighting improvements will be defined in FY24.

TASK FORCE CYBER AWAKENING assesses and delivers design improvements to AEGIS Combat System Computer Program and hardware configurations to counter emerging cyber threats. These improvements are implemented within AEGIS Combat Systems configurations currently fielded and under development and include updates to Boundary Defense Components (BDC) and other cyber capabilities.

AEGIS BL 5.4.1 delivers NGSSR integration; Global Positioning System (GPS), Navigation, and Timing Service (GPNT)S; portions of Agile Sundog, Silent Squall, & Vortex; Command and Control Processor (C2P) tech refresh; and BMD 4.1.3 (MDA-developed). Supports installations beginning in FY25.

COMBAT SYSTEMS TEST BED (CSTB) addresses the current limitations in AEGIS Modeling and Simulation (M&S) highlighted by Director of Operational Test and Evaluation (DOT&E) in previous AEGIS BL's. CSTB will provide M&S supporting program test and evaluation to represent conceptual systems that do not exist and existing systems which cannot be subjected to actual environments due to safety requirements or resource limitations. CSTB supports Development Test (DT) and Operational Test (OT) runs-for-record for AEGIS BL 9 DDG's, BL 10 FLT III DDG's and BL 10F FFG's.

MK 6 MOD X (previously ICS) Computing Infrastructure (CI) delivers the developmental efforts and prototypes to enable future delivery of Infrastructure as a Service (IaaS) in support of all surface combatants (e.g., LUSV, DDG, FFG, and DDG(X)). IaaS provides hatchable hardware abstracted from software, enabling upgrade outside modernization periods (agility) to more ships (capacity). The MK 6 MOD X CI is a foundational element of the surface Navy's ICS System supporting all future ship classes. ICS Top Level Requirements (TLR) validated in the Initial Capabilities Document for the Future Surface Combatant Force. IaaS will also be delivered as an ORDALT package to in-service MK 6 MOD 0 and MOD 1 platforms.

SW FACTORY provides a continuous integration/continuous delivery (CI/CD) pipeline for software where combat system applications are developed, tested, certified, and fielded to the Fleet at speed. The AEGIS and Ship Self Defense System (SSDS) computer programs will be re-factored into a single ICS computer program. Provides rapid combat system development, test, certification and authorization; more frequent delivery, and faster turnaround of Fleet feedback into working software and fielding to the IaaS-enabled fleet.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<b>Title:</b> AEGIS DEVELOPMENT SUPPORT	16.779	26.940	27.445	0.000	27.445
<b>Articles:</b>	-	-	-	-	-

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**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p><b>Description:</b> AEGIS Development Support includes the following: AEGIS Technical Design Agent (TDA), AEGIS System Engineering, Commercial Off-the-Shelf (COTS), Obsolescence Evaluation, AEGIS Development Site Operations and Maintenance, Small Business Innovation Research (SBIR), and Computer Program SW License Procurements.</p> <p><b>FY 2023 Plans:</b> Continue to provide AEGIS System Engineering evaluation of AEGIS Combat System performance and development of the AEGIS Capability Phasing Plan to ensure that warfighter improvements are implemented through future Combat System upgrades to meet emerging threats. These efforts are focused on defining future capability upgrades to the AEGIS Combat System. Conduct System Engineering review for CP 2026+ to evaluate current gaps and external weapon element updates available to address and determine most effective way to complete integration.</p> <p>Continue to provide AEGIS COTS Obsolescence mitigation including evaluation of systems currently delivered as well as those under development. These updates are focused on replacing high failure rate components in addition to monitoring and resolving obsolescence issues for all AEGIS hardware configurations. Hardware configurations include: Q-70, TI-12, TI-12H, MK 6 MOD 0 and MK 6 MOD 1.</p> <p>Continue to provide AEGIS Development Site Operation and Maintenance for the Land Based Test Sites (LBTS) to ensure that LBTS support is able to execute all planned AEGIS baseline development efforts. The LBTS include: Combat System Engineering Development Site (CSEDS), Program Generation Center (PGC), SPY-1A Test Facility (STF), Naval Systems Computing Center (NSCC), and Surface Combat System Center (SCSC). In FY23, these sites are supporting testing on BL 5, CP 2022, CP 2024, MK 6 MOD X, BL 10 FLT III DDG and BL 10 SPY-6 Integration Testing (BL 10.0, and BL 10.1).</p> <p>Continue DevSecOps environment to support Continuous Development and Continuous Integration process to include the operation and maintenance of the forge, Cloud computing environment and software licenses.</p> <p>Provide SBIR withhold in accordance with the appropriation law.</p> <p><b>FY 2024 Base Plans:</b> Continue to provide AEGIS System Engineering evaluation of AEGIS Combat System performance and development of the AEGIS Capability Phasing Plan to ensure that warfighter improvements are implemented</p>					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
through future Combat System upgrades to meet emerging threats. These efforts are focused on defining future capability upgrades to the AEGIS Combat System. Conduct System Engineering review for CP 2026+ to evaluate current gaps and external weapon element updates available to address and determine most effective way to complete integration.					
Continue to provide AEGIS COTS Obsolescence mitigation to include evaluation of systems currently delivered as well as those under development. These updates are focused on replacing high failure rate components in addition to monitoring and resolving obsolescence issues for all AEGIS hardware configurations. Hardware configurations include: Q-70, TI-12, TI-12H, MK 6 MOD 0, MK 6 MOD 1, and MK 6 MOD X.					
Continue to provide AEGIS Development Site Operation and Maintenance for the Land Based Test Sites (LBTS) to ensure that LBTS support is able to execute all planned AEGIS baseline development efforts. The LBTS include: Combat System Engineering Development Site (CSEDS), Program Generation Center (PGC), SPY-1A Test Facility (STF), Naval Systems Computing Center (NSCC), and Surface Combat System Center (SCSC). In FY24, these sites are supporting testing on BL 5, CP 2022, CP 2024, MOD X, BL 10 FLT III DDG and BL 10 SPY-6 Integration Testing (BL 10.0, and BL 10.1).					
Continue DevSecOps environment to support Continuous Development and Continuous Integration process to include the operation and maintenance of the forge, Cloud computing environment and software licenses.					
Provide Software Factory code development in support of the Integrated Combat System (ICS).					
Provide SBIR withhold in accordance with the appropriation law.					
<b>FY 2024 OCO Plans:</b> N/A					
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Increase in FY24 is associated with labor rate increases and expected Land-Based Test Site usage required to support all the development projects within the K1447 budget line.					
<b>Title:</b> AEGIS CAPABILITY PACKAGE 2022	51.400	14.700	7.200	0.000	7.200
<b>Articles:</b>	-	-	-	-	-

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**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p><b>Description:</b> AEGIS Capability Package (CP) 2022 captures additional warfighting improvements to include Multi-Mission Signal Processor Restoration Hardware, SM2-IIIC Functional Capability, AEGIS Linear Processor System (ALPS), ASToCs (Agile Sundog Part 2 and Silent Squall Part 2), and MK 38 MOD 4 Gun Weapon System (GWS) Initial Capability, High Energy Laser with Optical-Dazzler and Surveillance (HELIOS), Expanded AEGIS BMD Threat Space, Hypersonic Tactical Data Information Link (TADIL) Upgrades, Electronic Attack / Electronic Protection Inc 1, Missile Power Application Non-Launch (MPAN) Inc 2, AEGIS Ashore and BMD Warfighter Improvements capabilities. Computer Program development supported AEGIS Light Off (ALO) on first ship installation on DDG 87 in the 2nd QTR FY21. Provides CP 2022-2 computer program in support of DDG 91 AEGIS Modernization and Testing in FY24.</p> <p><b>FY 2023 Plans:</b>                      AEGIS CP 2022-1 Combat System Certification Panel (CSCP) Q3 FY23                      AEGIS CP 2022-2 In Progress Review #5 (IPR) Q3 FY23                      AEGIS CP 2022-2 In Progress Review #6 (IPR) Q4 FY23</p> <p>Continue to support the incremental design, development and integration of Capability Package 2022, entering the Capability Package Phase 4 Combat System Shipboard Testing, Final Certification and fielding. Continue to support incremental design, development and integration of the capabilities identified in the description above.</p> <p>Continue weapon system integration and combat system test events to include test planning, execution, and analysis. Continue executing integration events, maintainability events, and stability events. Finalize training curriculum and documentation updates to reflect new capabilities.</p> <p>Continue to test and make computer program updates to address various hardware configurations and Weapon System Elements. Continue development of DDG at-sea test plans in support of at-sea test event execution and post event support efforts executed to field AEGIS CP 2022 on DDG 81, 84-89, 121-124 &amp; 127 includes:                      Installation and checkout of computer program                      Combat System Test events 1 and 2                      Discrepancy investigation and resolution                      Scenario development                      CSSQT planning DDG's 81, 85, 88 and 123 (FY23 CSSQTs)</p>					

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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
<p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Execute remaining AEGIS CP 2022 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Execute all Test activities and stimulation capability required to validate system functionality system interfaces, performance requirements, multi-unit interoperability and ensure system stability.</p> <p>Execute Change Review Boards (CRB) to review computer program defects, characterize risk to system performance, and identify defect corrections.</p> <p>Conduct Combat System certification activities required to support planned FY23 Certification.</p> <p>Conduct and maintain all risk management activities required to identify, mitigate and resolve critical risk that would impact the fielding of CP 2022.</p> <p>Continue to develop criteria evaluation metrics for technical and programmatic events in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRRs) as required to support the requirements of each milestone to ensure program success.</p> <p>Execute Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements.</p> <p>Provide programmatic and technical leadership in a collaborative Navy and industry environment. Identify, test and fix critical issues identified that impact the operational effectiveness of the AEGIS Combat System.</p> <p><b>FY 2024 Base Plans:</b>                      AEGIS CP 2022-2 Combat System Ship Qualification Test (CSSQT) Q1-Q2 FY24                      AEGIS CP 2022-2 Code Delivery Q3 FY24</p> <p>Continue weapon system integration and combat system test events to include test planning and analysis.</p>					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Continue executing integration events, maintainability events, and stability events.					
Continue the development of DDG at-sea test plans in support of at-sea test event execution and post event support efforts executed to field AEGIS CP 2022 on DDG 81, 89, 122,124 & 127.					
Continue to support installation and checkout of computer programs.					
Execute Change Review Boards (CRB) to review computer program defects, characterize risk to system performance, and identify defect corrections.					
Conduct and maintain all risk management activities required to identify, mitigate and resolve critical risk that would impact the fielding of CP 2022.					
Continue to develop criteria evaluation metrics for technical and programmatic events in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRRs) as required to support the requirements of each milestone to ensure program success.					
Execute Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements.					
Identify, test and fix critical issues identified that impact the operational effectiveness of the AEGIS Combat System.					
Provide programmatic and technical leadership in a collaborative Navy and industry environment.					
Continued execution of development and test program. CSSQT on DDG 91 SEWIP BLK 3 system test program on DDG 91.					
<b>FY 2024 OCO Plans:</b> N/A					
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b>					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
		<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Decrease is a result of the phasing of the effort and final delivery of Capability Package 2022 as currently planned.						
<b>Title:</b> AEGIS DESTROYER BL 9 UPGRADES		19.500	0.000	0.000	0.000	0.000
<b>Articles:</b>		-	-	-	-	-
<b>Description:</b> Develops and delivers AEGIS BL 9 Destroyer upgrades: AEGIS BL 9 2020 includes integration of SEWIP BLK 2 (Phased - including Early Hard Kill/Soft Kill Coordination/ Advanced Off-board Electronic Warfare communication/ Radar Cued Engagement), ESSM BLK 2 Functional, NIFC-CA 2019, NIFC Collateral III, ASToC (Agile Thunder), TACAIR Phase 1, and integration of IFF M4/5 SBT Inc II CU, Mid-Term discrimination, 9-State Boost Phase Communication, Space Domain Awareness and Designated Engagement capabilities. Computer Program installed on first ship USS HOWARD (DDG 83) in FY19.  AEGIS BL 9 2021 includes SEWIP BLK 2 (Phased - Including Auto Association), Advanced Training Domain, MH-60R Integration, BOC, IAMD Mission Planner, Above Water Sensor Coordinator, Advanced Calibration Experiment (ACE), and ASToCs (Agile Sirocco, Moondog, Sundog Part 1, Silent Squall Part 1, and Vortex) and integration of Missile Power Application Non-Launch Inc I for SM-3 BLK IIA and Initial Active Sensor Bias.						
<b>FY 2023 Plans:</b> N/A						
<b>FY 2024 Base Plans:</b> N/A						
<b>FY 2024 OCO Plans:</b> N/A						
<b>Title:</b> AEGIS CAPABILITY PACKAGE 2024		21.344	40.389	40.000	0.000	40.000
<b>Articles:</b>		-	-	-	-	-
<b>Description:</b> AEGIS Capability Package 2024 captures additional warfighting improvements to include ESSM BLK 2 Optimized, Elevated Radar Advanced Experiment (ERACE) integration, SEWIP BLK 3 Test Certification, CEC BLK II Capability Group 3 Integration, urgent fleet needs, and BMD 5.1.5 with SBT Inc 3 as delivered by Missile Defense Agency. Initial architecture realignment to support the Integrated Combat System. CP 2024 is dependent on SEWIP BLK 3 integration line item.						

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p><b><i>FY 2023 Plans:</i></b>                      AEGIS CP 2024 In-Progress Review #1 Q2 FY23                      AEGIS CP 2024 In-Progress Review #2 Q4 FY23</p> <p>Executing Phase 2 Code Development and Integration and supporting early Level 1-2 Testing requirements. Support incremental design, development and integration of AEGIS code for the following capabilities:                      Transition CSL to Red-Hat Enterprise Linux (RHL) Version 8 Operating environment                      MK 6 MOD 1 integration - updated computing infrastructure                      ESSM BLK 2 Optimized                      CEC BLK 2 Capability Group 3                      ERACE                      SEWIP BLK 3 Test Certification                      Urgent fleet needs (Software Updates)</p> <p>Integrate BMD capabilities as delivered by MDA.</p> <p>Conduct systems engineering, software engineering and program management tasks to include develop and review specifications, interface definition, code development, component level testing, element verification, and early system level integration.</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Execute AEGIS CP 2024 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Continue to develop criteria evaluation metrics for technical and programmatic events in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRRs) as required to support the requirements of each milestone to ensure program success. Provide programmatic and technical leadership in a collaborative Navy and industry environment.</p> <p><b><i>FY 2024 Base Plans:</i></b>                      CP 2024 In-Progress Review #3 Q2 FY24</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>CP 2024 In-Progress Review #4 Q4 FY24</p> <p>Continue design, development and integration of Capability Package 2024 and entering the Capability Package Phase 4 Combat System Shipboard Testing, Final Certification and fielding.</p> <p>Conduct Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements.</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Execute AEGIS CP 2024 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Continue to develop criteria evaluation metrics for technical and programmatic events in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRRs) as required to support the requirements of each milestone to ensure program success.</p> <p>Provide programmatic and technical leadership in a collaborative Navy and industry environment.</p> <p>Planning in support of Combat System certification.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Decrease is due to transition from Phase 2 to Phase 3 in capability development process, Combat System and Weapon Element Integration testing.</p>					
<p><b>Title:</b> SEWIP BLK 3 INTEGRATION</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> SEWIP BLK 3 Integration brings non-kinetic electronic attack options to The AEGIS Fleet to counter threats. Electronic attack is a cornerstone capability that will meet the urgent operational needs of the</p>	5.138	17.000	8.000	0.000	8.000
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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>Fleet as the pace and complexity of emerging threats continues to escalate. This functionality will be fielded as part CP 2024.</p> <p><b>FY 2023 Plans:</b>                      SEWIP BLK 3 integration In-Progress Review #2 Q2 FY23 (Completed)                      SEWIP BLK 3 integration In-Progress Review #3 Q4 FY23</p> <p>Starting SEWIP BLK 3 Combat System Requirements definition based on Interface Design Definition (IDD) and Concept of Operations (CONOPS).</p> <p>Incremental design, development and integration of AEGIS code to support SEWIP BLK 3 Integration.</p> <p>Conduct systems engineering, software engineering and program management tasks to include develop and review specifications, interface definition, code development, component level testing, element verification, and early system level integration.</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Participate in and evaluate Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Provide support for technical and programmatic meetings in support of In Process Reviews (IPR), Software Increment Reviews (SWIR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.</p> <p>Support first installation on DDG 91.</p> <p><b>FY 2024 Base Plans:</b>                      SEWIP BLK 3 integration TECHEVAL Q2 FY24.                      SEWIP BLK 3 integration IOT&amp;E Q2-Q3 FY24.</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Continue SEWIP BLK 3 Combat System Requirements definition based on Interface Design Definition (IDD) and Concept of Operations (CONOPS).					
Continue incremental design, development and integration of AEGIS code to support SEWIP BLK 3 Integration.					
Continue to Conduct systems engineering, software engineering and program management tasks to include develop and review specifications, interface definition, code development, component level testing, element verification, and early system level integration.					
Continue to provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test & Evaluation (T&E), Certification, and Subject Matter Experts (SME). Participate in and evaluate Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).					
Continue to provide support for technical and programmatic meetings in support of In Process Reviews (IPR), Software Increment Reviews (SWIR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.					
Support SEWIP BLK 3 Technical Evaluation.					
Support SEWIP BLK 3 IOT&E Efforts in support of AEGIS integration.					
<b>FY 2024 OCO Plans:</b> N/A					
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Decrease is based on the requirement to finalize SEWIP BLK 3 Integration.					
<b>Title:</b> AEGIS CAPABILITY PACKAGE 2026	0.000	0.000	19.365	0.000	19.365
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> AEGIS Capability Package 2026 builds open previous CSL capabilities, implementing necessary warfighting improvements to improve operational effectiveness and address future threats. Specific warfighting					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>improvements will be defined in FY24 to address fleet priorities. CP 2026 will be the first delivery of AEGIS utilizing the ICS Code base.</p> <p><b>FY 2023 Plans:</b> NA</p> <p><b>FY 2024 Base Plans:</b> Begin Capability Package 2026 development. Leverage best practices from previous capability package development. Conduct systems engineering, software engineering and program management tasks to include develop and review specifications, interface definition, code development, component level testing, element verification, and early system level integration.</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Participate in and evaluate Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Provide support for technical and programmatic meetings in support of In Process Reviews (IPR), Software Increment Reviews (SWIR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Increase in AEGIS Capability Package 2026 (\$19.365M) to commence development to implement and integrate necessary warfighter improvements to continue to pace the threat.</p>					
<p><b>Title:</b> AEGIS FLT III DESTROYER BL 10 UPGRADES</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> AEGIS Baseline 10.0 provides critical warfighter improvements to the AEGIS FLT III DDG's, and delivers in FY24. AEGIS BL 10.0 combat system development efforts include integration of the Air and Missile Defense Radar (AMDR) SPY-6(V)1 Radar while building upon AEGIS BL 9 to form the AEGIS FLT</p>	139.178	146.906	194.930	0.000	194.930
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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>III DDG Combat System. Delivers subset of previous BL 9 Common Source Library (CSL) capabilities plus SPY-6(V)1; Mk 160 Gun Combat System (GCS) concurrent engagements; Close in Weapon System (CIWS) sensor integration; Tactical Data Link (TDL) J3.4 message; and Ballistic Missile Defense 6.0 (BMD 6.0). Fields to new construction FLT III DDG beginning FY24 in support of Air and Missile Defense Commander (AMDC) fleet requirement.</p> <p>AEGIS BL 10.1 continues combat system development efforts include integration of the SPY-6(V)1 performance updates, BMD6.0.1, MK 6 MOD 1 Hardware, and Cyber Security updates. Fields to new construction FLT III DDG beginning FY26 in support of Air and AMDC fleet requirement, BMD Flight Test Missions, and Full Operational Capability (FOC).</p> <p>AEGIS BL 10M will provide similar combat system capabilities to AEGIS FLT IIA Destroyers, integrating the SPY-6(V)4 radar and associated warfighting improvements. Fields to modernization FLT IIA DDG's in FY27</p> <p><b>FY 2023 Plans:</b>                      AEGIS BL 10.0 In-Progress Review #8 Q1 FY23 (Completed)                      AEGIS BL 10.0 Engineering Assessment Q3 FY23</p> <p>Continued Site activation and integration efforts required to support AEGIS BL 10.1 Development and Integration Testing.</p> <p>SPY-6(V)1 Radar Integration within the AEGIS Combat System.</p> <p>Continue to support the integration of SPY-6(V)1 Radar and BMD 6.0 functionality including:                      Code development, Component level testing, element verification, early system level integration, weapon system and subsystem integration.</p> <p>Continue to support incremental design, development and integration of AEGIS code and integration for the following capabilities as part of BL 10.0/BL 10.1:                      SPY-6(V)1                      BMD 6.0.1                      MK 6 Mod 1                      Cross Domain Solution</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>Conduct integration events, maintainability events, and stability events.</p> <p>Update training curriculum and documentation to reflect new capabilities.</p> <p>Support Land Based testing at CSEDS to validate code development and reduce risk to Shipboard testing programs. Support Sea Trials of DDG 125.</p> <p>Develop FLT III DDG test plan to include the following: Sea Trials of DDG 125 in second QTR FY23 Initial shipboard checkout and subsequent at-sea event preparation</p> <p>Support the installation of AEGIS BL 10.0 on DDG 125 to include the following: Installation and checkout of computer program Combat System Test events 2 and 3 (BRAVO and CHARLIE Trials)</p> <p>Discrepancy investigation and resolution Scenario development</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Participate in and evaluate remaining AEGIS BL 10.0 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Execution of all Test activities and stimulation capability required to validate system functionality, system interfaces, performance requirements, multi-unit interoperability and ensure system stability.</p> <p>Conduct Change Review Boards (CRB) to review computer program defects, characterize risk to system performance, and identify defect corrections.</p> <p>Conduct Combat System certification activities required to support planned FY24 Certification.</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<p>Develop and maintain risk management activities required to identify, mitigate and resolve critical risk that would impact the fielding of BL 10.0</p> <p>Continue to develop criteria metrics for technical and programmatic events in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.</p> <p>Conduct Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements. Provide programmatic and technical leadership in a collaborative Navy and industry environment.</p> <p>Continue to evaluate and monitor DDG 125 schedule to ensure all required products are delivered to the ship to support continued shipboard testing as planned.</p> <p>Identify, test and fix critical issues identified that impact the operational effectiveness of the AEGIS Combat System.</p> <p><b>FY 2024 Base Plans:</b>                      AEGIS BL 10.1 In-Progress Review #9 Q2 FY24                      AEGIS BL 10.M In-Progress Review #1 Q3 FY24                      AEGIS BL 10.0 Combat System Certification Panel Q4 FY24</p> <p>Continued Site activation and integration efforts required to support AEGIS BL 10.1 Development and Integration Testing.</p> <p>SPY-6(V)1 Radar Integration within the AEGIS Combat System.</p> <p>Continue to support the integration of SPY-6(V)1 Radar and BMD 6.0 functionality including: Development and review of specifications, Code development, Component level testing, Element verification, Early system level integration, weapon system and subsystem integration.</p> <p>Continue to support incremental design, development and integration of AEGIS code and integration for the following capabilities as part of BL 10.1:</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>SPY-6(V)1 BMD 6.0.1 MK 6 Mod 1 Cross Domain Solution</p> <p>Continue to support incremental design, development and integration of AEGIS code and integration for the following capabilities as part of BL 10.M: SPY-6(V)4</p> <p>Conduct integration events, maintainability events, and stability events.</p> <p>Update training curriculum and documentation to reflect new capabilities.</p> <p>Support Land Based testing at CSEDS to validate code development and reduce risk to Shipboard testing programs. Support Sea Trials of DDG 128.</p> <p>Execute FLT III DDG test plan to include the following: Combat System Ship's Qualification Trials (CSSQT) on DDG 125 in Q3 FY24 Sea Trials of DDG 128 in Q4 FY24 Initial shipboard checkout and subsequent at-sea event preparation</p> <p>Support the installation of AEGIS BL 10.1 on DDG 128 to include the following: Installation and checkout of computer program Combat System Test events 2 and 3 (BRAVO and CHARLIE Trials) Discrepancy investigation and resolution Scenario development</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Participate in and evaluate remaining AEGIS BL 10.1 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>Execution of all Test activities and stimulation capability required to validate system functionality, system interfaces, performance requirements, multi-unit interoperability and ensure system stability.</p> <p>Conduct Change Review Boards (CRB) to review computer program defects, characterize risk to system performance, and identify defect corrections.</p> <p>Conduct Combat System certification activities required to support planned FY24 Certification.</p> <p>Develop and maintain risk management activities required to identify, mitigate and resolve critical risk that would impact the fielding of BL 10.0 / BL 10.1 / BL 10.M.</p> <p>Continue to develop criteria metrics for technical and programmatic events in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.</p> <p>Conduct Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements. Provide programmatic and technical leadership in a collaborative Navy and industry environment.</p> <p>Continue to evaluate and monitor DDG 125 schedule to ensure all required products are delivered to the ship to support continued shipboard testing as planned.</p> <p>Continue to evaluate and monitor DDG 128 schedule to ensure all required products are delivered to the ship to support AEGIS Light-Off and continued shipboard testing as planned.</p> <p>Identify, test and fix critical issues identified that impact the operational effectiveness of the AEGIS Combat System.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> AEGIS FLT III Destroyer BL 10 Upgrades (\$48.024M) to support multiple concurrent efforts involving the integration of three SPY-6 Radar variants as part of the New Construction and Modernization programs.</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
In FY24, AEGIS BL 10.0 (DDG 125/126) will be completing it testing efforts integrating SPY-6(V)1 AAW Functionality, AEGIS BL 10.1 (DDG 128+) will be conducting Code Development and Integration testing SPY-6(V)1 Integrated Air and Missile Defense (IAMD), and AEGIS BL 10.M (DDG 91) will completing early system engineering, requirements mapping, system architecture, and early code development as required to integrated SPY-6(V)4.					
<p><b>Title:</b> AEGIS DESTROYER BL 5 UPGRADES</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> AEGIS BL 5.4.1 delivers NGSSR integration; Global Positioning System (GPS), Navigation, and Timing Service (GPNT)S; portions of Agile Sundog, Silent Squall, &amp; Vortex; Command and Control Processor (C2P) tech refresh; and BMD 4.1.3 (MDA-developed). Required to support first install planned in FY25.</p> <p><b>FY 2023 Plans:</b> BL 5.4.1 In-Progress Review #1 Q4 FY23</p> <p>Start AEGIS BL 5.4.1 code development without Low Noise Amplifier (LNA), integration, and testing to support the planned updates to bring capability to 21 BL 5 DDGs.</p> <p>Continue to support AEGIS BL 5.4.0 installations and at sea testing to validate the operational effectiveness of the upgrade Code.</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Execute AEGIS BL 5.4.1 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Execute all Test activities and stimulation capability required to validate system functionality, system interfaces, performance requirements, multi-unit interoperability and ensure system stability.</p> <p>Support Change Review Boards (CRB) to review computer program defects, characterize risk to system performance, and identify defect corrections.</p>	11.000	20.745	18.480	0.000	18.480
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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>Conduct and maintain all risk management activities required to identify, mitigate and resolve critical risk that would impact the fielding of BL 5.4.1.</p> <p>Continue to develop briefs for technical and programmatic meetings in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.</p> <p>Execute Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements.</p> <p>Support BL 5.4.0 installation on 10 ships.</p> <p><b>FY 2024 Base Plans:</b> BL 5.4.1 In-Progress Review #2 Q3 FY24</p> <p>Continued AEGIS BL 5.4.1 code development, integration, and testing to support the planned updates to bring capability to 21 BL 5 DDGs.</p> <p>Provide system engineering efforts required to support the Integrated Product Teams. Program Management Team (PMT), System Engineering Cross Product Team (SECPT), Element, Safety, Configuration Management (CM), Test &amp; Evaluation (T&amp;E), Certification, and Subject Matter Experts (SME). Participate in and evaluate remaining AEGIS BL 5.4.1 design decisions, Engineering Technical Reviews (ETR), Specification Change, Review, Implementation, and baseline governance boards and Navy Review Team (NRT).</p> <p>Execute all Test activities and stimulation capability required to validate system functionality, system interfaces, performance requirements, multi-unit interoperability and ensure system stability.</p> <p>Support Change Review Boards (CRB) to review computer program defects, characterize risk to system performance, and identify defect corrections.</p> <p>Conduct and maintain all risk management activities required to identify, mitigate and resolve critical risk that would impact the fielding of BL 5.4.1.</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>Continue to develop briefs for technical and programmatic meetings in support of Mission Readiness Assessments (MRA), In Process Reviews (IPR), Program Reviews, and Test Readiness Reviews (TRR) as required to support the requirements of each milestone to ensure program success.</p> <p>Execute Combat System Safety Program to address all Weapon System Explosive Safety Review Board (WSESRB) requirements.</p> <p>Support BL 5.4.0 installation on 2 ships.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Aegis Baseline (BL) 5.4.1 (BMD 4.2) is a joint effort between Navy and MDA that refurbishes existing DDG AN/SPY-1 radar arrays with the installation of antenna Low Noise Amplifiers (LNAs). The program is being restructured as a result of cost growth, supply chain issues, and schedule delays for the LNA portion of the program. The software only capability enhancements will be retained and the LNA capability removed. Navy and MDA jointly realigned the LNA program to include software upgrades with no LNA hardware procurements. The restructured program will deliver to 21 Flight I/II DDGs beginning in FY25.</p>					
<p><b>Title:</b> COMBAT SYSTEMS TEST BED (CSTB)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Combat Systems Test Bed (CSTB) is an AEGIS Modeling and Simulation (M&amp;S) tool built to conduct high fidelity analysis for AEGIS Developmental Test (DT) and Operational Test (OT) that DOT&amp;E highlighted in previous AEGIS baselines. CSTB models AEGIS Combat System (ACS) performance against adversary threats through the use of high-fidelity M&amp;S, generating Objective Quality Evidence (OQE) that directly supports Director, Operational Test and Evaluation (DOT&amp;E) evaluations of new AEGIS baselines. CSTB reduces Navy OT costs by enabling portions of AEGIS operational testing to be conducted via M&amp;S increasing requirements coverage and avoiding the costs of targets and weapons that would ordinarily be required to conduct OT solely via live fire events. In letters dated August 9, 2013 and June 9, 2014, DOT&amp;E has established the requirement that Navy use tactical code-based M&amp;S (CSTB) in conjunction with live tests for AEGIS OT. IWS1 and Commander Operational Test and Evaluation Force (OPT) will continue to use CSTB for AEGIS Baseline 9 and Baseline 10 Critical Operational Issue evaluations in 2023 and beyond.</p>	16.647	16.366	23.937	0.000	23.937
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>CSTB has also been used extensively to develop pre-flight performance predictions and post-flight performance reconstructions for AEGIS Baseline live fire tests since January 2015. During this time, CSTB has established a track record of accurate predictions over 185,000 missile scenarios - identifying mission-critical software defects that led directly to \$584M in cost avoidance and precluded numerous flight test failures.</p> <p>In addition to its support for AEGIS BL9/10 OT and flight test predictions, CSTB is also critical to Frigate (FFG) Combat System and Integrated Combat System Development. CSTB end to end Hard Kill capabilities are available to SM-2 missile models to support BL9 testing. Delivery of Hardkill/Software (HK/SK) models are planned to provide additional functionality in support of BL9, BL10, and FFG Combat System testing requirements.</p> <p><b>FY 2023 Plans:</b>                      Code Delivery #6 Q1 FY23 (Completed)                      Code Delivery #7 Q2 FY23                      Code Delivery #8 Q3 FY23                      CP22-1 OT Run For Record Q3 FY23</p> <p>Continue Federate development and integration of AWS, SPQ-9B, VLS, SM-2 BIIIA/B, NULKA decoy, Digital Threat models and Common Services.</p> <p>Commence Federate development and integration of ESSM Block 2, SM-6 BI (AW), NULKA decoy, CIWS, Interactive Threat models, and AAW Debris models. (6 Additional efforts).</p> <p>Continue Verification and Validation (V&amp;V) AWS, SPQ-9B, VLS, and SM-2 Block IIIA/IIIB.</p> <p>Conduct Pre and Post-Live Fire Comparison analysis in support of DDG 123 DT/OT Runs for Record.</p> <p>Conduct 2 Simulation Control Panel Readiness Reviews Boards and BL9/CP22-1 DT/OT Runs for Record (Q4FY23)</p> <p><b>FY 2024 Base Plans:</b>                      Code Delivery #9 Q1 FY24                      Code Delivery #10 Q2 FY24</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>BL10.0 OT Runs For Record Q3 FY24 Code Delivery #11 Q3 FY24</p> <p>Continued Federate development and integration of ESSM Block 2, SM-6 BI (AW), NULKA decoy, CIWS, Interactive Threat models, and BMD Debris models. Commence Federate development and integration SKCS/BAM, SM-3 Blk IB/IIA, SM-6 BIA (SBT), SLQ-32(V)6, and Lethality Models. (6 Additional efforts)</p> <p>Commence Verification and Validation (V&amp;V) SM-6 BI (AW), SPY-6(V)1, SLQ-32(V)6, SM-3 BI/IIA, ESSM Block 2, SM-3 Blk IB/IIA, CIWS, NULKA decoy, Interactive Threat models, and AAW/BMD Debris model capabilities. (13 Additional efforts)</p> <p>Conduct Pre and Post-Live Fire Comparison analysis in support of DDG 125 DT/OT Runs for Record, FTX-23, and FTM-32.</p> <p>Conduct 2 Simulation Control Panel Readiness Reviews Boards and CSTB BL10.0 IOC M&amp;S Runs for Record (Q3FY24).</p> <p>FFG-62 Support: Commence Federate development and integration of SPY-6(V)3 and SM-2 Blk IIIC models in support of FFG-62.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Combat System Test Bed (CSTB) (\$7.541M) to complete 13 M&amp;S tool updates to incorporate weapons, sensor, and threat models; execute model verification and validation and conduct analyses to enable the tool to supplement Developmental Test (DT) and Operational Test (OT) at-sea data in support of Initial Operational Test and Evaluation (IOT&amp;E) requirements for AEGIS DDG and FFG configurations.</p>					
<p><b>Title:</b> TASK FORCE CYBER AWAKENING (TFCA)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Provides solutions to address AEGIS Cyber deficiencies and vulnerabilities. Solutions include the AEGIS Cyber security toolkit, file integrity checker, anti-malware, USB media detection, boundary proxy</p>	15.000	15.164	15.330	0.000	15.330
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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<p>service, system incident and event manager, common user interface, network device integrity, identification management, certificate management, secure boot, application whitelisting, sandbox, cross domain and daily report capabilities. These solutions will be delivered as part of planned AEGIS BL 9 and 10 updates.</p> <p><b>FY 2023 Plans:</b> In-Progress Review #14 2Q FY23 (Completed) In-Progress Review #15 4Q FY23</p> <p>Continue to implement the AEGIS Cyber Roadmap which will introduce enterprise grade cyber security protection to the AEGIS Weapon System. Prepare cyber solutions for transition into DevSecOps and evaluate zero trust options. Support the evaluation of the DevOps software pipeline security from developer to ship to assess Cyber requirements coverage.</p> <p><b>FY 2024 Base Plans:</b> In-Progress Review #16 2Q FY24 In-Progress Review #17 4Q FY24</p> <p>Continue to implement the AEGIS Cyber Roadmap which will introduce enterprise grade cyber security protection to the AEGIS Weapon System. Prepare cyber solutions for transition into DevSecOps and evaluate zero trust options. Support the evaluation of the DevOps software pipeline security from developer to ship to assess Cyber requirements coverage.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Increase is based on rates and pricing adjustments required to support planned contract actions in support of TFCA development efforts.</p>					
<p><b>Title:</b> MK 6 MOD X COMPUTING INFRASTRUCTURE (CI) (Previously ICS)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Development and delivery MK 6 MOD X Computing Infrastructure (CI) and Infrastructure as a Service. The CI MK 6 MOD X and IaaS are foundational elements of the surface Navy's efforts to achieve Continuous Integration / Continuous Delivery (CI/CD) and supports all future ship classes. MK 6 MOD X replaces legacy Combat System hardware configurations enabling continuous hardware upgrades to deliver</p>	18.200 -	30.900 -	51.437 -	0.000 -	51.437 -

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>improved capability to the Fleet faster. The IaaS ORDALT will be developed to support modification of in-service MK 6 Mod 0 and Mod 1 hardware (Lead Ship DDG 123).</p> <p><b>FY 2023 Plans:</b>                      MK 6 MOD X Level II TDP 1Q FY23 (Completed)                      MK 6 MOD X In-Progress Review #3 Q2 FY 23                      MK 6 MOD X In-Progress Review #4 Q4 FY 23                      MK 6 MOD X Equipment Qualification Test (EQT) Support Q3 FY23 - Q1 FY24</p> <p>Complete and deliver MK 6 Mod X Level II TDP. Development of MK 6 MOD X Level III TDP in support of Q1 FY24 delivery. Finalize Ship Integration Government Furnished Information (GFI) to support GFI artifacts (mounting drawings, cabinet information, cable routing data etc.) to support Computing Infrastructure delivery for AEGIS Modernization DDG 101 and 103) and new construction DDGs (DDG 140 and follow). Complete Environmental Qualification Testing (EQT) on the MK 6 MOD X cabinets.</p> <p>Complete Secure Voice Communication System (SVCS) Telecommunications Electronics Material Protected from Emanating Spurious Transmission (TEMPEST) Testing and release the Report and Certification. Deliver SVCS EQT Reports.</p> <p>Complete inheritance model for hardware and achieve Authority To Operate (ATO).                      Sites development and planning to include unclassified and classified lab for MK 6 MOD X development.                      Continue to mature MK 6 MOD X MBSE.</p> <p><b>FY 2024 Base Plans:</b>                      MK 6 Mod X Level III TDP Q1 FY24                      Complete MK 6 MOD X EQT Q1 FY24                      MK 6 MOD 0 Hardware Delivery Q1 FY24                      MK 6 MOD X In-Progress Review #5 Q2 FY24                      MK 6 Mod 0 Combat System Certification Panel Q2 FY24                      MK 6 Mod 1 Test and Certification Q1 FY24 - Q3 FY25                      MK 6 MOD 1 Hardware Delivery Q3 FY24                      MK 6 MOD X In-Progress Review #6 Q4 FY24</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>Continue to address Diminishing Manufacture Sources (DMS) issues identified as part of MK 6 MOD X configurations.                      Establish unclassified and classified lab for MK 6 MOD X development.                      Continue to mature MK 6 MOD X MBSE.                      Test and Certify virtualized AEGIS Weapon System with MK 6 MOD 0 ORDALT configuration.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b>                      Increase for MK-6 MOD X Computing Infrastructure (CI) (\$20.537M) to support the implementation of Infrastructure as a Service (IaaS) within the MK 6 MOD 0 and MOD 1 hardware configurations to support the future proliferation of the ICS CI Software Deliveries.</p>					
<p><b>Title:</b> SOFTWARE (SW) FACTORY</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Surface Force Combat System SW Factory. Provide a continuous integration/continuous delivery (CI/CD) pipeline, where CS applications are developed, tested, certified, and fielded to the Fleet at speed. AEGIS and SSDS will be re-factored into a single ICS computer program by FY2028. Provides rapid CS development, test, certification, authorization, more frequent delivery, and faster turnaround of Fleet feedback into working SW and fielding to the Infrastructure-as-a-Service (IaaS) Fleet.</p> <p><b>FY 2023 Plans:</b> NA</p> <p><b>FY 2024 Base Plans:</b>                      iL6 Cloud Development Environment established Q1 FY24                      CI/CD Continuous Authority To Operate (ATO) Q3 FY24                      Program Increment Demo and Planning Q4 FY24                      ICS Software release Q4 FY24                      ICS Reference Architecture complete Q4 FY24</p> <p>Begin re-architecture of AEGIS and SSDS to ICS with the SW Factory using Agile development and management practices to include breaking down work into Program Increments. ICS re-architecture plan includes:</p>	0.000	0.000	39.000	0.000	39.000
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Development of ICS Reference Architecture by allocating current combat system functions to ICS sub-domains and components Prioritization of system threads and development of corresponding functional flows. Execution of Code Convergence Plan aligned to prioritization of system threads  <b>FY 2024 OCO Plans:</b> N/A  <b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Increase in Software Factory (\$39.000M) to support the refactoring of AEGIS and Ship Self Defense System (SSDS) legacy computer programs existing capabilities into a single Integrated Combat System (ICS) configuration.					
<b>Accomplishments/Planned Programs Subtotals</b>	314.186	329.110	445.124	0.000	445.124

<b>C. Other Program Funding Summary (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• SCN 2122: <i>DDG 51</i>	3,841.740	7,870.766	4,709.131	-	4,709.131	4,524.569	4,321.240	4,351.256	4,767.817	4,927.728	137,974.806
• OPN 0900: <i>DDG Modernization</i>	535.667	744.341	628.532	-	628.532	927.280	855.780	942.398	958.412	9,631.876	19,383.298

**Remarks**

**D. Acquisition Strategy**

Combat system improvements are implemented in Capability Packages (CP) as described in the project mission statement. After the combat system is completed and tested, the computer program and associated equipment are delivered to the new construction shipbuilders and modernization shipyards where the computer program and equipment are installed and tested along with all other elements of the shipboard combat system and associated combat support systems. The computer program is a Government Furnished Computer Program (GFCP) deliverable Combat System deliveries that certify by 2024 will be provided using the Combat System Engineering Agent (CSEA) contract, with future Integrated Combat System (ICS) deliveries developed and certified under the pending competitively awarded Systems Engineering and Software Integration (SESI) contract. The latter will utilize the SFSF for software development within the US Navy Forge ecosystem. Additional modifications to the existing contracts will address war fighting improvements as directed by Office of the Chief of Naval Operations (OPNAV). Currently PEO IWS 1.0 and IWS X has existing contracts or pending contract actions supporting all efforts defined within the Budget Exhibit. A summary of contracts and contractual actions are captured below.

AEGIS executes Capability Package development in a 4 phased approach as outlined below.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>
<p>- Phase 1 Combat System Requirements definition and Specification Development                  - Phase 2 Code Development and Integration and supporting early Level 1-2 Testing requirements                  - Phase 3 Combat System and Weapon Element Integration and continuing Level 3-5 Testing                  - Phase 4 Combat System Shipboard Testing, Final Certification and fielding</p> <p>Active Major Contracts:                  N00024-13-C-5116: Competitive award to support AEGIS BL 9 2018 and follow on efforts - Period of Performance FY13-23                  N00024-23-C-5123: AEGIS Fielding and Sustainment to complete development and certification of Baseline 10.0/10.1 and Capability Packages 22 and 24, and sustain/maintain in-service AEGIS BLs - Period of Performance FY23-29                  N00024-13-C-5103: Sole source follow on to support NJ Sites - Period of Performance FY18-23                  N00024-14-C-5104: Sole source to support ship installation and test - Period of Performance FY14-23                  N00024-15-C-5151: AEGIS ship integration and test - Period of Performance FY15-25                  N00024-21-C-5100 Automated Test and Analysis (ATA) capability, FY21-26                  N00024-21-F-5114: IT Ops, Cyber, and Classified Space - Period of Performance FY21-26                  N00024-21-9-5150: Forge Classified Infrastructure - Period of Performance FY21-26                  N00024-21-9-5151: Forge Software Factory Development Teams. Period of Performance FY21-24                  N00024-21-9-5153: Forge Software Factory Development Teams. Period of Performance FY21-24                  N00024-22-9-5154: Forge Software Factory Development Teams. Period of Performance FY22-24                  N00024-22-F-5101: Black Pearl DevSecOps Pipeline. Period of Performance FY22-27</p> <p>Contract Amendments:                  N00024-13-C-5116: Sole Source extension to FY26 for systems engineering, FFG-62 and USCG to support transition out of to the Competitive SESI (currently in source selection)</p> <p>New Contracts:                  N00024-19-R-2126: Surface Combatant Software Factory - Planned Award Date MAY 2024                  N00024-22-R-5117: Surface Combatant System Engineering and Software Integration - Planned Award Date JUNE 2023                  Follow-on IT Ops, Cyber, and Classified Space - Planned Award Date APRIL 2024</p> <p>In addition, PEO IWS 1.0 leverages contracts maintained by other organizations in support AEGIS Development. These include:                  MDA-LM BMD Contract (AEGIS BL 5 2020/2023 DEV)                  NAVSEA - BAH, MANTECH, Strategic Insight, Tech Marine Business and Engility (PSS/ESS)                  JHU APL - Technical Direction Agent                  NSWC DD - Lead System Engineer                  NSWC PHD - Life cycle logistics support</p>		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2024 Navy</b>											<b>Date: March 2023</b>				
<b>Appropriation/Budget Activity</b> 1319 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>					<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>				

<b>Product Development (\$ in Millions)</b>				<b>FY 2022</b>		<b>FY 2023</b>		<b>FY 2024 Base</b>		<b>FY 2024 OCO</b>		<b>FY 2024 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Systems Engineering	C/CPIF	Lockheed Martin : Moorestown, NJ	3,669.036	205.049	Oct 2021	209.402	Oct 2022	253.333	Oct 2023	-		253.333	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	APL : Baltimore, MD	180.082	16.320	Oct 2021	17.211	Oct 2022	17.301	Oct 2023	-		17.301	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Dahlgren, VA	608.061	36.614	Oct 2021	30.231	Oct 2022	40.024	Oct 2023	-		40.024	Continuing	Continuing	Continuing
Systems Engineering	SS/CPAF	BAE Systems : Rockville, MD	85.082	7.100	Oct 2021	7.382	Oct 2022	7.288	Oct 2023	-		7.288	Continuing	Continuing	Continuing
Systems Engineering	C/CPIF	Raytheon : St. Petersburg, FL	12.542	3.500	Oct 2021	8.430	Oct 2022	8.501	Oct 2023	-		8.501	0.000	32.973	-
Systems Engineering	WR	NSWC : Port Hueneme, CA	112.216	5.013	Oct 2021	12.322	Oct 2022	12.484	Oct 2023	-		12.484	Continuing	Continuing	Continuing
Systems Engineering	WR	NWAS : Corona, CA	53.725	2.684	Oct 2021	2.980	Oct 2022	2.960	Oct 2023	-		2.960	Continuing	Continuing	Continuing
Systems Engineering	WR	SPAWAR : San Diego, CA	17.840	1.254	Oct 2021	6.211	Oct 2022	6.220	Oct 2023	-		6.220	Continuing	Continuing	Continuing
Systems Engineering	C/IDIQ	TBD : TBD	223.591	22.440	Oct 2021	16.223	Oct 2022	16.332	Nov 2023	-		16.332	Continuing	Continuing	Continuing
Award fees	WR	Various : Various	10.935	0.000	Oct 2021	0.000	Oct 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	C/CPIF	Technology Service Corporation : Silver Spring , MD	1.747	4.900	Oct 2021	9.122	Oct 2022	5.206	Nov 2023	-		5.206	0.000	20.975	-
Systems Engineering	C/IDIQ	Various : Various	0.000	0.000	Oct 2021	0.000	Oct 2022	62.250	Nov 2023	-		62.250	0.000	62.250	-
<b>Subtotal</b>			4,974.857	304.874		319.514		431.899		-		431.899	Continuing	Continuing	N/A

**Remarks**  
 Various Performing Activities consist of multiple performing activities with funding for each no greater than \$1 million per year. These larger performing activities include CDSA Dam Neck and NSWC/Crane.

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2022</b>		<b>FY 2023</b>		<b>FY 2024 Base</b>		<b>FY 2024 OCO</b>		<b>FY 2024 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Developmental Test & Evaluation (DT&E)	WR	Department of Interior : Boise, Idaho	48.142	1.250	Oct 2021	1.342	Oct 2022	1.345	Oct 2023	-		1.345	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy												Date: March 2023				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)					Project (Number/Name)							
1319 / 5				PE 0604307N / Surface Combatant Cmbt S ys Eng					1447 / Surf Combatant Combat System Imp ys Eng							
<b>Test and Evaluation (\$ in Millions)</b>				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation (DT&E)	WR	NAVAIR : Pax River, MD	23.225	1.804	Oct 2021	1.902	Oct 2022	1.940	Oct 2023	-		1.940	Continuing	Continuing	Continuing	
Developmental Test & Evaluation (DT&E)	Various	PMRF : Hawaii, HI	6.532	1.132	Oct 2021	1.209	Oct 2022	1.198	Oct 2023	-		1.198	0.000	10.071	-	
<b>Subtotal</b>			77.899	4.186		4.453		4.483		-		4.483	Continuing	Continuing	N/A	
<b>Management Services (\$ in Millions)</b>				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Program Management Support	SS/CPAF	Mantech : Washington DC	37.667	1.824	Oct 2021	1.902	Oct 2022	3.105	Oct 2023	-		3.105	Continuing	Continuing	Continuing	
Program Management Support	SS/CPAF	TMB : Mclean, VA	34.604	3.302	Oct 2021	3.241	Oct 2022	2.955	Oct 2023	-		2.955	Continuing	Continuing	Continuing	
Program Management Support	Various	Booz Allen Hamilton : Washington DC	1.807	0.000	Oct 2021	0.000		2.682	Oct 2023	-		2.682	0.000	4.489	-	
<b>Subtotal</b>			74.078	5.126		5.143		8.742		-		8.742	Continuing	Continuing	N/A	
<b>Project Cost Totals</b>			5,126.834	314.186		329.110		445.124		-		445.124	Continuing	Continuing	N/A	
<b>Remarks</b>																

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

RDT&E/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation															
<b>Fiscal Year</b>	<b>2022</b>				<b>2023</b>				<b>2024</b>				<b>2025</b>				<b>2026</b>				<b>2027</b>				<b>2028</b>							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
AEGIS DESTROYER BL 9 UPGRADES																																
	Underway Testing																															

- PB 2023 to PB 2024 Change Summary:
- No Change

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S</i> <i>ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i> <i>ys Eng</i>

RDT&E,N/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation															
Fiscal Year	2022				2023				2024				2025				2026				2027				2028							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
CAPABILITY PACKAGE 2022	IPR #4	BL 9 2022-1 (CB-1.3) CSCP			BL 9 2022-1 (CB-1.4) CSCP																											
CAPABILITY PACKAGE 2022-1	ST&I				Underway Testing																											
CAPABILITY PACKAGE 2022-2 (DDG 91)																																

- **PB 2023 to PB 2024 Change Summary:**
- Delayed BL 9 2022-1 Combat System Certification Panel from 3<sup>RD</sup> QTR FY22 to 4<sup>th</sup> QTR FY22 (CB 1.3)
- Delayed BL 9 2022-1 Combat System Certification Panel from 1<sup>ST</sup> QTR FY23 to 3<sup>rd</sup> QTR FY23 (CB 1.4)
- Added BL 9 2022-2 Efforts due to DDG 91 Unique Configuration (SEWIP)



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S</i> <i>ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

RDT&E,N/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation												
Fiscal Year	2022				2023				2024				2025				2026				2027				2028				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
SEWIP BLK III INTEGRATION					▲ IPR #1	▲ IPR #2	▲ IPR #3		SEWIP TECHEVAL	SEWIP OT&E																			
					System Test and Integration				Underway Test																				

- PB 2023 to PB 2024 Change Summary:
- Delayed SEWIP TECH EVAL from 1<sup>ST</sup> QTR FY24 to Second QTR FY24.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

RDT&E/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation											
Fiscal Year	2022				2023				2024				2025				2026				2027				2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CAPABILITY PACKAGE 2026													IPR #1	IPR #2	IPR #3				IPR #4		CP 2026 CSCP							
													Code Develop	System Test and Integration	Underway Testing													

- PB 2023 to PB 2024 Change Summary:
- Added AEGIS CP 2026 Schedule

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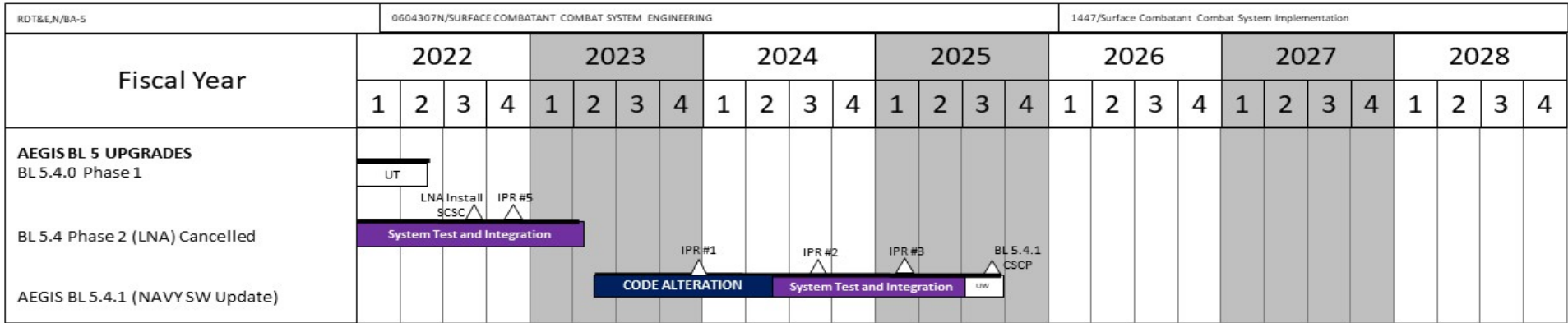
<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp ys Eng</i>

Fiscal Year	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation																							
	2022				2023				2024				2025				2026				2027				2028															
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4												
AEGIS BL 10.0 (FLT III DESTROYER 2024)			IPR #7				IPR #8	EA					BL 10.0 CSCP																											
	System Test and Integration																Underway Testing																							
AEGIS BL 10.1 (FLT III DESTROYER 2026)											IPR #9				IPR #10	EA					BL 10.1 CSCP																			
	Code Development																System Test and Integration												Underway Testing											
AEGIS BL 10M (FLT IIA DESTROYER (2027))											IPR #1				IPR #2	IPR #3					IPR #4	EA	ALO					BL 10.M CSCP												
	Code Development																System Test and Integration												U/W											

- **PB 2023 to PB 2024 Change Summary:**
- Delayed BL 10.0 Combat System Certification Panel from 2<sup>nd</sup> QTR FY24 to 4<sup>th</sup> QTR FY24
- Delayed BL 10.1 Combat System Certification Panel from 2<sup>nd</sup> QTR FY26 to 4<sup>th</sup> QTR FY26

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S</i> <i>ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i> <i>ys Eng</i>



- **PB 2023 to PB 2024 Change Summary:**
- BL 5.2 (Phase 2 LNA) Cancelled – BOD Meeting FEB2023
- BL 5.4.1 Directed to implement Warfighting Improvements with Existing Radar Configurations

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S</i> <i>ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i> <i>ys Eng</i>

RDT&E/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation												
Fiscal Year	2022				2023				2024				2025				2026				2027				2028				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
COMBAT SYSTEM TEST BED (CSTB)	CD #3	CD #4	CD #5	CD #6	CD #7	CD #8	CD #9	CD #10	CD #11	CD #12	CD #13	CD #14	CD #15	CD #16	CD #17	CD #18	CD #19												
	CP22-1 DT RFR #1	CP22-1 DT RFR #2			CP22-1 OT RFR				BL 10.0 OT IOC RFR				BL 10.0 OT BMD RFR				BL 10.0 OT IAMD RFR												

- **PB 2023 to PB 2024 Change Summary:**
- Eliminated CP 22-1 RFR Number 3/4/5 (Effort will be complete in conjunction CP 22-1 DT RFR #4)
- Eliminated BL 10.0 DT RFR
- Delayed BL 10.0 OT IOC RFR from 1<sup>st</sup> QTR FY24 to 3<sup>rd</sup> QTR FY24
- Accelerated BL 10.0 OT BMD RFR from 3<sup>rd</sup> QTR FY26 to 4<sup>th</sup> QTR FY25
- Corrected CD Numbering (CD# 9-19)

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<small>RDT&amp;E/N/BA-5</small>	<small>0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING</small>																<small>1447/Surface Combatant Combat System Implementation</small>												
<b>Fiscal Year</b>	<b>2022</b>				<b>2023</b>				<b>2024</b>				<b>2025</b>				<b>2026</b>				<b>2027</b>				<b>2028</b>				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
<b>TASK FORCE CYBER AWAKENING</b>	IPR #12		IPR #13		IPR #14		IPR #15			IPR #16		IPR #17		IPR #18		IPR #19													

- **PB 2023 to PB 2024 Change Summary:**
- Added IPR #18 in 2<sup>nd</sup> QTR FY25
- Added IPR #19 in 4<sup>th</sup> QTR FY25

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S</i> <i>ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i> <i>ys Eng</i>

RDT&E/N/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation																																			
Fiscal Year	2022				2023				2024				2025				2026				2027				2028																											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																								
MK 6 MOD X Computing Infrastructure (CI)	IPR #1				IPR #2				Level II TDP IPR #3				Level III TDP IPR #5				IPR #6				IPR #7				IPR #8				IPR #9				IPR #10				IPR #11				IPR #12				IPR #13				IPR #14			
MK 6 Mod 0 IAAS Development and Delivery									Test and Certification				HW Del				EOT				HW Del				LBTS Activation																											
MK6 MOD 1 IAAS Development and Delivery									Test and Certification				HW Del				CSCP																																			

- **PB 2023 to PB 2024 Change Summary:**
- Revised Program Title Integrated Combat System → TI16 MK 6 MOD X
- Added Hardware Factory Deliveries for TI 16 MOD X
- Added TI 16 MOD 0 / TI 16 MOD 1 IaaS Development Schedule

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt S</i> <i>ys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i> <i>ys Eng</i>

RDT&E/N/BA-5	0604307N/SURFACE COMBATANT COMBAT SYSTEM ENGINEERING																1447/Surface Combatant Combat System Implementation																
Fiscal Year	2022				2023				2024				2025				2026				2027				2028								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
SW FACTORY									iL6 Cloud Env				PI Event	ICS Reference Architecture			PI Event				PI Event												PI Event

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 1447</b>				
CAPABILITY PACKAGE 2022: CP 2022-1 IN-PROGRESS REVIEW (IPR) #4	1	2022	1	2022
CAPABILITY PACKAGE 2022: CP 2022-1 COMBAT SYSTEM CERTIFICATION PANEL (CB-1.3)	4	2022	4	2022
CAPABILITY PACKAGE 2022: CP 2022-1 COMBAT SYSTEM CERTIFICATION PANEL (CB-1.4)	3	2023	3	2023
CAPABILITY PACKAGE 2022: CP 2022 IN-PROGRESS REVIEW (IPR) #5	3	2023	3	2023
CAPABILITY PACKAGE 2022: CP 2022 IN-PROGRESS REVIEW (IPR) #6	4	2023	4	2023
CAPABILITY PACKAGE 2022: Combat System Ships Qualification Trials (CSSQT)	1	2024	2	2024
CAPABILITY PACKAGE 2022: CP 2022-2 COMPUTER PROGRAM DELIIVERY	3	2024	3	2024
CAPABILITY PACKAGE 2024: CP 2024 IN-PROGRESS REVIEW (IPR) #1	2	2023	2	2023
CAPABILITY PACKAGE 2024: CP 2024 IN-PROGRESS REVIEW (IPR) #2	4	2023	4	2023
CAPABILITY PACKAGE 2024: CP 2024 IN-PROGRESS REVIEW (IPR) #3	2	2024	2	2024
CAPABILITY PACKAGE 2024: CP 2024 IN-PROGRESS REVIEW (IPR) #4	4	2024	4	2024
CAPABILITY PACKAGE 2024: CP 2024-1 COMBAT SYSTEM CERTIFICATION PANEL	3	2025	3	2025
SEWIP BLK III INTEGRATION: SEWIP BLK III IN-PROGRESS REVIEW #1	4	2022	4	2022
SEWIP BLK III INTEGRATION: SEWIP BLK III IN-PROGRESS REVIEW #2	2	2023	2	2023
SEWIP BLK III INTEGRATION: SEWIP BLK III IN-PROGRESS REVIEW #3	4	2023	4	2023
SEWIP BLK III INTEGRATION: SEWIP TECH EVAL	2	2024	2	2024
SEWIP BLK III INTEGRATION: SEWIP IOT&E	2	2024	3	2024
CAPABILITY PACKAGE 2026: CP 2026 IN-PROGRESS REVIEW (IPR) #1	2	2025	2	2025
CAPABILITY PACKAGE 2026: CP 2026 IN-PROGRESS REVIEW (IPR) #2	3	2025	3	2025

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy			Date: March 2023	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)		
1319 / 5	PE 0604307N / Surface Combatant Cmbt Sys Eng	1447 / Surf Combatant Combat System Imp		
Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CAPABILITY PACKAGE 2026: CP 2026 IN-PROGRESS REVIEW (IPR) #3	1	2026	1	2026
CAPABILITY PACKAGE 2026: CP 2026 IN-PROGRESS REVIEW (IPR) #4	4	2026	4	2026
CAPABILITY PACKAGE 2026: CP 2026-1 COMBAT SYSTEM CERTIFICATION PANEL	2	2027	2	2027
BL10.0: BL 10.0 IN-PROGRESS REVIEW (IPR) #7	3	2022	3	2022
BL10.0: BL 10.0 IN-PROGRESS REVIEW (IPR) #8	1	2023	1	2023
BL10.0: BL 10.0 ENGINEERING ASSESSMENT (EA)	3	2023	3	2023
BL10.0: BL 10.0 COMBAT SYSTEM CERTIFICATION PANEL	4	2024	4	2024
BL10.0: BL10.1: BL 10.1 IN-PROGRESS REVIEW (IPR) #9	2	2024	2	2024
BL10.0: BL10.1: BL 10.1 IN-PROGRESS REVIEW (IPR) #10	1	2025	1	2025
BL10.0: BL10.1: BL 10.1 ENGINEERING ASSESSMENT (EA)	3	2025	3	2025
BL10.0: BL10.1: BL 10.1 COMBAT SYSTEM CERTIFICATION PANEL	4	2026	4	2026
BL10.0: BL 10.M: BL 10.M IN-PROGRESS REVIEW (IPR) #1	3	2024	3	2024
BL10.0: BL 10.M: BL 10.M IN-PROGRESS REVIEW (IPR) #2	2	2025	2	2025
BL10.0: BL 10.M: BL 10.M IN-PROGRESS REVIEW (IPR) #3	1	2026	1	2026
BL10.0: BL 10.M: BL 10.M IN-PROGRESS REVIEW (IPR) #4	4	2026	4	2026
BL10.0: BL 10.M: BL 10.M ENGINEERING ASSESSMENT (EA)	2	2027	2	2027
BL10.0: BL 10.M: BL 10.M AEGIS LIGHT OFF	4	2027	4	2027
BL10.0: BL 10.M: BL 10.M COMBAT SYSTEM CERTIFICATION PANEL	3	2028	3	2028
AEGIS DESTROYER BL 5 UPGRADES: AEGIS BL 5 2023 LNA SCSC INSTALLATION	3	2022	3	2022
AEGIS DESTROYER BL 5 UPGRADES: AEGIS BL 5 2023 IN-PROGRESS REVIEW (IPR) #5	4	2022	4	2022
AEGIS DESTROYER BL 5 UPGRADES: AEGIS BL 5.4.1 IN-PROGRESS REVIEW (IPR) #1	4	2023	4	2023
AEGIS DESTROYER BL 5 UPGRADES: AEGIS BL 5.4.1 IN-PROGRESS REVIEW (IPR) #2	3	2024	3	2024

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AEGIS DESTROYER BL 5 UPGRADES: AEGIS BL 5.4.1 IN-PROGRESS REVIEW (IPR) #3	1	2025	1	2025
AEGIS DESTROYER BL 5 UPGRADES: AEGIS BL 5.4.1 COMBAT SYSTEM CERTIFICATION PANEL	3	2025	3	2025
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #3	1	2022	1	2022
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #4	2	2022	2	2022
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #5	3	2022	3	2022
COMBAT SYSTEM TEST BED (CTSB): CSTB CP 22-1 DT RFR #1	3	2022	3	2022
COMBAT SYSTEM TEST BED (CTSB): CSTB CP 22-1 DT RFR #2	4	2022	4	2022
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #6	1	2023	1	2023
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #7	2	2023	2	2023
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #8	3	2023	3	2023
COMBAT SYSTEM TEST BED (CTSB): CSTB CP 22-1 OT RFR	3	2023	3	2023
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #9	1	2024	1	2024
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #10	2	2024	2	2024
COMBAT SYSTEM TEST BED (CTSB): CSTB BL 10 OT IOC RFR	3	2023	3	2023
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #11	3	2024	3	2024
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #12	1	2025	1	2025
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #13	2	2025	2	2025
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #14	3	2025	3	2025
COMBAT SYSTEM TEST BED (CTSB): CSTB BL 10 OT BMD RFR	4	2025	4	2025
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #15	1	2026	1	2026
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #16	2	2026	2	2026
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #17	3	2026	3	2026
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #18	1	2027	1	2027
COMBAT SYSTEM TEST BED (CTSB): CODE DELIVERY #19	2	2027	2	2027

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
COMBAT SYSTEM TEST BED (CTSB): CSTB BL 10 OT IAMD RFR	3	2027	3	2027
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #12	2	2022	2	2022
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #13	4	2022	4	2022
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #14	2	2023	2	2023
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #15	4	2023	4	2023
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #16	2	2024	2	2024
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #17	4	2024	4	2024
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #18	2	2025	2	2025
TASK FORCE CYBER AWAKENING (TFCA): TFCA IN-PROGRESS REVIEW #19	4	2025	4	2025
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #1	2	2022	2	2022
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #2	4	2022	4	2022
MK 6 MOD X COMPUTING INFRASTRUCTURE: LEVEL II TECHNICAL DATA PACKAGE	1	2023	1	2023
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #3	2	2023	2	2023
MK 6 MOD X COMPUTING INFRASTRUCTURE: EQUIPMENT QUALIFICATION TEST #1	3	2023	2	2024
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #4	4	2023	4	2023
MK 6 MOD X COMPUTING INFRASTRUCTURE: LEVEL III TECHNICAL DATA PACKAGE	1	2024	1	2024
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #5	2	2024	2	2024
MK 6 MOD X COMPUTING INFRASTRUCTURE: HARDWARE DELIVERY	2	2024	2	2024
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #6	4	2024	4	2024
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #7	2	2025	2	2025
MK 6 MOD X COMPUTING INFRASTRUCTURE: EQUIPMENT QUALIFICATION TEST #2	2	2025	4	2025
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #8	4	2025	4	2025

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MK 6 MOD X COMPUTING INFRASTRUCTURE: LAND BASED TEST SITE (LBTS) ACTIVATION	2	2026	2	2026
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #9	2	2026	2	2026
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #10	4	2026	4	2026
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #11	2	2027	2	2027
MK 6 MOD X COMPUTING INFRASTRUCTURE: EQUIPMENT QUALIFICATION TEST #3	2	2027	4	2027
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #12	4	2027	4	2027
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #13	2	2022	2	2022
MK 6 MOD X COMPUTING INFRASTRUCTURE: IN-PROGRESS REVIEW #14	4	2028	4	2028
MK 6 MOD 0 IaaS: HARDWARE DELIVERY	1	2024	1	2024
MK 6 MOD 0 IaaS: COMBAT SYSTEM CERTIFICATION PANEL	2	2024	2	2024
MK 6 MOD 1 IaaS: HARDWARE DELIVERY	3	2024	3	2024
MK 6 MOD 1 IaaS: COMBAT SYSTEM CERTIFICATION PANEL	3	2025	3	2025
SOFTWARE FACTORY: I6 CLOUD ENVIRONMENT ESTABLISHMENT	1	2024	1	2024
SOFTWARE FACTORY: CONTINUOUS AUTHORITY TO OPERATE (ATO)	3	2024	3	2024
SOFTWARE FACTORY: PROGRAM INCREMENT DEMO 2024	4	2024	4	2024
SOFTWARE FACTORY: ICS SOFTWARE RELEASED 2024	4	2024	4	2024
SOFTWARE FACTORY: ICS REFERENCE ARCHITECTURE	4	2024	4	2024
SOFTWARE FACTORY: PROGRAM INCREMENT DEMO 2025	4	2025	4	2025
SOFTWARE FACTORY: ICS SOFTWARE RELEASED 2025	4	2025	4	2025
SOFTWARE FACTORY: PROGRAM INCREMENT DEMO 2026	4	2026	4	2026
SOFTWARE FACTORY: ICS SOFTWARE RELEASED 2026	4	2026	4	2026
SOFTWARE FACTORY: PROGRAM INCREMENT DEMO 2027	4	2027	4	2027
SOFTWARE FACTORY: ICS SOFTWARE RELEASED 2027	4	2027	4	2027
SOFTWARE FACTORY: PROGRAM INCREMENT DEMO 2028	4	2028	4	2028

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 1447 / <i>Surf Combatant Combat System Imp</i>

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
SOFTWARE FACTORY: ICS SOFTWARE RELEASED 2028	4	2028	4	2028

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy										<b>Date:</b> March 2023		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>				<b>Project (Number/Name)</b> 3357 / <i>Aegis Training Improvement Program</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3357: <i>Aegis Training Improvement Program</i>	70.185	6.932	6.379	8.187	-	8.187	11.105	10.009	7.688	7.484	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The AEGIS Training Improvement project provides enhancements and upgrades to the Total Ship Training Capability (TSTC) training components within the combat system to address needs for increased training capability and functionality in conjunction with AEGIS Capability Packages. These enhancements will address current and future training requirements by implementing new functionality to enable the individual warfighter through distributed battle group events to engage in more complex training requirements to support fleet required training certification events. Capability Development and integration are related to Integrated Air and Missile Defense, Underwater, Surface, and other warfare areas. Capability enhancements and upgrades include development of re-useable common components that can be leveraged by SSDS MK2 combat systems, and/or integration of re-usable common components developed by the TSTC Battle Force Tactical Trainer (BFTT) Program and Ship Self Defense System (SSDS) MK2 TSTC Training Improvement programs to meet AEGIS combat system training requirements. TSTC provides realistic joint warfare training across the spectrum of armed conflict, realistic unit level team training in all warfare areas (e.g. NIFC-CA and BMD missions to support IAMD). TSTC provides ships' Commanding Officers and Battle Group/Battle Force Commanders with the ability to conduct coordinated realistic, high stress, combat system level team training as an integral part of the Afloat Training Organization, the Tactical Training Groups and C2F/C3F Fleet Synthetic Trainers (FSTs). TSTC continues to integrate and update, as new tactical capabilities are being introduced, to enable crew operator proficiency training for basic and sustainment level training events, through distributed strike group certification fleet synthetic training (FST) events and including Composite Training Unit Exercise (COMPTUEX) Fleet Synthetic Training (FST) at Sea integration into Live, Virtual and Constructive (LVC) environment. Continued Development is required to integrate new capabilities and interfaces to provide training for AEGIS and SSDS combat system capability upgrades, and to address the Fleet's Live, Virtual and Constructive (LVC) Fleet Training Wholeness initiative. Additionally, modernization is needed to support the DoD Training Transformation Plan, the Chief of Naval Operations Fleet Response Plan and Commander United States Fleet Forces Command Fleet Readiness Training Plan.

The Advanced Training Domain (ATD) is being developed to combine BFTT and the AEGIS Combat Training System (ACTS) into a common system that integrates with AEGIS BL 9.2.2AF, and SSDS BL 11.xAF. ATD is being hosted along with the AEGIS and SSDS combat system on TI-16AF common processing and display hardware. ATD is being designed to be the core of the Total Ship Training Capability, and is projected to be more reliable, simpler to use, and architecturally extensible to meet interoperability and capability enhancement challenges in the future.

The BFTT is being updated to maintain integration and capability enhancements developed for the Cooperative Engagement Capability (CEC), Surface Electronic Warfare Improvement Program (SEWIP), and the Carrier Tactical Support Center (CV-TSC), and SSDS Fire Control Loop Improvement Program.

Develop and integrate MH-60R simulator to enable embedded shipboard training in support of basic and sustainment training, as well as establishes the pathway to support pier-side Fleet Synthetic Training (FST) events.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 3357 / <i>Aegis Training Improvement Program</i>

Develop and Integrate Cooperative Engagement Capability (CEC) Enhanced Training (CET) to support basic and sustainment level training, as well as provide ability to distribute and establish CEC data link during pier-side fleet synthetic training exercises. CET is an enabler for proficiency training of NIFC-CA capability.

Develop and integrate CEC Interim Training (CIT) capability to support pier-side fleet synthetic training events. This is an interim capability that only supports distributed training until CET is fully deployed. This establishes the communications needed to enable strike group training of advanced capabilities being delivered to AEGIS BL 9AF ships.

Develop and integrate upgrades to Battle-Force Electronic Warfare Trainer (BEWT) to support soft kill training with NULKA.

Develop Identification Friend or Foe (IFF) simulator to enable training of Modes 1, 2, 3A, 4, C, 5 and S on both AEGIS and SSDS ships. Capability will enable training of AEGIS and SSDS IFF Mode 5/S, and address the Mode 4 Inoculation.

Develop and integrate commensurate training improvements to SSDS for Enhanced Sea Sparrow Missile (ESSM) and Electronic Warfare (EW) tactical improvements.

Integrate Navy Continuous Training Environment (NCTE) networking and cyber security upgrades to maintain authorization to participate in distributed shipboard training events.

TSTC integrated on AEGIS provides the capability to complete system and operational level testing of the combat system.

Design, develop, and test of Advanced Training Domain (ATD)/Internal Training Domain (ITD) modifications aligned to the ICS architecture to deliver LVC training in-stride with Combat System deliveries from the SW Factory.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<b>Title:</b> AEGIS Training Improvement and Integration	5.874	5.471	7.217	0.000	7.217
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> AEGIS Total Ship Training Capability (TSTC) provides enhancements to training components and increase training functionality in conjunction with AEGIS development and integration. These enhancements will address current and future training requirements and implement new functionality to support more complex training requirements related to Underwater, Surface and other warfighter upgrades.					
<b>FY 2023 Plans:</b> - Continue development, integration and testing of ATD on Aegis with new capabilities being implemented into BL 10.X and enable leveraging for Ship Self Defense System (SSDS) BL 12.X.					
<b>FY 2024 Base Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 3357 / <i>Aegis Training Improvement Program</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>- Continue development, integration and testing of ATD on Aegis with new capabilities being implemented into CP 24-1/BL 10.X and enable leveraging for Ship Self Defense System (SSDS) BL 12.X.</p> <p>- Design, develop, and test of Advanced Training Domain (ATD)/Internal Training Domain (ITD) modifications aligned to the ICS architecture to deliver LVC training in-stride with Combat System deliveries from the SW Factory.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> FY24 \$1.746M increase supports design, development and test of Surface Force Training modifications within Advanced Training Domain (ATD)/Internal Training Domain (ITD) aligned to the ICS architecture. Supports Combat System test and certification of virtualized combat systems to be delivered to TI-16 Mod 0 Infrastructure as a Service (IaaS), TI-16 Mod 1 IaaS, and MK6 MOD X configurations.</p>					
<p><b>Title:</b> Fleet Training Wholeness</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2023 Plans:</b></p> <p>- Continue development of Advanced Training Domain (ATD) for Aegis BL 9 2022 and BL 10 2023.</p> <p>- Complete Strike Group Cooperative Engagement Capability (CEC) Underway capability for AEGIS Combat Systems Baselines.</p> <p><b>FY 2024 Base Plans:</b></p> <p>- Continue development of Advanced Training Domain (ATD) for Aegis BL 9 and 10 variants.</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> FY24 \$0.062M increase due to efforts being performed at FY23 levels with inflation to meet fleet priorities.</p>	1.058	0.908	0.970	0.000	0.970
	-	-	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	6.932	6.379	8.187	0.000	8.187

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 3357 / <i>Aegis Training Improvement Program</i>

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RD TEN/0204571N/1427: <i>Surface Tactical Team Trainer (STTT)</i>	30.322	13.721	33.057	-	33.057	56.108	43.786	25.779	24.878	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Efforts will be completed on various contracts to support requirements updates to multiple products that will support Training Integration and Implementation within AEGIS development capabilities.

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / Surface Combatant Cmbt Sys Eng	<b>Project (Number/Name)</b> 3357 / Aegis Training Improvement Program
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<b>Product Development (\$ in Millions)</b>				<b>FY 2022</b>		<b>FY 2023</b>		<b>FY 2024 Base</b>		<b>FY 2024 OCO</b>		<b>FY 2024 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Product Development	Various	Various : Various	38.596	4.457	Dec 2021	3.992	Dec 2022	5.151	Dec 2023	-		5.151	Continuing	Continuing	Continuing
System Engineering	Various	Various : Various	26.781	1.830	Dec 2021	1.732	Dec 2022	2.231	Dec 2023	-		2.231	Continuing	Continuing	Continuing
<b>Subtotal</b>			65.377	6.287		5.724		7.382		-		7.382	Continuing	Continuing	N/A

**Remarks**  
System Engineering moved from Support to Product Development

<b>Management Services (\$ in Millions)</b>				<b>FY 2022</b>		<b>FY 2023</b>		<b>FY 2024 Base</b>		<b>FY 2024 OCO</b>		<b>FY 2024 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Engineering Support	C/CPIF	BAH/NRL : Arlington, VA/Maryland	3.838	0.550	Dec 2021	0.555	Dec 2022	0.692	Dec 2023	-		0.692	Continuing	Continuing	Continuing
Professional Support	C/CPIF	TMB : Washington DC	0.970	0.095	Dec 2021	0.100	Dec 2022	0.113	Dec 2023	-		0.113	Continuing	Continuing	Continuing
<b>Subtotal</b>			4.808	0.645		0.655		0.805		-		0.805	Continuing	Continuing	N/A

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	70.185	6.932	6.379	8.187	-	8.187	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2024 Navy</b>		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 3357 / <i>Aegis Training Improvement Program</i>

FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Proj 3357</b>																												
BL 9 2021 COMBAT SYSTEM CERTIFICATION PANEL	■																											
2022 IN-PROGRESS REVIEW (IPR) #4	■																											
2022 COMBAT SYSTEM CERTIFICATION PANEL					■																							
2024 IN-PROGRESS REVIEW (IPR) #1								■																				
2024 IN-PROGRESS REVIEW (IPR) #2									■																			
2024 IN-PROGRESS REVIEW (IPR) #3											■																	
CP 2024-2 COMBAT SYSTEM CERTIFICATION PANEL								■																				
BL 10 2024 IN-PROGRESS REVIEW (IPR) #1			■																									
BL 10 2024 IN-PROGRESS REVIEW (IPR) #2					■																							
BL 10 2024 COMBAT SYSTEM CERTIFICATION PANEL												■																
BL 10 2028 IN-PROGRESS REVIEW (IPR) #1												■																
BL 10 2028 IN-PROGRESS REVIEW (IPR) #2														■														
BL 10 2028 IN-PROGRESS REVIEW (IPR) #3																■												
BL 10 2028 AEGIS LIGHT OFF																										■		

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 3357 / <i>Aegis Training Improvement Program</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3357</b>				
BL 9 2021 COMBAT SYSTEM CERTIFICATION PANEL	1	2022	1	2022
2022 IN-PROGRESS REVIEW (IPR) #4	1	2022	1	2022
2022 COMBAT SYSTEM CERTIFICATION PANEL	1	2023	1	2023
2024 IN-PROGRESS REVIEW (IPR) #1	3	2023	3	2023
2024 IN-PROGRESS REVIEW (IPR) #2	4	2023	4	2023
2024 IN-PROGRESS REVIEW (IPR) #3	2	2024	2	2024
CP 2024-2 COMBAT SYSTEM CERTIFICATION PANEL	3	2023	3	2023
BL 10 2024 IN-PROGRESS REVIEW (IPR) #1	3	2022	3	2022
BL 10 2024 IN-PROGRESS REVIEW (IPR) #2	1	2023	1	2023
BL 10 2024 COMBAT SYSTEM CERTIFICATION PANEL	4	2024	4	2024
BL 10 2028 IN-PROGRESS REVIEW (IPR) #1	3	2024	3	2024
BL 10 2028 IN-PROGRESS REVIEW (IPR) #2	2	2025	2	2025
BL 10 2028 IN-PROGRESS REVIEW (IPR) #3	1	2026	1	2026
BL 10 2028 AEGIS LIGHT OFF	4	2027	4	2027

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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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
9999: <i>Congressional Adds</i>	0.000	0.000	10.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.000
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Integration and delivery of a best-of-breed capability to enable Condition Based Maintenance Plus (CBM+) and optimized mission planning will provide real-time predictive analyses of a weapon system's ability to meet Key Performance Parameters (KPPs), Key System Attributes (KSAs), and Technical Performance Measures (TPMs), for optimized combat systems corrective maintenance tactical decision making.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2022	FY 2023
<b>Congressional Add:</b> Enabling Condition-Based Maintenance Plus (CBM+)	0.000	10.000
<b>FY 2022 Accomplishments:</b> N/A		
<b>FY 2023 Plans:</b> Provide real-time shipboard readiness and mission-based analytics capability to compete and win in a high-end fight.		
<b>Congressional Adds Subtotals</b>	0.000	10.000

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A



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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Proj 9999</b>	
Model Based System Engineering Delivery	■

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Navy		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604307N / <i>Surface Combatant Cmbt Sys Eng</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 9999</b>				
Model Based System Engineering Delivery	4	2023	4	2023