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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 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604256N / <i>Threat Simulator Development</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	0.000	56.311	29.430	22.918	-	22.918	26.067	25.717	24.654	25.147	Continuing	Continuing
0602: <i>Electronics W/F Env Simulation (ECHO)</i>	0.000	13.848	23.154	16.354	-	16.354	19.237	18.760	18.395	18.763	Continuing	Continuing
0672: <i>Effect Nav E/W (ENEWS)</i>	0.000	6.648	6.276	6.564	-	6.564	6.830	6.957	6.259	6.384	Continuing	Continuing
9999: <i>Congressional Adds</i>	0.000	35.815	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	35.815

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

This is a continuing program that consolidates the design, fabrication and integration of Naval Electronic Warfare (EW) threat simulators for increased managerial emphasis and coordination. These simulator development efforts provide realistic Developmental and Operational Test and Evaluation environments to test EW systems and defensive tactics. These projects develop threat Anti-Air and Anti-Ship weapon system simulators in accordance with the Services' requirements.

The 0602 Project, Electronic Warfare Environment Simulation, directly supports the Test and Evaluation resource requirements for all Naval Air EW development programs to include multi-spectral situational awareness and countermeasures. Programs in development and future programs include: Joint Strike Fighter, EA-18G, Low Band Transmitter, Next Generation Jammer, Advanced Anti-Radiation Guided Missile (AARGM), Long Range Anti-Ship Missile (LRASM).

The 0672 Project, Effectiveness of Naval Electronic Warfare Systems (ENEWS), directly supports the Test and Evaluation resource requirements for Surface Ship Electronic Warfare Systems. Projects include anti-ship cruise missile seeker simulators, modeling and simulation and state of the art test facilities. Program in development and future programs include: Surface Electronic Warfare Improvement Program (SEWIP), Advanced Off-Board Electronic Warfare (AOEW), Nulka, Rapid Anti-Ship Integrated Defense and MK 245.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RESEARCH, DEVELOPMENT, TEST and EVALUATION MANAGEMENT SUPPORT because it supports efforts directed toward sustaining or modernizing installations or operations required for general research, development, test and evaluation.

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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	57.962	29.430	24.693	-	24.693
Current President's Budget	56.311	29.430	22.918	-	22.918
Total Adjustments	-1.651	0.000	-1.775	-	-1.775
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.651	0.000			
• Program Adjustments	0.000	0.000	-1.775	-	-1.775
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000

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

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

Congressional Add: *C-band and S-band radar emulator upgrade for test infrastructure*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	<b>FY 2022</b>	<b>FY 2023</b>
	35.815	0.000
	35.815	0.000
	35.815	0.000

**Change Summary Explanation**

Funding: The FY 2024 funding request was reduced by \$1.775 million to fund other priorities within the department.

Schedule: Not applicable.

Technical: Not applicable.

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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 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0604256N / <i>Threat Simulator Development</i>			<b>Project (Number/Name)</b> 0602 / <i>Electronics W/F Env Simulation (ECHO)</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>
0602: <i>Electronics W/F Env Simulation (ECHO)</i>	0.000	13.848	23.154	16.354	-	16.354	19.237	18.760	18.395	18.763	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The objective of this project is development of necessary simulation facilities and approaches to allow determination of the effectiveness of Electronic Warfare (EW) in real world engagement situations and to support the introduction of modern, effective EW systems into Naval Aviation platforms. The heavy use of test resources by all Services demonstrates the importance of these assets.

The Electronic Warfare Environment Simulation project is unique because it is the only program within the Department of Defense which develops and provides Naval anti-air warfare threat assets for Test and Evaluation (T&E).

This project directly supports the T&E resource requirements for all Naval Air EW development programs, to include multi-spectral situational awareness and countermeasures. Programs in development and future programs include: Joint Strike Fighter, EA-18G, Low Band Transmitter, Next Generation Jammer, Advanced Anti-Radiation Guided Missile (AARGM), Long Range Anti-Ship Missile (LRASM).

This project provides for the development of an Integrated Air Defense T&E capability to be fielded at each of the three sites comprising the Navy's Tri-Center complex: Naval Air Warfare Center Weapons Division, China Lake and Point Mugu in CA, and Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

**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> Acquisition and Measurement Capabilities	1.609	10.007	3.905	0.000	3.905
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Provide the test community with modern threat target acquisition systems and effective measurement systems necessary for Test and Evaluation of airborne early warning, situational awareness, detection and targeting systems and airborne response systems.					
<b>FY 2023 Plans:</b>					
- Complete the development of two threat signal augmentation simulators for NAWCWD.					
- Continue site preparation for three radar signal emulators at NAWCWD.					
- Initiate and Complete the L-Band RSE upgrade.					
<b>FY 2024 Base Plans:</b>					

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<b>Appropriation/Budget Activity</b> 1319 / 6		<b>R-1 Program Element (Number/Name)</b> PE 0604256N / <i>Threat Simulator Development</i>		<b>Project (Number/Name)</b> 0602 / <i>Electronics W/F Env Simulation (ECHO)</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
<ul style="list-style-type: none"> <li>- Continue site preparation for three radar signal emulators at NAWCWD.</li> <li>- Initiate development of small scale open-loop simulator for NAWCAD Pax and NAWCWD Pt. Mugu.</li> </ul> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Funding decrease from FY 2023 to FY 2024 due to the completion of the threat signal augmentation simulators and the L-Band RSE upgrade.</p>					
<b>Title:</b> Requirements and Validation					
<b>Articles:</b>					
<p><b>Description:</b> Validate and track intel updates of the threat systems necessary for the operation and continuous improvement of Navy laboratories and ranges which provide engineering support, testing and analysis to the developers, integrators, testers and users of systems and technologies that counter or penetrate air defenses.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue to provide program management, systems engineering, and requirements identification for the development of simulators and foreign material acquisition.</li> <li>- Continue to validate simulators and stimulators at the Navy tri-lab centers.</li> </ul> <p><b>FY 2024 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue to provide program management, systems engineering, and requirements identification for the development of simulators and foreign material acquisition.</li> <li>- Continue to validate simulators and stimulators at the Navy tri-lab centers.</li> </ul> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Funding increase from FY 2023 to FY 2024 due to inflation</p>					
<b>Title:</b> Engagement Capabilities					
<b>Articles:</b>					
<p><b>Description:</b> Provide the test community with the modern threat engagement systems necessary for Test and Evaluation of airborne alert, Situation Awareness, targeting systems and airborne response systems.</p>					

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2024 Navy	<b>Date:</b> March 2023
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<b>Appropriation/Budget Activity</b> 1319 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0604256N / <i>Threat Simulator Development</i>	<b>Project (Number/Name)</b> 0602 / <i>Electronics W/F Env Simulation (ECHO)</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
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**FY 2023 Plans:**

- Complete analysis and design for a closed-loop simulator of a sea based surface to air missile system for laboratory and open-air range implementation at Naval Air Warfare Center Weapons Division Pt. Mugu and China Lake and Naval Air Warfare Center Aircraft Division Pax River.
- Continue the upgrade and integration of missile simulation models.
- Continue the minor upgrades to open air and laboratory threat systems.
- Continue design and development of a reconfigurable closed-loop threat simulator for integration and utilization at laboratories and the open-air ranges.
- Continue upgrade of a closed-loop threat simulator by adding a new threat model to the simulators at Naval Air Warfare Center Weapons Division Pt. Mugu and Naval Air Warfare Center Aircraft Division Pax River.
- Initiate replacement of an obsolete closed-loop surface to air missile simulator at Naval Air Warfare Center Weapons Division Pt. Mugu and China Lake and Naval Air Warfare Center Aircraft Division Pax River with a Great Power Competitor threat simulator. The new simulator will include the latest assessed capabilities and current technology.

**FY 2024 Base Plans:**

- Continue the upgrade and integration of missile simulation models.
- Continue the minor upgrades to open air and laboratory threat systems.
- Continue design and development of a reconfigurable closed-loop threat simulator for integration and utilization at laboratories and the open-air ranges.
- Complete upgrade of a closed-loop threat simulator by adding a new threat model to the simulators at Naval Air Warfare Center Weapons Division Pt. Mugu and Naval Air Warfare Center Aircraft Division Pax River.
- Continue replacement of an obsolete closed-loop surface to air missile simulator at Naval Air Warfare Center Weapons Division Pt. Mugu and China Lake and Naval Air Warfare Center Aircraft Division Pax River with a Great Power Competitor threat simulator. The new simulator will include the latest assessed capabilities and current technology.
- Initiate development of a closed-loop short range surface to air missile radar simulator at Naval Air Warfare Center Weapons Division Pt. Mugu and Naval Air Warfare Center Aircraft Division Pax River.
- Initiate development of a surface to air missile radar emulation in a radar signal emulator at Naval Air Warfare Center Weapons Division China Lake.

**FY 2024 OCO Plans:**

**UNCLASSIFIED**

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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>
N/A					
<b><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i></b> Funding decrease from FY 2023 to FY 2024 due to the completion of all material purchases on the upgrade of a closed-loop threat simulator.					
<b>Accomplishments/Planned Programs Subtotals</b>	13.848	23.154	16.354	0.000	16.354

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

N/A

**Remarks**

**D. Acquisition Strategy**

Not Applicable.

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<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>
0672: <i>Effect Nav E/W (ENEWS)</i>	0.000	6.648	6.276	6.564	-	6.564	6.830	6.957	6.259	6.384	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**Note**

Beginning in FY 2021, the Classified Program has been discontinued.

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

The objective of the Effectiveness of Naval Electronic Warfare (EW) Systems (ENEWS) Project is the development, maintenance, upgrade and application of critical simulation assets to determine the effectiveness of Electronic Warfare (EW) for the surface Navy in simulated real-world engagement scenarios. ENEWS provides the Surface Navy with Anti-Ship Missile (ASM) simulators, Modeling and Simulation (M&S) and state-of-the-art evaluation facilities to support the introduction of modern, effective shipboard and off-board EW systems and tactics for EW Programs of Record (POR). ENEWS develops, maintains and operates hardware simulators, digital simulations (M&S) of legacy, modern and advanced threat ASMs that provide EW PORs an integrated simulation capability through at-sea captive carry field trials with flyable simulators, digital ASM models and the Central Target Simulator (CTS) hardware-in-the-loop evaluation facility. The reliance of ENEWS assets by the Naval Sea Systems Command, Commander, Operational Test and Evaluation Force (COMOPTEVFOR), Office of Naval Research (ONR) and other EW Research, Development, Test and Evaluation (T&E) agencies speaks to the overall importance of this project. The project provides support and effectiveness evaluations for EW system designs, Engineering Test (ET), Development Test (DT), Operational Test (OT) events including and the development and utilization of techniques and tactics. In the past, ENEWS quick reaction capabilities have provided significant support and solutions in crisis situations such as the Libyan crises, Iran threat, Persian Gulf crisis, Operation Desert Shield/Storm and the ongoing Ukrainian Crisis developing in the Black Sea. Simulation Display (SIMDIS) is a modeling tool developed under the ENEWS Project to support visualization of test events. SIMDIS has been adopted by most Department of Defense (DoD) T&E ranges as an effective tool that provides two and three dimensional graphical and video displays of live and post-test event data for EW T&E. One of the primary threats to surface ships is ASM systems. The ENEWS Project is unique in that it is the only project within DoD dedicated to developing and providing realistic ASM assets to test and evaluate the effectiveness of shipboard EW systems and tactics against these type threats. The ENEWS Project is a critical part of the Office of the Secretary of Defense Test Resource Master Plan. This plan employs many of ENEWS assets for planning, analysis, testing, and verification of shipboard and off-board Electronic Warfare systems techniques and tactics. As part of its normal activities, ENEWS provides Development Test and Evaluation (DT&E), Operational Test and Evaluation (OT&E), and Follow-on Operational Test and Evaluation (FOT&E) support to the surface Navy for all ship classes. ENEWS provides support to multiple surface Navy programs including: Surface Electronic Warfare Improvement Program (SEWIP), Advanced-Offboard Electronic Warfare (AOEW), Nulka, Rapid Anti-ship Integrated Defense System, advanced Infrared (IR) decoys, decoy placement, ship Infrared signature and radar cross section measurements for surface combatants and other ship self-defense initiatives, including the Future Naval Capability process. In addition, ENEWS assets support effectiveness evaluations for North Atlantic Treaty Organization (NATO) ships' Electronic Warfare systems in joint allied exercises and joint EW exercises such as Rim of the Pacific (RIMPAC) and Northern Edge test events.

**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> Hardware Simulation Systems	3.324	3.326	3.392	0.000	3.392

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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
<b>Articles:</b>	-	-	-	-	-
<p><b>Description:</b> Maintain and perform hardware and software upgrades to the Effectiveness of Naval Electronic Warfare (EW) Systems (ENEWS) inventory of flyable and shore based Anti-Ship Missile (ASM) Electro-Optic/Infrared (EO/IR), Visible and Radio Frequency (RF) simulators and simulation systems. Perform periodic evaluation of IR and RF simulators to assess simulation operational performance and collect data for comparison with previously recorded data. Also includes development and maintenance of all simulator control consoles, captive-carry pods and power supplies.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete introduction of FY22 simulation asset into the Effectiveness of Naval Electronic Warfare (EW) Systems (ENEWS) inventory and prepare system for flight and field-testing.</li> <li>- Complete FY22 software upgrade to one Electro-Optic/Infrared (EO/IR) hardware simulator.</li> <li>- Continue to maintain custom instrumentation equipment such as digital data acquisition and ground truth systems.</li> <li>- Continue to maintain flight certifications and installation of systems in flyable captive carry pods for field-testing.</li> <li>- Continue to maintain and upgrade 22 hardware simulators, 6 programmable simulators, antenna test rig and associated simulator control panels to support SEWIP Block 3, and AOEW effectiveness evaluations. Maintenance and upgrades include integration of higher performance components for increased reliability and improved operation.</li> <li>- Initiate a software upgrade for one additional Electro-Optical hardware simulator.</li> <li>- Initiate and complete hardware upgrades for two RF and one EO/IR flyable simulators.</li> <li>- Initiate and complete the introduction one new simulation asset into ENEWS inventory and prepare the system for field testing.</li> </ul> <p><b>FY 2024 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete software upgrade for new Electro-Optical hardware simulator.</li> <li>- Continue to maintain custom instrumentation equipment such as digital data acquisition and ground truth systems.</li> <li>- Continue to maintain and upgrade 22 hardware simulators, 6 programmable simulators, antenna test rig and associated simulator control panels to support system effectiveness evaluations for EW Program of Record (PORs) such as SEWIP and AOEW. Maintenance and upgrades include integration of higher performance components for increased reliability and improved mission performance. Installation of specialized wiring and cables in test aircraft and maintaining flight certifications for captive-carry electronic pods.</li> </ul>					

**UNCLASSIFIED**

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
<ul style="list-style-type: none"> <li>- Initiate one new simulation asset into ENEWS inventory, prepare and certify system for field testing.</li> <li>- Initiate and complete software upgrade for Infrared (IR) hardware simulator to improve operational and mission performance.</li> <li>- Initiate and complete hardware upgrades for two RF and one EO/IR simulators.</li> </ul> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> There is no significant funding change from FY 2023 to FY 2024.</p>					
<p><b>Title:</b> Simulation Characterization, Verification and Requirements</p> <p align="right"><b>Articles:</b></p>					
<p><b>Description:</b> Provides for the generation of formal documentation of hardware-based Anti-Ship Missile (ASM) threat simulators. Develop reports that contain detailed descriptions and parametric data of the ASM threat simulators and compares the simulator's data to the actual threat's parametric data. Provide technical management functions in support of the ENEWS project; engineering and technical support requirements for the ASM simulators and upgrades to meet Development Test (DT)/Operational Test (OT) testing requirements, development of detailed test resource requirements and provides an interface between the Office of the Deputy Chief of Naval Operations for Information Warfare (OPNAV N2/N6), Office of Naval Research, and ENEWS oversight activities.</p> <p><b>FY 2023 Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete the two parametric comparison reports started in FY22.</li> <li>- Continue to develop reports that compare parametric data of ASCM threat simulators to the actual threat parametric data.</li> <li>- Continue to provide technical and management support to the ENEWS Project.</li> <li>- Continue to draft and submit monthly reports, performance based assessments and financial execution reports.</li> <li>- Initiate characterization testing for two additional RF simulators; draft test plans that identify and document the measurement parameters.</li> <li>- Initiate development of parametric verification report for one RF simulator.</li> </ul> <p><b>FY 2024 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete report comparing ASM simulator parametric data to threat parametric data for one RF simulator.</li> </ul>					
	0.800	0.502	0.517	0.000	0.517
	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>																							
<ul style="list-style-type: none"> <li>- Continue characterization testing and test data analysis for two RF simulators; develop verification reports to document parametric data comparison between simulators and threat systems.</li> <li>- Continue to provide technical and management support to the ENEWS Project.</li> <li>- Continue to draft and submit monthly and ad hoc reports and briefings, performance-based management assessments, apply risk reduction metrics, and financial execution reports.</li> <li>- Initiate characterization testing for one additional RF simulator; draft test plans that define test procedures and identify and document measurement parameters.</li> </ul>																							
<b>FY 2024 OCO Plans:</b> N/A																							
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> There is no significant funding change from FY 2023 to FY 2024.																							
<b>Title:</b> Support and Computers Simulation Systems																							
<b>Articles:</b>																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 65%;"></th> <th style="width: 8%;">FY 2022</th> <th style="width: 8%;">FY 2023</th> <th style="width: 8%;">FY 2024 Base</th> <th style="width: 8%;">FY 2024 OCO</th> <th style="width: 8%;">FY 2024 Total</th> </tr> </thead> <tbody> <tr> <td style="text-align: right;">2.524</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">-</td> <td style="text-align: center;">2.524</td> <td style="text-align: center;">2.448</td> <td style="text-align: center;">2.655</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">2.655</td> </tr> </tbody> </table>							FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	2.524						-	2.524	2.448	2.655	0.000	2.655
	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total																		
2.524																							
-	2.524	2.448	2.655	0.000	2.655																		
<p><b>Description:</b> Perform upgrades and preventative maintenance to Electro-Optic/Infrared, Digital, and Radio Frequency Laboratory Simulation Testing facilities including flight support equipment based on existing and emerging complex threat systems. Employ these simulation tools and assets into a total EW effectiveness methodology to evaluate EW systems effectiveness. Development of testing &amp; evaluation scenarios and environmental modeling to support Electronic Support (ES) and Electronic Attack (EA) testing and modify Anti-Ship Missile (ASM) threat simulators based on the latest data.</p>																							
<b>FY 2023 Plans:</b>																							
<ul style="list-style-type: none"> <li>- Complete migration of fifth closed-loop simulation and two open-loop captive-carry simulations.</li> <li>- Complete integration of replacement TAC into CTS and verify operation.</li> <li>- Complete integration and testing of new threat model.</li> <li>- Continue maintenance and upgrades to EO/IR, digital, and RF laboratory simulation test and evaluation facilities and flight support equipment to provide ES and EA test support to SEWIP Block 3 and AOEW programs.</li> <li>- Continue to maintain and update the ENEWS CRUISE_Missiles ASCM models in support of M&amp;S based EW testing for SEWIP Block 3, AOEW, and Navy Enterprise Testbed programs.</li> <li>- Continue updates to the Scenario and Environmental Model used to support open and closed loop simulations.</li> <li>- Continue upgrades to configuration control software library as new releases became available.</li> </ul>																							

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<ul style="list-style-type: none"> <li>- Continue to update and install new ship models into database and evaluate performance.</li> <li>- Continue upgrades and user friendly enhancements to the Simulation Display (SIMDIS) toolset.</li> <li>- Continue evaluation of various ship, Nulka, chaff models for issues, test and repair any anomalies discovered.</li> <li>- Continue to compare and verify the migration of existing missile simulations to the new real-time computer in the Central Target Simulator (CTS).</li> <li>- Continue development and upgrade of tools to execute digital modes for Navy studies and DT/OT test events.</li> </ul> <p><b>FY 2024 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue maintenance and upgrades to EO/IR, digital and RF laboratory simulation test and evaluation facilities and flight support equipment to provide Electronic Support (ES) and Electronic Attack (EA) test support to EW PORs.</li> <li>- Continue to maintain and update the ENEWS CRUISE_Missiles ASM models for use in Navy studies and Developmental Test (DT)/Operation Test (OT) test events. Updates performed on ENEWS models allow modeling &amp; simulation (M&amp;S) based EW testing for SEWIP Block 3, AOEW, Nulka Program, Navy Enterprise Testbed and Aegis Combat System Testbed (CSTB) programs.</li> <li>- Continue to update and install new ship models into ENEWS CRUISE_Missiles database and evaluate performance.</li> <li>- Continue to provide operational and maintenance (O&amp;M) support to Simulation Display (SIMDIS) toolset. Verify full compliance with all mandated security information assurance and vulnerability assessments (IAVAs). Maintain Risk Management Framework (RMF) Authority to Operate (ATO) and Consolidated Afloat Network Enterprise System (CANES) certifications.</li> <li>- Continue to maintain and update Scenario and Environmental models to support open and closed simulations.</li> <li>- Continue upgrades to configuration control software library as new releases became available.</li> <li>- Continue to compare and verify the migration of existing missile simulations to the new real-time computer in the Central Target Simulator (CTS).</li> <li>- Continue development and upgrade of tools to execute digital modes for Navy studies and DT/OT test events.</li> </ul> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> There is no significant funding change from FY 2023 to FY 2024.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	6.648	6.276	6.564	0.000	6.564

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0604256N / Threat Simulator Development	Project (Number/Name) 0672 / Effect Nav E/W (ENEWS)
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> Not applicable.		

**UNCLASSIFIED**

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

<b>Appropriation/Budget Activity</b> 1319 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0604256N / <i>Threat Simulator Development</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	35.815	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	35.815
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Congressional Add

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

	FY 2022	FY 2023
<b><i>Congressional Add:</i></b> C-band and S-band radar emulator upgrade for test infrastructure	35.815	0.000
<b><i>FY 2022 Accomplishments:</i></b> Initiate and complete upgrade of C-Band and S-Band radar signal emulators to closed loop radars.		
<b><i>FY 2023 Plans:</i></b> N/A		
<b>Congressional Adds Subtotals</b>	35.815	0.000

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

N/A

**Remarks**

**D. Acquisition Strategy**

Not required for Congressional Adds