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**Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy** **Date:** May 2021

<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 0605856N / <i>Strategic Technical Support</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	0.000	3.617	3.813	3.538	-	3.538	-	-	-	-	-	-
0128: <i>Mgmt/Tech Supt Strategic</i>	0.000	1.185	1.501	1.510	-	1.510	-	-	-	-	-	-
1038: <i>Acoustic &amp; Non-Acoustic Analysis Supt</i>	0.000	2.432	2.312	2.028	-	2.028	-	-	-	-	-	-

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

This program element supports technical studies and analyses as directed by the Director for Submarine Warfare to support major policy and procurement decisions. This program is divided into two elements to support decision making in the areas of submarine and antisubmarine warfare and undersea surveillance.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022 Base</u>	<u>FY 2022 OCO</u>	<u>FY 2022 Total</u>
Previous President's Budget	3.742	3.813	3.904	-	3.904
Current President's Budget	3.617	3.813	3.538	-	3.538
Total Adjustments	-0.125	0.000	-0.366	-	-0.366
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.125	0.000			
• Program Adjustments	0.000	0.000	-0.314	-	-0.314
• Rate/Misc Adjustments	0.000	0.000	-0.052	-	-0.052

**Change Summary Explanation**

The FY2022 funding request was reduced by \$0.314 million to account for the availability of prior year execution balances.

Internal realignment between PU 0128 and PU 1038 in FY21-FY25 that supports additional effort directed towards Tactical Submarine Evolution Plan (TSEP) requirements development for VIRGINIA Class Block VI/VII and follow-on attack submarines (SSNs), TSEP Analysis of Alternatives and Subsea and Seabed Warfare and Undersea Constellation plan development and supporting studies.

Technical: N/A

Schedule: N/A

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy										<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 1319 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605856N / <i>Strategic Technical Support</i>				<b>Project (Number/Name)</b> 0128 / <i>Mgmt/Tech Supt Strategic</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
0128: <i>Mgmt/Tech Supt Strategic</i>	0.000	1.185	1.501	1.510	-	1.510	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The project provides analytical support to the Director, Undersea Warfare Division as a basis for major policy, planning, and acquisition program decisions. It supports the development of the Submarine Force strategic vision to guide research and development investment strategy and future planning. Additionally, this line supports studies in the area of submarine and undersea surveillance missions, force structure, payloads and sensors, and force employment.

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

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Title:</b> MANAGEMENT AND TECHNICAL SUPPORT, STRATEGIC	1.185	1.501	1.510	0.000	1.510
<b>Articles:</b>	-	-	-	-	-
<b>FY 2021 Plans:</b>					
-Conduct analysis to identify and weigh options for addressing problems/challenges and assessing the impact across the strategic and conventional military spectrum with use of modeling and simulation, including projects such as Tactical Submarine Evolution Plan, Unmanned Undersea Vehicle (UUV)inventory and capabilities modeling, and Subsea and Seabed Warfare.					
- Anticipate emerging and future USW challenges, and lead effective assessment efforts to proactively address those challenges.					
-Provide analysis and support for development and implementation of the Undersea Constellation warfare area strategy.					
<b>FY 2022 Base Plans:</b>					
-Continue to conduct analysis to identify and weigh options for addressing problems/challenges and assessing the impact across the strategic and conventional military spectrum with use of modeling and simulation, including projects such as Tactical Submarine Evolution Plan, Unmanned Undersea Vehicle (UUV)inventory and capabilities modeling, and Subsea and Seabed Warfare.					
- Continue to anticipate emerging and future USW challenges, and lead effective assessment efforts to proactively address those challenges.					
-additional analysis and support for development and implementation of the Undersea Constellation warfare area strategy					
<b>FY 2022 OCO Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy	<b>Date:</b> May 2021
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<b>Appropriation/Budget Activity</b> 1319 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605856N / <i>Strategic Technical Support</i>	<b>Project (Number/Name)</b> 0128 / <i>Mgmt/Tech Supt Strategic</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
N/A					
<b><i>FY 2021 to FY 2022 Increase/Decrease Statement:</i></b> The FY21 to FY22 increase .009K in PROJ 0128 supports Unmanned Undersea Vehicle (UUV) inventory and capabilities modeling; in addition to Subsea and Seabed Warfare requirements as part of the internal realignment between PROJ 0128 and 1038 commencing in FY21-FY25. The FY21 to FY22 increase is due to additional analysis and support for development and implementation of the Undersea Constellation warfare area strategy					
<b>Accomplishments/Planned Programs Subtotals</b>	1.185	1.501	1.510	0.000	1.510

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

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Appropriation/Budget Activity</b> 1319 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605856N / <i>Strategic Technical Support</i>				<b>Project (Number/Name)</b> 1038 / <i>Acoustic &amp; Non-Acoustic Analysis Supt</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1038: <i>Acoustic &amp; Non-Acoustic Analysis Supt</i>	0.000	2.432	2.312	2.028	-	2.028	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

This project provides analytical support to the Director, Undersea Warfare as a basis for major policy, planning, and acquisition program decisions. It supports studies in the area of undersea surveillance missions, sensor system communications, and acoustic performance prediction systems, environmental and medical effects of acoustic systems, operational security, and future threat analysis. Supports synthetic mission lay down simulations for Integrated Undersea Surveillance System (IUSS) strategic planning and resource allocation. Supports continued development and documentation of architecture for future undersea surveillance capabilities and systems. Supports studies to determine long-term impact of IUSS active sensors on marine animals and development of Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA), and Compact LFA (CLFA).

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

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<b>Title:</b> ACOUSTIC AND NON-ACOUSTIC ANALYSIS SUPPORT	2.432	2.312	2.028	0.000	2.028
<b>Articles:</b>	-	-	-	-	-
<b>FY 2021 Plans:</b>					
-Continue comprehensive case analyses to establish a basis for understanding what impact, both positive and negative, our legacy tactical sonar systems and new ASB capability deliveries have on fleet operations. Continue to contribute to OWR.					
- Continue data set identification and production as the sole source for real-world data to enable advanced development initiatives which span Defense Advanced Research Projects Agency (DARPA), Office of Naval Research (ONR), Integrated Warfare Systems (IWS), Space & Naval Warfare Systems Command (SPAWAR), Naval Research Laboratory (NRL), and others to bring critically needed new capabilities and capability improvements to the IUSS community.					
- Provide support for requirements development for the Integrated Undersea Surveillance Systems family of systems provided by fixed, mobile, deployable sensors, integrated common processor, and the advanced surveillance builds.					
- Provide support on IUSS systems in the gate and JCIDS process, including IUSS Deployable family of systems.					
- Provide analyses in support of IUSS Future Plan and Maritime Surveillance Evolution Plan.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy		<b>Date:</b> May 2021
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<p>-Provide analysis and support for development and implementation of the Undersea Constellation warfare area strategy.</p> <p><b>FY 2022 Base Plans:</b></p> <ul style="list-style-type: none"> <li>-To continue comprehensive case analyses to establish a basis for understanding what impact, both positive and negative, our legacy tactical sonar systems and new ASB capability deliveries have on fleet operations. Continue to contribute to OWR.</li> <li>- To continue data set identification and production as the sole source for real-world data to enable advanced development initiatives which span Defense Advanced Research Projects Agency (DARPA), Office of Naval Research (ONR), Integrated Warfare Systems (IWS), Space &amp; Naval Warfare Systems Command (SPAWAR), Naval Research Laboratory (NRL), and others to bring critically needed new capabilities and capability improvements to the IUSS community.</li> <li>- To provide support for requirements development for the Integrated Undersea Surveillance Systems family of systems provided by fixed, mobile, deployable sensors, integrated common processor, and the advanced surveillance builds.</li> <li>- To provide support on IUSS systems in the gate and JCIDS process, including IUSS Deployable family of systems.</li> <li>- To provide analyses in support of IUSS Future Plan and Maritime Surveillance Evolution Plan.</li> <li>- To provide analysis and support for development and implementation of the Undersea Constellation warfare area strategy.</li> </ul> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> The FY21 to FY22 \$.284K decrease reduces the amount of analyses supporting Undersea Constellation warfare strategy development</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	2.432	2.312	2.028	0.000	2.028

<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>

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**D. Acquisition Strategy**  
N/A