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

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</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	127.815	14.945	16.337	109.485	-	109.485	85.070	29.075	22.621	23.011	Continuing	Continuing
1130: <i>Expeditionary Loitering Munitions Capability Development</i>	0.000	0.000	0.000	93.600	-	93.600	64.047	13.062	9.182	9.301	Continuing	Continuing
3326: <i>NSW Rapid Capabilities Development for CIEC</i>	57.469	8.962	8.181	12.159	-	12.159	17.074	11.995	9.654	9.847	Continuing	Continuing
3445: <i>Visual Augmentation System Development</i>	0.000	1.142	1.184	1.248	-	1.248	1.261	1.289	1.314	1.342	Continuing	Continuing
3446: <i>Expeditionary sUAS Development</i>	0.000	0.244	1.273	0.687	-	0.687	0.882	0.887	0.590	0.602	Continuing	Continuing
4011: <i>Naval Coastal Warfare Surv and C4I Sys</i>	50.919	0.781	0.803	0.849	-	0.849	0.856	0.871	0.890	0.907	Continuing	Continuing
9999: <i>Congressional Adds</i>	6.753	2.894	4.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	13.647
9C86: <i>Combatant Craft Replacement</i>	12.674	0.922	0.896	0.942	-	0.942	0.950	0.971	0.991	1.012	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Rapid Capabilities Development (RCD) program supports the Naval Special Warfare (NSW) Branch by identifying and assessing available technologies that confront current and future irregular and expeditionary warfare challenges. Program development efforts focus on the enhancement/advancement of existing technologies to fill urgent and emergent capability gaps for NSW. Program funding provides for the development, integration, testing, validation, combat demonstration, and evaluation of identified technologies to meet operational requirements; service-common and NSW program technology challenges; and technology obsolescence issues of developed capabilities.

The RCD program develops expeditionary/operational capabilities that enable NSW forces to conduct joint cross-domain special reconnaissance, counterterrorism, direct action, amphibious and irregular warfare, and fulfill urgent/emergent needs within a 9-36 month timeframe.

As part of the Naval Coastal Warfare Surveillance program, Identity Dominance System (IDS) supports the Joint Personnel Identity (JPI) program. Maritime Expeditionary Security Force (MESF) have a mobile security mission that requires methodologies, procedures, equipment and the communications capacity to identify individuals who represent a potential threat as a means to deter and eliminate individuals from conducting asymmetric/non-traditional attacks upon friendly forces, high value assets and coastal areas that Naval Coastal Warfare (NCW) is charged with protecting. The Visit, Board, Search and Seizure (VBSS) teams conducting Expanded Maritime Interception Operations also have a similar requirement to identify individuals. The development of a device to support identity functions is captured in the

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<p>IDS Capability Development Document (CDD) and implemented in the IDS Capability Production Document (CPD). IDS units are used in the following environments: aboard ships, ashore at ports, the littorals, and extended inland field environments worldwide. IDS is employed in both maritime and very austere ashore environments, carried by individuals who are part of ship boarding parties and by dismounted patrols. These mission and environmental requirements demand the need for a portable, lightweight, ruggedized, and reliable system with intuitive and user friendly features. IDS biometric modalities may differ by mission profile, requiring the authoritative response to the On-Scene Commander/Boarding Officer on whether to detain or further investigate an individual of interest or engage in a more thorough search of boarded ships.</p> <p>The United States Navy Service Common Visual Augmentation Systems (VAS) Program of Record manages, procures, and maintains night vision devices, thermal detection devices, day/night weapons optics, and lasers in support of Navy combat capabilities with regard to the detection, recognition, classification, tracking, and destruction of hostile air and surface forces. The USN VAS Program also manages research into the future of visual augmentation systems and engages with Navy and DoD VAS stakeholders to ensure the Navy maintains competitive advantage over near-peer adversaries.</p> <p>Combatant Craft Replacement will provide next generation Expeditionary Multi Mission Craft that will replace in-service Expeditionary Combatant Craft. Combatant Craft replacements shall forward deploy and persistently engage in order to dominate in the Littorals and reinforce Distributed Maritime Operations Lethality, they gain access to as well as CLEAR the battlespace of unexploded ordnance and other man-made or natural hazards and SECURE and PROTECT critical infrastructure and their approaches from the sea for naval platforms as they conduct operations. These capabilities are critical to Navy employment of modern warfare concepts, including Distributed Maritime Operations (DMO), Expeditionary Advanced Base Operations (EABO), and Littoral Operations in a Contested Environment (LOCE). Specific mission and capabilities will be identified in an Initial Capabilities Document (ICD) or Letter of Requirements. RDT&E funding will fund feasibility studies and procurement of mock-ups and prototype craft and craft and mission support technology to demonstrate capabilities prior to production craft procurement.</p> <p>The Diesel Fuel Outboard Motor Testing project supports the transition of the FY 2015 Rapid Innovation Fund "Affordable Multi-fuel Multi-engine Advanced Combatant Craft" program to the Explosive Ordnance Disposal Force. This technology minimizes the types of fuel required to increase standardization, flexibility, and interoperability during deployment while at the same time reduces total ownership cost. Testing of this technology shall determine the operational viability and any changes required to boat design to ensure safety and suitability.</p> <p>DRAKE is the shipboard Counter-Unmanned Aircraft System (CUAS) to meet the CUAS Afloat Top Level Requirements (TLR). Funds will be used to develop, test, and integrate COTS-based hardware, software, and advanced techniques into DRAKE; thus improving its capability to detect, identify, and defeat UAS that threaten ships. Upgrades include hardware refresh with faster COTS processors to increase processing speed and reaction time (NextGen SDR), a COTS tablet (CDU 2.0) to improve situational awareness, and evaluation of COTS antennas to improve detection and defeat of UAS.</p> <p>Project GOAL KEEPER is a Navy loitering munition program designed to meet an urgent Geographic Combatant Command Requirement. FY24 RDTEN funding will be used to fund the final technology demonstration, test articles, the Operational Assessment, and safety certification.</p>		

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>
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B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	13.167	12.337	12.499	-	12.499
Current President's Budget	14.945	16.337	109.485	-	109.485
Total Adjustments	1.778	4.000	96.986	-	96.986
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	4.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.222	0.000			
• Program Adjustments	2.000	0.000	96.650	-	96.650
• Rate/Misc Adjustments	0.000	0.000	0.336	-	0.336

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

Project: 9999: *Congressional Adds*

Congressional Add: *Operational deployment of diesel-fueled outboard marine motors*

Congressional Add: *NSW unmanned vehicle development*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	FY 2022	FY 2023
Congressional Add: <i>Operational deployment of diesel-fueled outboard marine motors</i>	2.894	0.000
Congressional Add: <i>NSW unmanned vehicle development</i>	0.000	4.000
Congressional Add Subtotals for Project: 9999	2.894	4.000
Congressional Add Totals for all Projects	2.894	4.000

Change Summary Explanation

FY 2022: *-\$0.222M Small Business Innovation Research (SBIR), +\$2.000M Ukraine Supplemental, -\$0.001M misc. rate adjustment*

FY 2023: *+\$4.000M Congressional add NSW Unmanned Vehicle Development*

FY 2024: *+\$3.250M (PROJ: 3226) Cognitive Router Capability; +93.4M (PROJ: 1130) Expeditionary Loitering*

Munitions Capability Development, +\$0.088M misc. rate adjustment 4011 Naval Coastal Warfare Surv and C4I Sys, +\$0.046M misc. rate adjustment

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development			
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
1130: Expeditionary Loitering Munitions Capability Development	0.000	0.000	0.000	93.600	-	93.600	64.047	13.062	9.182	9.301	Continuing	Continuing
Quantity of RDT&E Articles		-	-	160	-	160	-	-	-	-		

Note

This program is not a new start. Project 1130 Expeditionary Loitering Munitions Capability Development (GOALKEEPER) is transitioning from PE 0603382N, PU 3423 LOCUST, an Innovative Naval Prototype under the Office of Naval Research.

A. Mission Description and Budget Item Justification

Project GOALKEEPER is a Navy loitering munition program designed to meet a Geographic Combatant Commander Joint Emergent Operational Need (JEON). GOALKEEPER will leverage and continue prior development efforts including an Office of Naval Research (ONR) Innovative Naval Prototype (INP). The Navy is pursuing a commercial-off-the-shelf solution with autonomous government-provided software and a government-provided launcher system. The system will be expeditionary and deployable by small teams to support operations in various environments. The system architecture shall be modular and extensible to allow for capability upgrades and periodic technology refresh.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: PRODUCT DEVELOPMENT	0.000	0.000	75.100	0.000	75.100
Articles:	-	-	-	-	-
Description: Project GOALKEEPER is a Navy loitering munition program designed to meet a Geographic Combatant Commander Joint Emergent Operational Need (JEON). GOALKEEPER will leverage and continue prior development efforts including an Office of Naval Research (ONR) Innovative Naval Prototype (INP). The Navy is pursuing a commercial-off-the-shelf solution with autonomous government-provided software and a government-provided launcher system. The system will be expeditionary and deployable by small teams to support operations in various environments.					
FY 2023 Plans: N/A					
FY 2024 Base Plans: Fabricate All Up Rounds hardware (160 units) for operational, certification, and developmental testing and initial production demonstration. Complete software, warhead, launcher, and Automatic Target Recognition (ATR)					

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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
development. Complete vulnerability analysis. Perform production readiness and supply base assessments, finalize production line stand-up and non-recurring engineering, complete production technical data packages, system readiness plans, operational training materials, and in-service support plans. FY 2024 OCO Plans: N/A FY 2023 to FY 2024 Increase/Decrease Statement: Increase due to the transition of an ONR Innovative Naval Prototype to an Urgent Capability Acquisition Pathway, including hardware fabrication, software development, production readiness efforts, and completion of technical data packages and supporting system materials.					
Title: TEST AND EVALUATION Description: Project GOALKEEPER is a Navy loitering munition program designed to meet a Geographic Combatant Commander Joint Emergent Operational Need (JEON). GOALKEEPER will leverage and continue prior development efforts including an Office of Naval Research (ONR) Innovative Naval Prototype (INP). The Navy is pursuing a commercial-off-the-shelf solution with autonomous government-provided software and a government-provided launcher system. The system will be expeditionary and deployable by small teams to support operations in various environments. FY 2023 Plans: N/A FY 2024 Base Plans: Conduct developmental testing, certification testing, operational testing, munitions qualification, and software validation/verification. Provide test ranges and test support. FY 2024 OCO Plans: N/A FY 2023 to FY 2024 Increase/Decrease Statement: Increase due to the transition of an ONR Innovative Naval Prototype to an Urgent Capability Acquisition Pathway, including test ranges, test support resources and equipment, system qualification and verification, and developmental and operational test execution.	0.000	0.000	14.500	0.000	14.500
Articles:	-	-	-	-	-
Title: PROGRAM MANAGEMENT	0.000	0.000	4.000	0.000	4.000

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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Articles:	-	-	-	-	-
<p>Description: Project GOALKEEPER is a Navy loitering munition program designed to meet a Geographic Combatant Commander Joint Emergent Operational Need (JEON). GOALKEEPER will leverage and continue prior development efforts including an Office of Naval Research (ONR) Innovative Naval Prototype (INP). The Navy is pursuing a commercial-off-the-shelf solution with autonomous government-provided software and a government-provided launcher system. The system will be expeditionary and deployable by small teams to support operations in various environments.</p> <p>FY 2023 Plans: N/A</p> <p>FY 2024 Base Plans: Provide program management, acquisition, logistics, and technical oversight of contractor fabrication efforts and production readiness. Review and approve contract deliverables, design products, and manufacturing processes. Provide management of system testing, qualifications, and safety certifications. Manage Government-furnished equipment. Execute contract actions and develop acquisition plans and documentation.</p> <p>FY 2024 OCO Plans: N/A</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase due to the transition of an ONR Innovative Naval Prototype to an Urgent Capability Acquisition Pathway, including personnel and resources to manage/oversee the contract, acquisition documents, and technical data products.</p>					
Accomplishments/Planned Programs Subtotals	0.000	0.000	93.600	0.000	93.600

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

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PANMC/1776: EXPEDITIONARY LOITERING MUNITIONS	0.000	13.000	249.575	-	249.575	510.005	0.000	0.001	0.232	0.000	772.813

Remarks

Concurrent RDTEN and PANMC funding is due to the completion of operational assessment and initiation of full rate production.

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D. Acquisition Strategy

Project GOALKEEPER is a Navy loitering munition program designed to meet a Geographic Combatant Commander Joint Emergent Operational Need (JEON). Project GOALKEEPER is an Urgent Capability Acquisition Pathway (UCAP) that will leverage and continue prior development efforts including an Office of Naval Research (ONR) Innovative Naval Prototype (INP), as well as the simultaneous use of RD TEN and PANMC to meet the operational timeline for capability fielding. Concurrent RD TEN and PANMC funding is due to the urgent need to begin production, mitigate supply chain challenges, and stabilize a system baseline design that can be procured while software spiral development, optimized warhead development, and test and evaluation are completed. The system architecture shall be modular and extensible to allow for capability upgrades and periodic technology refresh. The GOALKEEPER program will transition the solution developed under the ONR INP in order to meet the JEON fielding timeline. A Technical Data Package is under development to allow for industry competition if this effort transitions into a program of record.

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development
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Product Development (\$ in Millions)				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
Automatic Target Recognition	C/CPFF	Aeroenvironment : Simi Valley, CA	0.000	0.000		0.000		4.600	Nov 2023	-		4.600	Continuing	Continuing	Continuing
Software development	C/CPFF	GTRI : Atlanta, GA	0.000	0.000		0.000		7.500	Nov 2023	-		7.500	Continuing	Continuing	Continuing
Launcher Design	WR	NSWC Panama City : Panama City, FL	0.000	0.000		0.000		2.500	Oct 2023	-		2.500	Continuing	Continuing	Continuing
Warhead Development	WR	NSWC IHD : Indian Head, MD	0.000	0.000		0.000		1.500	Oct 2023	-		1.500	Continuing	Continuing	Continuing
All Up Round Hardware	SS/CPFF	Raytheon : Waltham, MA	0.000	0.000		0.000		43.900	Nov 2023	-		43.900	0.000	43.900	-
Vulnerability Analysis	WR	NSWC Carderock : Bethesda, MD	0.000	0.000		0.000		1.300	Oct 2023	-		1.300	Continuing	Continuing	Continuing
Production Readiness	Various	Raytheon : Waltham, MA	0.000	0.000		0.000		11.200	Dec 2023	-		11.200	Continuing	Continuing	Continuing
Training Development	TBD	Raytheon : Waltham, MA	0.000	0.000		0.000		2.600	Nov 2023	-		2.600	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		75.100		-		75.100	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				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
Operational Test & Evaluation (OT&E)	WR	San Clemente Island : San Clemente Is. CA	0.000	0.000		0.000		2.250	Nov 2023	-		2.250	0.000	2.250	-
Operational Test & Evaluation (OT&E)	WR	MCOTEA : Quantico, VA	0.000	0.000		0.000		1.250	Oct 2023	-		1.250	0.000	1.250	-
Developmental Test & Evaluation (DT&E)	WR	NSWC IHD : Indian Head, MD	0.000	0.000		0.000		1.500	Nov 2023	-		1.500	0.000	1.500	-
Operational Test & Evaluation (OT&E)	Various	Raytheon : Waltham, MA	0.000	0.000		0.000		8.000	Nov 2023	-		8.000	0.000	8.000	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy											Date: March 2023				
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System					Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development				

Test and Evaluation (\$ in Millions)				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	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	0.000	0.000		0.000		1.500	Nov 2023	-		1.500		0.000	1.500	-
Subtotal			0.000	0.000		0.000		14.500		-		14.500		0.000	14.500	N/A

Remarks

Operational Assessment to be conducted with test assets purchased in FY23 under PE 0603382N PU 3423

Management Services (\$ in Millions)				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	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Management	TBD	TBD : TBD	0.000	0.000		0.000		4.000	Oct 2023	-		4.000		Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		4.000		-		4.000		Continuing	Continuing	N/A

	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			0.000	0.000		0.000		93.600		-		93.600	Continuing	Continuing	N/A

Remarks

Schedule on the next page reflects event timeline required to meet Initial Operating Capability (IOC) and Full Operating Capability (FOC) dates. Program is currently leveraging FY23 funding under PE 0603382N, PU 3423 LOCUST, an Innovative Naval Prototype under the Office of Naval Research to transition efforts depicted in the schedule.

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development
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Proj 1130	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Loitering Munition Development ONR INP (PE 0603382N PU 3423)									ATR, Software, Launcher, and Warhead Final Integration																			
System Transition									All Up Round Hardware Fabrication for Test				Technology Development															
Test and Evaluation									Training Development																			
									Operational Assessment																			
									Developmental Test and System Certification																			
Production Readiness									Production Readiness																			
Production (PANMC LI 1776)									Option Award ▼				Option Award ▼				IOC ▲				Option Award ▼				FOC ▲			
									Production																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 1130 / Expeditionary Loitering Munitions Capability Development

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 1130				
Loitering Munition Development: ONR INP (PE 0603382N PU 3423): ONR INP	1	2022	4	2023
Loitering Munition Development: System Transition: ATR, Software, Launcher, and Warhead Final Integration	1	2024	2	2024
Loitering Munition Development: System Transition: All Up Round Hardware Fabrication for Test	1	2024	2	2024
Loitering Munition Development: System Transition: Technology Development	1	2025	4	2028
Loitering Munition Development: System Transition: Training Development	1	2024	4	2025
Loitering Munition Development: Test and Evaluation: Operational Test	1	2024	2	2024
Loitering Munition Development: Test and Evaluation: Developmental Test	1	2024	4	2025
Loitering Munition Development: Production Readiness: Production Readiness	1	2024	2	2024
Loitering Munition Development: Production (PANMC LI 1776): Milestone	4	2025	4	2025
Loitering Munition Development: Production (PANMC LI 1776): Milestone2	4	2026	4	2026
Loitering Munition Development: Production (PANMC LI 1776): Award1	2	2024	2	2024
Loitering Munition Development: Production (PANMC LI 1776): Award2	2	2025	2	2025
Loitering Munition Development: Production (PANMC LI 1776): Award3	2	2026	2	2026
Loitering Munition Development: Production (PANMC LI 1776): Production	2	2024	4	2026

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Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 3326 / NSW Rapid Capabilities Development for CIEC			
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
3326: NSW Rapid Capabilities Development for CIEC	57.469	8.962	8.181	12.159	-	12.159	17.074	11.995	9.654	9.847	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Rapid Capabilities Development (RCD) program supports the Naval Special Warfare (NSW) Branch by identifying and assessing available technologies that confront current and future irregular and expeditionary warfare challenges. Program development efforts focus on the enhancement/advancement of existing technologies to fill urgent and emergent capability gaps for NSW. Program funding provides for the development, integration, testing, validation, combat demonstration, and evaluation of identified technologies to meet operational requirements; service-common and NSW program technology challenges; and technology obsolescence issues of developed capabilities.

The RCD program develops expeditionary/operational capabilities that enable NSW forces to conduct joint cross-domain special reconnaissance, counterterrorism, direct action, amphibious and irregular warfare, and fulfill urgent/emergent needs within a 9-36 month timeframe.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Navy Irregular Warfare	8.962	8.181	12.159	0.000	12.159
Articles:	-	-	-	-	-
FY 2023 Plans: FY 2023 \$8.181M funding will utilize:					
\$3.250M for Cognitive Router Future Naval Capability (FNC) designed to provide an artificial intelligence-enabled routing node comprised of acoustic and optical underwater modems, Radio Frequency (RF) radios, and vehicle autonomy instantiated on Unmanned Underwater Vehicles (UUVs) to create a robust and clandestine low-latency cross-domain network.					
\$3.897M for manned/unmanned systems payload development (fiber optic, scalable effects (kinetic/non-kinetic), data security) designed to improve operator situational awareness, tactical maneuver, improved digital security, and lethality on the battlefield; machine learning designed to supplement human decision-making, communications and navigation in denied environments; and integration of these systems aboard NSW undersea and surface mobility assets and systems.					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3326 / NSW Rapid Capabilities Development for CIEC

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<p>\$1.034M for continuing advancement of FY22/23 prototyping efforts and field evaluation of developing technologies, and Broad Area Announcement, Small Business Innovative Research processes for the identification of technologies that enhance and/or accelerate expeditionary and irregular capabilities in support of NSW capability challenges.</p> <p>FY 2024 Base Plans: FY 2024 \$12.159M funding will utilize:</p> <p>\$6.00M for Cognitive Router FNC designed to provide an artificial intelligence-enabled routing node comprised of acoustic and optical underwater modems, RF radios, and vehicle autonomy instantiated on UUVs to create a robust and clandestine low-latency cross-domain network.</p> <p>\$5.069M for manned/unmanned systems payload development (fiber optic, scalable effects (kinetic/non-kinetic), data security) designed to improve operator situational awareness, tactical maneuver, improved digital security, and lethality on the battlefield; machine learning designed to supplement human decision-making, communications and navigation in denied environments; and integration of these systems aboard NSW undersea and surface mobility assets and systems.</p> <p>\$1.09M for continuing advancement of FY23/24 prototyping efforts and field evaluation of developing technologies, and Broad Area Announcement, Small Business Innovative Research processes for the identification of technologies that enhance and/or accelerate expeditionary and irregular capabilities in support of NSW capability challenges.</p> <p>FY 2024 OCO Plans: N/A</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Per signed agreement between OPNAV N95 and Office of Naval Research (ONR), funding increase from FY23 (\$8.181M) to FY24 (\$12.159M) is due to support the FY23 ONR-approved Future Naval Capability project (\$3.250M), Cognitive Router, and development of artificial intelligence, machine learning, and unmanned systems' payloads that enable manned, unmanned teaming concepts of operations.</p>					
Accomplishments/Planned Programs Subtotals	8.962	8.181	12.159	0.000	12.159

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3326 / NSW Rapid Capabilities Development for CIEC

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

N/A

Remarks

D. Acquisition Strategy

Conduct initial validation of component-specific capability gaps. Identify technical requirements necessary to meet immediate and future warfighter needs; integrate existing unique and/or related capabilities that can best meet the identified operational requirements; conduct test and evaluation; and then demonstrate in real time and/or during planned operations within a 9-36 month period. Endeavor to leverage existing mature technologies to take advantage of investments already made to reduce cost and time to market; and seek out cost-sharing opportunities with other resource sponsors to make program funding more effective for the end-user.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy											Date: March 2023				
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System					Project (Number/Name) 3326 / NSW Rapid Capabilities Development for CIEC				

Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Spt	C/CPFF	Dell : Washington, DC	0.625	0.000		0.000		0.000		-		0.000	0.000	0.625	-
Program Management Spt	C/CPAF	Cydecor : Arlington, VA	0.655	0.075	Jan 2022	0.000		0.087	Jan 2024	-		0.087	Continuing	Continuing	Continuing
Travel	WR	NAVSEA/HQ : Washington, DC	0.499	0.015	Oct 2021	0.025	Oct 2022	0.025	Oct 2023	-		0.025	Continuing	Continuing	Continuing
Program Management Spt	WR	NAVSEA/HQ : Washington, DC	0.256	0.000		0.063	Oct 2022	0.020	Oct 2023	-		0.020	0.000	0.339	-
Program Management Spt	WR	NSWC : Crane, IN	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
Program Management Spt	WR	NSWC : Dahlgren, VA	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Program Management Spt	WR	NSWC : Panama City, FL	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Program Management Spt	WR	NSWC : Carderock, MD	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Program Management Spt	WR	NUWC : Newport, RI	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Subtotal			2.535	0.090		0.088		0.132		-		0.132	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	WR	NUWC : Newport, RI	5.015	1.944	Dec 2021	1.385	Oct 2022	2.400	Feb 2024	-		2.400	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAWC : China Lake, CA	0.595	0.000		0.000		0.000		-		0.000	0.000	0.595	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC : Carderock, MD	2.032	0.000		0.000		0.000		-		0.000	0.000	2.032	Continuing
Developmental Test & Evaluation (DT&E)	SS/CPFF	ARL/UT : Austin, TX	2.077	1.150	Dec 2021	1.129	Oct 2022	2.400	Dec 2023	-		2.400	Continuing	Continuing	Continuing

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3326 / NSW Rapid Capabilities Development for CIEC
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Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	SPAWAR : San Diego, CA	2.450	0.000		0.000		0.000		-		0.000	0.000	2.450	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	SPAWAR : Charleston, SC	1.050	0.000		0.000		0.000		-		0.000	0.000	1.050	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/FFP	ARL/PSU : State College, PA	1.540	0.000		0.000		0.000		-		0.000	0.000	1.540	Continuing
Developmental Test & Evaluation (DT&E)	WR	NRL : Washington, DC	1.915	0.943	Dec 2021	1.100	Oct 2022	1.400	Dec 2023	-		1.400	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC : Indian Head, MD	1.862	0.000		0.000		0.000		-		0.000	0.000	1.862	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	2.275	0.172	Jun 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC : Panama City, FL	0.539	0.186	Jun 2022	2.694	Oct 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	NSWC : Dahlgren, VA	3.090	0.000		0.000		0.000		-		0.000	0.000	3.090	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	APL/JHU : Laurel, MD	0.327	0.000		0.000		0.000		-		0.000	0.000	0.327	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	Army Research Lab. : Adelphia, MD	0.247	0.000		0.000		0.000		-		0.000	0.000	0.247	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	PNNL : Richland, WA	0.130	0.000		0.000		0.000		-		0.000	0.000	0.130	-

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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 0604230N / Warfare Support System					3326 / NSW Rapid Capabilities Development for CIEC					
Test and Evaluation (\$ in Millions)				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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	Georgia Tech : Atlanta, GA	1.634	0.000		0.000		0.000		-		0.000	0.000	1.634	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	Charles River : Cambridge, MA	0.521	0.000		0.000		0.000		-		0.000	0.000	0.521	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	L3 Comm : Burlington, MA	0.972	0.000		0.000		0.000		-		0.000	0.000	0.972	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	QinetiQ NA : Waltham, MA	0.704	0.000		0.000		0.000		-		0.000	0.000	0.704	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAVAIR : Patuxent, MD	1.335	0.000		0.000		0.000		-		0.000	0.000	1.335	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	Strategos Consulting : Coronado, Ca	0.178	0.000		0.000		0.000		-		0.000	0.000	0.178	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAVAIR : San Diego, CA	0.425	0.000		0.000		0.000		-		0.000	0.000	0.425	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	NSMA : Wash, DC	3.069	0.000		0.000		0.000		-		0.000	0.000	3.069	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	Advanced Systems : Manassas, VA	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	NAVSEA : Washington, DC	3.260	0.000		0.000		0.000		-		0.000	0.000	3.260	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC : Crane, IN	1.136	0.091	May 2022	0.000		0.000		-		0.000	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 0604230N / Warfare Support System				3326 / NSW Rapid Capabilities Development for CIEC							
Test and Evaluation (\$ in Millions)				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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Reqn	ANL : Chicago, IL	0.114	0.000		0.000		0.000		-		0.000	0.000	0.114	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NUWC : Keyport, RI	0.348	0.000		0.000		0.000		-		0.000	0.000	0.348	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	General Atomics : San Diego, CA	1.923	0.000		0.000		0.000		-		0.000	0.000	1.923	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	ASSETT : Manassas, VA	1.032	0.000		0.000		0.000		-		0.000	0.000	1.032	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	Battelle : Columbus, OH	1.869	0.000		0.000		0.000		-		0.000	0.000	1.869	-
Developmental Test & Evaluation (DT&E)	SS/CPFF	WHOI : Woods Hole, MA	0.225	1.212	Jun 2022	0.000		2.500	Jan 2024	-		2.500	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	Boeing : Seattle, WA	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	AeroVironment : Monrovia, CA	0.525	0.000		0.000		0.000		-		0.000	0.000	0.525	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	Northrup Grumman : Falls Church, VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	IN POWER : Morrisville, NC	0.292	0.000		0.000		0.000		-		0.000	0.000	0.292	-
Developmental Test & Evaluation (DT&E)	WR	NSWC : Panama City, FL	1.368	0.438	Jan 2022	0.250	Oct 2022	0.725	Nov 2023	-		0.725	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC : Corona, CA	0.133	0.000		0.000		0.000		-		0.000	0.000	0.133	-

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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 0604230N / Warfare Support System				3326 / NSW Rapid Capabilities Development for CIEC							
Test and Evaluation (\$ in Millions)				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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	MIPR	Army : Ft Belvoir Va	1.295	0.000		0.070	Oct 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Reqn	NPS : Dayton OH	1.400	0.000		0.000		0.000		-		0.000	0.000	1.400	-
Developmental Test & Evaluation (DT&E)	MIPR	DTIC : FT Belvoir Va	2.200	0.102	Jun 2022	0.945	Oct 2022	0.602	Jun 2024	-		0.602	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	DLA : Ft Belvoir Va	2.840	0.369	Jun 2022	0.520	Oct 2022	2.000	Jan 2024	-		2.000	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	MIPR	WPAB : Wright Patterson, OH	0.542	0.065	Nov 2021	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	SS/CPFF	Paragon Space : Tucson, AZ	0.000	0.200	Jul 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Crane : Crane, IN	0.000	1.341	Aug 2022	0.000		0.000		-		0.000	0.000	1.341	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPAF	DTIC : FT Belvoir, VA	0.000	0.659	Aug 2022	0.000		0.000		-		0.000	0.000	0.659	-
Subtotal			54.934	8.872		8.093		12.027		-		12.027	Continuing	Continuing	N/A
Project Cost Totals			57.469	8.962		8.181		12.159		-		12.159	Continuing	Continuing	N/A
Remarks															
+\$4M added for FY23 for PE 0604230N/C884 NSW Unmanned Vehicle Development C5RC															

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>	Project (Number/Name) 3326 / <i>NSW Rapid Capabilities Development for CIEC</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3326				
System Development: Technology Assessments/Demonstrations	1	2022	4	2024
System Development: Test and Evaluations	1	2022	4	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 3445 / Visual Augmentation System Development			
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
3445: Visual Augmentation System Development	0.000	1.142	1.184	1.248	-	1.248	1.261	1.289	1.314	1.342	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The United States Navy Service Common Visual Augmentation Systems (VAS) Program of Record manages, procures, and maintains night vision devices, thermal detection devices, day/night weapons optics, and lasers in support of Navy combat capabilities with regard to the detection, recognition, classification, tracking, and destruction of hostile air and surface forces. The USN VAS Program also manages research into the future of visual augmentation systems and engages with Navy and DoD VAS stakeholders to ensure the Navy maintains competitive advantage over near-peer adversaries.

Research, Development, Test and Evaluation, Navy funding provides the United States Navy Service Common Visual Augmentation Systems (VAS) Program of Record with the ability to maintain competitive advantage over the nation's near peer adversaries by leveraging the military research community, other DoD VAS programs, academia and commercial industry in order to transition mature technologies (active, passive, multi-domain imaging sensors, laser systems, display systems, optics, image processing) that align with US Navy and DoD priorities.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Visual Augmentation Systems	1.142	1.184	1.248	0.000	1.248
Articles:	-	-	-	-	-
FY 2023 Plans: VAS RDT&E efforts to address the following DoN VAS capability gaps in addition to assessment for projections of any future capability gaps: Flight/Well Deck Crew Binocular Night Vision Device (BNVD) Long Range Night Vision Sight for Ship's Navigation Ranging Device Laser Designator Option Thermal Family of Systems Small Arms Collimator Future Capability Assessment					
FY 2024 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3445 / Visual Augmentation System Development

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
VAS RDT&E efforts to continue to address the following DoN VAS Capability gaps in addition to continue to monitor/determine inventory for potential future capability gaps: Long Range Night Vision Sight for Ship's Navigation Laser Family of Systems / Ranging and Designators Thermal Family of Systems Small Arms Collimator Future Capability Assessment FY 2024 OCO Plans: N/A FY 2023 to FY 2024 Increase/Decrease Statement: The slight increase in funding from FY23 to FY24 is due to support increases.					
Accomplishments/Planned Programs Subtotals	1.142	1.184	1.248	0.000	1.248

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN/8128: NCW Forces Active	107.448	107.372	108.901	-	108.901	122.971	120.019	122.098	124.946	Continuing	Continuing

Remarks

D. Acquisition Strategy

DoN VAS Service Common VAS RDT&E efforts to support modernization/standardization of VAS equipment and address DoN VAS capability gaps and legacy/obsolescence projections to fill in any further capability gaps.

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3445 / Visual Augmentation System Development
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Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Crane : Crane, IN	0.000	0.210	Nov 2021	0.000		0.000		-		0.000	0.000	0.210	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	0.000	0.059	Nov 2021	0.566	Jan 2023	0.312	Nov 2023	-		0.312	0.000	0.937	-
Operational Test & Evaluation (OT&E)	WR	NSWC Crane : Crane, IN	0.000	0.000	Nov 2021	0.025	Jan 2023	0.000	Sep 2024	-		0.000	0.000	0.025	-
Subtotal			0.000	0.269		0.591		0.312		-		0.312	0.000	1.172	N/A

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management	WR	NSWC Crane : Crane, IN	0.000	0.108	Nov 2021	0.005	Nov 2022	0.121	Nov 2023	-		0.121	Continuing	Continuing	Continuing
Flight Well Deck Crew Binocular Night Vision	WR	NSWC Crane : Crane, IN	0.000	0.148	Nov 2021	0.032	Nov 2022	0.000		-		0.000	0.000	0.180	-
Long Range Night Vision Sight for Ship's Navigation	WR	NSWC Crane : Crane, IN	0.000	0.169	Nov 2021	0.076	Nov 2022	0.058	Sep 2024	-		0.058	0.000	0.303	-
Ranging Device	WR	NSWC Crane : Crane, IN	0.000	0.214	Nov 2021	0.076	Nov 2022	0.000		-		0.000	0.000	0.290	-
Laser Designator Option	WR	NSWC Crane : Crane, IN	0.000	0.000		0.075	Nov 2022	0.000		-		0.000	0.000	0.075	-
Thermal Family of Systems	WR	NSWC Crane : Crane, IN	0.000	0.000		0.197	Nov 2022	0.080	Sep 2024	-		0.080	0.000	0.277	-
Small Arms Collimator	WR	NSWC Crane : Crane, IN	0.000	0.000		0.057	Nov 2022	0.156	Sep 2024	-		0.156	0.000	0.213	-
Future Capability	WR	NSWC Crane : Crane, IN	0.000	0.000		0.075	Nov 2022	0.241	Sep 2024	-		0.241	0.000	0.316	-
TDA Review VAS Portfolio	WR	NSWC Crane : Crane, IN	0.000	0.181	Nov 2021	0.000		0.000		-		0.000	0.000	0.181	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3445 / Visual Augmentation System Development

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

Proj 3445	
System Development: Technology & Obsolescence Replacement Road Map	
System Development: Capability Gap Test & Evaluation	
System Development: Flight/Well Deck Crew Binocular Night Vision Device (BNVD)	
System Development: Long Range Night Vision Sight for Ship's Navigation	
System Development: Ranging Devices	
System Development: Laser Designator Option	
System Development: Thermal Family of Systems	
System Development: Small Arms	
System Development: Future Capability	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>	Project (Number/Name) 3445 / <i>Visual Augmentation System Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3445				
System Development: Technology & Obsolescence Replacement Road Map	1	2022	4	2024
System Development: Capability Gap Test & Evaluation	1	2022	4	2024
System Development: Flight/Well Deck Crew Binocular Night Vision Device (BNVD)	1	2023	2	2024
System Development: Long Range Night Vision Sight for Ship's Navigation	1	2023	3	2024
System Development: Ranging Devices	1	2023	1	2024
System Development: Laser Designator Option	1	2023	3	2024
System Development: Thermal Family of Systems	1	2023	4	2024
System Development: Small Arms	1	2023	4	2024
System Development: Future Capability	1	2023	4	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 3446 / Expeditionary sUAS Development			
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
3446: Expeditionary sUAS Development	0.000	0.244	1.273	0.687	-	0.687	0.882	0.887	0.590	0.602	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Navy Family of Small Unmanned Aircraft Systems (FoSUAS) program supports Naval Special Warfare (NSW) and Navy Expeditionary Combat Command (NECC), as well as Expeditionary Exploitation Unit ONE (EXU-1) and Naval School Explosive Ordnance Disposal (NAVSCOLEOD). The program procures existing and emerging technologies (including enhancement kits/payloads) in Fixed Wing (FW) and Vertical Take Off and Landing (VTOL) solution sets for core mission requirements and are critical in providing force protection, reconnaissance and surveillance, and repair of battle-damaged facilities and other infrastructure. FoSUAS includes Short Range/ Short Endurance (SR/SE) and Medium Range/ Medium Endurance (MR/ME) categories of Small Unmanned Aircraft Systems (SUAS) with each category tailored toward specific mission needs/profiles. As such, a mix of Type/Model/Series (T/M/S) SUAS makes up the FoSUAS Program of Record (POR) as addressed in the Navy's FoSUAS Top Level Requirement (TLR) document.

In addition to supporting the requirements in the Rucksack Portable Unmanned Aircraft Vehicle (RPUAV) Operational Requirements Document (ORD) and Navy FoSUAS TLR, RDTE funding for the FoSUAS program conducts activities including, but not be limited to, engineering analysis of commercial systems, operational assessments, Field User Evaluations (FUEs), support of Urgent Universal Needs Statements (UUNS), cyber/IA assessments, development of SUAS Reusable Architectures (SRA) and other efforts to inform future Navy systems procurements.

FY23 to FY24 decrease due to a reduction of technology demonstration, verification, and validation efforts.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Product Development	0.000	0.000	0.163	0.000	0.163
Articles:	-	-	-	-	-
FY 2023 Plans: N/A					
FY 2024 Base Plans: -SRA Development					
FY 2024 OCO Plans: N/A					
FY 2023 to FY 2024 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy			Date: March 2023			
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3446 / Expeditionary sUAS Development				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
FY23 to FY24 increase due to addition of Product Development subsection, all prior year funding was included in Test and Evaluation subsection.						
Title: Support		0.000	0.000	0.247	0.000	0.247
Articles:		-	-	-	-	-
FY 2023 Plans: N/A						
FY 2024 Base Plans: - Conduct engineering analysis of commercial systems. - Conduct market research and facilitate technical demonstrations of emerging technology. - Complete initial (on new components) and mandatory recurring engineering assessments including, but not be limited to, cyber security, air worthiness, flight clearances, authority to operate, and battery certification of FoSUAS.						
FY 2024 OCO Plans: N/A						
FY 2023 to FY 2024 Increase/Decrease Statement: FY23 to FY24 increase due to addition of Support subsection, all prior year funding was included in Test and Evaluation subsection.						
Title: Test and Evaluation		0.244	1.273	0.277	0.000	0.277
Articles:		-	-	-	-	-
FY 2023 Plans: - Continued integration and operational assessment of SRA for FoSUAS platforms. - Assessment via technology demonstrations, field user evaluations, and market research of low cost, commercially available UAS to inform future procurements and determine potential adversary capabilities. - Provide engineering analysis for coordinated Field User Evaluations of alternative FoSUAS solutions. - Assessment of UAS and payload capabilities as a means to facilitate/better enable Naval Expeditionary Forces in identifying effective alternatives to meet capability requirements.						
FY 2024 Base Plans: - Continued integration, operational assessment, and implementation of SRA for FoSUAS platforms. - Assessment via technology demonstrations, field user evaluations, lab analysis/testing, and market research of low cost, commercially available UAS to inform future procurements.						

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy	Date: March 2023
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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3446 / Expeditionary sUAS Development
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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
- Assessment of UAS, software applications, payload/sensor capabilities, and other UAS ancillary components.					
FY 2024 OCO Plans: N/A					
FY 2023 to FY 2024 Increase/Decrease Statement: Decrease in FY24 is due to completion of Field User Requirements in FY23.					
Accomplishments/Planned Programs Subtotals	0.244	1.273	0.687	0.000	0.687

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

N/A

Remarks

D. Acquisition Strategy

The program office is pursuing an acquisition approach to quickly field new technology and capabilities to the warfighter. The acquisition strategy is to conduct iterative reviews of emerging SUAS technology and to leverage incremental developments of commercial SUAS in coordination with OPNAV, NSW, NECC, and other Navy activities in order to satisfy validated FoSUAS requirements.

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3446 / Expeditionary sUAS Development
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SRA Analysis and Integration	WR	NAWCAD : PAX RIVER, MD	0.000	0.050	May 2022	0.274	May 2023	0.163	Jan 2024	-		0.163	Continuing	Continuing	Continuing
Subtotal			0.000	0.050		0.274		0.163		-		0.163	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Commercial UAS Analysis/ Cyber Security/IA	WR	NAWCAD : PAX RIVER, MD	0.000	0.075	May 2022	0.200	Mar 2023	0.124	Mar 2024	-		0.124	Continuing	Continuing	Continuing
Engineering Analysis	WR	NAWCAD : PAX RIVER, MD	0.000	0.020	Nov 2022	0.199	Mar 2023	0.123	Nov 2023	-		0.123	Continuing	Continuing	Continuing
Subtotal			0.000	0.095		0.399		0.247		-		0.247	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	WR	VARIOUS : VARIOUS	0.000	0.099	Jan 2022	0.600	Jan 2023	0.277	Jan 2024	-		0.277	Continuing	Continuing	Continuing
Subtotal			0.000	0.099		0.600		0.277		-		0.277	Continuing	Continuing	N/A

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract	
	Project Cost Totals		0.000	0.244	1.273	0.687	-	0.687	Continuing	Continuing

Remarks

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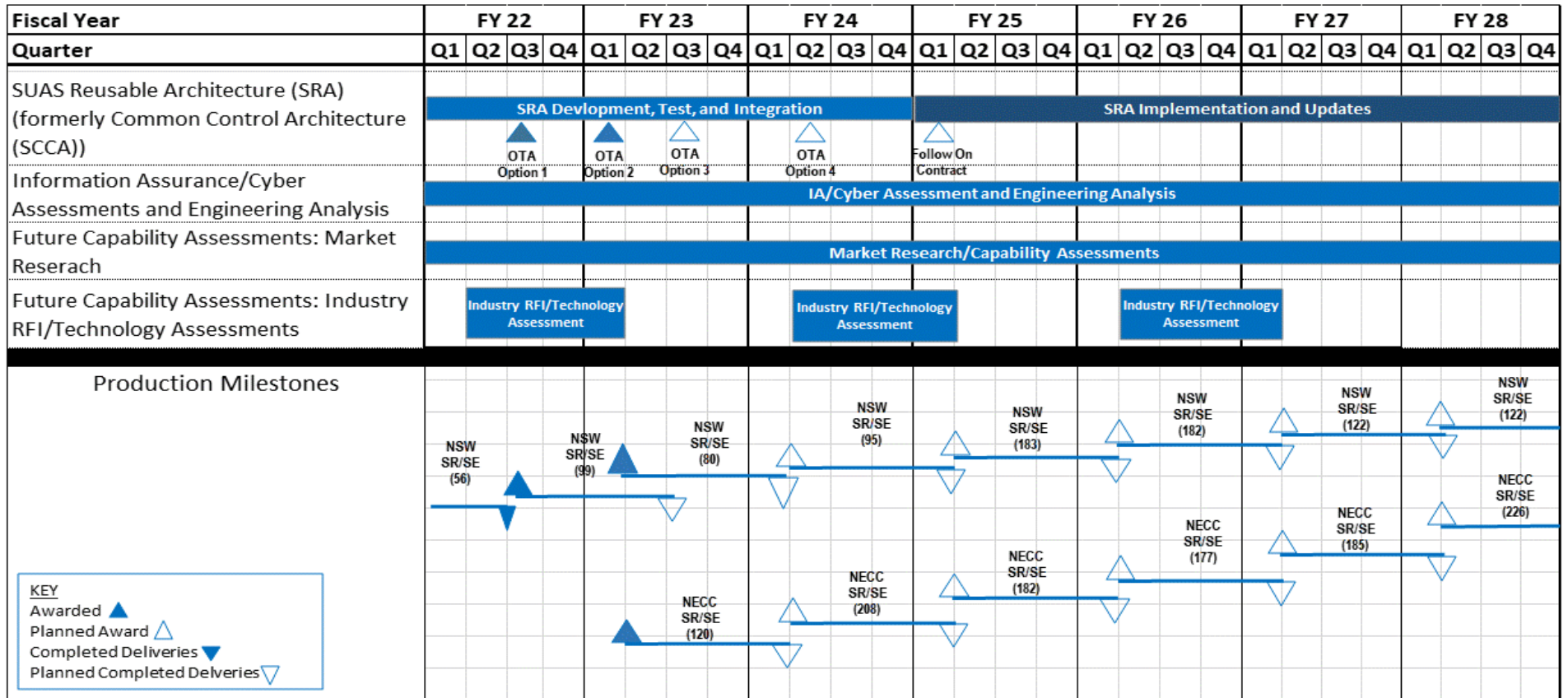
Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy

Date: March 2023

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604230N / Warfare Support System

Project (Number/Name)
3446 / Expeditionary sUAS Development



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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 3446 / Expeditionary sUAS Development

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3446				
SUAS Reusable Architecture (SRA): SRA Development and Integration Verification	1	2022	4	2024
SUAS Reusable Architecture (SRA): SRA Implementation and Updates	1	2025	1	2028
SUAS Reusable Architecture (SRA): OTA Option 1	3	2022	3	2022
SUAS Reusable Architecture (SRA): OTA Option 2	1	2023	1	2023
SUAS Reusable Architecture (SRA): OTA Option 3	3	2023	3	2023
SUAS Reusable Architecture (SRA): OTA Option 4	2	2024	2	2024
SUAS Reusable Architecture (SRA): Follow on contract	1	2025	1	2025
Information Assurance/Cyber Assessments: IA/Cyber Assessment	1	2022	4	2028
Future Capability Assessments: Market Research/Capability Assessments	1	2022	4	2028
Future Capability Assessments: FY22 Industry RFI/Technology Assessment	2	2022	2	2023
Future Capability Assessments: FY24 Industry RFI/Technology Assessment	2	2024	2	2025
Future Capability Assessments: FY26 Industry RFI/Technology Assessment	2	2026	2	2027
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY22 SR/SE	3	2022	3	2022
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY23 SR/SE	2	2023	2	2023
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY24 SR/SE	2	2024	2	2024
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY25 SR/SE	2	2025	2	2025
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY26 SR/SE	2	2026	2	2026

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>	Project (Number/Name) 3446 / <i>Expeditionary sUAS Development</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY27 SR/SE	2	2027	2	2027
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY23 NECC SR/SE	2	2023	2	2023
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY24 NECC SR/SE	2	2024	2	2024
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY25 NECC SR/SE	2	2025	2	2025
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY26 NECC SR/SE	2	2026	2	2026
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY27 NECC SR/SE	2	2027	2	2027
Production Milestones: MIPR Orders: Production Milestones: MIPR Orders: FY28 NECC SR/SE	2	2028	2	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 4011 / Naval Coastal Warfare Surv and C4I Sys			
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
4011: Naval Coastal Warfare Surv and C4I Sys	50.919	0.781	0.803	0.849	-	0.849	0.856	0.871	0.890	0.907	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Identity Dominance System (IDS) supports the Navy's Visit, Board, Search and Seizure (VBSS) teams conducting Expanded Maritime Interception Operations (MIO) with a biometric capability. IDS provides the Navy with a means to collect and process identity information in the conduct of maritime and expeditionary operations. There are three key aspects of this capability: 1) Enable forces to rapidly identify unknown individuals encountered in the conduct of operations. 2) Verify an unknown individual's claimed identity. 3) Enable forces to update, manage, and share identity information on friendly, neutral, and enemy individuals in support of identity operations (IdOps). To support IdOps and achieve identity dominance for expeditionary and naval forces, the future biometrics collection and processing equipment needs to be smaller, lighter, and more efficient with respect to computing power and speed when compared against the current system. The equipment needs to take advantage of enhanced communications capabilities, be able to store the appropriate amount of data to collect biometric samples, match the samples against an internal database and reach near real time operations with connectivity to the DoD biometrics database. In addition to Navy VBSS MIO, IDS also supports the Expeditionary Exploitation Unit One (EXU-1) expeditionary missions. IDS must continue to mature and adapt to the changing threat environment and emerging requirements to support these missions.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Identity Dominance System	0.781	0.803	0.849	0.000	0.849
Articles:	-	-	-	-	-
Description: The Identity Dominance System (IDS) is completing a technology refresh to field a sustainable system, reduce maintenance and sustainment costs, improve system capabilities, and eliminate performance shortfalls.					
FY 2023 Plans: The IDS tech refresh system hardware will have been delivered in Q4FY23. Integration efforts of S/W and H/W will be completed and fielding will occur in FY24. RMF and cybersecurity assessments will be conducted to ensure system authority to Operate (ATO) completed prior to fielding . Fielding a tech refresh of IDS will increase the capability and reliability to support the Identity Operations and Force Protection efforts.					
FY 2024 Base Plans: The IDS tech refresh system will be updated via Engineering Change Proposals for enhancements, Information Assurance, and S/W or H/W changes which ensure systems are not vulnerable to cyber attacks. IDS will					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 4011 / Naval Coastal Warfare Surv and C4I Sys

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
increase and support the Identity Operations and Force Protection efforts to those individuals deployed. The continued efforts of building a database of suspected enemies to the United States will allow potential threats to be identified at foreign access control points and in international waters. <i>FY 2024 OCO Plans:</i> N/A <i>FY 2023 to FY 2024 Increase/Decrease Statement:</i> Funding increase supports the cybersecurity requirements for the technology refresh system and the engineering changes required to implement.					
Accomplishments/Planned Programs Subtotals	0.781	0.803	0.849	0.000	0.849

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

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>			<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• OPN/8128: <i>Biometrics</i>	0.250	0.250	0.250	-	0.250	0.250	0.250	0.250	0.250	Continuing	Continuing

Remarks

D. Acquisition Strategy

Identity Dominance System (IDS) will continue to provide a biometric capability to the Navy's expeditionary/forward deployed forces through system upgrades and further collaboration with other biometric stakeholders. The funding supports development and integration of new capabilities designed to enhance the overall performance of IDS and improve our Nation's security posture abroad and in CONUS. The program continually assesses the threat environment, security posture, operational requirements, and DOD and Navy policies related to Identity Operations and Force Protection. The program will evaluate, integrate, and field new capabilities to Maritime and Expeditionary Forces.

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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 0604230N / Warfare Support System				4011 / Naval Coastal Warfare Surv and C4I Sys							
Product Development (\$ in Millions)				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
Systems Engineering - Expeditionary	WR	NSWC : PANAMA CITY, FL	5.080	0.000		0.000		0.000		-		0.000	0.000	5.080	Continuing
Hardware/Software Development	WR	NSWC DAHLGREN : DAHLGREN	4.016	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Hardware/Software Development	WR	NSWC CRANE : CRANE	1.450	0.000		0.000		0.000		-		0.000	0.000	1.450	Continuing
Systems Engineering - IDS	WR	NSWC : DAHLGREN	7.970	0.315	Nov 2021	0.283	Nov 2022	0.311	Dec 2023	-		0.311	Continuing	Continuing	Continuing
Hardware/Software Development - IDS	WR	NSWC : DAHLGREN	0.991	0.279	Nov 2021	0.398	Nov 2022	0.413	Dec 2023	-		0.413	Continuing	Continuing	Continuing
Product Development Prior Years	Various	Various : Various	10.174	0.000		0.000		0.000		-		0.000	0.000	10.174	10.174
Need Item Text	C/BA	Not Specified : Not Specified	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Subtotal			29.681	0.594		0.681		0.724		-		0.724	Continuing	Continuing	N/A
Support (\$ in Millions)				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
Technical Data	WR	NSWC : CRANE	0.260	0.000		0.000		0.000		-		0.000	0.000	0.260	Continuing
Technical Data	WR	NSWC : DAHLGREN	0.187	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Support Prior Years	Various	Various : Various	5.206	0.000		0.000		0.000		-		0.000	0.000	5.206	5.206
Subtotal			5.653	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				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	NSWC : DAHLGREN	1.013	0.187	Nov 2021	0.122	Nov 2022	0.125	Dec 2023	-		0.125	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy											Date: March 2023				
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System					Project (Number/Name) 4011 / Naval Coastal Warfare Surv and C4I Sys				

Test and Evaluation (\$ in Millions)				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	NSWC : PANAMA CITY, FL	2.772	0.000		0.000		0.000		-		0.000	0.000	2.772	-
Subtotal			3.785	0.187		0.122		0.125		-		0.125	Continuing	Continuing	N/A

Remarks
Funding supports testing to address any new software capabilities that are developed.

Management Services (\$ in Millions)				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
Management Services Prior Years	Various	Various : Various	0.275	0.000		0.000		0.000		-		0.000	0.000	0.275	0.275
Program Management Support	Various	Various : Various	5.388	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support - IDS	WR	NSWC : DAHLGREN	5.075	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support - IDS	WR	NSWC : CRANE	1.062	0.000		0.000		0.000		-		0.000	0.000	1.062	-
Subtotal			11.800	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

			Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			50.919	0.781		0.803		0.849		-		0.849	Continuing	Continuing	N/A

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>	Project (Number/Name) 4011 / <i>Naval Coastal Warfare Surv and C4I Sys</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 4011				
Acquisition Milestones: Identity Dominance System (IDS): IDS Tech Refresh Fielding	4	2023	2	2024
Acquisition Milestones: Identity Dominance System (IDS): Milestone - Tech Refresh #2 CCB	4	2027	4	2027
System Development: Identity Dominance System (IDS): IDS Tech Refresh Information Assurance ECP Development and Validation	1	2022	4	2028
Production: Identity Dominance System (IDS): IDS Tech Refresh Production contract award	1	2023	3	2023

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

Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 9999 / Congressional Adds			
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: Congressional Adds	6.753	2.894	4.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	13.647
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Diesel Fuel Outboard Motor Testing project supports the transition of the FY 2015 Rapid Innovation Fund "Affordable Multi-fuel Multi-engine Advanced Combatant Craft" program to the Explosive Ordnance Disposal Force. This technology minimizes the types of fuel required to increase standardization, flexibility, and interoperability during deployment while at the same time reduces total ownership cost. Testing of this technology shall determine the operational viability and any changes required to boat design to ensure safety and suitability.

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

	FY 2022	FY 2023
Congressional Add: Operational deployment of diesel-fueled outboard marine motors	2.894	0.000
FY 2022 Accomplishments: Initiated procurement of outboard diesel prototypes and planned additional prototype procurements and testing.		
FY 2023 Plans: Continue to conduct test and evaluation, endurance testing, Fleet observations as well as complete the final report."		
Congressional Add: NSW unmanned vehicle development	0.000	4.000
FY 2022 Accomplishments: N/A		
FY 2023 Plans: \$4M Congressional add received for NSW unmanned vehicle development. Funding will be mobilized to support NSW undersea test, evaluation and prototyping activities.		
Congressional Adds Subtotals	2.894	4.000

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

N/A

Remarks

D. Acquisition Strategy

Diesel Fuel Outboard Motor Transition: If testing proves the engines operational, reliable, feasible and suitable, diesel fuel outboard diesel engines will be transitioned to the Fleet by being installed aboard Explosive Ordnance Disposal Force Craft currently operating as well as for new procurements in FY23.

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 9999 / Congressional Adds
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Hardware Development	C/CPFF	Northrop Grumman : San Diego, CA	1.065	0.000		0.000		0.000		-		0.000	0.000	1.065	-
Outboard Diesel Engine Material Solution	C/BOA	PMS300 : Washington, DC	1.200	0.000		0.000		0.000		-		0.000	0.000	1.200	-
Software Development	C/CPFF	Northrop Grumman : San Diego, CA	0.760	0.000		0.000		0.000		-		0.000	0.000	0.760	-
Design Feasibility	WR	NSWC : Carderock, MD	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	-
Systems Engineering	C/CPFF	Northrop Grumman : San Diego, CA	0.675	0.000		0.000		0.000		-		0.000	0.000	0.675	-
Developmental Test & Evaluation (DT&E)	WR	NSWC : Carderock, MD	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	-
Final Report	WR	NSWC : Carderock, MD	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	-
Operational deployment of diesel-fueled outboard marine motors	C/BOA	PMS300 : Washington, DC	0.000	2.894	Sep 2022	0.000		0.000		-		0.000	0.000	2.894	-
Subtotal			4.500	2.894		0.000		0.000		-		0.000	0.000	7.394	N/A

Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems Engineering	WR	NSWC Crane, Crane, IN : Not Specified	0.279	0.000		0.000		0.000		-		0.000	0.000	0.279	-
Advanced Techniques Development	WR	NSWC: Various : Not Specified	0.164	0.000		0.000		0.000		-		0.000	0.000	0.164	-
Ship Integration	WR	NSWC CR, Crane, IN : Not Specified	0.818	0.000		0.000		0.000		-		0.000	0.000	0.818	-
Test and Evaluation	WR	NSWC CR, Crane, IN : Not Specified	0.792	0.000		0.000		0.000		-		0.000	0.000	0.792	-

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 9999 / Congressional Adds
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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

<i>Diesel Fuel Outboard Motor Testing</i>																												
Technology Assessment/Demonstrations																												
Test and Evaluations																												

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Diesel Fuel Outboard Motor Testing</i>				
Technology Assessment/Demonstrations	4	2022	4	2023
Test and Evaluations	4	2022	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System				Project (Number/Name) 9C86 / Combatant Craft Replacement			
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
9C86: <i>Combatant Craft Replacement</i>	12.674	0.922	0.896	0.942	-	0.942	0.950	0.971	0.991	1.012	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Navy Expeditionary Combat patrol boats, Fleet Expeditionary Security combatant craft, Underwater Construction Team (UCT) and Explosive Ordnance Disposal (EOD) replacement will provide second generation Multi Mission Craft that will replace in-service Force Protection Large, Force Protection Small, Underwater Construction and EOD craft. Boat and craft replacements will: conduct Maritime Security Operations across the full spectrum of naval, joint, and combined operations enabling access and freedom of action throughout the sea-to-shore and inland operating environments as well as conduct maritime Mine Countermeasures (MCM), counter Improvised Explosive Devices (IEDs), Weapons of Mass Destruction (WMD), and all other types of weaponry, for protection of naval and joint assets required for sea control and power projection. Specific mission and capabilities will be identified in an Initial Capabilities Document (ICD), Analysis of Alternatives (AoA), Capabilities Production Document (CPD) and required milestone documentation. RDT&E funding will fund procurement and material solution studies, advanced technology development and studies, design development and test and evaluation and transition Small Business Innovative Research Programs, Rapid Innovation Fund Programs and other technology programs.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Combatant Craft Replacement	0.922	0.896	0.942	0.000	0.942
Articles:	-	-	-	-	-
Description: The boats and craft in the Navy Expeditionary Combat Command (NECC) fleet are reaching the end of their service lives and will create a capability gap if not replaced. Funding supports design/development and testing of NECC's next generation Expeditionary Combat Patrol Boat or 40 Patrol Boat (40PB) and other NECC craft.					
FY 2023 Plans: Continue material solution development and advanced technology development as well as continuing planning, research, analysis, design and development to recapitalize NECC craft to deploy effective combat power. Continue science and technology development to optimize material solutions to fill critical NECC capability gaps as well as transition Small Business Innovative Research Programs, Rapid Innovation Fund Programs and other technology programs. Continue to develop tactical C4I capabilities and cybersecurity technology integration for combatant craft in a communications contested environment.					
FY 2024 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 9C86 / Combatant Craft Replacement

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Continue material solution development and advanced technology development as well as continuing planning, research, analysis, design and development to recapitalize Expeditionary Craft to clear, secure and protect in a contested environment. Continue science and technology development to optimize material solutions to fill critical Expeditionary capability gaps as well as transition Small Business Innovative Research Programs, Rapid Innovation Fund Programs and other technology programs. Continue to develop small form factor Navigation, C5I and Weapon technology integration for Expeditionary Craft in a contested environment. FY 2024 OCO Plans: N/A FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding increase in support of Expeditionary Combatant Craft Replacement and craft related technological innovations.					
Accomplishments/Planned Programs Subtotals	0.922	0.896	0.942	0.000	0.942

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN/1210: <i>Standard Boats (NECC)</i>	86.153	29.695	10.625	-	10.625	30.073	34.539	27.849	28.653	Continuing	Continuing

Remarks
Other Program Funding reflects OPN/1210 funds directly associated with Project 9C86, not the total value of the OPN Line Item.

D. Acquisition Strategy
Acquisition of RDT&E developed craft material solution and technology to be accomplished using "tailored" commercial procurements in accordance with the Craft Replacement Acquisition Strategy.

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / Warfare Support System	Project (Number/Name) 9C86 / Combatant Craft Replacement
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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

Proj 9C86	
Combatant & Fleet Expeditionary Craft Design Studies	████████████████████
Combatant & Fleet Expeditionary Craft Awards	████████████████████
Combatant & Fleet Expeditionary Craft Deliveries	████████████████████
Developmental Test and Evaluation	████████████████████
Selection of Craft/Systems for Production	████
Selection of Lethal and Non-Lethal Sensors/ Effectors	████████████████████
Integration of Lethal and Non-Lethal Sensors/ Effectors	████████████████████

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604230N / <i>Warfare Support System</i>	Project (Number/Name) 9C86 / <i>Combatant Craft Replacement</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 9C86</i>				
Combatant & Fleet Expeditionary Craft Design Studies	3	2023	4	2024
Combatant & Fleet Expeditionary Craft Awards	3	2023	4	2024
Combatant & Fleet Expeditionary Craft Deliveries	3	2023	4	2024
Developmental Test and Evaluation	3	2023	4	2024
Selection of Craft/Systems for Production	4	2024	4	2024
Selection of Lethal and Non-Lethal Sensors/Effectors	1	2023	4	2024
Integration of Lethal and Non-Lethal Sensors/Effectors	1	2023	4	2024