Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604558N *I New Design SSN*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	3,401.127	303.789	234.356	273.848	-	273.848	267.088	265.083	271.920	278.705	Continuing	Continuing
1947: *New Design SSN HM&E*	2,423.963	257.431	187.282	222.123	-	222.123	217.441	213.777	219.847	224.346	Continuing	Continuing
1950: *New Design SSN Combat Sys Dev*	916.694	30.131	38.572	43.253	-	43.253	41.094	39.963	40.616	41.446	Continuing	Continuing
3062: *Submarine Multi-Mission Team Trainer*	60.470	8.028	8.502	8.472	-	8.472	8.553	11.343	11.457	12.913	Continuing	Continuing
9999: *Congressional Adds*	0.000	8.199	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.199

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 516

A. Mission Description and Budget Item Justification

FY 2025 funding provides for the continued execution of Virginia Class Submarine Undersea Dominance Payload Integration (UDPI) (i.e., Advanced Payloads), Advanced Acoustic Sensors, and future Blocks concept designs. FY 2025 will support the evaluation and development of capabilities/technologies for inclusion in Virginia Class Block VI, as well as initial development for Virginia Class Block VII. Funds will be executed at the Virginia Class design yard and numerous sub-vendors and warfare centers designing and developing critical, complex ship components necessary for integrating advanced Block VI capabilities into the baseline class design. The increase from FY 2024 to FY 2025 is associated with Virginia Class Block VII studies, trade-space definition, and long-term development beginning in parallel to Block V/VI design efforts. This increase in funding is needed to ensure all development efforts can be executed enabling design efforts to support ship construction schedules.

The U.S. Navy must maintain a submarine fleet that is of sufficient capability and numbers to defend American interests. The VIRGINIA Class Submarine, formerly the New Attack Submarine (New SSN), is being designed to fulfill this need. It will counter potential threats in a multi- mission capable submarine that has the ability to provide covert, sustained combat presence in denied waters. The primary goal of the program is to develop an affordable yet capable submarine by evaluating a broad range of system and technology alternatives, and pursuing significant capability and improved performance enhancements while managing technical risk. This Program Element (PE) provides the technology, prototype components, and systems engineering needed to design and construct the VIRGINIA Class Submarine and build its Hull, Mechanical and Electrical (HM&E) systems and Command, Control, Communications, and Intelligence (C3I) System. This PE directly supports the following VIRGINIA Class Submarine missions: (1) covert strike warfare (STRIKE); (2) anti-submarine warfare (ASW); (3) covert intelligence collection/surveillance (ISR), indication and warning (I&W), and electronic warfare (EW); (4) anti-surface ship warfare (ASUW); (5) special warfare; (6) covert mine warfare; and (7) battle group support.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604558N *I New Design SSN*

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	316.085	234.356	274.988	-	274.988
Current President's Budget	303.789	234.356	273.848	-	273.848
Total Adjustments	-12.296	0.000	-1.140	-	-1.140
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.501	0.000			
• SBIR/STTR Transfer	-11.795	0.000			
• Program Adjustments	0.000	0.000	-0.164	-	-0.164
• Rate/Misc Adjustments	0.000	0.000	-0.976	-	-0.976

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 9999: *Congressional Adds*		
Congressional Add: *Precision maneuvering units*	8.199	0.000
Congressional Add Subtotals for Project: 9999	8.199	0.000
Congressional Add Totals for all Projects	8.199	0.000

Change Summary Explanation

FY 2025 decrease associated with miscellaneous execution adjustments.

FY 2023 decrease associated with annual Small Business Innovative Research (SBIR) assessment and other miscellaneous execution adjustments.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*				Project (Number/Name) 1947 / *New Design SSN HM&E*				
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
1947: *New Design SSN HM&E*	2,423.963	257.431	187.282	222.123	-	222.123	217.441	213.777	219.847	224.346	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 516

A. Mission Description and Budget Item Justification

FY 2025 increases in Proj 1947 are associated with Virginia Class Block VII studies, trade-space definition, and long-term development beginning in parallel to Block V/ VI design efforts. This increase in funding is needed to ensure all development efforts can be executed enabling design efforts to support ship construction schedules. FY 2025 funding provides for the continued execution of Virginia Class Submarine Undersea Dominance Payload Integration (UDPI) (i.e., Advanced Payloads), Advanced Acoustic Sensors, and future blocks concept designs. FY 2025 will support the development of capabilities/technologies for inclusion in the Virginia Class Block VI technical baseline, as well as initial development for Virginia Class Block VII. Funds will be executed at the Virginia Class design yard and numerous sub-vendors and warfare centers designing and developing critical, complex ship components necessary for integrating Block VI capabilities into the baseline class design.

This project encompasses all the ship system development efforts for the Virginia Class Submarine and the Technology Insertion Program for reducing costs and upgrading performance of future hulls by virtue of improvements in ship design and systems. Technology development implementation and logistics for developmental items, and Virginia Class test & evaluation are included. The thrust of these efforts will be to develop and apply multiple advanced system technologies which are integrated into the design of the Virginia Class Submarine. Technologies developed in this program will be considered for applicability to the COLUMBIA (CLB) Class Submarine Program for commonality opportunities. New technologies are being transitioned from industry and government research and development programs where doing so offers substantial performance improvement and/or affordability payoffs. Transition opportunities include those from the Defense Advanced Research Projects Agency (DARPA) and Office of Naval Research (ONR) Future Naval Capabilities Program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: New Design SSN HM&E	243.409	176.313	210.111	0.000	210.111
Articles:	-	-	-	-	-
FY 2024 Plans: -Continue Virginia Class Submarine Undersea Dominance Payload Integration (UDPI) design efforts to modify the current host ship systems (to include electrical, hydraulic, fluid systems, safety and security testing) in support of launching payloads from multiple different hull/ocean interfaces. Efforts include non-recurring engineering (NRE) to support hosting of various advanced payloads, vendor component development, specification and diagram changes, design disclosure, and Integrated Logistics Support (ILS) product reviews - all of which are required to support integrating the identified advanced payload systems into the technical baselines for Block V and Block VI.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1947 / *New Design SSN HM&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue development of Hull, Mechanical & Electrical (HM&E) systems concepts technologies, including obsolescence redesign and performance improvement, for integration into Virginia Class Block VI Technical Baseline. -Continue transition of products from the Office of Naval Research (ONR) Manufacturing Technology Program (MANTECH) and transition of products from ONR Future Naval Capabilities (FNC) Programs. -Continue design, integration and critical item testing of components for Advanced Acoustic Sensors and organic advanced undersea warfare capabilities; -Continue design and integration of host ship modifications to support interaction and hosting of multiple types of UUVs via multiple ocean interfaces; -The continued evaluation, maturation, and integration of these candidate capabilities will support readiness for Block VI construction start. -Continue Block VII studies, trade-space definition, and long-term development of HM&E system concept technologies. -Further details available at the appropriate classification level.					
FY 2025 Base Plans: -Complete Virginia Class Submarine Undersea Dominance Payload Integration (UDPI) design efforts to modify the current host ship systems in support of launching payloads from multiple different hull/ocean interfaces. -Continue development of Hull, Mechanical & Electrical (HM&E) systems concepts technologies, including obsolescence redesign and performance improvement, for integration into Virginia Class Block VI technical baseline. -Continue transition of products from the Office of Naval Research (ONR) Manufacturing Technology Program (MANTECH) and transition of products from ONR Future Naval Capabilties (FNC) Programs. -Continue design, integration and critical item testing of components for Advanced Acoustic Sensors and organic advanced undersea warfare capabilities; -Continue design and integration of host ship modifications to support interaction and hosting of multiple types of UUVs via multiple ocean interfaces; -The continued evaluation, maturation, and integration of these candidate capabilities will support readiness for Block VI construction start. -Complete initial Block VII studies, trade-space definition, and long-term development of HM&E system concept technologies. -Initiate preliminary design efforts in support of establishing Block VII technical performance measures and providing further definition to the technical baseline.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1947 / *New Design SSN HM&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Further details available at the appropriate classification level. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 increase associated with Virginia Class Block VII studies, trade-space definition, preliminary design and development beginning in parallel to Block V/VI design efforts. This increase in funding is needed to ensure all development efforts can be executed enabling design efforts to support ship construction schedules.					
Title: TEST AND EVALUATION	14.022	10.969	12.012	0.000	12.012
Articles:	-	-	-	-	-
FY 2024 Plans: -Continue work associated with previous test events (IOT&E, Arctic, Dry-Deck Shelter, Block III FOT&E). This consists of documenting and testing fixes to deficiencies identified during previously completed Developmental and Operational Testing as well as addressing recommendations noted by the Oversight Community from OSD. -Complete VA CL TEMP 1425 Rev H update to add more details and update scope of testing for VA CL Block V with VPM to include Conventional Prompt Strike (CPS) Program. -Conduct the Hydrodynamic Performance Trial (HPT 2) and Future Naval Capability (FNC) testing final reports for USS SOUTH DAKOTA (SSN 790) and publish final reports. -Continue efforts to develop the FOT&E plan, to include the Cybersecurity test strategy, for Block V. The Cybersecurity test strategy will be planned and executed in coordination with the COLUMBIA Class IOT&E Cybersecurity test strategy. -Continue development of the Block V Vulnerability Assessment Report to include all three aspects of Survivability: Susceptibility, Vulnerability, and Recoverability, as well as, the Block V Transient Shock Analysis Verification and Validation Report to meet the LFT&E legislation mandated in Title 10 USC 4172. -Provide updates to the VA Class Program Protection Plan (PPP) to account for changes to the Cybersecurity Testing Strategy and update to the Platform Level Criticality Analysis. - Support integration of the Conventional Prompt Strike (CPS) Program into our Warfare Requirements and Test plans to meet Class Operational Capabilities. ***FY 2025 Base Plans:*** -Continue work associated with previous test events (IOT&E, Arctic, Dry-Deck Shelter, Block III FOT&E). This consists of documenting and testing fixes to deficiencies identified during previously completed Developmental and Operational Testing as well as addressing recommendations noted by the Oversight Community from OSD.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1947 / *New Design SSN HM&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue efforts to develop the FOT&E plan, to include the Cybersecurity test strategy, for Block V. The Cybersecurity test strategy will be planned and executed in coordination with the COLUMBIA Class IOT&E Cybersecurity test strategy. -Continue development of the Block V Vulnerability Assessment Report to include all three aspects of Survivability: Susceptibility, Vulnerability, and Recoverability, as well as, the Block V Transient Shock Analysis Verification and Validation Report to meet the LFT&E legislation mandated in Title 10 USC 4172. -Provide updates to the VA Class Program Protection Plan (PPP) to account for changes to the Cybersecurity Testing Strategy and update to the Platform Level Criticality Analysis. -Support integration of the Conventional Prompt Strike (CPS) Program into our Warfare Requirements and Test plans to meet Class Operational Capabilities. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 increase associated with efforts in support of the Hydrodynamic Performance Trial for SSN 790.					
Accomplishments/Planned Programs Subtotals	257.431	187.282	222.123	0.000	222.123

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• SCN/2013: *Virginia Class Submarine*	6,864.537	10,513.684	7,629.211	-	7,629.211	9,515.336	9,258.588	8,612.728	9,543.580	9,464.372	176,791.804
• OMN/0204283N: *Sub Ops & Safety*	8.375	9.319	10.193	-	10.193	10.871	123.557	11.328	7.756	Continuing	Continuing
• OPN/0942: *Virginia Class Support Equipment*	32.300	32.076	43.565	-	43.565	52.098	39.771	40.568	41.421	Continuing	Continuing

Remarks

D. Acquisition Strategy

The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. The Program Office is currently managing two Multi-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1947 / *New Design SSN HM&E*

Year Procurement (MYP) contracts. The first is for the Block IV (FY14-18) ships awarded April 2014. The second is for the Block V (FY19-23) ships, which incorporate Acoustic Superiority (AS) modifications and Virginia Payload Module (VPM).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 1947 / *New Design SSN HM&E*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	WR	NSWC : Carderock, MD	304.254	13.719	Oct 2022	10.252	Oct 2023	12.264	Nov 2024	-		12.264	Continuing	Continuing	Continuing
Component Development	WR	NUWC : Newport, RI	145.061	11.498	Oct 2022	8.593	Oct 2023	10.281	Nov 2024	-		10.281	Continuing	Continuing	Continuing
Component Development	WR	NRL : Washington, DC	11.564	0.984	Oct 2022	0.703	Oct 2023	0.841	Nov 2024	-		0.841	Continuing	Continuing	Continuing
Component Development	C/CPFF	Electric Boat : Groton, CT	1,579.097	203.652	Nov 2022	147.077	Nov 2023	175.378	Oct 2024	-		175.378	Continuing	Continuing	Continuing
Component Development	C/CPFF	Progeny Applied : Manassas, VA	16.189	8.910	Dec 2022	6.367	Dec 2023	7.618	Nov 2024	-		7.618	Continuing	Continuing	Continuing
Component Development	SS/CPFF	Applied Research Laboratory : Penn State University	32.700	2.706	Dec 2022	1.934	Dec 2023	2.314	Nov 2024	-		2.314	Continuing	Continuing	Continuing
Component Development	SS/FP	National Shipbuilding Research Program : Not Specified	7.369	0.622	Mar 2023	0.445	Mar 2024	0.454	Mar 2025	-		0.454	Continuing	Continuing	Continuing
Component Development	Various	Miscellaneous : Not Specified	28.236	1.318	Dec 2022	0.942	Dec 2023	0.961	Feb 2025	-		0.961	Continuing	Continuing	Continuing
		Subtotal	2,124.470	243.409		176.313		210.111		-		210.111	Continuing	Continuing	N/A

Remarks

FY 2025 increase associated with Virginia Class Block VII studies, trade-space definition, preliminary design and development beginning in parallel to Block V/VI design efforts. This increase in funding is needed to ensure all development efforts can be executed enabling design efforts to support ship construction schedules.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NSWC : Carderock, MD	102.213	4.066	Nov 2022	3.181	Nov 2023	3.483	Nov 2024	-		3.483	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	WR	NSWC : Carderock, MD	8.503	1.262	Nov 2022	0.987	Nov 2023	1.081	Nov 2024	-		1.081	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NUWC : Newport, RI	142.784	1.948	Nov 2022	1.524	Nov 2023	1.669	Nov 2024	-		1.669	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 1947 / *New Design SSN HM&E*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	PO	COMOPTEVFOR : Norfolk, VA	20.776	0.743	Nov 2022	0.581	Nov 2023	0.636	Nov 2024	-		0.636	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	C/CPFF	Electric Boat : Groton, CT	3.989	0.644	Nov 2022	0.504	Nov 2023	0.552	Nov 2024	-		0.552	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	WR	NUWC : Newport,RI	0.784	0.252	Nov 2022	0.197	Nov 2023	0.216	Nov 2024	-		0.216	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/CPFF	NUWC : Newport, RI - CORE Team	20.444	5.107	Nov 2022	3.995	Nov 2023	4.375	Nov 2024	-		4.375	Continuing	Continuing	Continuing
		Subtotal	299.493	14.022		10.969		12.012		-		12.012	Continuing	Continuing	N/A

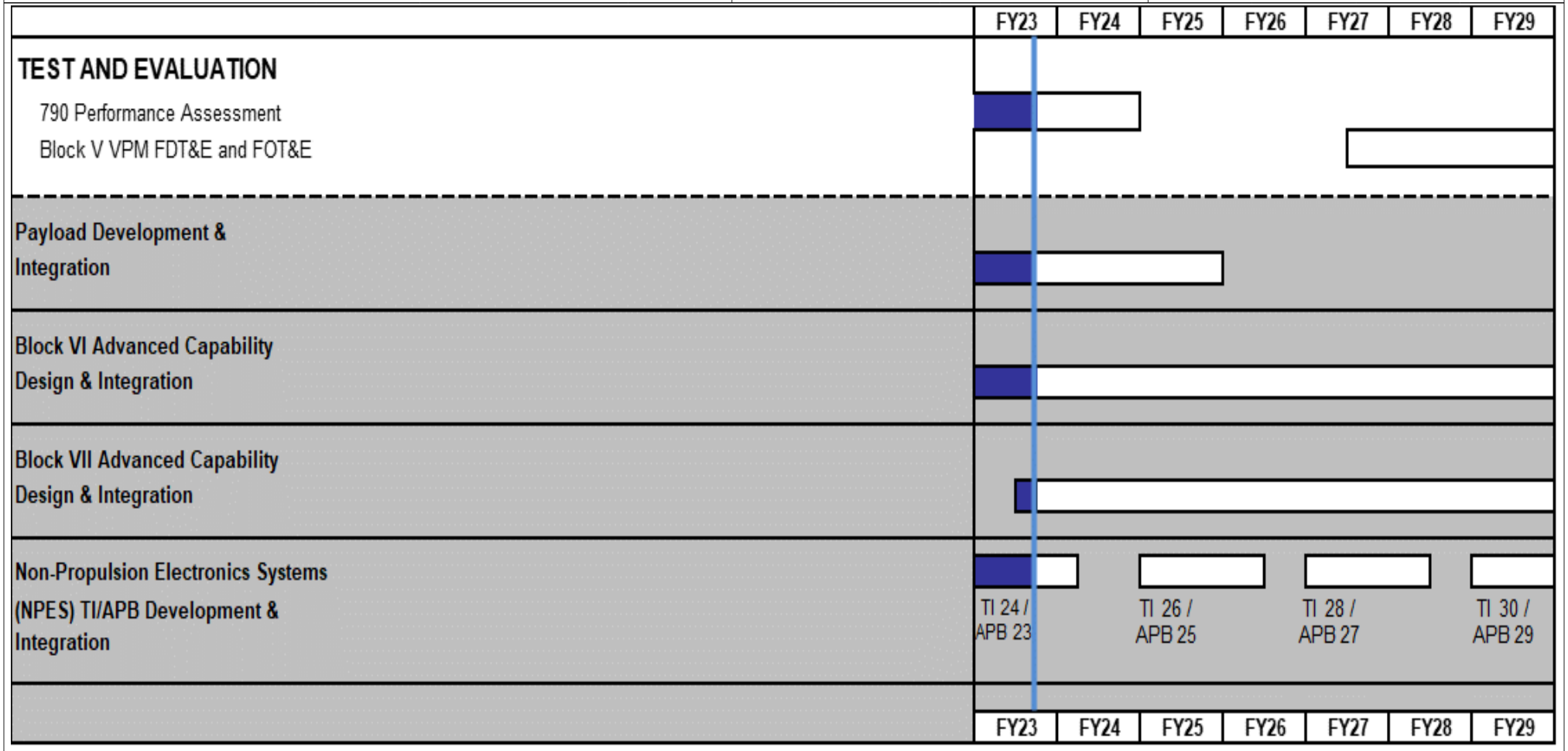
Remarks

FY 2025 increase associated with efforts in support of the Hydrodynamic Performance Trial for SSN 790.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2,423.963	257.431		187.282		222.123		-		222.123	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1947 / *New Design SSN HM&E*



as of 20 Jun 2023

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1947 / *New Design SSN HM&E*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1947				
TEST & EVALUATION: U/R 790 Performance Assessment	1	2023	4	2024
Payload Development & Integration	1	2023	4	2025
Block VI Advanced Capability Design & Integration	1	2023	4	2029
NPES TI24/APB23 Development & Integration	1	2023	1	2024
TEST & EVALUATION: FDTE and FOTE Block V VPM	3	2027	4	2029
NPES TI26/APB25 Development & Integration	1	2025	2	2026
Block VII Advanced Capability Design & Integration	1	2024	4	2029
NPES TI28/APB27 Development & Integration	1	2027	2	2028
NPES TI30/APB29 Development & Integration	1	2029	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 1950 / *New Design SSN Combat Sys Dev*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
1950: *New Design SSN Combat Sys Dev*	916.694	30.131	38.572	43.253	-	43.253	41.094	39.963	40.616	41.446	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 516

A. Mission Description and Budget Item Justification

This project provides the engineering development required to outfit each ship of the Virginia Class Submarine with a combat system which satisfies ORD requirements in all 7 mission areas, namely; ASW, STRIKE, ISR, Covert Mine Warfare, Battle Group Support, ASUW, and Special Warfare. The fully integrated combat system, otherwise referred to as the Non-Propulsion Electronics System (NPES), is composed of a collection of functional sub-systems, such as sonar, navigation, exterior communications, weapons launch, Large Vertical Array, Submarine Warfare Federated Tactical System (SWFTS) virtualization, Electronic Warfare Next Generation Architecture, etc., which evolve over the life of the program due to either competitive selection of new suppliers, component obsolescence replacement, increased technical performance, or improvements in reliability. Non-recurring engineering activity is needed to perform platform integration of the components, software modification to accommodate electronic data exchange, unique submarine environment qualification and update of all logistics products.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Sonar, Combat Control, and Architecture (S/CC/A) Subsystems	18.312	24.476	25.953	0.000	25.953
Articles:	-	-	-	-	-
Description: Continue development of S/CC/A System Improvements necessary to maintain VIRGINIA Class ORD compliance, counter CYBER threats, and maintain commonality with in-service submarine designs.					
FY 2024 Plans: -Initiate design and component selection for the TI-26 S/CC/A configuration. -Perform structured technical collaboration of the Undersea Technical Innovation Consortium members tasked with re-architecture of the Submarine Warfare Federated Tactical System (SWFTS) and decompose artifacts into S/CC/A distributed procurement specifications. -Conduct land based testing at the System of Systems level to assess impacts to latency, senescence, and time/ navigation data distribution following enhanced cyber hardening and resiliency measures. -Conduct land based testing at the System of Systems level to assess failover performance in a common computing environment employing a Platform as a Service (PaaS) architecture.					
FY 2025 Base Plans: -Continue design and component selection for the TI-26 S/CC/A configuration.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1950 / *New Design SSN Combat Sys Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Perform structured technical collaboration of the Undersea Technical Innovation Consortium members tasked with re-architecture of the Submarine Warfare Federated Tactical System (SWFTS) and decompose artifacts into S/CC/A distributed procurement specifications. -Conduct land based testing at the System of Systems level to assess impacts to latency, senescence, and time/ navigation data distribution following enhanced cyber hardening and resiliency measures. -Conduct land based testing at the System of Systems level to assess failover performance in a common computing environment employing a Platform as a Service (PaaS) architecture. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY 2024 to FY 2025 accounts for the increased engineering workscope associated with TI-26 development and Block VI NPES design definition.					
Title: C3I Systems Engineering	11.819	14.096	17.300	0.000	17.300
Articles:	-	-	-	-	-
FY 2024 Plans: -Produce updated NPES-wide Government Furnished Information (GFI) required by the shipbuilder to make platform compatible changes to the power, cooling, and cabling systems for the TI-26 configuration. -Initiate Environmental Qualification Testing of the electronics assemblies and Structurally Integrated Enclosure bays containing TI-26 pedigree hardware. -Perform land based critical item-level testing of the flight critical Ship Control interfaces with all NPES GFE equipment. -Perform engineering trades studies associated with potential Class design NPES changes in support of Block VI technical baseline definition. ***FY 2025 Base Plans:*** -Continue to deliver updated NPES-wide Government Furnished Information (GFI) required by the shipbuilder to make platform compatible changes to the power, cooling, and cabling systems for the TI-26 configuration. -Continue Environmental Qualification Testing of the electronics assemblies and Structurally Integrated Enclosure bays containing TI-26 pedigree hardware. -Perform land based critical item-level testing of the flight critical Ship Control interfaces with all NPES GFE equipment.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1950 / *New Design SSN Combat Sys Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue engineering analysis associated with potential Class design NPES changes in support of Block VI. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase from FY 2024 to FY 2025 accounts for the increased engineering workscope associated with TI-26 development and Block VI NPES design definition.					
Accomplishments/Planned Programs Subtotals	30.131	38.572	43.253	0.000	43.253

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• SCN/2013: *Virginia Class Submarine*	6,864.537	10,513.684	7,336.207	-	7,336.207	9,360.121	8,846.352	8,476.978	8,694.649	7,369.005	172,853.864
• O&M,N/0204283N: *Sub Ops & Safety*	8.375	9.319	10.193	-	10.193	10.871	12.557	11.328	7.756	Continuing	Continuing
• OPN/0942: *Virginia Class Support Equipment*	32.300	32.076	43.565	-	43.565	52.098	39.771	40.568	41.421	Continuing	Continuing

Remarks

D. Acquisition Strategy

The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. The Program Office is currently managing two Multi-Year Procurement (MYP) contracts. The first is for the Block IV (FY14-18) ships awarded April 2014. The second is for the Block V (FY19-23) ships, which incorporate Acoustic Superiority (AS) modifications and Virginia Payload Module (VPM).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 1950 / *New Design SSN Combat Sys Dev*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Unique Virginia Class Improvements	Various	Various : Various	105.848	4.952	Feb 2023	7.404	Feb 2024	8.340	Jan 2025	-		8.340	Continuing	Continuing	Continuing
Tech Insertion/Advanced Processing Build (TI/APB) Integration	Various	Lockheed Martin : Manassas, VA	28.272	4.447	Nov 2022	6.308	Nov 2023	7.200	Oct 2024	-		7.200	Continuing	Continuing	Continuing
Photonics	C/CPIF	Kollmorgen : Northampton, MA	64.094	0.000		0.000		0.000		-		0.000	0.000	64.094	-
Large Vertical Array South Dakota Improvement Program	Various	Lockheed Martin : Manassas, VA	23.808	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Advanced Array Studies and Modeling	Various	Lockheed Martin : Manassas, VA	0.000	2.882	Oct 2022	5.257	Oct 2023	6.060	Oct 2024	-		6.060	0.000	14.199	-
Platform Integration	SS/CPFF	Electric Boat : Groton, CT	80.043	4.035	Nov 2022	1.920	Nov 2023	1.920	Oct 2024	-		1.920	Continuing	Continuing	Continuing
Photonics	C/CPIF	Lockheed Martin : Manassas, VA	1.486	0.813	Dec 2022	1.006	Dec 2023	1.005	Nov 2024	-		1.005	Continuing	Continuing	Continuing
Virtualization Enabling Architecture Development	Various	Various : TBD	24.211	3.799	Nov 2022	6.034	Nov 2023	6.955	Oct 2024	-		6.955	Continuing	Continuing	Continuing
Technical Direction Agent	WR	NUWC : Newport, RI	344.817	4.826	Nov 2022	6.205	Nov 2023	7.153	Oct 2024	-		7.153	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC : Carderock, MD	17.059	1.071	Nov 2022	1.211	Nov 2023	1.211	Oct 2024	-		1.211	Continuing	Continuing	Continuing
Acoustic Intercept & Sonar	C/CPFF	Progeny Applied : Manassas, VA	1.960	0.000		0.000		0.000		-		0.000	0.000	1.960	-
High Frequency & Sonar Sensors	C/CPFF	Applied Research Lab : University of Texas	1.640	0.000		0.000		0.000		-		0.000	0.000	1.640	-
Systems Engineering: Navigation	WR	SSC : Charleston, SC	15.977	1.630	Nov 2022	1.353	Nov 2023	1.353	Oct 2024	-		1.353	Continuing	Continuing	Continuing
Systems Engineering: NTDPS	WR	NUWC : Keyport, WA	16.510	0.473	Nov 2022	0.686	Nov 2023	0.686	Oct 2024	-		0.686	Continuing	Continuing	Continuing
Miscellaneous	Various	Various : Various	149.628	1.203	Jan 2023	1.188	Jan 2024	1.370	Dec 2024	-		1.370	Continuing	Continuing	Continuing
		Subtotal	875.353	30.131		38.572		43.253		-		43.253	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 1950 / *New Design SSN Combat Sys Dev*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Increase from FY 2024 to FY 2025 accounts for the increased engineering workscope associated with TI-26 development and Block VI NPES design definition. Estimates associated with the time varying non-recurring developmental scope of work tied to this project, not indices tied to inflation.

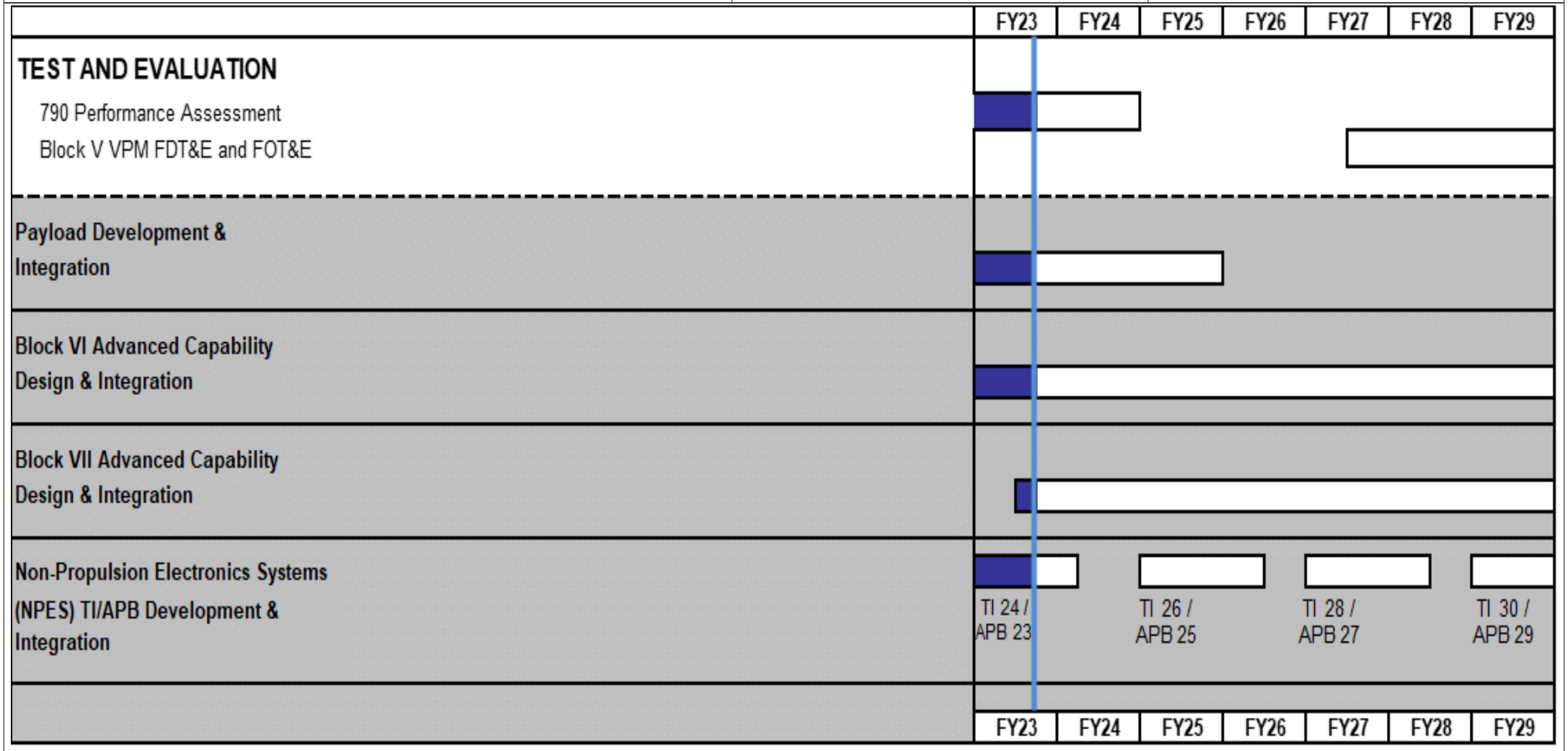
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support Services/ETS	C/CPAF	SEAPORT : Rockville, MD	41.341	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	41.341	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	916.694	30.131		38.572		43.253		-		43.253	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1950 / *New Design SSN Combat Sys Dev*



as of 20 Jun 2023

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 1950 / *New Design SSN Combat Sys Dev*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1950				
TEST & EVALUATION: U/R 790 Performance Assessment	1	2023	4	2024
Payload Development & Integration	1	2023	4	2025
Block VI Advanced Capability Design & Integration	1	2023	4	2029
NPES TI24/APB 23 Development & Integration	1	2023	1	2024
TEST & EVALUATION: FDTE and FOTE Block V VPM	3	2027	4	2029
NPES TI26/APB25 Development & Integration	1	2025	2	2026
Block VII Advanced Capability Design & Integration	1	2024	4	2029
NPES TI28/APB27 Development & Integration	1	2027	2	2028
NPES TI30/APB29 Development & Integration	1	2029	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 3062 / *Submarine Multi-Mission Team Trainer*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
3062: *Submarine Multi-Mission Team Trainer*	60.470	8.028	8.502	8.472	-	8.472	8.553	11.343	11.457	12.913	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shore based Combat System Team Trainers capable of training personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment. The Combat Control System (CCS) AN/BYG-1 and sonar system AN/BQQ-10 are installed on SSN, SSBN and SSGN class submarines. These tactical systems are planned for future upgrades with the next hardware and software revisions which will provide enhanced War Fighter capabilities. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) phased upgrades are also being installed with future revisions. The Advanced Processing Builds (APB) and Technical Insertion (TI) sensors, which feed technology insertion into the CCS/Acoustic development, directly impact the trainers.

The Submarine Multi-Mission Team Trainer (SMMTT) supports operator, employment, strike, and Battle Group training for enlisted and officer pipelines. The SMMTT provides operators and combat teams the opportunity to train ashore, prior to, and between deployments. The shore based training provides a means of maintaining team proficiency in stand alone or in combined team mode prior to ship deployment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Submarine Multi-Mission Team Trainer	8.028	8.502	8.472	0.000	8.472
Articles:	-	-	-	-	-
Description: To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shore based Combat System Team Trainers capable of training personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment.					
FY 2024 Plans: Develop implementation of latest Advanced Processor Build (APB), Technical Insertion (TI) and associated training displays. These efforts include visualization of new sensor developments and simulations to match advancements in tactical systems supported by SMMTT. The SMMTT baseline includes integration of WSQ-9, Low Cost Conformal Array (LCCA), Large Vertical Array (LVA), Large Aperture Bow (LAB) Array and Torpedo Reference Model simulation.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 3062 / *Submarine Multi-Mission Team Trainer*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY2024 continues Development Security Operations (DEVSECOPS) implementation of latest Advanced Processor Build (APB) and Technical Insertion (TI) into the Submarine Attack Center baseline. This effort includes new sensor developments and simulations to match advancements in tactical systems supported in Submarine Attack Centers. This effort develops and increases number of Virtual/New Targets, Improved Payloads and Electronic Warfare entities in support of TYCOMS Training requirement, Undersea and Extended Battle Problems. This effort will follow the delivery of tactical software to the Fleet on a quarterly basis as required by the Fleet. ***FY 2025 Base Plans:*** Develop implementation of latest Advanced Processor Build (APB), Technical Insertion (TI) and associated training displays. These efforts include visualization of new sensor developments and simulations to match advancements in tactical systems supported by SMMTT. The SMMTT baseline includes integration of WSQ-9, Low Cost Conformal Array (LCCA), Large Vertical Array (LVA), Large Aperture Bow (LAB) Array and Torpedo Reference Model simulation. FY2025 continues Development Security Operations (DEVSECOPS) implementation of latest Advanced Processor Build (APB) and Technical Insertion (TI) into the Submarine Attack Center baseline. This effort includes new sensor developments and simulations to match advancements in tactical systems supported in Submarine Attack Centers. This effort develops and increases number of Virtual/New Targets, Improved Payloads and Electronic Warfare entities in support of TYCOMS Training requirement, Undersea and Extended Battle Problems. This effort will follow the delivery of tactical software to the Fleet on a quarterly basis as required by the Fleet. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $0.03M from FY 2024 to FY 2025 is due to reduced costs for economy of scale for General Processing Unit (GPU) clusters.					
Accomplishments/Planned Programs Subtotals	8.028	8.502	8.472	0.000	8.472

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 3062 / *Submarine Multi-Mission Team Trainer*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPN/5661: *Submarine Training Device Mods*	80.591	76.954	80.248	-	80.248	85.052	87.646	93.601	144.935	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SMMTT program software development is accounted for in this RDTEN line. All production kits are procured in OPN BLI 5661.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 3062 / *Submarine Multi-Mission Team Trainer*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	Reqn	NSWC/CD : Bethesda, MD	35.710	1.000	Dec 2022	1.040	Dec 2023	0.994	Dec 2024	-		0.994	Continuing	Continuing	Continuing
Component Development	C/CPFF	ARL UT : UT Austin, TX	4.339	0.462	Jan 2023	0.471	Jan 2024	0.471	Jan 2025	-		0.471	Continuing	Continuing	Continuing
Component Development	Reqn	NUWC/NPT : Newport, RI	20.121	5.716	Oct 2022	6.120	Oct 2023	6.120	Oct 2024	-		6.120	Continuing	Continuing	Continuing
Component Development	C/CPFF	ARL Penn : Phildelphia, PA	0.300	0.850	Jan 2023	0.871	Jan 2024	0.887	Jan 2025	-		0.887	Continuing	Continuing	Continuing
		Subtotal	60.470	8.028		8.502		8.472		-		8.472	Continuing	Continuing	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	60.470	8.028		8.502		8.472		-		8.472	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 3062 / *Submarine Multi-Mission Team Trainer*

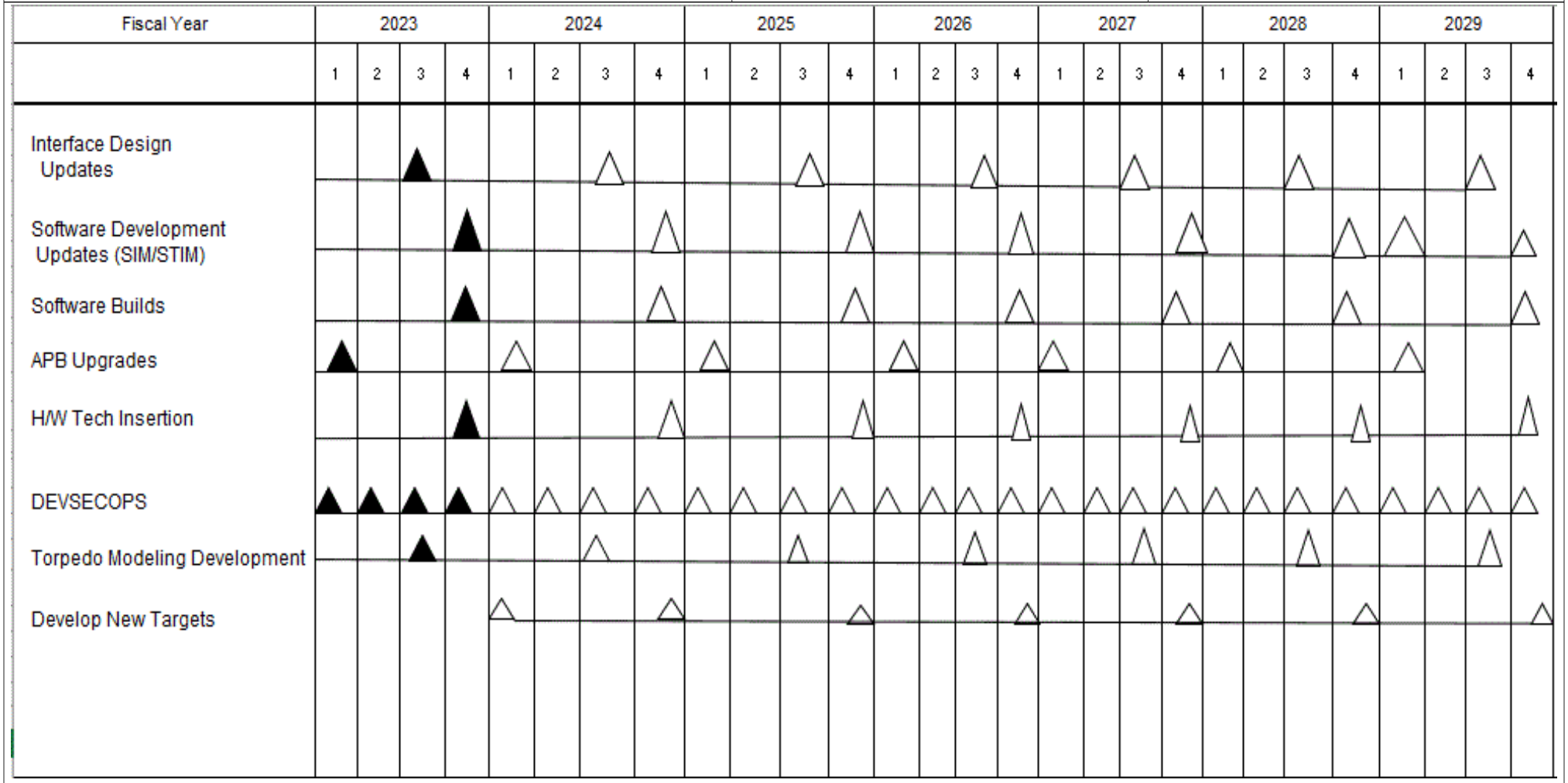


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 3062 / *Submarine Multi-Mission Team Trainer*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3062				
Interface design updates: Interface Design Updates	3	2023	3	2029
Software Development Updates: Software Development Updates (SIM/STIM)	4	2023	4	2029
Software Builds: Software Builds	4	2023	4	2029
Advanced Processing Build(APB) Upgrades: Advanced Processing Build (APB) Upgrades	1	2023	1	2029
Hardware Tech Insertion Updates: Hardware Tech Insertion Updates	4	2023	4	2029
DEVSECOPS: DEVSECOPS	1	2023	4	2029
Torpedo Modeling Development: Torpedo Modeling Development	3	2023	3	2029
Develop New Targets: Develop New Targets	1	2024	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*				Project (Number/Name) 9999 / *Congressional Adds*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
9999: *Congressional Adds*	0.000	8.199	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.199
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This FY 2023 RDT&E Congressional add for Advanced Submarine Control (ASC) using Precision Maneuvering Unit (PMU) technology targets performance and reliability improvements, as well as decreasing total ownership cost, to the Virginia Class Submarine Secondary Propulsion Unit (SPU) design. Improvements aim to create a PMU to replace SPUs as the secondary propulsion system.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: Precision maneuvering units	8.199	0.000
FY 2023 Accomplishments: -Initiate development to transition prototype technology to support insertion into future VIRGINIA Class construction baselines.		
FY 2024 Plans: N/A		
Congressional Adds Subtotals	8.199	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604558N / *New Design SSN*	Project (Number/Name) 9999 / *Congressional Adds*	

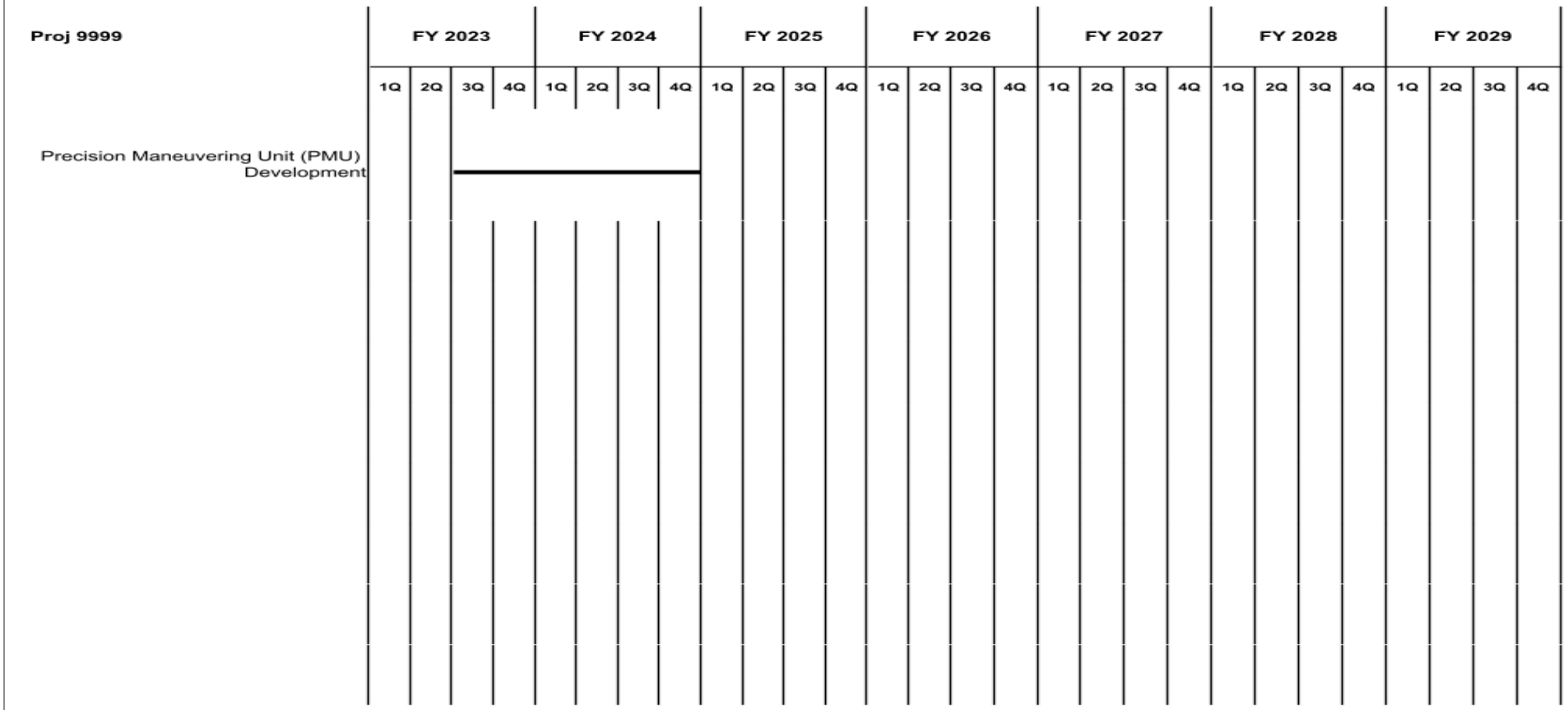
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Precision Maneuvering Unit (PMU) Development	TBD	TBD : TBD	0.000	8.199	Jul 2023	0.000		0.000		-		0.000	0.000	8.199	-
		Subtotal	0.000	8.199		0.000		0.000		-		0.000	0.000	8.199	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	8.199		0.000		0.000		-		0.000	0.000	8.199	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 9999 / *Congressional Adds*



2025DON - 0604558N - 9999

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604558N / *New Design SSN*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9999				
Precision Maneuvering Unit (PMU) Development: Precision Maneuvering Unit (PMU) Development	3	2023	4	2024