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 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0101226N *I Submarine Acoustic War 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**
Total Program Element	153.528	79.733	92.869	96.667	-	96.667	105.512	74.584	60.728	57.886	Continuing	Continuing
1265: *Sub Defensive Warfare*	94.810	17.636	15.322	17.522	-	17.522	17.156	16.471	15.944	15.249	Continuing	Continuing
1267: *Compact Rapid Attack Weapon (CRAW)*	52.427	54.751	74.869	74.138	-	74.138	83.265	52.925	39.495	37.243	Continuing	Continuing
1268: *Non-Traditional Acoustic Communications (NTAC)*	6.291	2.523	2.678	5.007	-	5.007	5.091	5.188	5.289	5.394	Continuing	Continuing
9999: *Congressional Adds*	0.000	4.823	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.823

A. Mission Description and Budget Item Justification

Submarine Launch Unmanned Aerial System (SLUAS) transferred from RDTEN Program Element (PE) 0604562N beginning in FY25.

The Submarine Acoustic Warfare (SAWS) Development Program develops acoustic countermeasures, submarine defense capabilities, external launch systems and all acoustic augmentation systems for the U.S. Navy submarines. The SAWS Development Program is comprised of the Submarine Defensive Warfare Program, Compact Rapid Attack Weapon (CRAW) and Non-Traditional Acoustic Communications (NTAC).

Project 1265 Sub Defensive Warfare
The first development (Increment 1) effort of the overall Submarine Torpedo Defensive Systems (SubTDS) program is focused on delivering full internal countermeasure launcher (ICL) functionality to all submarine in the fleet via the Acoustic Device Countermeasure (ADC) MK5 effort. The ADC MK 5 acoustic countermeasure (ACAT III) developmental contract awarded in Sep 2018 and is currently in the Engineering and Manufacturing Development (E&MD) phase. The ADC MK5 development includes delivering fully functional test units and Engineering Development Model (EDM) variants. The ADC MK5 will bring new technologies, including adaptability, packaged in a three-inch diameter body. The ADC MK5 efforts include on- going development such as finalizing and testing the overall system in support of Test Readiness Review (TRR), and Production Readiness Review (PRR) and award of multiple ADC MK5 EDM units followed by LRIP units.

FY24 funding will include EDM-2 Test Readiness Review (TRR) and will deliver one hundred and twenty-two (122) EDM-2 units. Twenty (20) units to be utilized for Environmental Qualification Testing (EQT), three (3) units to be utilized for HERO testing, and ninety-nine (99) units to be utilized for additional Developmental Testing (DT). Procurement of long lead items for eighty-four (84) Low-Rate Initial Production (LRIP) units will also begin in FY24 in preparation for initial deliveries beginning in FY25. FY24 will complete deliveries of STU-E and continue Hardware-In-the-Loop (HWIL) integration of STU-E into the Weapons Analysis Facility (WAF) testing.

FY25 efforts will include Production Readiness Review (PRR) and will begin delivery of the eighty-four (84) LRIP units to be utilized for Operational Testing (OT) beginning in FY26. Independent Logistics Assessment (ILA) will be completed in FY25. Developmental Testing (DT) and Environmentally Centric Weapons Analysis Facility (EC-WAF) / Hardware in the Loop (HWIL) of EDM-2 will continue in FY25. SIB funds received will support Sub TDS industrial base efforts. Additionally, FY25 accounts for procurement of 30 LRIP units that will begin delivery in FY26 and FY26 accounts for procurement of 29 LRIP units that will begin delivery in FY27.

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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0101226N *I Submarine Acoustic War Dev*

The next development in the SubTDS program (Increment 2) focuses on the development of the External Countermeasure Launcher (ECL) hosted 6-inch acoustic countermeasure (to be known as the ADC MK6 effort), Tactical Decision Aid, and integration with ship systems for to provide improved adaptive capabilities leading up to a contract or agreement award in FY25.

The Undersea Defense Working Group (UDWG) is a working group comprised of fleet, resource sponsor, (testing community) and acquisition community representatives to assess fleet threats and the effectiveness of our countermeasure systems against these threats, both known and projected. This includes associated studies, demonstrations, models, and simulations. The Technical Direction Agent (TDA) and In-Service Engineering Agent (ISEA) will provide hardware and software development support for Acoustic Devices Countermeasure (ADC) as well as Countermeasures Set, Acoustic (CSA) systems, future variants, and Acoustic Augmentation Support Systems (AASS) in the Acoustic Augmentation Support Program (AASP), and advanced communication systems improvements in support of the AASP, including component level technical insertion.

PMS415 Submarine Tethered Expendable Buoy (STEB) effort is limited to the development of changes to the internal countermeasure launcher, specifically the breech door, to integrate STEB. This integration will provide a communications path to and from the buoy, bringing buoy sensor data internal to the submarine.

Project 1267 Compact Rapid Attack Weapon (CRAW)
Within the CRAW Project line 1267, funding from FY24 to FY25. The FY25 budget supports $10M in procurement of remaining material for TI-2 hardware material and integration and testing of EDM's to be delivered in FY26. The FY25 budget also supports the required software development, hardware development, submarine integration and qualification testing.

The CRAW Research, Development, Test & Evaluation (RDT&E) program will deliver a new very-lightweight torpedo capability to the Submarine Fleet that provides enhanced Anti- Submarine Warfare (ASW) and Anti-Torpedo Torpedo (ATT) mission capabilities. The CRAW development program leverages torpedo hardware developed by the Anti-Torpedo Torpedo Defense System (ATTDS) program and very-lightweight torpedo technologies developed by ONR. Two incremental Technology Insertions (TIs), TI-1 (hardware limited) and TI-2, will be used to deliver developmental prototypes to support Engineering, Development, and Operational Testing. The CRAW TI-1 effort is being executed as a Middle Tier of Acquisition (MTA) effort and will rapidly develop fieldable prototypes to demonstrate the new very-lightweight torpedo ASW capabilities in an operational environment and provide for a residual operational capability. The residual operational capability will, however, have a limited inventory of TI-1 systems. The TI-2 effort will update the TI-1 baseline to address obsolescence and improve producibility and supportability to enable production of additional inventory so that the CRAW capability can be fielded broadly across the submarine force. The TI-2 program is being executed as a Major Capability Acquisition Program and in FY24 will be initiated as a post-Milestone B (MS-B) ACAT III program. The TI-2 program is being phased with the TI-1 effort so that the TI-2 program can fully leverage the TI-1 prototypes as proof of design hardware. This will reduce overall cost of the TI-2 program as the TI-2 program will move immediately into development of proof of manufacturing prototypes to support Development Testing that will begin in FY26. Low Rate Initial Production (LRIP) units to support Operational Testing beginning in FY29 will also be delivered as part of TI-2. The CRAW program also includes development of launcher system modifications to allow for launch capabilities from vertical and horizontal launch tubes. This will include the development of the Revolver Multi-Payload horizontal launcher system that enables launch of multiple very-lightweight torpedoes from standard submarine torpedo tubes.

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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0101226N *I Submarine Acoustic War Dev*

Project 1268 Non-Traditional Acoustic Communications (NTAC)

NTAC provides advanced undersea acoustic communications across multiple platforms within the Navy. This program builds upon the baseline NTAC software capability and integrates the software components into existing hardware to expand the effectiveness and reliability of the capability. Additional details are available at the classified level.

Submarine Launch Unmanned Aerial System (SLUAS) funds transfer from RDTEN PE 0604562N beginning in FY25. SLUAS incorporates unmanned aerial vehicles, vehicle encapsulating canisters, vehicle command and control capabilities, and vehicle stowage into submarines. SLUAS extends the sensor range of the submarine, serving as a key enabler of Over-The-Horizon (OTH) weapons employment.

The SAWS Development Program transitions the research and development of new technologies and capabilities generated under the Future Naval Capabilities (FNC), Small Business and Innovative Research (SBIR), and other Research, Development, Test & Evaluation (RDT&E) initiatives. Hardware and software evaluations in representative acoustic environments, against projected threats utilizing digital and hardware-in-the-loop simulations determines the effectiveness and impact on improving submarine survivability. The technology is then integrated into the appropriate product line. Additionally, this effort also includes advanced studies, product development and improvements for Submarine Acoustic Warfare Systems (SAWS) including but not limited to AASP, CSA, SubTDS, CRAW and NTAC.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	81.237	92.869	78.572	-	78.572
Current President's Budget	79.733	92.869	96.667	-	96.667
Total Adjustments	-1.504	0.000	18.095	-	18.095
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.037	0.000			
• SBIR/STTR Transfer	-1.467	0.000			
• Program Adjustments	0.000	0.000	18.669	-	18.669
• Rate/Misc Adjustments	0.000	0.000	-0.574	-	-0.574

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 9999: *Congressional Adds*		
Congressional Add: *Integration of four-tube launch system*	4.823	0.000
Congressional Add Subtotals for Project: 9999	4.823	0.000

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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0101226N *I Submarine Acoustic War Dev*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Congressional Add Totals for all Projects	4.823	0.000

Change Summary Explanation

FY2023 decrease from PB2024 position of $1.504 million due to SBIR transfer ($1.467M) and Cancelled Account transaction ($0.037M). FY2025 net increase from PB2024 position of $18.095 million due to increase support of Revolver Multi-Payload (MP) integration ($2.000 million), SLUAS funds transfer from RDTEN PE 0604562N ($2.426 million), prior year execution adjustment (-$0.757 million), Submarine Industrial Base development ($13.000 million), and miscellaneous adjustments ($0.669 million).

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*				Project (Number/Name) 1265 / *Sub Defensive Warfare*			
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**
1265: *Sub Defensive Warfare*	94.810	17.636	15.322	17.522	-	17.522	17.156	16.471	15.944	15.249	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Submarine Acoustic Warfare (SAWS) Development Program develops acoustic countermeasures, submarine defense capabilities, external launch systems and all acoustic augmentation systems for the U.S. Navy submarines. The SAWS Development Program is comprised of the Submarine Defensive Warfare Program.

Project 1265 Sub Defensive Warfare Submarine Torpedo Defense System (SubTDS)
The first development (Increment 1) effort of the overall Submarine Torpedo Defensive Systems (SubTDS) program is focused on delivering full internal countermeasure launcher (ICL) functionality to all submarine in the fleet via the Acoustic Device Countermeasure (ADC) MK5 effort. The ADC MK 5 acoustic countermeasure (ACAT III) developmental contract awarded in Sep 2018 and is currently in the Engineering and Manufacturing Development (E&MD) phase. The ADC MK5 development includes delivering fully functional test units and Engineering Development Model (EDM) variants. The ADC MK5 will bring new technologies, including adaptability, packaged in a three-inch diameter body. The ADC MK5 efforts include on- going development such as component and subsystem design, in support of the Preliminary Design Review (PDR), Critical Design Review (CDR), and award of multiple ADC MK5 EDM units.

FY24 funding will include EDM-2 Test Readiness Review (TRR) and will begin delivery of one hundred and twenty-two (122) EDM-2 units. Twenty (20) units to be utilized for Environmental Qualification Testing (EQT), three (3) units to be utilized for HERO testing, and ninety-nine (99) units to be utilized for additional Developmental Testing (DT). FY24 will complete deliveries of STU-E and continue Hardware-In-the-Loop (HWIL) integration of STU-E into the Weapons Analysis Facility (WAF) testing Procurement of long lead items for eighty-four (84) Low-Rate Initial Production (LRIP) units will also begin in FY24 in preparation for initial deliveries beginning in FY25.

FY25 efforts will include Production Readiness Review (PRR) and will begin delivery of the eighty-four (84) LRIP units to be utilized for Operational Testing (OT) beginning in FY26. Independent Logistics Assessment (ILA) will be completed in FY25. Developmental Testing (DT) and Environmentally Centric Weapons Analysis Facility (EC-WAF) / Hardware in the Loop (HWIL) of EDM-2 will continue in FY25. SIB funds received will support Sub TDS industrial base efforts. Additionally, FY25 accounts for procurement of 30 LRIP units that will begin delivery in FY26 and FY26 accounts for procurement of 29 LRIP units that will begin delivery in FY27.

The next development in the SubTDS program (Increment 2) focuses on the development of the External Countermeasure Launcher (ECL) hosted 6-inch acoustic countermeasure (to be known as the ADC MK6 effort), Tactical Decision Aid, and integration with ship systems for to provide improved adaptive capabilities leading up to a contract or agreement award in FY25.

The Undersea Defense Working Group (UDWG) is a working group comprised of fleet, resource sponsor, (testing community) and acquisition community representatives to assess fleet threats and the effectiveness of our countermeasure and systems against these threats, both known and projected. This includes associated studies, demonstrations, models, and simulations. The Technical Direction Agent (TDA) and In-Service Engineering Agent (ISEA) will provide hardware and

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1265 / *Sub Defensive Warfare*

software development support for Acoustic Devices Countermeasure (ADC) as well as Countermeasures Set, Acoustic (CSA) systems, future variants, and Acoustic Augmentation Support Systems (AASS) in the Acoustic Augmentation Support Program (AASP), and advanced communication systems improvements in support of the AASP, including component level technical insertion.

PMS415 Submarine Tethered Expendable Buoy (STEB) effort is limited to the development of changes to the internal countermeasure launcher, specifically the breech door, to integrate STEB. This integration will provide a communications path to and from the buoy, bringing buoy sensor data internal to the submarine.

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 Torpedo Defense System (SubTDS)	17.636	12.751	16.624	0.000	16.624
Articles:	122	84	30	-	30
Description: The ADC MK5 Acoustic Countermeasure (ACAT III) developmental contract awarded in Sep 2018 and is currently in the Engineering & Manufacturing Development phase. The first effort of the overall SubTDS program focuses on delivering full internal countermeasure launcher functionality to all submarines in the fleet via the Acoustic Device Countermeasure (ADC) MK5 effort. The second increment focuses on the External Countermeasure Launcher (ECL) hosted 6-inch acoustic countermeasure, to be known as the ADC MK6 effort.					
FY 2024 Plans: FY 2024 Plans: - Complete deliveries of STU-E and continue Hardware-In-the-Loop (HWIL) integration of STU-E into the Weapons Analysis Facility (WAF) testing - TRR for EDM-2 - Deliver twenty (20) EDM-2 for EQT - Deliver three (3) EDM-2 for HERO testing - Begin deliveries of ninety-nine (99) EDM-2 for Developmental Testing (DT) - Initiate procurement of long lead items for eighty-four (84) Low-Rate Initial Production (LRIP) units to be utilized for Operational Testing (OT) in FY26 - Initiate DT including EQT, HERO and acoustic testing on EDM-2					
FY 2025 Base Plans: - Production Readiness Review (PRR) - Continue DT with the EDM-2 - Begin deliveries of LRIP - Contract Award for ADC MK6					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1265 / *Sub Defensive Warfare*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 increased by $3.873 million due to ADC MK5 DT/OT requirements.					
Title: Submarine Tethered Expendable Bouy	0.000	2.571	0.898	0.000	0.898
Articles:	-	-	-	-	-
Description: This effort supports the development of changes to the internal countermeasure launcher, specifically the breech door, to integrate the Submarine Tethered Expendable Buoy (STEB). This integration will provide a communications path to and from the buoy, bringing buoy sensor data internal to the submarine. ***FY 2024 Plans:*** - Initiate design and development of an internal countermeasure breech door that enables pre and post-launch connectivity with a STEB. ***FY 2025 Base Plans:*** - Continue efforts to design, prototype, and qualify the internal countermeasure breech door that enables pre/ post-launch connectivity with a STEB. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 decreased by $1.673 million due to countermeasure breech door design schedule and deliverables scheduled for FY 2025.					
Accomplishments/Planned Programs Subtotals	17.636	15.322	17.522	0.000	17.522

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/2210: *Submarine Acoustic Warfare System*	31.708	46.726	55.484	-	55.484	49.313	58.101	52.675	50.276	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1265 / *Sub Defensive Warfare*

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

Remarks

OPN 2210 includes SubTDS, Compact Rapid Attack Weapon System (CRAW), and Submarine Launched Aerial System (SLUAS). Funding profile shows SubTDS equity only. Project 1267 will show CRAW profile. Project 1268 will show SLUAS profile.

D. Acquisition Strategy

Submarine Acoustic Warfare System (SAWS) develops Undersea Defensive Warfare technologies to improve the survivability of all U.S. Submarine classes.

SubTDS

Through a full and open competition, the ADC MK5 development contract awarded in Sep 2018. The Cost Plus Incentive Fee (CPIF) contract funds the design and development of Engineering Development Model (EDM) variants, Technical Data Packages (TDP), and Low-Rate Initial Production (LRIP) units for accomplishing Operational Testing (OT). The ADC MK5 contractor subsystem testing and joint contractor/Navy Development Testing (DT) will occur in FY23 through FY25 and Navy OT in FY26. Milestone C is nominally in FY26. Initial Operational Capability (IOC) is nominally FY27 for the Internal Countermeasure Launcher (ICL) configuration. After successfully completing OT and Full Rate Production Decision Review (FRP DR), award of a full and open competitive production contract occurs in FY27. APB and TEMP will be approved in FY23.

The follow-on development effort for addressing the overall SubTDS program will begin in FY25 and focus on the development of the External Countermeasure Launcher (ECL) launched 6-inch acoustic countermeasure variant, to be known as ADC MK6. Development of the acquisition strategy is beginning, with a contract award planned for FY25.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
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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
SubTDS WAF ANALYSIS UDWG	WR	NUWC : NEWPORT, RI	13.069	0.125	Dec 2022	0.508	Dec 2023	0.133	Dec 2024	-		0.133	Continuing	Continuing	Continuing
SubTDS SYSYTEM ENGINEERING	WR	NUWC : NEWPORT, RI	19.054	1.858	Dec 2022	2.638	Dec 2023	1.938	Dec 2024	-		1.938	Continuing	Continuing	Continuing
SubTDS ADC MK5 New Development	C/CPIF	LEIDOS : RESTON, VA	34.611	13.216	Nov 2022	5.539	Nov 2023	9.367	Nov 2024	-		9.367	Continuing	Continuing	Continuing
SubTDS ADC MK5 SYSTEM ENGINEERING and Logistics	WR	NUWC : KEYPORT, WA	5.710	0.220	Dec 2022	0.481	Dec 2023	0.335	Dec 2024	-		0.335	Continuing	Continuing	Continuing
SubTDS Modeling And Simulation	WR	NUWC : NEWPORT, RI	9.100	0.696	Dec 2022	1.958	Dec 2023	0.790	Dec 2024	-		0.790	Continuing	Continuing	Continuing
SubTDS Tactical Decision Aid TacDA	WR	NUWC : NEWPORT, RI	6.481	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Acoustic Augmentation Support Program (AASP)	WR	NUWC : NEWPORT, RI	0.435	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Sabot Development	WR	NUWC : NEWPORT, RI	1.270	0.000		0.000		0.000		-		0.000	0.000	1.270	-
SubTDS ADC MK5 Principal for Safety and Logistics	WR	NSWC : INDIAN HEAD, MD	0.060	0.589	Dec 2022	0.066	Dec 2023	0.021	Dec 2024	-		0.021	0.000	0.736	-
STEB Development	WR	NUWC : NEWPORT, RI	0.000	0.000		2.571	Mar 2024	0.898	Mar 2025	-		0.898	0.000	3.469	-
SAWS Roadmap	C/FP	SPA : ARLINGTON, VA	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	-
SubTDS SYSYTEM ENGINEERING	WR	NSWC : CORONA, CA	0.000	0.069	Dec 2022	0.069	Dec 2023	0.137	Dec 2024	-		0.137	0.000	0.275	-
SubTDS ADC MK6	WR	NUWC : NEWPORT, RI	0.000	0.000		0.000		0.500	Feb 2025	-		0.500	0.000	0.500	-
SubTDS SYSYTEM ENGINEERING	WR	NSWC : CARDEROCK, MD	0.000	0.125	Jun 2023	0.000		0.000		-		0.000	0.000	0.125	-
		Subtotal	89.940	16.898		13.830		14.119		-		14.119	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*	Project (Number/Name) 1265 / *Sub Defensive Warfare*	

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

FY25 will complete PRR and will begin delivery of LRIP units. Contract award for ADC MK6 is planned for FY25.

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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NUWC : NEWPORT, RI	0.137	0.259	Dec 2022	0.844	Dec 2023	3.000	Dec 2024	-		3.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	OPTEVFOR : NORFOLK, VA	0.000	0.149	Dec 2022	0.052	Dec 2023	0.053	Dec 2024	-		0.053	0.000	0.254	-
		Subtotal	0.137	0.408		0.896		3.053		-		3.053	Continuing	Continuing	N/A

Remarks

FY25 will continue DT with EDM-2 units.

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
SAWS TRAVEL	WR	NAVSEA : Washington, DC	0.892	0.040	Dec 2022	0.050	Dec 2023	0.050	Dec 2024	-		0.050	Continuing	Continuing	Continuing
SubTDS PROGRAM MANAGEMENT SUPPORT	C/CPAF	TECH MARINE : Washington, DC	0.900	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
SubTDS PROGRAM MANAGEMENT SUPPORT	C/CPAF	BOOZ ALLEN : Washington, DC	2.369	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
SubTDS PROGRAM MANAGEMENT SUPPORT	C/CPAF	Synchron : Washington, DC	0.572	0.290	Dec 2022	0.546	Dec 2023	0.300	Dec 2024	-		0.300	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*	Project (Number/Name) 1265 / *Sub Defensive Warfare*	

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
		Subtotal	4.733	0.330		0.596		0.350		-		0.350	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	94.810	17.636		15.322		17.522		-		17.522	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1265 / *Sub Defensive Warfare*

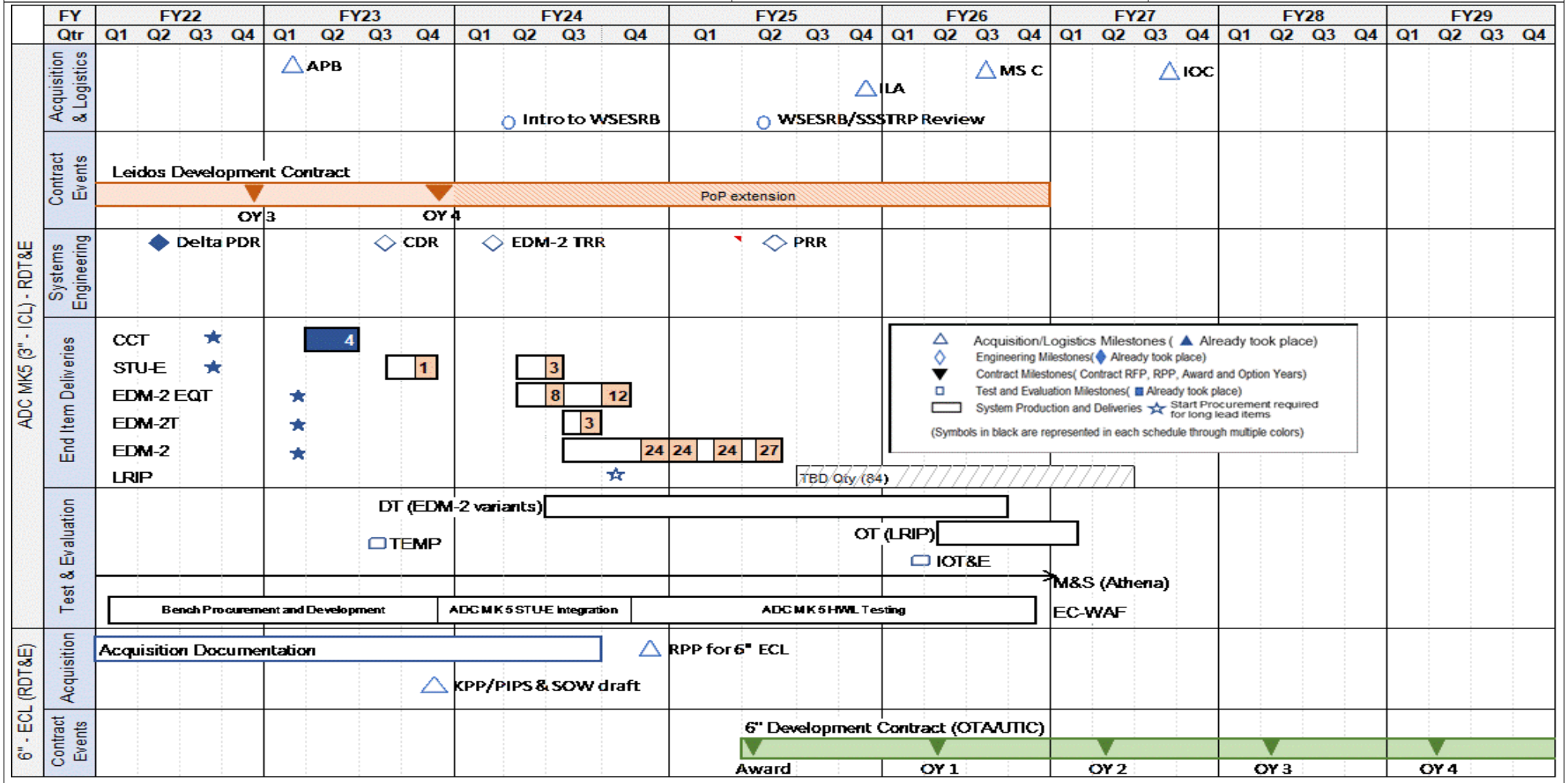

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1265 / *Sub Defensive Warfare*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1265				
Schedule Detail	1	2023	1	2027
Weapons Analysis Facility (WAF): Countermeasure (CM) Effectiveness/Weapon Analysis Facility (WAF) Vulnerability	1	2023	4	2026
Submarine Torpedo Defense Systems (SubTDS): SubTDS M&S	1	2023	4	2025
Submarine Torpedo Defense Systems (SubTDS): TEMP Development	1	2023	4	2023
Submarine Torpedo Defense Systems (SubTDS): ADC MK5 Critical Design Review (CDR)	3	2023	3	2023
Submarine Torpedo Defense Systems (SubTDS): EDM-2 Variant Production and Deliveries	1	2023	2	2025
Submarine Torpedo Defense Systems (SubTDS): DT (EDM-2 Variants)	3	2024	3	2026
Submarine Torpedo Defense Systems (SubTDS): LRIP Production and Deliveries	3	2025	1	2026
Submarine Torpedo Defense Systems (SubTDS): MS-C Decision Reviews	3	2026	3	2026
Submarine Torpedo Defense Systems (SubTDS): OT (LRIP)	3	2026	2	2027
Submarine Torpedo Defense Systems (SubTDS): ECL Launched 6" Device Development Start	2	2025	2	2025

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*				Project (Number/Name) 1267 / *Compact Rapid Attack Weapon (CRAW)*			
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**
1267: *Compact Rapid Attack Weapon (CRAW)*	52.427	54.751	74.869	74.138	-	74.138	83.265	52.925	39.495	37.243	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Within the CRAW Project line 1267, funding remains level from FY24 to FY25. The FY25 budget supports $10M in procurement of remaining material for TI-2 hardware material and integration and testing of EDMs to be delivered in FY26.The FY25 budget also supports the required software development, hardware development, submarine integration and qualification testing.

The CRAW Research, Development, Test & Evaluation (RDT&E) program will deliver a new very-lightweight torpedo capability to the Submarine Fleet that provides enhanced Anti- Submarine Warfare (ASW) and Anti-Torpedo Torpedo (ATT) mission capabilities. The CRAW development program leverages torpedo hardware developed by the Anti-Torpedo Torpedo Defense System (ATTDS) program and very-lightweight torpedo technologies developed by ONR. Two incremental Technology Insertions (TIs), TI-1 and TI-2, will be used to deliver developmental prototypes to support Engineering, Development, and Operational Testing. The CRAW TI-1 effort is being executed as a Middle Tier of Acquisition (MTA) effort and will rapidly develop fieldable prototypes to demonstrate the new very-lightweight torpedo ASW capabilities in an operational environment and provide for a residual operational capability. The residual operational capability will, however, have a limited inventory of TI-1 systems. The TI-2 effort will update the TI-1 baseline to address obsolescence and improve producibility and supportability so that the CRAW capability can be fielded broadly across the submarine Force. The TI-2 program is being executed as a Major Capability Acquisition Program and in FY24 will be initiated as a post-Milestone B (MS-B) ACAT III program. The TI-2 program is being phased with the TI-1 effort so that the TI-2 program can fully leverage the TI-1 prototypes as proof of design hardware. This will reduce overall cost of the TI-2 program as the TI-2 program will move immediately into development of proof of manufacturing prototypes to support Development Testing that will begin in FY26. Low Rate Initial Production (LRIP) units to support Operational Testing beginning in FY29 will also be delivered as part of TI-2.

The CRAW TI-1 effort will rapidly deliver an ASW capability at a reduced cost by leveraging hardware from the ATTDS program and technologies developed by ONR. The ATTDS program developed a very-lightweight torpedo that can be launched from a surface ship. The hardware design from ATTDS will be modified for submarine integration and use as an ASW weapon. Very-lightweight torpedo technologies developed by ONR will be significantly leveraged and transitioned into CRAW. Funding for the TI-1 effort supports development of ASW software, warhead design and certification, upgrades to the torpedo power plant, combat control system modifications, submarine launcher system modification, and overall system integration. Launcher system modifications will include development of launch capabilities from vertical and horizontal launch tubes. This will include the development of the Revolver Multi-Payload launcher system that enables launch of multiple very-lightweight torpedoes from standard submarine torpedo tubes. The TI-1 effort will rapidly develop a fieldable system with prototype very-lightweight torpedoes that will be demonstrated in an operationally relevant environment in FY26. After the demonstration, the TI-1 system will constitute a residual operational capability.

The TI-2 program will develop and deliver proof of manufacturing prototypes that will be used to reduce risk associated with starting manufacturing and production of new very-lightweight torpedoes. The TI-2 prototypes will support Development Testing to collect data on performance and inform any refinement of hardware and inform

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

assessments of technical risks. As part of the TI-2 program, manufacturing and assembly procedures will be refined to improve producibility, qualification testing will be completed, an ATT software upgrade will be developed, any hardware obsolescence will be addressed, and Development Testing and Operational Testing will be conducted. CRAW TI-2 long lead material is being procured in FY24 to support torpedo delivery in FY26. ATT software development will begin in FY25. Development of modeling and simulation capabilities to improve development timelines and reduce testing and evaluation cost and schedule will continue in FY25. Qualification testing and Developmental Testing will begin in FY26. Acquisition Milestone C (M.S. C) will be completed in FY28 to support procurement of Low-Rate Initial Production very-lightweight torpedoes. Operational Testing will begin in FY29 and continuing in FY30.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Compact Rapid Attack Weapon (CRAW) Development Design and Integration	54.751	74.869	74.138	0.000	74.138
Articles:	-	-	20	-	20
Description: The CRAW program will deliver a new very-lightweight torpedo system to the Submarine Fleet that provides enhanced Anti-Submarine Warfare (ASW) and Anti-Torpedo Torpedo (ATT) mission capabilities. Two incremental Technology Insertions (TIs), TI-1 and TI-2, will be used to deliver developmental prototypes to support an operationally relevant demonstration, Development Testing, and Operational Testing. The TI-1 effort will rapidly develop a fieldable system with prototype very-lightweight torpedoes that will be demonstrated in an operationally relevant environment in FY26. The TI-2 program is being phased with the TI-1 effort so that the TI-2 program can fully leverage the TI-1 prototypes as proof of design hardware. This will reduce overall cost of the TI-2 program as the TI-2 program will move immediately into development of proof of manufacturing prototypes to support Development Testing that will begin in FY26.					
FY 2024 Plans: - TI-1: Continue hardware development - TI-1: Continue ASW software development - TI-1: Continue ASW software testing - TI-1: Continue Launch Tube Assembly (LTA) testing - TI-1: Begin warhead qualification testing - TI-1: Continue development for horizontal and vertical launch systems - Continue transition of ONR Multi Vehicle Torpedo Tube Deployment System (MVTTDS) to Revolver Multi-Payload launcher system - Continue Modeling and Simulation development - TI-2: Continue hardware development - TI-2: Conduct Critical Design Review - Support ONR TI-1 ASW submarine demonstration					
FY 2025 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- TI-1: Complete TI-1 hardware development - TI-1: Deliver EDM Prototypes - TI-1: Complete Qualification Testing - TI-1: Complete ASW software testing - TI-1: Complete Launch Tube Assembly (LTA) testing - TI-1: Continue warhead qualification testing - TI-1: Continue development for horizontal and vertical launch systems - Continue Modeling and Simulation development - TI-2: Continue hardware development - TI-2: Continue ATT software development - TI-2: Conduct Design Review - Continue development of Revolver Multi-Payload launcher system ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 funding decreased by $0.731M. Level funding continues development of ASW software, warhead design and certification, upgrades to the torpedo power plant, combat control system modifications, submarine launcher system modification, and overall system integration.					
Accomplishments/Planned Programs Subtotals	54.751	74.869	74.138	0.000	74.138

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/2210: *Submarine Acoustic Warfare System*	1.791	8.419	7.896	-	7.896	10.296	16.100	14.382	14.669	Continuing	Continuing

Remarks

OPN 2210 includes SubTDS, Compact Rapid Attack Weapon System (CRAW), and Submarine Launched Aerial System (SLUAS). Funding profile shows CRAW equity only. Project 1265 will show SubTDS profile. Project 1268 will show SLUAS profile. The phasing of CRAW OPN is aligned with RDTE funding based on the development status of each sub-system. As the development of each sub-system is complete the OPN funding supports the procurement of the support equipment.
OPN funding for CRAW is required to procure:
- Ship support equipment such as launcher system equipment

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

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
- Ordnance shipping container equipment											
- Electronic support equipment such as electronic trainer simulators											
- Spare and repair parts											

D. Acquisition Strategy

The CRAW acquisition strategy is to use two incremental Technology Insertions (TIs) to deliver a new submarine launched very-lightweight torpedo capability. The CRAW TI-1 effort acquisition strategy is to fund Penn State University Applied Research Laboratory (PSU-ARL) to complete modification of the existing very-lightweight torpedo design leveraged from the ATTDS program. The TI-1 effort will also leverage technology developed by ONR. The CRAW TI-1 effort is being executed as a Middle Tier of Acquisition (MTA) effort and will rapidly develop fieldable prototypes to demonstrate the new very-lightweight torpedo ASW capabilities in an operational environment and provide for a residual operational capability in limited quantity of existing hardware.

A competitive industry development OTA was awarded in FY22 to Raytheon (Prime Contractor). Raytheon worked with PSU-ARL in FY23 to transfer knowledge of the TI-1 system. In FY24, the CRAW TI-2 program will be initiated as a post MS-B ACAT III program. In FY24, Raytheon will begin development of the TI-2 hardware to address obsolescence in the TI-1 design and improve producibility and supportability. Raytheon will deliver proof of manufacturing prototypes to support Development Testing in FY26 - FY28. Low-Rate Initial Production units will be delivered to support Operational Testing in FY29 - FY30.

PSU-ARL will be funded to develop tactical software for CRAW TI-1 and TI-2. The CRAW tactical software will be developed to allow for future incremental technology development. Naval Surface Warfare Center Indian Head Division will conduct all warhead development, testing, and manufacturing for CRAW TI-1 and TI-2.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*	Project (Number/Name) 1267 / *Compact Rapid Attack Weapon (CRAW)*	

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
CRAW - ONR FNC System Engineering	WR	NUWC : Newport, RI	1.497	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CRAW - ONR FNC Launch Tube Assembly	WR	Applied Research Laboratory Penn State University : State College, PA	4.486	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-1	C/CPAF	Applied Research Laboratory Penn State University : State College, PA	6.215	7.330	Jan 2023	6.450	Dec 2023	8.820	Dec 2024	-		8.820	Continuing	Continuing	Continuing
CRAW - Software Development TI-1	C/CPAF	Applied Research Laboratory Penn State University : State College, PA	2.894	6.580	Jan 2023	7.720	Dec 2023	8.495	Dec 2024	-		8.495	Continuing	Continuing	Continuing
CRAW - Revolver Multi-Payload Launcher System	TBD	TBD : TBD	0.000	0.000		2.500	Dec 2023	4.000	Dec 2024	-		4.000	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-2	C/CPFF	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
CRAW - Hardware Development TI-1	WR	NSWC : Indian Head, MD	13.343	10.325	Dec 2022	10.342	Dec 2023	5.925	Dec 2024	-		5.925	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-1	WR	NUWC : Newport, RI	8.496	11.010	Dec 2022	8.958	Dec 2023	4.825	Dec 2024	-		4.825	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-1	WR	NUWC : Keyport, WA	2.152	1.490	Dec 2022	1.700	Dec 2023	1.850	Dec 2024	-		1.850	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-1	WR	NSWC : Carderock, MD	0.185	0.870	Dec 2022	0.776	Dec 2023	0.685	Dec 2024	-		0.685	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-1	C/CPAF	Progeny : Washington, DC	2.787	2.613	Dec 2023	0.830	Dec 2023	1.500	Dec 2024	-		1.500	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-1	C/CPAF	General Dynamics Electric Boar : Not Specified	2.110	0.000		1.500	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*	

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
CRAW - Systems Engineering (Requirements)	C/CPFF	Amentum : Washington, DC	0.350	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CRAW - Hardware Development TI-2	C/CPFF	Raytheon : Newport, RI	2.000	8.522	Mar 2023	24.000	Dec 2023	16.000	Dec 2024	-		16.000	Continuing	Continuing	Continuing
CRAW- Industrial Base Alternative Propulsion System	TBD	TBD : TBD	0.000	0.000		0.000		11.833	Dec 2024	-		11.833	0.000	11.833	-
		Subtotal	46.515	48.740		64.776		63.933		-		63.933	Continuing	Continuing	N/A

Remarks

Cost Category Items in this submission have been consolidated from previous submissions. Cost Category Items have been appropriately aligned to either Hardware Development or Software Development efforts. This was done for clarity and to better represent the CRAW product development.
FY 2024 to FY 2025 funding decreased by $0.793M. Level funding continues development of ASW software, warhead design and certification, upgrades to the torpedo power plant, combat control system modifications, submarine launcher system modification, and overall system integration. Submarine Industrial Base funding will be developing electric propulsion technologies and infrastructure with industry for a potential future production contract.

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	NUWC : Newport, RI	0.575	1.161	Dec 2022	2.150	Dec 2023	5.500	Dec 2024	-		5.500	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	COMPOTEVFOR : Norfolk, VA	0.250	0.250	Dec 2022	0.500	Dec 2023	0.500	Dec 2024	-		0.500	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NUWC : Keyport, WA	2.250	1.600	Dec 2022	3.443	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/CPFF	Applied Research Laboratory Penn State University : State College, PA	1.000	1.500	Jan 2023	2.150	Dec 2023	2.450	Dec 2024	-		2.450	Continuing	Continuing	Continuing
		Subtotal	4.075	4.511		8.243		8.450		-		8.450	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

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

Remarks

In FY 2025 there is an increase of $0.207. This maintains the needed funding level to support CRAW hardware and software testing.

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
CRAW - Program Management Support	C/CPAF	Booz Allen Hamilton : Washington, DC	0.375	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CRAW Travel	WR	NAVSEA : Washington, DC	0.057	0.100	Dec 2022	0.200	Dec 2023	0.100	Dec 2024	-		0.100	Continuing	Continuing	Continuing
CRAW - Program Management Support	C/CPAF	Synchron : Washington, DC	1.405	1.400	Jan 2023	1.650	Dec 2023	1.655	Dec 2024	-		1.655	Continuing	Continuing	Continuing
		Subtotal	1.837	1.500		1.850		1.755		-		1.755	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	52.427	54.751		74.869		74.138		-		74.138	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

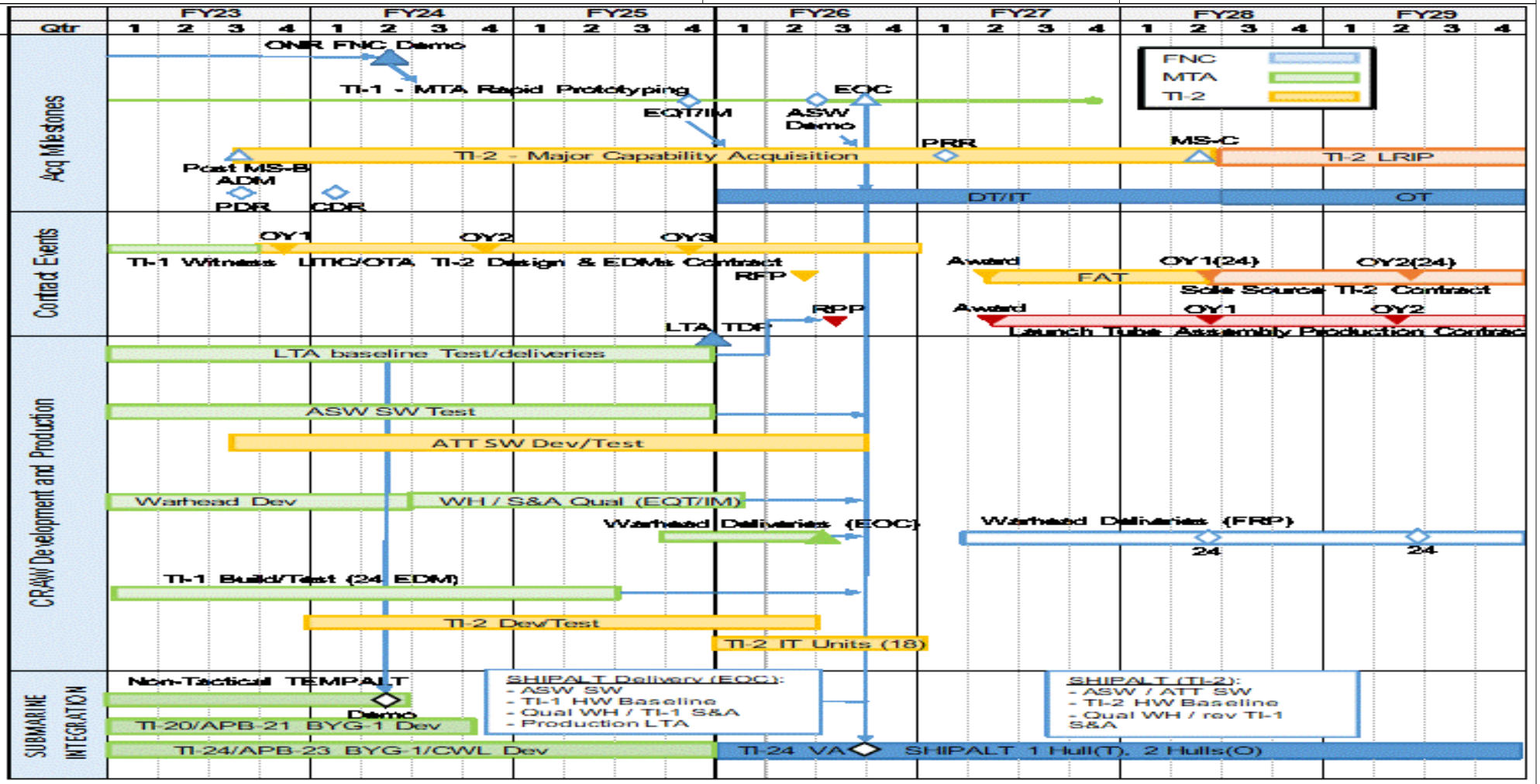

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1267				
REQUIREMENTS: SubTDS Capabilities Development Document (CDD) CRAW ANNEX Approval	1	2023	4	2023
AQUISITION MILESTONES: Early Operational Capability (EOC)	3	2026	4	2026
AQUISITION MILESTONES: Milestone C (MS/C)	4	2027	2	2028
MAJOR CONTRACT EVENTS: UTIC / OTA TI-1 Knowledge Transfer Build-Up	1	2023	4	2023
MAJOR CONTRACT EVENTS: UTIC / OTA TI-2 Design & EDMs Contract	2	2023	4	2026
MAJOR CONTRACT EVENTS: TI-2 Production Contract Request for Proposal (RFP)	3	2026	3	2026
MAJOR CONTRACT EVENTS: TI-2 Production Contract: Award	2	2027	3	2027
MAJOR CONTRACT EVENTS: Launch Tube Assembly FoS Contract: Request for Proposal (RFP)	3	2026	3	2026
MAJOR CONTRACT EVENTS: Launch Tube Assembly FoS Contract: Award	2	2027	3	2027
SYSTEMS ENGINEERING: Preliminary Design Review (PDR)	3	2023	4	2023
SYSTEMS ENGINEERING: Critical Design Review (CDR)	2	2024	3	2024
SYSTEMS ENGINEERING: Environmental Qualification Test/ Insensitive Munitions Test Readiness Review (EQT/IM TRR)	2	2024	1	2026
SYSTEMS ENGINEERING: Operational Test (OT) Unit Build	4	2027	4	2028
SYSTEMS ENGINEERING: Production Readiness Review (PRR)	2	2027	2	2027
CRAW DEVELOPMENT & PRODUCTION: Anti-Surface Warfare (ASW) Dev/Test	1	2023	4	2025
CRAW DEVELOPMENT & PRODUCTION: Anti-Torpedo (ATT) Dev/Test	1	2025	1	2029
CRAW DEVELOPMENT & PRODUCTION: Technical Insertion-1 Dev/Test/Build (48 Engineering Development Model (EDM)	1	2023	4	2025
CRAW DEVELOPMENT & PRODUCTION: Technical Insertion-2 Dev/Test	3	2023	4	2027

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1267 / *Compact Rapid Attack Weapon (CRAW)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CRAW DEVELOPMENT & PRODUCTION: Technical Insertion-2 Engineering Development Model (EDM) Build	3	2025	3	2027
CRAW DEVELOPMENT & PRODUCTION: S&A Dev	1	2023	4	2023
CRAW DEVELOPMENT & PRODUCTION: Warhead Development	1	2023	4	2024
CRAW DEVELOPMENT & PRODUCTION: Warhead Lot 1 (26)	4	2027	4	2027
CRAW DEVELOPMENT & PRODUCTION: Production Line Development	2	2027	4	2027
TEST & EVALUATION (VCS TI-20 TEMPALT): Dev CC / External Countermeasure Launcher (ECL) Changes	1	2023	4	2024
TEST & EVALUATION (VCS TI-20 TEMPALT): Dev PCS/BYG-1 Changes	1	2023	4	2024
TEST & EVALUATION (VCS TI-20 TEMPALT): Advanced Processor Build (APB)-21 / Technical Insertion-20 BYG-1 Dev Demo	2	2023	3	2024
TEST & EVALUATION (VCS TI-24 SHIPALT): Advanced Processor Build-23 / Technical Insertion-24 BYG-1 / CWL Dev	1	2023	4	2025
TEST & EVALUATION (VCS TI-24 SHIPALT): VIRGINIA Ship Alteration (SHIPALT)	2	2026	4	2027
S&T EFFORTS - Future Naval Capability (FNC): Submarine Demo	1	2024	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*	Project (Number/Name) 1268 / *Non-Traditional Acoustic Communications (NTAC)*	

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
1268: *Non-Traditional Acoustic Communications (NTAC)*	6.291	2.523	2.678	5.007	-	5.007	5.091	5.188	5.289	5.394	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Submarine Launch Unmanned Aerial System (SLUAS) transferred from RDTEN Program Element (PE) 0604562N beginning in FY25.

Non-Traditional Acoustic Communications (NTAC) is a software-based solution that leverages existing hardware components on target platforms, including submarines. The NTAC program is responsible for establishing formal program requirements, supporting installation of NTAC software on various platforms, and upgrading the software to support new hardware to improve NTAC performance. The new software capability is referred to as "NTAC software delivery package." Additional details are available at the classified level.

Submarine Launch Unmanned Aerial System (SLUAS) incorporates unmanned aerial vehicles, vehicle encapsulating canisters, vehicle command and control capabilities, and vehicle stowage into submarines. SLUAS extends the sensor range of the submarine, serving as a key enabler of Over-The-Horizon (OTH) weapons employment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Non-Traditional Acoustic Communications (NTAC)	2.523	2.678	2.642	0.000	2.642
Articles:	-	-	-	-	-
Description: Non-Traditional Acoustic Communications (NTAC) This capability provides advanced undersea acoustic communications. Additional details can be provided at the classified level. This program will build upon the baseline NTAC capability and integrate it into new hardware to expand the capability effectiveness and reliability. ***FY 2024 Plans:*** - Upgrade user interface - Incorporate system automation - Improve tactical decision aides - Improve reliability, security, and interoperability of system ***FY 2025 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1268 / *Non-Traditional Acoustic Communications (NTAC)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Integrate software into other programs to expand nodes available - Increase code base flexibility and scalability - Improve automation of user interface ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 decrease by $0.036 million due to level of effort adjustments.					
Title: Submarine Launch Unmanned Aerial System (SLUAS) ***Articles:*** ***Description:*** SLUAS transfers from RDTEN Program Element (PE) 0604562N beginning of FY25. ***FY 2024 Plans:*** Conclude middle-tier acquisition of 3-inch submarine UAS. Begin introduction of obsolescence refreshed 3-inch UAS. ***FY 2025 Base Plans:*** Continuation of obsolescence refresh of 3-inch UAS and the integration of spiral 2 technology. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 increase by $2.365 million due to program transfer from RDTEN PE 0604562N (Submarine Tactical Warfare System).	0.000 -	0.000 -	2.365 -	0.000 -	2.365 -
Accomplishments/Planned Programs Subtotals	2.523	2.678	5.007	0.000	5.007

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
• 5420: *SSN Combat Control Systems*	2.901	5.858	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.759
• 2210: *Submarine Acoustic Warfare Systems*	0.000	0.000	12.017	-	12.017	10.178	9.333	9.460	6.589	0.000	47.577

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1268 / *Non-Traditional Acoustic Communications (NTAC)*

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

Remarks

*OPN Line Item 5420 provides SLUAS equity FY24 and prior.
*OPN 2210 includes SubTDS, Compact Rapid Attack Weapon System (CRAW), and Submarine Launched Arial System (SLUAS). Funding profile shows SLUAS equity only. Project 1265 will show SubTDS profile. Project 1267 will show CRAW profile.
*NTAC has no OPN equity.

D. Acquisition Strategy

NTAC is a Government developed software application that integrates into other system components. NUWC Newport will continue to do the software development and hardware integration required to enhance the NTAC capability. In Fiscal Year (FY) 2021, the program began documenting top level requirements, system level requirements, and concepts of operation for fleet integration. In addition, the program began evaluating a new approach to integrating NTAC on submarines and conducted the necessary studies and requirements development to complete preliminary design of the NTAC software development package.

In FY22, the program continued detailed design of the NTAC software development package and conducted developmental testing of the advanced transmission capability, that meets the criteria of the top level and system level requirements developed in FY21. Additionally, NTAC began integration into ARCI. In FY23, the program completed necessary testing on the advanced transmission capability and prepared its software development package for integration into various nodes.

In FY24, continue spiral designs of the programs transmit and receive software. These improvements will increase reliability, interoperability as well as reduce security vulnerabilities. NTAC aims to integrate into existing tactical decision aid interfaces. The NTAC software operator interface will be improved reducing the chances of human error and lessening the manpower demand.

In FY25, explore and coordinate integration of coalition partners into NTAC. Integrate into past and future USN systems, based on fleet demand. Work with TYCOMs in specific mission sets to provide reliable NTAC operation in unusual operating situations and conditions.

Submarine Launched Unmanned Aerial System (SLUAS) incorporates unmanned aerial vehicles, vehicle encapsulating canisters, vehicle command and control capabilities, and vehicle stowage into submarines. SLUAS extends the sensor range of the submarine, serving as a key enabler of Over-The-Horizon (OTH) weapons employment. FY25 will complete the spiral 1 obsolescence refresh of the 3-inch UAS, in addition to supporting the demo/transition of spiral 2. Spiral 2 continues to add capabilities, including but not limited to autonomy and target recognition.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1268 / *Non-Traditional Acoustic Communications (NTAC)*

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
NTAC - Systems Engineering	WR	NUWC : Newport, RI	1.217	0.770	Jan 2023	2.338	Nov 2023	2.642	Nov 2024	-		2.642	Continuing	Continuing	Continuing
NTAC - Software Development	WR	NUWC : Newport, RI	3.602	1.618	Jan 2023	0.000		0.000		-		0.000	0.000	5.220	-
NTAC - Fleet Data Analysis	C/CPAF	NTT : Not Specified	0.752	0.000		0.000		0.000		-		0.000	0.000	0.752	-
NTAC - Tactical Decision Aid	WR	NUWC : Newport, RI	0.320	0.000		0.225	Nov 2023	0.000		-		0.000	0.000	0.545	-
Unmanned Aerial System	WR	NUWC : Newport, RI	0.000	0.000		0.000		2.156	Oct 2024	-		2.156	0.000	2.156	-
UAS - Systems Engineering	WR	NSWC : Bethesda, MD	0.000	0.000		0.000		0.050	Oct 2024	-		0.050	0.000	0.050	-
		Subtotal	5.891	2.388		2.563		4.848		-		4.848	Continuing	Continuing	N/A

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
NTAC - Program Management Support	C/CPAF	Booz Allen Hamilton : Washington, DC	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
NTAC - Travel	WR	NAVSEA : Washington, DC	0.058	0.051	Jan 2023	0.025	Jan 2024	0.000		-		0.000	0.000	0.134	-
NTAC - Program Management Support	C/CPAF	Synchron : Washington, DC	0.092	0.084	Jan 2023	0.090	Jan 2024	0.000		-		0.000	0.000	0.266	-
UAS - Travel	WR	NAVSEA : Washington, DC	0.000	0.000		0.000		0.010	Jan 2025	-		0.010	0.000	0.010	-
UAS - Program Management Support	C/CPAF	Synchron : Washington, DC	0.000	0.000		0.000		0.149	Dec 2024	-		0.149	0.000	0.149	-
		Subtotal	0.400	0.135		0.115		0.159		-		0.159	0.000	0.809	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*	Project (Number/Name) 1268 / *Non-Traditional Acoustic Communications (NTAC)*	

	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	6.291	2.523		2.678		5.007		-		5.007	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War D ev*	**Project (Number/Name)** 1268 / *Non-Traditional Acoustic Communications (NTAC)*

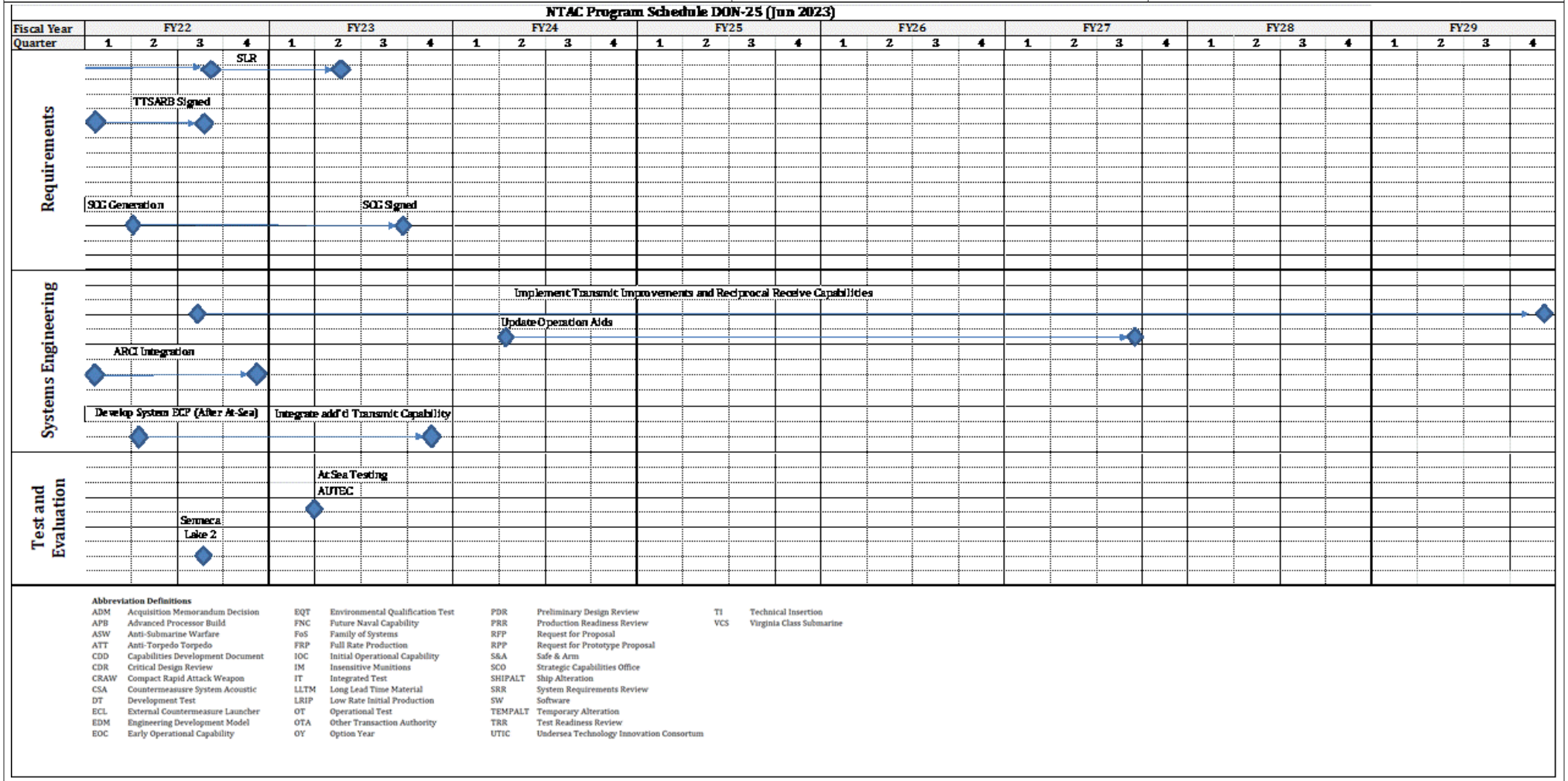

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 1268 / *Non-Traditional Acoustic Communications (NTAC)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1268				
Top Level Requirements Development	1	2023	2	2023
System Level Requirements Development	3	2023	4	2024
Requirements: SCG Generation	1	2023	2	2023
Requirements: SCG Signature	3	2023	3	2023
System Engineering: Advanced Capability Integration	1	2023	4	2023
System Engineering: Improve Transmit/Receive Capabilities	1	2023	4	2029
System Engineering: Operation Aids	2	2024	3	2027
Test and Evaluation: At-Sea Testing	1	2023	2	2023

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0101226N / *Submarine Acoustic War Dev*	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	4.823	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.823
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Revolver Multi-Payload (MP) is a program that transitions the ONR Multi-Vehicle Torpedo Tube Defense System (MVTTDS) in order to facilitate launching of multiple payloads from the VIRGINIA Class Torpedo Tubes. CRAW will be the first payload integrated for use with the Revolver MP production baseline. While CRAW will be the initial payload integrated with Revolver MP, additional payloads will continue to be integrated.

Project C911: Congressional Add ($5.000M) - Integration of four-tube launch system.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: Integration of four-tube launch system	4.823	0.000
FY 2023 Accomplishments: Integration of Multi-vehicle Torpedo Tube Delivery System (MVTTDS) into submarine combat system. Integration includes MVTTDS, Common Weapon Launcher (CWL), and Payload Control System (PCS) modifications.		
FY 2024 Plans: N/A		
Congressional Adds Subtotals	4.823	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Single year congressional funding to support four-tube launch system.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**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
Development	C/CPAF	Progeny : Washington, DC	0.000	3.373	Jun 2023	0.000		0.000		-		0.000	0.000	3.373	-
Systems Engineering	C/CPAF	Applied Research Laboratory Penn State University : State College, PA	0.000	0.700	Jun 2023	0.000		0.000		-		0.000	0.000	0.700	-
Safety Analysis	WR	NUWC Newport, : Newport, RI	0.000	0.250	Apr 2023	0.000		0.000		-		0.000	0.000	0.250	-
		Subtotal	0.000	4.323		0.000		0.000		-		0.000	0.000	4.323	N/A

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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	TBD	Progeny : Washington, DC	0.000	0.500	Apr 2023	0.000		0.000		-		0.000	0.000	0.500	-
		Subtotal	0.000	0.500		0.000		0.000		-		0.000	0.000	0.500	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	4.823		0.000		0.000		-		0.000	0.000	4.823	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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 9999																												
Congressional Adds: Project C911 Integration of four-tube launch System	[redacted]																											

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0101226N / *Submarine Acoustic War Dev*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9999				
Congressional Adds: Project C911 Integration of four-tube launch System	2	2023	4	2024