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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0204311N / <i>Integrated Surveillance System</i>
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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	724.252	98.351	76.279	72.473	-	72.473	88.169	94.893	88.396	99.144	Continuing	Continuing
0344: <i>Deployable Surveillance Systems</i>	50.962	30.410	10.547	16.286	-	16.286	14.437	14.435	14.435	14.433	Continuing	Continuing
0766: <i>IUSS Detect/Classif System</i>	635.938	56.964	63.994	52.090	-	52.090	71.865	79.623	73.109	83.841	Continuing	Continuing
1768: <i>Ship Plan Development and Design</i>	37.352	0.977	1.738	4.097	-	4.097	1.867	0.835	0.852	0.870	Continuing	Continuing
9999: <i>Congressional Adds</i>	0.000	10.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.000

A. Mission Description and Budget Item Justification

The Deployable Surveillance Systems (DSS) project (0344), complementing the Fixed Surveillance System (FSS) and Surveillance Towed Array Sensor System (SURTASS), provides flexible and responsive wide area surveillance to the Theater Anti-Submarine Warfare (TASW) commanders worldwide. DSS will operate as adjunct systems to meet the established FSS and SURTASS missions and to meet additional missions as articulated in the OPNAV Top Level Requirements document and follow-on Course of Action Analysis (COAA) and as dictated by TASW commanders evolving and emergent operational requirements. DSS is comprised of the following systems: Deep Water Passive (DWP), Deep Water Active (DWA), and Mobile Passive Active System (MPAS). Informed by TASW Offset operations and the tailored requirements process, the DSS Middle Tier Acquisition (MTA) Rapid Fielding. Program will focus initially on the DWP increment and associated spiral development updates. Spiral developments to meet the evolving submarine threat will leverage on-going Navy, Defense Advanced Research Projects Agency (DARPA), and small business research efforts including processing and sensor technology. Follow-on increments will be focused on DWA and MPAS, of which MPAS is currently outside the Future Years Defense Program (FYDP). FY24 includes funds for DWA that will provide a rapidly deployable sustained surveillance capability in response to emergent Fleet Undersea Warfare (USW) coverage gaps to include mitigating array outages or platform shortages. This funding will be used to procure one DWA cluster (consisting of 3 DWA Advanced Development Model units) and conduct a fleet demonstration in order to (1) prepare the rationale for using a MTA Program for a future DWA program; (2) conduct a Fleet demonstration to validate Top-Level Requirements; and (3) identify full DWA MTA funding requirements.

Project 0766 provides for Integrated Undersea Surveillance Systems (IUSS) Research and Development Projects under the Maritime Surveillance Systems (MSS) Program Office (PEO UWS PMS 485). IUSS provides the Navy with its primary means of submarine detection, both nuclear and diesel. A portion of project 0766 Fixed Surveillance System (FSS) is classified, with details available at a higher classification level.

The IUSS Research and Development project (0766) funds Surveillance Towed Array Sensor System (SURTASS) Passive and SURTASS Low Frequency Active (LFA) developments. SURTASS provides the mobile, tactical arm of the Integrated Undersea Surveillance System, providing long range detection and cueing for tactical weapons platforms or other vessels of interest. SURTASS LFA provides an active adjunct capability for IUSS passive and tactical sensors to assist in countering the quieter diesel and nuclear threats of the 2000s and beyond. The LFA tasks are directed at detection of slow quiet threats in harsh littoral waters.

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Development and improvement continues on the common IUSS processor based on NAVSEA's Acoustic Rapid Commercial Off The Shelf (COTS) Insertion (ARCI) program with a cyclical tech refresh of hardware and software in conjunction with the submarine Advanced Processor Build (APB) process. The IUSS Integrated Common Processor (ICP) has the capability to process and display data from all fixed and mobile underwater systems. The IUSS ICP is used for all new system installations and replaces the legacy systems as they reach end of life and require upgrading. Additionally, SURTASS consolidated on the TB-29A Twin-line array, a variant of the Submarine TB-29A Long line array. This reduced the number of array variants employed by SURTASS from 3 to 1, and enabled development and logistics cost savings by leveraging off the submarine TB-29A program.

SURTASS-E provides a SURTASS passive capability packaged into ISO-Vans for mobilization on Vessels of Opportunity (VOOs). It was developed as a CNO Rapid Prototyping, Experimentation, and Demonstration (RPED) program to provide a SURTASS variant that addresses emergent Theater ASW Commander requirements for SURTASS capability.

Project 1768 T-ARC(X) is a candidate replacement program for U.S. Navy's only organic undersea cable laying and repair ship, USNS ZEUS (T-ARC 7), which is approaching the end of her extended service life. The ship's main mission is to deploy, repair, and retrieve undersea cables and equipment, with a secondary mission of conducting acoustic, hydrographic and bathymetric surveys.

Project C916 funds efforts for design of Next Generation Surveillance Array (NGSA) to include Critical Design Review (CDR), purchase and assemble Advanced Development Model (ADM) and engage industry to build and deliver Open Architecture Telemetry (OAT) components.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	98.370	76.279	84.025	-	84.025
Current President's Budget	98.351	76.279	72.473	-	72.473
Total Adjustments	-0.019	0.000	-11.552	-	-11.552
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.019	0.000			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	-11.393	-	-11.393
• Rate/Misc Adjustments	0.000	0.000	-0.159	-	-0.159

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

Project: 9999: *Congressional Adds*

Congressional Add: *Next-gen twin-line towed array*

	FY 2023	FY 2024
	10.000	0.000

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Congressional Add Details (\$ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Congressional Add Subtotals for Project: 9999	10.000	0.000
Congressional Add Totals for all Projects	10.000	0.000

Change Summary Explanation

- The FY 2025 funding request includes a net decrease of \$11.552M, including the following changes:
- \$14.5 million increase to PU 0344 to fund the Integrated Undersea Surveillance Systems (IUSS) Deep Water Active capability.
 - \$2.4 million increase to PU 1768 T-ARC(X) cable ship replacement due to rephasing RDTEN funding to support SCN procurement in FY 2026.
 - \$5.831 million decrease due to higher priority IUSS and program wholeness needs.
 - \$14.621 million decrease due to availability of prior year funds and various Navy adjustments.
 - \$8.0 million decrease to realign Harbinger funding to new Program Element (details available at a higher level of classification).

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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 0204311N / <i>Integrated Surveillance System</i>				Project (Number/Name) 0344 / <i>Deployable Surveillance Systems</i>			
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
0344: <i>Deployable Surveillance Systems</i>	50.962	30.410	10.547	16.286	-	16.286	14.437	14.435	14.435	14.433	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Deployable Surveillance Systems (DSS) project (0344), complementing the Fixed Surveillance System (FSS) and Surveillance Towed Array Sensor System (SURTASS), provides flexible and responsive wide area surveillance to the Theater Undersea Warfare (TUSW) commanders worldwide. DSS will operate as adjunct systems to meet the established FSS and SURTASS missions and to meet additional missions as articulated in the OPNAV Top Level Requirements documents and follow-on Course of Action Analysis (COAA) and as dictated by TUSW commanders evolving and emergent operational requirements. DSS is comprised of the following systems: Deep Water Passive (DWP) and Deep Water Active (DWA). Informed by TUSW Offset operations and the tailored requirements process, the DSS Middle Tier Acquisition (MTA) Rapid Fielding Program will focus initially on the DWP increment and associated spiral development updates. Spiral developments to meet the evolving submarine threat will leverage on-going Navy, Defense Advanced Research Projects Agency (DARPA), and small business research efforts including processing and sensor technology. The follow-on increment will focus on DWA where FY23-29 includes funds that will provide a rapidly deployable sustained surveillance capability in response to emergent Fleet Undersea Warfare (USW) coverage gaps to include mitigating array outages or platform shortages. FY24 funding will be used to refurbish and update DWA clusters procured in previous years and conduct a fleet demonstration. FY24 funded efforts will be used to (1) prepare the rationale for using a MTA Program for a future DWA program; (2) conduct Fleet demonstrations to validate Top-Level Requirements; and (3) identify full DWA MTA funding requirements. FY25 will initiate funding for the DWA MTA Rapid Prototyping 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: Deployable Surveillance Systems (DSS) Deep Water Passive (DWP)	7.910	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: N/A					
FY 2025 Base Plans: N/A					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: N/A					
Title: Deployable Surveillance Systems (DSS) Deep Water Active (DWA)	22.500	10.547	16.286	0.000	16.286

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<i>Articles:</i>	-	-	-	-	-
<p><i>FY 2024 Plans:</i></p> <ul style="list-style-type: none"> - Completed fabrication of one (1) Advanced Development model (ADM) cluster - Commenced and complete fabrication of one (1) ADM cluster - Commenced and complete ADM Demonstration <p><i>FY 2025 Base Plans:</i></p> <ul style="list-style-type: none"> - Commence and Complete ADM Developmental Testing (DT) - Commence Engineering Development Model (EDM) fabrication <p><i>FY 2025 OCO Plans:</i> N/A</p> <p><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> The \$5.739M million increase from FY2024 to FY2025 is due to fully funding the Deep Water Active (DWA) development effort across the FYDP.</p>					
Accomplishments/Planned Programs Subtotals	30.410	10.547	16.286	0.000	16.286

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

N/A

Remarks

D. Acquisition Strategy

FY 2024: Fabricate one (1) DWA Advanced Development Model (ADM) cluster
 FY 2025: Fabricate one (1) DWA Engineering Development Model (EDM)

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0344 / <i>Deployable Surveillance Systems</i>
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DSS DWP Spiral 1.1 LRIP Units	C/CPFF	Leidos : MS	14.539	3.244	Jan 2023	0.000		0.000		-		0.000	0.000	17.783	-
DSS DWP Spiral 1.1 LRIP Units Refurbishment	C/CPFF	Teledyne Webb Research : MA	0.594	0.000		0.000		0.000		-		0.000	0.000	0.594	-
DSS DWP Spiral 1.1 LRIP Units Logistics	C/CPFF	Leidos : MS	1.523	0.000		0.000		0.000		-		0.000	0.000	1.523	-
DSS DWP Spiral 1.5 Fiber Optic Cable	C/CPFF	Various : Various	1.044	0.000		0.000		0.000		-		0.000	0.000	1.044	-
DSS DWP Processing	C/CPFF	APL/JHU : MD	2.567	0.600	Mar 2023	0.000		0.000		-		0.000	0.000	3.167	-
DSS DWP Processing	C/CPFF	Leidos : MS	1.450	0.000		0.000		0.000		-		0.000	0.000	1.450	-
DSS DWP Processing	C/CPFF	Sandia National Lab : NM	0.300	0.500	Sep 2023	0.000		0.000		-		0.000	0.000	0.800	-
DSS DWP Processing	C/CPFF	Proteq : VA	1.200	0.000		0.000		0.000		-		0.000	0.000	1.200	-
DSS DWP Risk Reduction	Various	Various : Various	1.587	0.715	Feb 2023	0.000		0.000		-		0.000	0.000	2.302	-
DSS DWP Risk Reduction	WR	NUWC Newport : RI	1.589	1.163	Nov 2022	0.000		0.000		-		0.000	0.000	2.752	-
DSS DWP Risk Reduction (NRE)	C/CPFF	Leidos : MS	7.491	0.584	Jan 2023	0.000		0.000		-		0.000	0.000	8.075	-
DSS DWA ADM & NRE	C/CPFF	GD APS : RI	0.000	17.912	Jun 2023	6.051	Jun 2024	11.650	Jan 2025	-		11.650	Continuing	Continuing	Continuing
DSS DWA Risk Reduction	WR	NUWC Newport : RI	0.000	0.000		0.970	Nov 2023	1.001	Nov 2024	-		1.001	Continuing	Continuing	Continuing
DSS DWA Risk Reduction	C/CPFF	ARL/UT : TX	0.000	1.500	Mar 2023	0.410	Mar 2024	0.629	Mar 2025	-		0.629	Continuing	Continuing	Continuing
DSS DWA Risk Reduction	Various	Various : Various	0.000	0.000		0.130	Feb 2024	0.139	Feb 2025	-		0.139	Continuing	Continuing	Continuing
DSS DWA Processing	C/CPFF	APL/JHU : MD	0.000	0.688	Mar 2023	0.410	Mar 2024	0.629	Mar 2025	-		0.629	Continuing	Continuing	Continuing
Subtotal			33.884	26.906		7.971		14.048		-		14.048	Continuing	Continuing	N/A

Remarks
The FY 2025 increase is due to funding the Deep Water Active (DWA) development effort across the FYDP.

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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 0204311N / <i>Integrated Surveillance System</i>					Project (Number/Name) 0344 / <i>Deployable Surveillance Systems</i>				

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DSS C4I Integration	WR	NIWC PAC : CA	1.900	0.000		0.000		0.000		-		0.000	0.000	1.900	-
DSS C4I Integration	WR	NUWC Newport : RI	4.258	0.000		0.000		0.000		-		0.000	0.000	4.258	-
DSS C4I Integration	WR	Navy Research Lab : DC	0.330	0.000		0.000		0.000		-		0.000	0.000	0.330	-
DSS T&E	WR	NIWC PAC : CA	0.820	0.000		0.000		0.000		-		0.000	0.000	0.820	-
DSS DWP ISEA	WR	NUWC Keyport : WA	7.076	0.000		0.000		0.000		-		0.000	0.000	7.076	-
DSS DWA C4I Integration	WR	NUWC Newport : RI	0.000	0.600	Mar 2023	0.730	Nov 2023	0.749	Nov 2024	-		0.749	Continuing	Continuing	Continuing
DSS DWA ISEA	WR	NUWC Keyport : WA	0.000	1.500	Mar 2023	0.890	Dec 2023	0.000	Mar 2025	-		0.000	0.000	2.390	-
DSS DWA T&E	WR	NIWC PAC : CA	0.000	0.000		0.000		0.319	Nov 2024	-		0.319	Continuing	Continuing	Continuing
Subtotal			14.384	2.100		1.620		1.068		-		1.068	Continuing	Continuing	N/A

Remarks
The FY 2024 decrease is due to \$22.5M of Congressional Adds in support of DWA that moved project commencement one Fiscal year (FY) to the left from FY24 to FY23.

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation (OT&E)	WR	COTF : VA	0.000	0.167	Apr 2023	0.000		0.000		-		0.000	0.000	0.167	-
Subtotal			0.000	0.167		0.000		0.000		-		0.000	0.000	0.167	N/A

Remarks
The FY 2024 decrease is due to completion of DWP testing.

Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DSS DWP Management Services	C/CPFF	BAH : VA	2.694	0.937	Jan 2023	0.000		0.000		-		0.000	0.000	3.631	-

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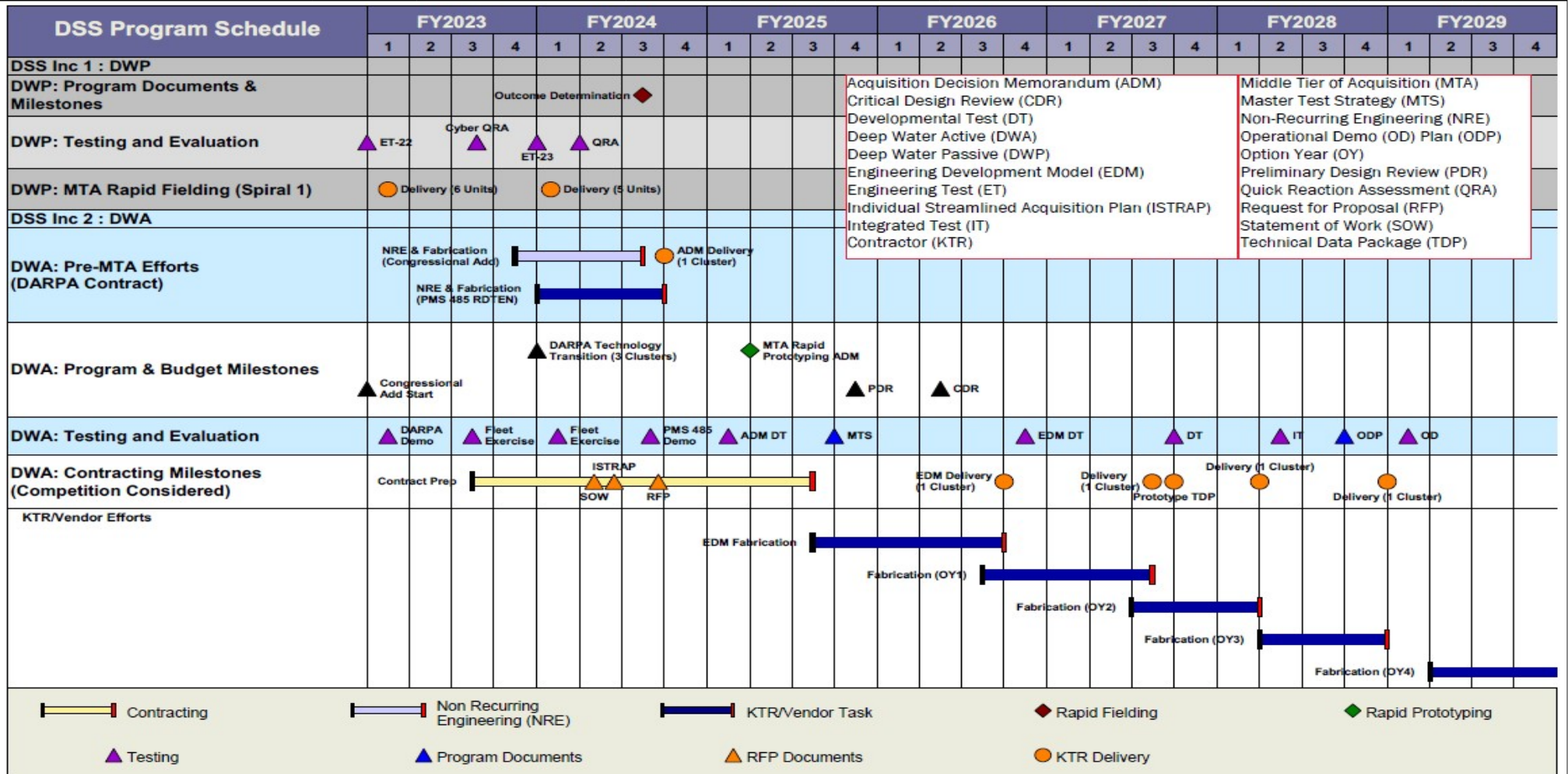
Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

Date: March 2024

Appropriation/Budget Activity
1319 / 7

R-1 Program Element (Number/Name)
PE 0204311N / Integrated Surveillance System

Project (Number/Name)
0344 / Deployable Surveillance Systems



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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0344 / <i>Deployable Surveillance Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0344				
DSS Increment I: DWP: Milestones: DWP Outcome Determination Acquisition Decision Memorandum	3	2024	3	2024
DWP Test and Evaluation Milestones: Quick Reaction Assessment Engineering Test 22	1	2023	1	2023
DWP Test and Evaluation Milestones: Cyber Quick Reaction Assessment	3	2023	3	2023
DWP Test and Evaluation Milestones: Quick Reaction Assessment Engineering Test 23	4	2023	4	2023
DWP Test and Evaluation Milestones: Quick Reaction Assessment	1	2024	1	2024
Production Milestones: DWP Low Rate Initial Production (LRIP): DWP Spiral 1 Installation (6 Units)	1	2023	1	2023
Production Milestones: DWP Low Rate Initial Production (LRIP): DWP Spiral 1.1 Installation (5 Units)	1	2024	1	2024
DSS Increment II: DWA: DWA: Pre-MTA Efforts (DARPA Contract): DWA Non-Recurring Engineering and Fabrication (Congressional Add)	4	2023	3	2024
DSS Increment II: DWA: DWA: Pre-MTA Efforts (DARPA Contract): DWA Advanced Development Model (ADM) Delivery (1 Cluster-, Congressional Add)	3	2024	3	2024
DSS Increment II: DWA: DWA: Pre-MTA Efforts (DARPA Contract): DWA Non-Recurring Engineering and Fabrication	1	2024	3	2024
DSS Increment II: DWA: DWA Milestones: Congressional Add start	1	2023	1	2023
DSS Increment II: DWA: DWA Milestones: DARPA Technology Transition (3 Clusters)	4	2023	4	2023
DSS Increment II: DWA: DWA Milestones: MTA Rapid Prototyping ADM	1	2025	1	2025
DSS Increment II: DWA: DWA Milestones: Preliminary Design Review	4	2025	4	2025
DSS Increment II: DWA: DWA Milestones: Critical Design Review	2	2026	2	2026

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy **Date:** March 2024

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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DSS Increment II: DWA: DWA: Testing and Evaluation: DARPA Demonstration	1	2023	1	2023
DSS Increment II: DWA: DWA: Testing and Evaluation: Fleet Exercise #1	3	2023	3	2023
DSS Increment II: DWA: DWA: Testing and Evaluation: Fleet Exercise #2	1	2024	1	2024
DSS Increment II: DWA: DWA: Testing and Evaluation: PMS485 Demonstration	3	2024	3	2024
DSS Increment II: DWA: DWA: Testing and Evaluation: Acquisition Decision Memorandum Developmental Test	1	2025	1	2025
DSS Increment II: DWA: DWA: Testing and Evaluation: Master Test Strategy	3	2025	3	2025
DSS Increment II: DWA: DWA: Testing and Evaluation: Engineering Development Model Developmental Test	4	2026	4	2026
DSS Increment II: DWA: DWA: Testing and Evaluation: Developmental Test	3	2027	3	2027
DSS Increment II: DWA: DWA: Testing and Evaluation: Integrated Test	2	2028	2	2028
DSS Increment II: DWA: DWA: Testing and Evaluation: Operational Demonstration Plan	3	2028	3	2028
DSS Increment II: DWA: DWA: Testing and Evaluation: Operational Demonstration	1	2029	1	2029
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Contract Preparation	3	2023	3	2025
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Statement of Work	2	2024	2	2024
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Individual Streamlined Acquisition Plan	2	2024	2	2024
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Request for Proposal	3	2024	3	2024
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model Fabrication	3	2025	3	2026
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model Delivery	3	2026	3	2026
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY1 Fabrication	3	2026	3	2027

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0344 / <i>Deployable Surveillance Systems</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY1 Delivery	3	2027	3	2027
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY2 Fabrication	3	2027	1	2028
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Prototype Technical Data Package	3	2027	3	2027
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY2 Delivery	1	2028	1	2028
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY3 Fabrication	2	2028	4	2028
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY3 Delivery	4	2028	4	2028
DSS Increment II: DWA: DWA Contracting Milestones and Efforts: Engineering Development Model OY4 Fabrication	2	2029	4	2029

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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
0766: <i>IUSS Detect/Classif System</i>	635.938	56.964	63.994	52.090	-	52.090	71.865	79.623	73.109	83.841	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

A. This project includes efforts for SURTASS, Expeditionary SURTASS (SURTASS-E), Theater Anti-submarine Warfare (ASW) Offset Initiative, and Fixed Surveillance System (FSS). The SURTASS project comprises the mobile, tactical arm of the Integrated Undersea Surveillance System (IUSS), providing long range detection and cueing for tactical weapons platforms against both diesel and nuclear powered submarines. SURTASS also provides the undersea surveillance necessary to support regional conflicts and sea-lane protection. SURTASS has experienced recent passive and active success against diesel submarines operating in shallow water. SURTASS is leveraging existing developments and reducing costs by using Non-Developmental Items and commercial hardware, supporting common Navy Undersea Warfare processing and towed array developments, and increasing operator efficiency through computer-aided detection and classification processing. SURTASS development efforts include Low Frequency Active (LFA)/Compact Low Frequency Active (CLFA) improvements, common IUSS processing, twin-line array development and processing, improved detection and classification/passive automation to counter quieter threats, additional signal processing, integrated active and passive operations, improved Battle Group support, and improved information processing.

LFA provides an active adjunct capability for IUSS passive and tactical sensors to counter the quieter diesel and nuclear threats of the 1990s and beyond. The LFA tasks are directed at detection of slow, quiet threats in harsh littoral waters. Improvements include TL-29A/LFA integration enhancements, advanced waveforms for littoral/shallow water operations including Doppler sensitive waveforms, and processing algorithms to reduce clutter and reverberation false alarms in shallow water. The Integrated Common Processor (ICP) is a derivative of the Naval Sea Systems Command (NAVSEA) Submarine Acoustic Rapid Commercial Off the Shelf (COTS) Insertion (ARCI) program and is being augmented for IUSS requirements. Together, the LFA/CLFA improvements, TL-29A, and the ICP support the SURTASS Active Improvement Program.

Functional improvements to ICP are delivered to the Fleet in software "builds" while hardware improvements are delivered through the Tech Insertion (TI) process. Software improvements delivered via the Advanced Surveillance Build (ASB) process are based on the Advanced Processor Build (APB) process begun by the NAVSEA Submarine USW program. Each ASB will introduce new capabilities into SURTASS systems including improved automation, normalizer techniques, adaptive beam forming, and display enhancements. SURTASS participates in the process by contributing algorithms for consideration, supplying peer group members for review of candidate algorithms, participating in test evolutions, and incorporating improved algorithms into operational systems. The TI process, modeled after the NAVSEA Submarine Undersea Warfare (USW) hardware improvement program, delivers processing technology improvements to platforms on roughly a 4-6 year cycle. Hardware upgrades for active and passive arrays and communications systems will also be provided during TI upgrades, but not on a regular planned development cycle as for the processing upgrades.

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>
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SURTASS-E provides a SURTASS passive capability packaged into ISO-Vans for mobilization on Vessels of Opportunity (VOOs). It was developed as a CNO Rapid Prototyping, Experimentation, and Demonstration (RPED) program to provide a SURTASS variant that addresses emergent Theater ASW Commander requirements for SURTASS capability.

B. PEO UWS is involved with the development and maintenance of various IUSS systems. These systems include Fixed Distributed systems (FDS), Fixed Distributed Systems-Commercial (FDS-C), and SURTASS. The existing system architectures, signal processing, contact management, and reporting requirements will be evaluated as well as the requirements for future systems. The cyclical development of the ICP will take advantage of automation advancement, array technology improvements, along with IUSS, submarine, and surface USW system commonality to address these requirements. The FSS portion of 0766 is classified with details available at a higher classification level.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Integrated Common Processor (ICP)	6.107	10.718	13.911	0.000	13.911
Articles:	-	-	-	-	-
FY 2024 Plans:					
<ul style="list-style-type: none"> - Commenced development of ASB-25 which includes: Ownship noise reduction; Advanced sensor improvements; Bi-statics; ONR Active Initiatives; Embedded training; Improved deep learning capabilities; and Improved Cyber Security and Program Protection. - Continued ASB-25 Integration and Test in Q3 FY2024. - Continued TI-24 Hardware Design to develop Technology Insertions hardware improvements for Cyber Security, Program Protection (afloat and Engineering Measurements Program (EMP)) and address hardware obsolescence. - Continued Advanced Capabilities development of Artificial Intelligence/Machine Learning algorithms for enhanced human-machine performance; Continued system infrastructure modernization to streamline system development, to provide more flexibility in hardware and to enable for more frequent software updates of software to include patches/baseline and new capabilities; advanced beamforming techniques for the fielding of new variants of modern arrays. 					
FY 2025 Base Plans:					
<ul style="list-style-type: none"> - Complete TI-24 Hardware Design to develop Technology Insertions hardware improvements for Cyber Security, Program Protection (afloat and Engineering Measurements Program (EMP)) and address hardware obsolescence. - Continue Advanced Capabilities development of Artificial Intelligence/Machine Learning algorithms for enhanced human-machine performance; Continue system infrastructure modernization to streamline system development, to provide more flexibility in hardware and to enable for more frequent software updates of software to include patches/baseline and new capabilities; advanced beamforming techniques. 					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<ul style="list-style-type: none"> - Define and develop hardware and software architecture for new T-AGOS 25 class SURTASS Vessels. - Continue Integration and Testing for hardware/software packages for existing T-AGOS vessels. - Continue Research and Development of DevSecOps methodology to increase cyber security posture. - Continue to develop prioritized capabilities in ASB including ownship noise reduction in support of expeditionary platforms and analysis of processing for a different acoustic environment in support for TAGOS repositioning. - Productionize ASB capabilities as they mature. <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The \$3.193 million increase from FY24 to FY25 is due to the acceleration of DevSecOps implementation, examination of a revised hardware tech refresh approach, support of the expeditionary platforms, and the introduction of a new TAGOS platform.</p>					
<p>Title: TL-29A/Twin-Line</p> <p align="right">Articles:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continued development of upgraded telemetry components to address component obsolescence. - Continued development of fishing net mitigation solutions and upgrades to reduce potential for array damage from fishing apparatus. - Continued at-sea test and evaluation efforts to demonstrate passive array system hardware and processing enhancements and net mitigation equipment. - Continued evaluation of true fiber optic array technologies and array components, including Twin-line variants of new submarine Long-line arrays for future application to SURTASS. - Continued development of future passive systems to outfit T-AGOS 25 class platforms. - Developed replacement technologies for obsolete and manufacturer discontinued parts and to address high failure items and other reliability and maintainability improvements. <p>FY 2025 Base Plans:</p> <ul style="list-style-type: none"> - Continue development of upgraded telemetry components to address component obsolescence. - Continue development of fishing net mitigation solutions and upgrades to reduce potential for array damage from fishing apparatus. 	1.544	3.958	4.037	0.000	4.037
	-	-	-	-	-

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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 0204311N / <i>Integrated Surveillance System</i>		Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
<ul style="list-style-type: none"> - Continue at-sea test and evaluation efforts to demonstrate passive array system hardware and processing enhancements and net mitigation equipment. - Continue evaluation of true fiber optic array technologies and array components, including Twin-line variants of new submarine Long-line arrays for future application to SURTASS. - Continue development of future passive systems to outfit T-AGOS 25 class platforms. - Develop replacement technologies for obsolete and manufacturer discontinued parts and to address high failure items and other reliability and maintainability improvements. 					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: The \$0.079 million increase from FY24 to FY25 is due to increased costs associated with development of future passive systems to outfit T-AGOS class ships.					
Title: Compact Low Frequency Active (CLFA)					
Articles:					
	0.000	0.000	1.000	0.000	1.000
	-	-	-	-	-
FY 2024 Plans: N/A					
FY 2025 Base Plans:					
<ul style="list-style-type: none"> -Commence product improvement and upgrade efforts for SURTASS/LFA/CLFA systems -Commence Development of Cyber Security enhancements -Conduct Pierside and At-Sea T&E of LFA/CLFA enhancements -Conduct Cyber Security evaluation and testing of deployed systems 					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: The \$1.000 million increase from FY24 to FY25 is due to identified need for product improvement and upgrade efforts for SURTASS/LFA/CLFA systems.					
Title: Classified Effort					
Articles:					
	49.313	49.318	33.142	0.000	33.142
	-	-	-	-	-
Description: The FSS portion of 0766 is classified with details available at a higher classification level.					

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<i>FY 2024 Plans:</i> The FSS portion of 0766 is classified with details available at a higher classification level.					
<i>FY 2025 Base Plans:</i> The FSS portion of 0766 is classified with details available at a higher classification level.					
<i>FY 2025 OCO Plans:</i> N/A					
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> The FSS portion of 0766 is classified with details available at a higher classification level.					
Accomplishments/Planned Programs Subtotals	56.964	63.994	52.090	0.000	52.090

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/2237: <i>SURTASS</i>	25.030	33.910	45.975	-	45.975	38.112	34.107	31.695	29.101	Continuing	Continuing

Remarks

D. Acquisition Strategy

FY 2024: ASB Step 4 Testing. TL-29A/ICP FOT&E
 FY 2025: ICP Tech Refresh. TL-29A/ICP FOT&E
 The FSS portion of 0766 is classified with details available at a higher classification level.

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IUSS COMMON ARCHITECTURE	C/CPFF	LOCKHEED MARTIN : VA	66.737	0.720	Dec 2022	5.222	Dec 2023	4.900	Mar 2025	-		4.900	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	SS/CPFF	APL/JHU : MD	10.162	0.585	Apr 2023	0.597	Apr 2024	0.610	Apr 2025	-		0.610	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	C/CPFF	L-3 : MD	7.169	0.480	Dec 2022	0.490	Dec 2023	0.501	Dec 2024	-		0.501	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	78.859	0.705	Dec 2022	0.719	Dec 2023	4.131	Dec 2024	-		4.131	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/CLFA/LFA	WR	Warfare Centers : CA	7.062	0.000		0.000		0.300	Dec 2024	-		0.300	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/CLFA/LFA	SS/CPFF	APL/JHU : MD	5.791	0.000		0.000		0.650	Dec 2024	-		0.650	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	SS/CPFF	APL/JHU : MO	8.460	0.400	Apr 2023	1.471	Apr 2024	1.520	Apr 2025	-		1.520	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	SS/CPFF	L-3 : MD	3.494	0.172	Dec 2022	0.175	Dec 2023	0.178	Dec 2024	-		0.178	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	C/CPFF	L-3 CSC : MD	0.399	0.149	Dec 2022	0.152	Dec 2023	0.154	Dec 2024	-		0.154	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	C/CPFF	Makai : HI	0.403	0.103	Mar 2023	0.105	Mar 2024	0.107	Mar 2025	-		0.107	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	11.676	0.000		0.000		0.000		-		0.000	0.000	11.676	-
SURTASS-E	Various	Various : Not Specified	4.560	0.000		0.000		0.000		-		0.000	0.000	4.560	-
FSS - Classified	Various	TBD : Not Specified	309.104	49.313	Nov 2022	49.318	Nov 2023	33.142	Nov 2024	-		33.142	Continuing	Continuing	Continuing
Subtotal			513.876	52.627		58.249		46.193		-		46.193	Continuing	Continuing	N/A

Remarks
 The \$4.488 million increase from FY 2024 to FY 2025 is due to:
 1. Advanced Capabilities development of Artificial Intelligence/Machine Learning algorithms for enhanced human-machine performance, system modernization to support development of hardware and software to include advanced beamforming techniques for the fielding of new variants of modern arrays.
 2. Development replacement technologies for obsolete and manufacturer discontinued parts and to address high failure items and other reliability and maintainability improvements.
 The FSS portion of 0766 is classified with details available at a higher classification level.

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>
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Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IUSS COMMON ARCHITECTURE	WR	NIWC PAC : CA	6.603	0.285	Nov 2022	0.291	Nov 2023	0.298	Nov 2024	-		0.298	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	C/CPFF	APL/JHU : MD	8.996	0.749	Apr 2023	0.764	Apr 2024	0.780	Apr 2025	-		0.780	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	C/CPFF	Lockheed Martin : VA	8.717	0.699	Dec 2022	0.713	Dec 2023	0.728	Mar 2025	-		0.728	Continuing	Continuing	Continuing
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	7.337	0.328	Jan 2023	0.335	Jan 2024	0.342	Jan 2025	-		0.342	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/CLFA/LFA	Various	VARIOUS : Not Specified	10.374	0.000		0.000		0.000		-		0.000	0.000	10.374	-
ARRAY IMPROVEMENTS	WR	Warfare Centers : RI	0.685	0.345	Nov 2022	1.673	Nov 2023	1.738	Nov 2024	-		1.738	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	2.529	0.000		0.000		0.000		-		0.000	0.000	2.529	-
SURTASS-E	WR	Warfare Centers : CA	1.240	0.000		0.000		0.000		-		0.000	0.000	1.240	Continuing
Subtotal			46.481	2.406		3.776		3.886		-		3.886	Continuing	Continuing	N/A

Remarks
 The \$.910 million increase from FY 2023 to FY 2024 is due to:
 1. Support associated with Advanced Capabilities development of Artificial Intelligence/Machine Learning algorithms for enhanced human-machine performance, system modernization to support development of hardware and software to include advanced beamforming techniques for the fielding of new variants of modern arrays.
 2. Support associated with development replacement technologies for obsolete and manufacturer discontinued parts and to address high failure items and other reliability and maintainability improvements.

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	C/CPFF	LOCKHEED MARTIN : VA	9.165	0.648	Dec 2022	0.661	Dec 2023	0.674	Mar 2025	-		0.674	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	SS/CPFF	ARL/UT : TX	0.718	0.286	Apr 2023	0.292	Apr 2024	0.299	Apr 2025	-		0.299	0.000	1.595	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 7				PE 0204311N / Integrated Surveillance System				0766 / IUSS Detect/Classif System							
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	C/CPFF	Various : Various	10.706	0.101	Jan 2023	0.103	Jan 2024	0.105	Jan 2025	-		0.105	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	Warfare Centers : Various	22.564	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	SS/CPFF	APL/JHU : MD	2.543	0.265	Apr 2023	0.270	Apr 2024	0.276	Apr 2025	-		0.276	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	OPTEVOR : VA	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	-
Subtotal			46.096	1.300		1.326		1.354		-		1.354	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
IUSS COMMON ARCHITECTURE	Various	VARIOUS : Not Specified	11.594	0.521	Jan 2023	0.531	Jan 2024	0.543	Jan 2025	-		0.543	Continuing	Continuing	Continuing
ACTIVE IMPROVEMENT/CLFA/LFA	Various	VARIOUS : Not Specified	16.501	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
ARRAY IMPROVEMENTS	Various	VARIOUS : Not Specified	1.390	0.110	Jan 2023	0.112	Jan 2024	0.114	Jan 2025	-		0.114	Continuing	Continuing	Continuing
Subtotal			29.485	0.631		0.643		0.657		-		0.657	Continuing	Continuing	N/A
Project Cost Totals			635.938	56.964		63.994		52.090		-		52.090	Continuing	Continuing	N/A
Remarks															
The R3 and the R4 / R4A reflect the UNCLASSIFIED portion of the PE.															
The FSS portion of 0766 is classified with details available at a higher classification level.															

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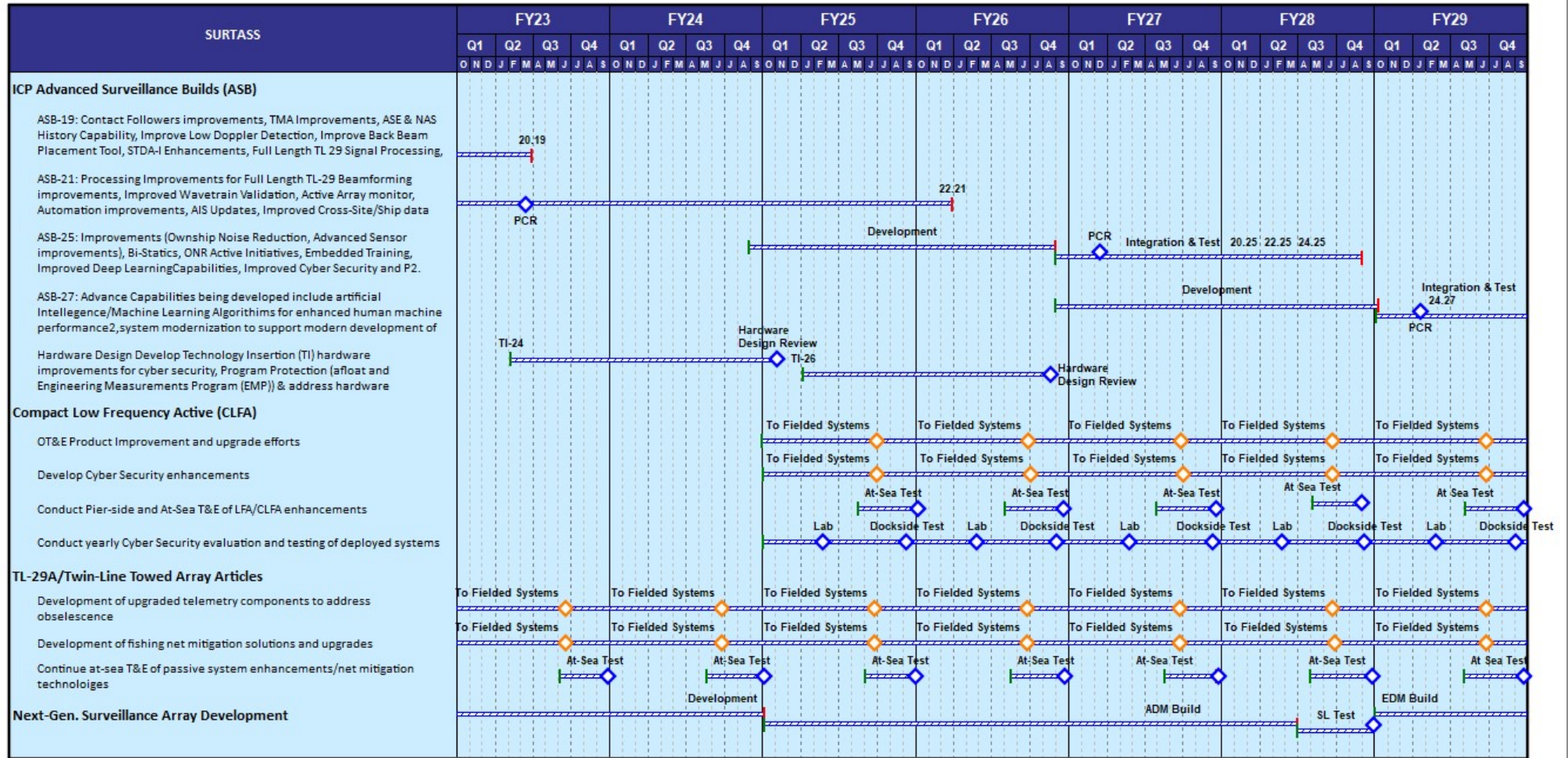
Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

Date: March 2024

Appropriation/Budget Activity
1319 / 7

R-1 Program Element (Number/Name)
PE 0204311N / Integrated Surveillance System

Project (Number/Name)
0766 / IUSS Detect/Classif System



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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0766.L24				
TEST and EVALUATION MILESTONES: CLFA Testing: LFA/CLFA Cyber Security Evaluation and Testing (2025-29)	1	2025	4	2029
TEST and EVALUATION MILESTONES: CLFA Testing: Pier-side and At-Sea T&E of LFA/CLFA Enhancements (2025)	3	2025	4	2025
TEST and EVALUATION MILESTONES: CLFA Testing: Pier-side and At-Sea T&E of LFA/CLFA Enhancements (2026)	3	2026	4	2026
TEST and EVALUATION MILESTONES: CLFA Testing: Pier-side and At-Sea T&E of LFA/CLFA Enhancements (2027)	3	2027	4	2027
TEST and EVALUATION MILESTONES: CLFA Testing: Pier-side and At-Sea T&E of LFA/CLFA Enhancements (2028)	3	2028	4	2028
TEST and EVALUATION MILESTONES: CLFA Testing: Pier-side and At-Sea T&E of LFA/CLFA Enhancements (2029)	3	2029	4	2029
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2023)	3	2023	4	2023
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2024)	3	2024	4	2024
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2025)	3	2025	4	2025
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2026)	3	2026	4	2026
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2027)	3	2027	4	2027
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2028)	3	2028	4	2028

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
TEST and EVALUATION MILESTONES: TL-29A Testing: Towed Array Next-Gen Surveillance Array SL Test	3	2028	4	2028
TEST and EVALUATION MILESTONES: TL-29A Testing: TL-29A At-SEA T&E Passive System/Net Mitigation (2029)	3	2029	4	2029
TEST and EVALUATION MILESTONES: ICP Advanced Surveillance Builds (ASB): ASB-19 Integration and Test	1	2023	2	2023
TEST and EVALUATION MILESTONES: ICP Advanced Surveillance Builds (ASB): ASB-21 Integration and Test	1	2023	1	2026
TEST and EVALUATION MILESTONES: ICP Advanced Surveillance Builds (ASB): ASB-25 Integration and Test	4	2026	4	2028
TEST and EVALUATION MILESTONES: ICP Advanced Surveillance Builds (ASB): ASB-27 Integration and Test	1	2029	4	2029
DEVELOPMENT MILESTONES: CLFA Development: LFA/CLFA OT&E Product Improvement/Upgrade Efforts (FY25-29)	1	2025	4	2029
DEVELOPMENT MILESTONES: CLFA Development: LFA/CLFA Cyber Security Enhancements (FY25-29)	1	2025	4	2029
DEVELOPMENT MILESTONES: TL-29A Development: TL-29A Develop Telemetry Components (Upgrades) (Yearly)	1	2023	4	2029
DEVELOPMENT MILESTONES: TL-29A Development: TL-29A Develop Fishing Net Mitigation (Yearly)	1	2023	4	2029
DEVELOPMENT MILESTONES: TL-29A Development: Towed Array Next-Gen Surveillance Array Development	1	2023	4	2024
DEVELOPMENT MILESTONES: TL-29A Development: Towed Array Next-Gen Surveillance Array ADM Build	1	2025	2	2028
DEVELOPMENT MILESTONES: ICP Development: ASB 25 Development	4	2024	4	2026
DEVELOPMENT MILESTONES: ICP Development: ASB 27 Development	4	2026	4	2028
PRODUCTION MILESTONES: ICP Technology Insertion: Hardware Design ICP Tech Insertion TI-24	2	2023	1	2025

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 0766 / <i>IUSS Detect/Classif System</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
PRODUCTION MILESTONES: ICP Technology Insertion: Hardware Design ICP Tech Insertion TI-26	2	2025	4	2026
PRODUCTION MILESTONES: TL-29A EDM: Towed Array Next-Gen Surveillance Array EDM Build	1	2029	4	2029

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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 0204311N / <i>Integrated Surveillance System</i>				Project (Number/Name) 1768 / <i>Ship Plan Development and Design</i>			
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
1768: <i>Ship Plan Development and Design</i>	37.352	0.977	1.738	4.097	-	4.097	1.867	0.835	0.852	0.870	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

T-Auxiliary, Repair, Cable (T-ARC) is a candidate replacement program for U.S. Navy's only organic undersea cable laying and repair ship, USNS ZEUS (T-ARC 7), which is approaching the end of her extended service life. The ship's main mission is to deploy, repair, and retrieve undersea cables and equipment, with a secondary mission of towing projectors.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: T-ARC(X) Cable Ship Design and Total Ship Integration	0.977	1.738	4.097	0.000	4.097
Articles:	-	-	-	-	-
FY 2024 Plans: - Continue development of acquisition documentation in support of Milestone B/C. - Conduct Systems Functional Review. - Issue RFP for Preliminary Design and Detail Design and Construction (DD&C). - Continue to coordinate acquisition efforts with NAVSEA, Military Sealift Command (MSC), PEO SHIPS, CNO, ASN RD&A, OSD, and Fleet.					
FY 2025 Base Plans: - Award Preliminary Design contracts to support development of Detail Design and Construction Contracts from Industry. - Evaluate industry designs for feasibility and affordability					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Increase of \$2.359 million is due to the need to engage industry on the new requirements and award Industry contracts for Preliminary Design in FY25. This effort will significantly reduce technical and cost risk in support of the FY27 contract award for Detail Design and Construction.					
Accomplishments/Planned Programs Subtotals	0.977	1.738	4.097	0.000	4.097

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 1768 / <i>Ship Plan Development and Design</i>

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>			<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• 5080: <i>TARC CABLE REPAIR SHIP</i>	0.000	0.000	0.000	-	0.000	0.000	785.000	0.000	595.000	0.000	1,380.000

Remarks

D. Acquisition Strategy

Completed Industry studies and indicative design to refine and update ship cost and requirements in FY23. Issue RFP in FY24 to support industry lead Preliminary Designs with contract award scheduled for FY25. Request for Proposals for Detail Design and Construction to be issued in FY26 to support award of DD&C contract in FY27.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 7				PE 0204311N / Integrated Surveillance System				1768 / Ship Plan Development and Design							
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Industry Studies	C/FFP	Various : Various	14.500	0.000		0.000		0.000		-		0.000	2.600	17.100	-
Engineering Integration/ Design/Indictive Design	Various	Various : Various	5.780	0.555	Mar 2023	0.337	Jan 2024	0.700	Feb 2025	-		0.700	0.700	8.072	-
Preliminary Design	Various	Various : Varous	0.000	0.000		0.000		2.600	Feb 2025	-		2.600	0.000	2.600	-
Subtotal			20.280	0.555		0.337		3.300		-		3.300	3.300	27.772	N/A
Remarks															
Increase of \$2.362 million is due to the requirement to conduct industry engagement to validate new technical requirements and cost estimate.															
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Requirements Definition	Various	Various : Various	1.040	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Spec and Technical Data Package Development	Various	Various : Various	5.994	0.226	Mar 2023	0.201	Jan 2024	0.000		-		0.000	0.000	6.421	-
Milestone Documentation/ RFP development	Various	Various : Various	5.819	0.196	Mar 2023	1.200	Jan 2024	0.797	Dec 2024	-		0.797	0.765	8.777	-
Systems Integration	Various	Various : Various	3.297	0.000		0.000		0.000		-		0.000	0.353	3.650	-
Subtotal			16.150	0.422		1.401		0.797		-		0.797	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	Various	Various : Various	0.922	0.000		0.000		0.000		-		0.000	11.235	12.157	-
Subtotal			0.922	0.000		0.000		0.000		-		0.000	11.235	12.157	N/A

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 1768 / <i>Ship Plan Development and Design</i>
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Proj 1768	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
							Prel Design RFP ▲				Award Prel Design ▲								MS B/C ▲									
																			Award DD&C ▲									

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 1768 / <i>Ship Plan Development and Design</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 1768				
Issue Preliminary Design/ Detail Design & Construction Request for Proposal (RFP)	3	2024	3	2024
Award Preliminary Design Contracts	3	2025	3	2025
Milestone B/C	2	2027	2	2027
Award Detail Design & Construction Contract	2	2027	2	2027

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>
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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: <i>Congressional Adds</i>	0.000	10.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.000
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project C916 funds efforts for design of Next Generation Surveillance Array (NGSA) to include Critical Design Review (CDR), purchase and assemble Advanced Development Model (ADM) and engage industry to build and deliver Open Architecture Telemetry (OAT) components.

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

	FY 2023	FY 2024
<i>Congressional Add:</i> Next-gen twin-line towed array	10.000	0.000
<i>FY 2023 Accomplishments:</i> - Complete Critical Design Review (CDR) Q2FY24. - Procure Next Generation Surveillance Array (NGSA) Advanced Development Model (ADM) material. - Assemble NGSA ADM material Q3FY24. - Award Other Transaction Authority (OTA) for Open Architecture Telemetry (OAT) orientation. - Various Program Management and Engineering tasks.		
<i>FY 2024 Plans:</i> N/A		
Congressional Adds Subtotals	10.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

FY23: Rapid Prototype

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Design and Manufacture Array	WR	NUWC Newport : Newport, RI	0.000	4.600	Apr 2023	0.000		0.000		-		0.000	0.000	4.600	-
Qualify Prototype Array Components w/ Industry	TBD	NUWC Newport : Newport, RI	0.000	2.500	Apr 2023	0.000		0.000		-		0.000	0.000	2.500	-
Design and Manufacture Array	C/CPFF	Johns Hopkins : Columbia, MD	0.000	2.600	Apr 2023	0.000		0.000		-		0.000	0.000	2.600	-
Evaluate COTS Array Components	C/CPFF	MAKAI : Hawaii	0.000	0.200	Apr 2023	0.000		0.000		-		0.000	0.000	0.200	-
Subtotal			0.000	9.900		0.000		0.000		-		0.000	0.000	9.900	N/A

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management and Engineering Support	C/CPFF	Booz Allen Hamilton : McClean, VA	0.000	0.100	Apr 2023	0.000		0.000		-		0.000	0.000	0.100	-
Subtotal			0.000	0.100		0.000		0.000		-		0.000	0.000	0.100	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	10.000	0.000	0.000	0.000	0.000	10.000	N/A

Remarks

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 9999 / <i>Congressional Additions</i>

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	
DEVELOPMENT MILESTONES: Next Generation Surveillance Array (NGSA) Design	████████████████████
DEVELOPMENT MILESTONES: NGSA Critical Design Review (CDR)	████
PRODUCTION MILESTONES: Line Array 1: NGSA Material Procurement	████████████████████
PRODUCTION MILESTONES: Line Array 1: NGSA Assembly	████████
PRODUCTION MILESTONES: Line Array 2: NGSA Material Procurement	████████████████████
ACQUISITION MILESTONES: Open Architecture Telemetry (OAT) Other Transactional Authority (OTA) Phase 1	████████████████████

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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 0204311N / <i>Integrated Surveillance System</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 9999				
DEVELOPMENT MILESTONES: Next Generation Surveillance Array (NGSA) Design	1	2023	2	2024
DEVELOPMENT MILESTONES: NGSA Critical Design Review (CDR)	2	2024	2	2024
PRODUCTION MILESTONES: Line Array 1: NGSA Material Procurement	1	2023	2	2024
PRODUCTION MILESTONES: Line Array 1: NGSA Assembly	3	2024	4	2024
PRODUCTION MILESTONES: Line Array 2: NGSA Material Procurement	3	2023	4	2024
ACQUISITION MILESTONES: Open Architecture Telemetry (OAT) Other Transactional Authority (OTA) Phase 1	2	2023	2	2024