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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 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon 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	527.379	63.696	52.129	9.877	-	9.877	11.343	5.000	5.000	5.000	Continuing	Continuing
2731: <i>High Energy Laser Counter ASCM Project (HELCAAP)</i>	61.512	6.400	6.194	4.137	-	4.137	0.000	0.000	0.000	0.000	0.000	78.243
3402: <i>Surface Navy Laser Weapon System (SNLWS)</i>	301.265	18.797	20.439	5.740	-	5.740	11.248	5.000	5.000	5.000	Continuing	Continuing
5898: <i>Directed Energy Components for High Energy Lasers</i>	0.000	13.553	4.825	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	18.378
9823: <i>Lasers for Navy applicat</i>	164.602	24.946	20.671	0.000	-	0.000	0.095	0.000	0.000	0.000	0.000	210.314

A. Mission Description and Budget Item Justification

This program element will transition Directed Energy and Electric Weapon Systems (DE&EWS) technology from Science and Technology (S&T) research to the Technology Maturation and Risk Reduction phase, ultimately leading to acquisition initiation for the Surface/Subsurface Navy.

DE&EWS consists of multiple breakthrough technologies including: laser weapons that provide for speed-of-light engagements at tactically significant ranges resulting in savings realized by minimizing the use of defensive missiles and projectiles; electromagnetic launch of projectiles that will significantly increase firing ranges imposing greater cost to adversaries of ballistic and air defense missile engagements; enhance the land attack mission; and fielding of high power radio frequency systems for non-kinetic electronic attack and active denial technology, allowing for non-lethal determination of threat intent beyond small arms fire ranges.

Development of DE&EWS includes: Weapons Grade High Energy Lasers, Electromagnetic Railgun (EMRG) Weapon Systems, High Power Radio Frequency Weapon/Sensor Systems, and other systems/capabilities.

Project 2731 - High Energy Laser Counter ASCM Project (HELCAAP): Defeating Anti-Ship Cruise Missiles (ASCMs) with a laser weapon system presents several technical challenges (e.g. high atmospheric turbulence, target acquisition and identification, target tracking, aim point maintenance, automatic aim point placement, jitter control). The High Energy Laser Counter ASCM Project (HELCAAP) will assess, develop, experiment, and demonstrate the various laser weapon system technologies and methods of implementation (e.g. laser sources, mission analysis, lethality, advanced beam control with atmospheric mitigation, target and tracking sensors, control systems) required to defeat ASCMs in a crossing engagement.

The FY25 budget request supports close-out documentation, modeling and simulation, and verification activities for the ASCM detect to defeat demonstration. The results from the demonstration will be processed and captured in final reporting for the HELCAAP project. Additional activities included in the FY25 budget include appropriate activities for closeout related to the hardware and software developed under HELCAAP.

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<p>Project 3402 - Surface Navy Laser Weapon System (SNLWS): Program supports the National Defense Strategy (NDS) of building a more lethal force by leveraging maturing technology to deliver proven laser weapon capability to the Fleet as part of the Navy Laser Family of Systems (NLFoS) initiative with the objective of providing the fleet with incrementally developed laser weapon system capabilities. Additionally, accelerated learning through incorporation of laser weapon Concept of Operations (CONOPs), employment and maintenance validates warfighting requirements for laser weapon systems to address a variety of threats. The High Energy Laser with Integrated Optical-Dazzler and Surveillance (HELIOS) system provides a low cost-per-shot capability to address Anti-Surface Warfare and Counter-Intelligence, Surveillance and Reconnaissance (C-ISR) gaps with the ability to dazzle and destroy Unmanned Aerial Systems (UAS) and defeat Fast Inshore Attack Craft (FIAC) while integrated into the AEGIS Combat System on a Flt IIA Destroyer. SNLWS provided an industry-developed and government integrated capability to the Fleet in as short a timeframe as possible, thereby addressing the NDS direction to foster a culture of innovation. SNLWS included the development of a laser weapon system in the 60 kW class. SNLWS leveraged technology available at that time to deliver an initial laser weapon system capability to the Fleet. Mk 5 Mod 0 HELIOS development leveraged the previous AN/SEQ-3 Laser Weapon System (LaWS) and the Mk 2 Mod 0 Laser Weapon System Demonstrator (LWSD) efforts.</p> <p>The FY25 budget request supports this Research & Development (R&D) asset by accomplishing at-sea testing of HELIOS on DDG 88, replenishment parts, development of Engineering Change Proposals (ECPs), obsolescence investigations, end-of-life procurements, In Service Engineering Agent (ISEA) onboard tech assists, Casualty Report (CASREP) responses, logistics support, and Software Support Activity (SSA) cyber security and software support.</p> <p>Project 5898 - Directed Energy Components for High Energy Lasers: Supports Industrial Base Analysis and Sustainment (IBAS) program efforts for the improvement of the production capability of the industrial base in order to produce Laser Weapon Beam Director (LWBD) components and sub-systems; reduces production lead times of Laser Weapon System Optics; improves quality and reduces production times of Fast Steering Mirror (FSM) and deformable mirrors.</p> <p>Project 5898 is on track to complete in FY24.</p> <p>Project 9823 - Lasers for Navy Applications: Optical Dazzler Interdictor Navy (ODIN) development provides directed energy, shipboard Counter-Intelligence, Surveillance, and Reconnaissance (C-ISR) capabilities to the Fleet to dazzle Unmanned Aerial Systems (UASs) and other platforms that address the Urgent Operational Needs (UONs) statement provided by the Fleet. ODIN, as a non-Program of Record, was developed and fielded with RDT&E,N funding and was initially envisioned as a Non-Permanent Change (NPC). FY 2018 was the first year of funding which supported the design, development, procurement, and installation of 8 ODIN standalone units deployed on DDG 51 Flt IIA surface combatants. Eight (8) ODIN units are now operational in the Fleet.</p> <p>The FY25 R&D funding was realigned to OPN for procurement of repair parts and O&MN for sustainment support.</p> <p>Project 9999 (PU C516) - Congressional Add - High Energy Laser (HEL) Weapon System for Counter-Unmanned Ariel System (C-UAS) Area defense is a Congressionally directed effort to develop/build a minimized footprint, laser-agonistic beam director and beam control system (M-BD/BCS) to support Commercial Off The Shelf (COTS) lasers >10KW for possible application to Joint Light Tactical Vehicle (JLTV) sized vehicles.</p>		

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B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	65.080	52.129	59.443	-	59.443
Current President's Budget	63.696	52.129	9.877	-	9.877
Total Adjustments	-1.384	0.000	-49.566	-	-49.566
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.002	0.000			
• SBIR/STTR Transfer	-1.382	0.000			
• Program Adjustments	0.000	0.000	-49.971	-	-49.971
• Rate/Misc Adjustments	0.000	0.000	0.405	-	0.405

Change Summary Explanation

The FY23 decrease primarily attributed to SBIR Assessment.
The FY25 decrease primarily attributed to termination of High Energy Laser Program.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>				Project (Number/Name) 2731 / <i>High Energy Laser Counter ASCM Project (HEL CAP)</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
2731: <i>High Energy Laser Counter ASCM Project (HEL CAP)</i>	61.512	6.400	6.194	4.137	-	4.137	0.000	0.000	0.000	0.000	0.000	78.243
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Due to technology maturation, a portion of HELCAP program efforts now fall into BA04.

A. Mission Description and Budget Item Justification

The High Energy Laser Counter ASCM Project (HEL CAP) will expedite the development, experimentation, integration and demonstration of critical technologies to defeat crossing Anti-Ship Cruise Missiles (ASCM) by addressing the remaining technical challenges, e.g.: atmospheric turbulence, automatic target identification and aim point selection, precision target tracking with low jitter in high clutter conditions, advanced beam control, and higher power HEL development. HELCAP will assess, develop, experiment, and demonstrate the various laser weapon system technologies and methods of implementation required to defeat ASCMs in a crossing engagement.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: High Energy Laser Counter ASCM Project (HEL CAP)	6.400	6.194	4.137	0.000	4.137
Articles:	-	-	-	-	-
Description: HELCAP activities under this Program Element (PE) 0603925N include system level testing and verification of the Laser Weapon Testbed (LWT) in a simulated (land based) and maritime environment. Transition of technologies developed under PE 0603801N will be integrated into the LWT system. The Beam Control Testbed subsystem will be combined with a HEL source, power/thermal, and weapon control to demonstrate the LWT system level maturity. This leveraged knowledge and new HELCAP technical solutions to the Counter Anti-Ship Cruise Missile (C-ASCM) problem will enable a fully informed decision to rapidly field an integrated, fleet ready, HEL Weapon.					
FY 2024 Plans:					
Continue:					
- Beam control testbed technology insertion					
- ASCM defeat analysis and assessments including lethality, engagement modeling, atmospheric propagation characterization, and beam control.					

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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	
<p>- Modeling and simulation and limited maritime experimentation to map results from Beam Control Testbed Tracker and Verification demonstration to a maritime environment</p> <p>Complete:</p> <ul style="list-style-type: none"> - Beam Control Testbed Tracker and Verification test focused on the beam control, tracking, and adaptive optics subsystems performance. - Full system integration, test, and verification of the LWT at White Sands Missile Range (WSMR). This includes experimentation and LWT system performance in preparation for the follow-on capstone event, ASCM detect to engage experimentation. - Conduct ASCM detect to engage experimentation against targets of increasing complexity up to and including static and dynamic ground targets and low-cost unmanned aerial targets. <p>FY 2025 Base Plans:</p> <p>Complete</p> <ul style="list-style-type: none"> - Beam control testbed technology insertion - Range Integration Testing (RIT) on the System level (building off of RIT activities on the subsystem level from PE 0603801N) - ASCM defeat analysis and assessments including lethality, engagement modeling, atmospheric propagation characterization, and beam control. <p>Continue:</p> <ul style="list-style-type: none"> - Modeling and simulation and limited maritime experimentation to map results from Beam Control Testbed Tracker and Verification demonstration to a maritime environment <p>FY 2025 OCO Plans:</p> <p>N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>The decrease in funding from FY 2024 to FY 2025 in Proj 2731 HELCAP is due to primary demonstration activities being completed in FY 2025.</p>						
Accomplishments/Planned Programs Subtotals		6.400	6.194	4.137	0.000	4.137

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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>
• RDTE/0603801N/2731: <i>High Energy Laser Counter ASCM Project</i>	22.460	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	63.800

Remarks

D. Acquisition Strategy

The HELCAP is an initiative that provides a flexible prototype system for government experimentation and demonstration of a high-energy laser system capable of defeating an anti- ship cruise missile. Key elements of the prototype system include the beam control testbed, 300 kW+ class laser source, prototype control system, and auxiliary prime power and cooling. The industry provider of the beam control testbed (developed under PE 0603801N) was selected through a competitive process and is being designed to accept technology insertion from other industry providers. The 300+ kW class laser source will be acquired by selecting one of the laser sources being developed under an Office of Secretary of Defense (OSD) laser scaling initiative and adapting it for transport and interface with the other elements of the prototype system. The Naval Surface Warfare Center Dahlgren (NSWCDD) will design and fabricate the control system and auxiliary prime power and cooling systems. NSWC DD government and contractor engineers will then integrate all above elements that make up the prototype and auxiliary systems and perform FY22-23 counter ASCM detect to defeat experimentation and demonstrations at government test sites.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 2731 / <i>High Energy Laser Counter ASCM Project (HELCAP)</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			
Prototype System Controls, Target Tracking, and Deconfliction (Government team)	WR	NSWC Dahlgren : Dahlgren VA	9.404	2.298	Oct 2022	0.000		0.000		-		0.000	0.000	11.702	-
Prototype System Controls, Target Tracking, and Deconfliction (Contractor Team)	C/CPFF	Booz Allen Hamilton : Dahlgren VA	3.816	0.250	Nov 2022	0.000		0.000		-		0.000	0.000	4.066	-
HELCAP Mission Analysis	WR	NSWC Dahlgren : Dahlgren VA	2.778	0.000		0.000		0.000		-		0.000	0.000	2.778	-
HELCAP Mission Analysis	C/CPFF	JHU/APL : Laurel MD	2.394	0.000		0.000		0.000		-		0.000	0.000	2.394	-
Design government owned interfaces between the OSD Laser Source and Prototype System	WR	NSWC Dahlgren : Dahlgren VA	1.656	0.000		0.000		0.000		-		0.000	0.000	1.656	-
Adapt OSD Laser Source for Transport and Interface with Prototype System	C/CPFF	TBD : Not Specified	3.767	1.000	Mar 2023	0.000		0.000		-		0.000	0.000	4.767	-
Prototype and Support System Integration	WR	NSWC Dahlgren : Dahlgren VA	6.339	0.000		0.000		0.000		-		0.000	0.000	6.339	-
Procure and Assemble Prototype System Power and Misc Hardware	C/CPFF	Nutronics : Longmont, CO	7.418	1.552	Mar 2023	0.000		0.000		-		0.000	0.000	8.970	-
Modeling and Simulations	WR	TBD : Not Specified	0.000	0.500	Oct 2022	0.000		0.000		-		0.000	0.000	0.500	-
Subtotal			37.572	5.600		0.000		0.000		-		0.000	0.000	43.172	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			
HELCAP Systems Engineering, Safety,	WR	NSWC Dahlgren : Dahlgren VA	8.298	0.000		0.500	Oct 2023	0.501	Oct 2024	-		0.501	0.000	9.299	-

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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			
Program Management (Government team)															
HEL CAP Systems Engineering, Safety, Program Management (Contractor team)	C/CPFF	Multiple : Dahlgren VA	2.942	0.000		0.500	Nov 2023	0.650	Nov 2024	-		0.650	0.000	4.092	-
Subtotal			11.240	0.000		1.000		1.151		-		1.151	0.000	13.391	N/A

Remarks
FY24 to FY25 increase is required to complete project closeout documentation, modeling and simulation and appropriate activities related to hardware and software closeout.

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			
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Port Hueneme/Point Mugu/Dahlgren : Port Hueneme CA, Point Mugu , CA & Dahlgren, VA	3.027	0.500	Oct 2022	0.000		0.000		-		0.000	0.000	3.527	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPFF	White Sands Missile Range, & Point Mugu Test Range : White Sands NM & San Nicholas Island, CA	2.449	0.000		0.000		0.000		-		0.000	0.000	2.449	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Dahlgren : Dahlgren VA	3.516	0.000		0.000		0.000		-		0.000	0.000	3.516	-
Developmental Test & Evaluation (DT&E)	C/CPFF	TBD : TBD	2.400	0.000		0.684	Oct 2023	0.800	Oct 2024	-		0.800	0.000	3.884	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Port Hueneme, NSWC Dahlgren, NAWC	0.000	0.000		2.055	Oct 2023	0.986	Oct 2024	-		0.986	0.000	3.041	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

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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			
		WD : Port Hueneme, CA; NSWC Dahlgren, Point Mugu, CA													
Developmental Test & Evaluation (DT&E)	C/CPFF	White Sands Missile Range, NAWC WD & San Nicholas : White Sands, NM, San Nicholas Island CA	0.000	0.000		2.255	Oct 2023	1.000	Oct 2024	-		1.000	0.000	3.255	-
Subtotal			11.392	0.500		4.994		2.786		-		2.786	0.000	19.672	N/A

Remarks
FY24 to FY25 decrease is the result of the bulk of the T&E activities being completed in FY24. FY25 only contains a subset of the activities.

Management Services (\$ 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			
HELCAP Program Management /Engineering Support	C/CPFF	Bowhead : Dahlgren, VA	1.308	0.300	Nov 2022	0.200	Oct 2023	0.200	Oct 2024	-		0.200	0.000	2.008	-
Subtotal			1.308	0.300		0.200		0.200		-		0.200	0.000	2.008	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		61.512	6.400	6.194	4.137	-	4.137	0.000	78.243	N/A

Remarks

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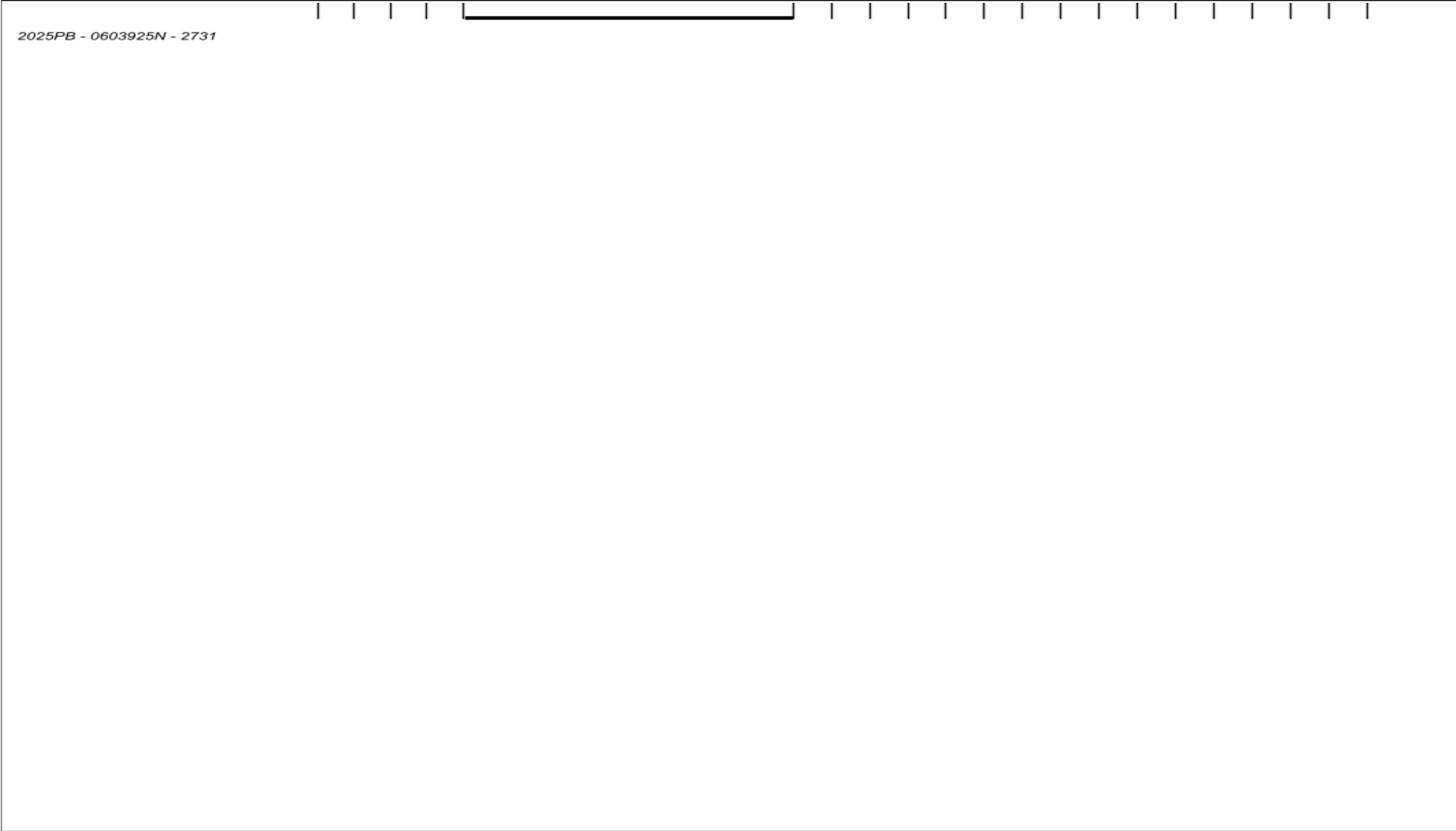
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High Energy Laser Counter ASCM Project (HEL CAP)	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Beam Control Design and Fabricate																												
Prototype Weapon Control Design and Fabricate																												
Adapt OSD Laser Source for Transport and Interface with Prototype System																												
Prime Power and Cooling Design and Fabricate																												
System Level RIT Adaptive Optics and Tracking Performance system integration																												
Mission Analysis																												
ASCM detect to defeat experimentation and demonstration planning																												
ASCM detect to defeat experimentation and demo test site assets and preparation																												
ASCM detect to defeat experimentation - beam control tracker and adaptive optics verification																												
ASCM detect to defeat experimentation - system integration testing																												
ASCM detect to demonstration -defeat of surrogate ASCM in a crossing engagement																												
ASCM detect to defeat demonstration post-test documentation																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / Directed Energy and Electric Weapon System	Project (Number/Name) 2731 / High Energy Laser Counter ASCM Project (HEL CAP)



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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
High Energy Laser Counter ASCM Project (HELCAP)				
Beam Control Design and Fabricate: HELCAP: Beam Control Design and Fabricate	1	2023	4	2024
Prototype Weapon Control Design and Fabricate: HELCAP: Prototype Weapon Control Design and Fabricate	1	2023	1	2024
Adapt OSD Laser Source for Transport and Interface with Prototype System: HELCAP: Adapt OSD Laser Source for Transport and Interface with Prototype System	1	2023	2	2024
Prime Power and Cooling Design and Fabricate: HELCAP: Prime Power and Cooling Design and Fabricate	1	2023	3	2024
System Level RIT Adaptive Optics and Tracking Performance system integration: Adaptive Optics and Tracking Performance system integration (beam ctrl, prototype weapon ctrl, test support)	1	2023	4	2024
Mission Analysis: HELCAP: Mission Analysis	1	2023	2	2025
ASCM detect to defeat experimentation and demonstration planning: HELCAP: ASCM detect to defeat experimentation and demonstration planning	1	2023	2	2025
ASCM detect to defeat experimentation and demo test site assets and preparation: HELCAP: ASCM detect to defeat experimentation and demo test site assets and preparation (DEMO- 2)	1	2023	2	2025
ASCM detect to defeat experimentation - beam control tracker and adaptive optics verification: HELCAP: ASCM detect to defeat experimentation - beam control tracker and adaptive optics verification	1	2023	3	2025
ASCM detect to defeat experimentation - system integration testing: HELCAP: ASCM detect to defeat experimentation - system integration testing	1	2023	3	2025
ASCM detect to demonstration -defeat of surrogate ASCM in a crossing engagement: HELCAP: ASCM detect to defeat demo -defeat of static and dynamic ground targets and low-cost unmanned aerial targets	2	2023	3	2025

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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ASCM detect to defeat demonstration post-test documentation: Limited maritime tracking and adaptive optics performance experimentation	1	2024	1	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>				Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</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
3402: <i>Surface Navy Laser Weapon System (SNLWS)</i>	301.265	18.797	20.439	5.740	-	5.740	11.248	5.000	5.000	5.000	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 3402 - Surface Navy Laser Weapon System (SNLWS): Program supports the National Defense Strategy (NDS) of building a more lethal force by leveraging maturing technology to deliver proven laser weapon capability to the Fleet as part of the Navy Laser Family of Systems (NLFoS) initiative with the objective of providing the fleet with incrementally developed laser weapon system capabilities. Additionally, accelerated learning through incorporation of laser weapon Concept of Operations (CONOPs), employment and maintenance validates warfighting requirements for laser weapon systems to address a variety of threats. The High Energy Laser with Integrated Optical-Dazzler and Surveillance (HELIOS) system provides a low cost-per-shot capability to address Anti-Surface Warfare and Counter-Intelligence, Surveillance and Reconnaissance (C-ISR) gaps with the ability to dazzle and destroy Unmanned Aerial Systems (UAS) and defeat Fast Inshore Attack Craft (FIAC) while integrated into the AEGIS Combat System on a Flt IIA Destroyer. SNLWS provided an industry-developed and government integrated capability to the Fleet in as short a timeframe as possible, thereby addressing the NDS direction to foster a culture of innovation. SNLWS included the development of a laser weapon system in the 60 kW class. SNLWS leveraged technology available at that time to deliver an initial laser weapon system capability to the Fleet. Mk 5 Mod 0 HELIOS development leveraged the previous AN/SEQ-3 Laser Weapon System (LaWS) and the Mk 2 Mod 0 Laser Weapon System Demonstrator (LWSD) efforts.

The FY25 budget request supports this Research & Development (R&D) asset by accomplishing at-sea testing of HELIOS on DDG 88, replenishment parts, development of Engineering Change Proposals (ECPs), obsolescence investigations, end-of-life procurements, In Service Engineering Agent (ISEA) onboard tech assists, Casualty Report (CASREP) responses, logistics support, and Software Support Activity (SSA) cyber security and software support.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: SNLWS Prime Contractor Efforts	7.107	5.969	1.875	0.000	1.875
Articles:	-	-	-	-	-
FY 2024 Plans:					
- Continue to provide programmatic and engineering support to Integrated Product Teams (IPTs) and Working Groups (WGs).					
- Continue to provide shipboard technical support by monitoring system throughout operation as the Original Equipment Manufacturer (OEM).					
- Continue to provide software and hardware sustainment support and procure materials.					
- Provide information, inspection, and support for subsystem maturation efforts, analysis and documentation.					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p>- Support the conduct of the Counter Anti-Ship Cruise Missile (C-ASCM) post testing analysis.</p> <p>FY 2025 Base Plans:</p> <ul style="list-style-type: none"> - Continue to provide programmatic and engineering support to Integrated Product Teams (ITPs) and Working Groups (WGs). - Continue to provide shipboard technical support by monitoring system throughout operation as the Original Equipment Manufacturer (OEM). - Continue to provide shipboard technical assistance and sustainment support. - Support conduct of minimal underway testing and provide engineering support, utilizing ship test events and windows of opportunity to continue to inform tactical employment. <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The FY24 to FY25 decrease in prime contractor funding will allow for testing and OEM technical and sustainment support.</p>					
<p>Title: SNLWS Government and Support Engineering Services</p> <p align="right">Articles:</p>	11.690	14.470	3.865	0.000	3.865
<p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continue to provide systems engineering and sustainment support. - Continue to provide shipboard technical support by monitoring system throughout operation as the In-Service Engineering Agent (ISEA). - Continue underway testing and engineering support, utilizing ship test events and windows of opportunity to verify unmet requirements through at sea testing and evaluation. - Continue sustainment support and procure materials. - Provide training updates, maintenance requirements updates and shipboard allowance documentation. - Conduct Counter Anti-Ship Cruise Missile (C-ASCM) post testing analysis. - Provide programmatic and engineering support to Integrated Product Teams (IPTs) and Working Groups (WGs). - Provide software and cybersecurity support. - Create technical capability upgrade package to include material and assembly drawings. <p>FY 2025 Base Plans:</p>	-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</i>

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"> - Continue to provide sustainment support. - Continue to provide shipboard technical support by monitoring system throughout operation as the In-Service Engineering Agent (ISEA). - Continue minimal testing and engineering support, utilizing ship test events and windows of opportunity to continue to inform tactical employment. - Continue to provide training updates, maintenance requirements updates and shipboard allowance documentation. - Continue to provide minimal programmatic and engineering support to Integrated Product Teams (IPTs) and Working Groups (WGs). - Continue to provide software and cybersecurity support. <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: The FY24 to FY25 decrease in government funding will allow for ISEA sustainment support and Software Support Activity (SSA) software and cybersecurity support.</p>					
Accomplishments/Planned Programs Subtotals	18.797	20.439	5.740	0.000	5.740

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

N/A

Remarks

D. Acquisition Strategy

The acquisition strategy permits accelerated fielding of laser weapon systems in the Fleet and provides a demand signal for the industrial base to expand the capacity to develop and manufacture this advanced technology. The acquisition strategy consists of the baseline development and production of one unit followed by options to acquire system quantities at firm fixed price that will address operational needs of the Fleet in the requisite timeframe to offset future threats and maintain technological superiority over potential adversaries. SNLWS provides for industry-developed and government integrated capability to the Fleet in as short a timeframe as possible, thereby addressing the National Defense Strategy direction to foster a culture of affordability. SNLWS includes the development of an advanced laser weapon system in the 60 kW or higher class. Competition was utilized for system development and production efforts.

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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 / 4				PE 0603925N / Directed Energy and Electric Weapon System				3402 / Surface Navy Laser Weapon System (SNLWS)							
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
SNLWS Development	C/CPIF	Lockheed Martin Aculight : Bothell, WA	149.385	0.000		0.000		0.000		-		0.000	0.000	149.385	-
Subtotal			149.385	0.000		0.000		0.000		-		0.000	0.000	149.385	N/A
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
SNLWS Systems Engineering, Program Management, GFE/GFI, Tech Assist, ILS	WR	NSWC Dahlgren : Dahlgren, VA	36.527	3.834	Oct 2022	5.354	Nov 2023	0.500	Nov 2024	-		0.500	Continuing	Continuing	Continuing
SNLWS Ship Installation, Integration & Documentation	C/CPAF	BIW : Bath, ME	2.988	0.000		0.000		0.000		-		0.000	0.000	2.988	-
SNLWS Combat System Integration/Licenses	C/CPFF	Lockheed Martin : Moorestown, NJ	12.899	0.000		0.000		0.000		-		0.000	0.000	12.899	-
SNLWS Systems Engineering/Security	WR	NSWC Crane : Crane, IN	1.084	0.200	Oct 2022	0.170	Nov 2023	0.000		-		0.000	0.000	1.454	-
SNLWS Systems Engineering/Installation	WR	NSWC PHD : Port Hueneme, CA	0.957	0.000		0.000		0.000		-		0.000	0.000	0.957	-
SNLWS Systems Engineering	WR	NIWC Pacific : San Diego, CA	0.345	0.000		0.000		0.000		-		0.000	0.000	0.345	-
SNLWS Systems Engineering	WR	NPS : Monterey, CA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	-
SNLWS Systems Engineering	MIPR	MIT LL : Lexington, MA	0.004	0.000		0.000		0.000		-		0.000	0.000	0.004	-
SNLWS Systems Engineering	C/CPFF	PSU EOC : Freeport, PA	1.700	0.350	Mar 2023	0.300	Dec 2023	0.100	Dec 2024	-		0.100	Continuing	Continuing	Continuing
SNLWS Technical Director	WR	NSWC Crane : Crane, IN	1.659	0.350	Oct 2022	0.425	Nov 2023	0.200	Nov 2024	-		0.200	Continuing	Continuing	Continuing

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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 / 4				PE 0603925N / Directed Energy and Electric Weapon System						3402 / Surface Navy Laser Weapon System (SNLWS)					
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
SNLWS Product Support/ Sys Engr/ISEA/SSA/Doc/Trng	WR	NSWC PHD : Port Hueneme, CA	6.549	1.994	Nov 2022	3.545	Nov 2023	2.350	Nov 2024	-		2.350	Continuing	Continuing	Continuing
SNLWS Installation APM	WR	NSWC Dahlgren DNA : Dam Neck, VA	0.965	0.000		0.000		0.000		-		0.000	0.000	0.965	-
SNLWS Radar Cross Section Engineering	WR	NSWC Carderock : Potomac, MD	0.029	0.000		0.000		0.000		-		0.000	0.000	0.029	-
SNLWS Environmental Engineering	WR	NUWC Newport : Newport, RI	0.031	0.000		0.000		0.000		-		0.000	0.000	0.031	-
SNLWS System Installation	C/CPAF	BAE via SWRMC : San Diego, CA	10.184	0.000		0.000		0.000		-		0.000	0.000	10.184	-
SNLWS AIT/Engr/Tech/ILS/Sustainment/Material/Labor	C/CPIF	Lockheed Martin Aculight : Bothell, WA	33.019	6.007	Jan 2023	5.969	Jan 2024	1.875	Jan 2025	-		1.875	Continuing	Continuing	Continuing
SNLWS Installation Engineering	C/CPAF	Third Party Planning (3PP) : Not Specified	0.005	0.000		0.000		0.000		-		0.000	0.000	0.005	-
SNLWS Laser Range Hazard Analysis	WR	NSWC Corona : Corona, CA	0.039	0.000		0.000		0.000		-		0.000	0.039	0.078	-
SNLWS Platform Integration/ILS/Installation Support	C/CPFF	CACI : Washington, DC	0.285	0.000		0.000		0.000		-		0.000	0.000	0.285	-
SNLWS installation Management & Materials	C/CPFF	NSWC PHD : Virginia Beach, VA	7.326	0.000		0.000		0.000		-		0.000	0.000	7.326	-
SNLWS Installation/Shipping	WR	NAVFAC : San Diego, CA	0.001	0.000		0.000		0.000		-		0.000	0.000	0.001	-
SNLWS ILS/Product Support	C/FFP	TMS VIA NSWC IH : Indian Head, MD	0.069	0.000		0.000		0.000		-		0.000	0.000	0.069	-
SNLWS System Engr/Procurement Beam Director	C/CPFF	MANTECH : Washington, D.C.	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
Subtotal			117.165	12.735		15.763		5.025		-		5.025	Continuing	Continuing	N/A

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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 / 4				PE 0603925N / Directed Energy and Electric Weapon System				3402 / Surface Navy Laser Weapon System (SNLWS)							
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
Remarks															
FY24 to FY25 decrease will allow for ISEA sustainment support and SSA software and cybersecurity support.															
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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NIWC Pacific : San Diego, CA	0.122	0.000		0.000		0.000		-		0.000	0.000	0.122	-
Developmental Test & Evaluation (DT&E)	WR	NSWC PHD : Port Hueneme, CA	6.576	0.096	Nov 2022	2.064	Nov 2023	0.100	Dec 2024	-		0.100	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NSWC Crane : Crane, IN	2.847	0.255	Oct 2022	0.200	Nov 2023	0.050	Nov 2024	-		0.050	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	NSWC Dahlgren : Dahlgren, VA	1.696	0.265	Oct 2022	0.417	Nov 2023	0.075	Nov 2024	-		0.075	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/CPIF	Lockheed Martin Aculight : Bothell, WA	7.370	1.100	Apr 2023	0.000		0.000		-		0.000	0.000	8.470	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Dahlgren DNA : Dam Neck, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	Threat Systems Management office : Redstone Arsenal, AL	0.581	0.000		0.000		0.000		-		0.000	0.000	0.581	-
Developmental Test & Evaluation (DT&E)	WR	SCSC Wallops : Wallops Island, VA	2.150	0.000		0.000		0.000		-		0.000	0.000	2.150	-
Developmental Test & Evaluation (DT&E)	WR	NASA Wallops : Wallops Island, VA	1.440	0.000		0.000		0.000		-		0.000	0.000	1.440	-
Developmental Test & Evaluation (DT&E)	WR	NAWC CL : China Lake, AZ	1.046	0.175	Jul 2023	0.000		0.000		-		0.000	0.000	1.221	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</i>
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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)	WR	NAWC AD : Patuxent River, MD	1.017	0.156	Jul 2023	0.000		0.000		-		0.000	0.000	1.173	-
Developmental Test & Evaluation (DT&E)	WR	NRL : Washington, D.C.	0.542	0.250	Mar 2023	0.000		0.000		-		0.000	0.000	0.792	-
Developmental Test & Evaluation (DT&E)	C/CPFF	PSU EOC : Freeport, PA	0.100	0.000		0.100	Dec 2023	0.000		-		0.000	0.000	0.200	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NUWC : Newport, RI	0.029	0.000		0.000		0.000		-		0.000	0.000	0.029	-
Developmental Test & Evaluation (DT&E)	WR	NPS : Monterey, CA	0.160	0.020	Aug 2023	0.000		0.000		-		0.000	0.000	0.180	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/FFP	ACC AMIC : Langley AFB, VA	0.273	0.000		0.000		0.000		-		0.000	0.000	0.273	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	MIPR	53 WEG FM : Tyndall AFB, FL	0.108	0.000		0.000		0.000		-		0.000	0.000	0.108	-
Developmental Test & Evaluation (DT&E)	WR	NAWC PM : Point Mugu, CA	0.568	2.835	Mar 2023	0.000		0.000		-		0.000	0.000	3.403	-
Developmental Test & Evaluation (DT&E)	WR	NSWCPD : Philadelphia, PA	0.041	0.000		0.000		0.000		-		0.000	0.000	0.041	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Corona : Corona, CA	0.000	0.012	Mar 2023	0.000		0.000		-		0.000	0.000	0.012	-
Subtotal			26.766	5.164		2.781		0.225		-		0.225	Continuing	Continuing	N/A

Remarks
FY24 to FY25 decrease will allow for at-sea testing to verify and validate system performance.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</i>
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Management Services (\$ 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			
SNLWS Program Management/Engineering Support	C/CPFF	GRYPHON Technologies : Washington, DC	1.036	0.000		0.000		0.000		-		0.000	0.000	1.036	-
SNLWS Program Management/Engineering Support	C/CPIF	SPA : Washington, DC	4.802	0.347	Mar 2023	1.020	Dec 2023	0.200	Dec 2024	-		0.200	Continuing	Continuing	Continuing
SNLWS Travel	Sub Allot	NAVSEA : Washington, DC	0.145	0.054	Mar 2023	0.100	Feb 2024	0.025	Feb 2025	-		0.025	Continuing	Continuing	Continuing
SNLWS Program Management	C/BA	TMB : Washington, DC	1.268	0.172	Feb 2023	0.335	Dec 2023	0.100	Dec 2024	-		0.100	Continuing	Continuing	Continuing
SNLWS Program Management	C/BA	PSS : Washington, DC	0.052	0.208	Jun 2023	0.260	Jun 2024	0.125	Jun 2025	-		0.125	Continuing	Continuing	Continuing
SNLWS Program Management	C/BA	Strategic Insight : Washington, DC	0.477	0.013	Feb 2023	0.035	Dec 2023	0.015	Dec 2024	-		0.015	Continuing	Continuing	Continuing
SNLWS Program Management	C/BA	BAH : Washington, DC	0.169	0.104	Feb 2023	0.145	Feb 2024	0.025	Feb 2025	-		0.025	Continuing	Continuing	Continuing
Subtotal			7.949	0.898		1.895		0.490		-		0.490	Continuing	Continuing	N/A

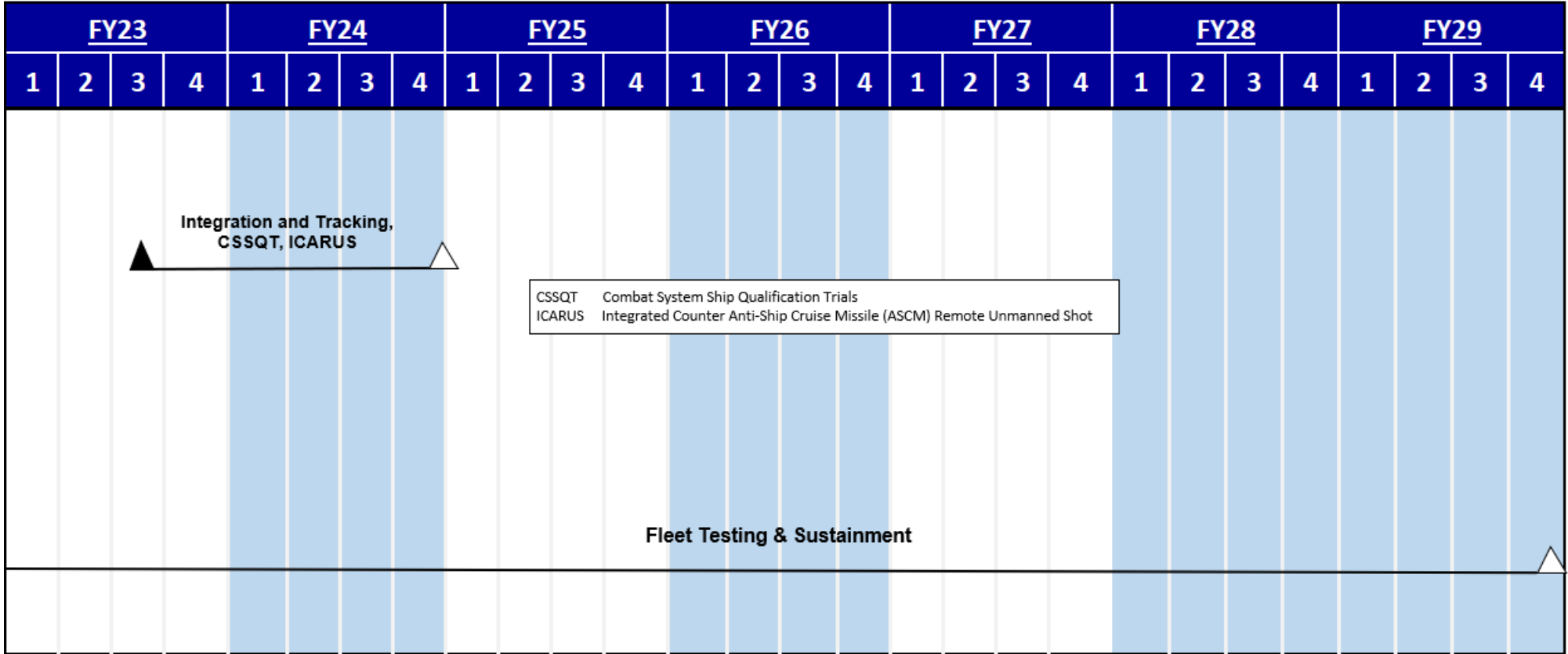
Remarks
FY24 to FY25 decrease will allow for HELIOS support.

	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	301.265	18.797	20.439	5.740	-	5.740	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</i>



1. ICARUS testing is an OPNAV directed test event used to collect data on Laser Weapon System (LWS) performance against surrogate Counter Anti-Ship Cruise Missile (C-ASCM) target to inform stakeholders on future investments in LWS technology.
2. Fleet testing consists of completion of System Operational Verification Test (SOVT), participation in Developmental Test (DT)/Operational Test (OT) CSSQT event, and OPNAV directed test event.

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 3402 / <i>Surface Navy Laser Weapon System (SNLWS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3402				
SNLWS: Integration & Tracking (I&T), Combat System Ship Qualification Trials (CSSQT) and Integrated Counter Anti-Ship Cruise Missile (C-ASCM) Remote Unmanned Shot	3	2023	4	2024
SNLWS: Fleet Testing & Sustainment	1	2023	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>				Project (Number/Name) 5898 / <i>Directed Energy Components for High Energy Lasers</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
5898: <i>Directed Energy Components for High Energy Lasers</i>	0.000	13.553	4.825	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	18.378
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

This project is a new start in FY23.

A. Mission Description and Budget Item Justification

Project 5898 - Directed Energy Components for High Energy Lasers: Supports Industrial Base Analysis and Sustainment (IBAS) program efforts for the improvement of the production capability of the industrial base in order to produce Laser Weapon Beam Director (LWBD) components and sub-systems; reduce production lead times of Laser Weapon System Optics; improve quality and reduce production times of Fast Steering Mirror (FSM) and deformable mirrors.

Project 5898 is on track to complete in FY24.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Directed Energy Components for High Energy Lasers	13.553	4.825	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans:					
- Complete development of an industrial base production capability to produce LWBD components and subsystems.					
- Complete development of a coating chambers production capability for laser weapon system optics.					
- Complete development of a production capability for improvement and reduction in lead time for production for Fast Steering & Deformable Mirrors.					
FY 2025 Base Plans:					
N/A					
FY 2025 OCO Plans:					
N/A					
FY 2024 to FY 2025 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy	Date: March 2024
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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 5898 / <i>Directed Energy Components for High Energy Lasers</i>
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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
The FY24 to FY25 decrease is a result of the project being completed in FY24.					
Accomplishments/Planned Programs Subtotals	13.553	4.825	0.000	0.000	0.000

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

N/A

Remarks

D. Acquisition Strategy

The effort will utilize Other Transaction Authority (OTA) vehicles in order to obtain personnel with the requisite experience and expertise required to develop the production capability enhancements. The successful OTA contractor(s) could be utilized as supplier(s) for these highly critical, difficult to manufacture components in future laser acquisition contracts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / Directed Energy and Electric Weapon System	Project (Number/Name) 5898 / Directed Energy Components for High Energy Lasers
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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	Cost To Complete			
Systems Engineering	C/CPFF	PSU EOC : Freeport, PA	0.000	1.450	Mar 2023	0.860	Dec 2023	0.000		-		0.000	0.000	2.310	-	
Systems Engineering	WR	NSWC DD : Dahlgren, VA	0.000	1.352	Mar 2023	0.500	Nov 2023	0.000		-		0.000	0.000	1.852	-	
Production Capability Enhancements	Various	OTA : TBD	0.000	10.443	Aug 2023	3.315	Dec 2023	0.000		-		0.000	0.000	13.758	-	
Systems Engineering	MIPR	Army Research Lab : Adelphi, MD	0.000	0.020	Nov 2023	0.000		0.000		-		0.000	0.000	0.020	-	
Subtotal			0.000	13.265		4.675		0.000		-		0.000	0.000	17.940	N/A	

Remarks
Efforts will utilize Other Transaction Authority (OTA) vehicles.
FY24 to FY25 decrease is the result of the project being completed in FY24.

Management Services (\$ 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	Cost To Complete			
Program Management Support	C/CPIF	SPA : Washington, D.C.	0.000	0.236	Mar 2023	0.100	Dec 2023	0.000		-		0.000	0.000	0.336	-	
Program Management Support	C/CPFF	PSS : Washington, D.C.	0.000	0.052	Apr 2023	0.050	Dec 2023	0.000		-		0.000	0.000	0.102	-	
Subtotal			0.000	0.288		0.150		0.000		-		0.000	0.000	0.438	N/A	

Remarks
FY24 to FY25 decrease is a result of the project being completed in FY24.

	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	13.553	4.825	0.000	-	0.000	18.378	N/A

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 5898 / <i>Directed Energy Components for High Energy Lasers</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 5898				
Laser Weapon Beam Director (LWBD) Components/Subsystems: Production Capability Improvements	2	2023	4	2024
Coating Chambers for Laser Weapon System Optics: Production Capability Improvements	2	2023	4	2024
Fast Steering Mirrors and Deformable Mirrors: Production Capability Improvements	2	2023	4	2024

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy applicat</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
9823: <i>Lasers for Navy applicat</i>	164.602	24.946	20.671	0.000	-	0.000	0.095	0.000	0.000	0.000	0.000	210.314
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 9823 - Lasers for Navy Applications: Optical Dazzler Interdictor Navy (ODIN) development provides directed energy, shipboard Counter-Intelligence, Surveillance, and Reconnaissance (C-ISR) capabilities to the Fleet to dazzle Unmanned Aerial Systems (UASs) and other platforms that address the Urgent Operational Needs (UONs) statement provided by the Fleet. ODIN, as a non-Program of Record, was developed and fielded with RDT&E,N funding and was initially envisioned as a Non-Permanent Change (NPC). FY 2018 was the first year of funding which supported the design, development, procurement, and installation of 8 ODIN standalone units deployed on DDG 51 Flt IIA surface combatants. Eight (8) ODIN units are now operational in the Fleet.

The FY25 R&D funding was realigned to OPN for procurement of repair parts and O&MN for sustainment support.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Optical Dazzling Interdictor, Navy (ODIN)	24.946	20.671	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans:					
- Continue capability upgrade package to include material and assembly drawings.					
- Continue system engineering for software/hardware upgrades.					
- Commence modeling & simulation and analysis of ODIN system and threat data.					
- Commence development and implementation of design upgrades for Engineering Change Proposals (ECPs)					
- Replace Obsolete Parts as required.					
FY 2025 Base Plans:					
N/A					
FY 2025 OCO Plans:					
N/A					
FY 2024 to FY 2025 Increase/Decrease Statement:					
FY24 to FY25 decrease is a result of RDT&E funding being realigned out of PU 9823 and into O&MN to support sustainment and OPN to procure repair parts.					
Accomplishments/Planned Programs Subtotals	24.946	20.671	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy	Date: March 2024
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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy applicat</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OMN/1C1C/11CM0: <i>Directed Energy</i>	0.000	3.756	3.259	-	3.259	3.703	3.776	3.993	4.072	Continuing	Continuing
• OPN/BLI 5510: <i>Directed Energy</i>	0.000	0.000	3.817	-	3.817	2.991	0.000	0.000	0.000	0.000	6.808

Remarks

Starting in FY24 through FY29 O&MN funding was realigned from PE 0603925N/PU 9823 RDT&E to support sustainment of ODIN units delivered to the fleet. FY25 and FY26 OPN funding was realigned from PE 0603925N/PU 9823 RDT&E to procure repair parts.

D. Acquisition Strategy

The ODIN is a government designed, developed, and produced system that will provide stand alone units for use on DDG 51 class ships. This effort will transition the developed ODIN capabilities to the Fleet, while informing the development of future prototyping capabilities and program of record efforts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy applicat</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			
Hardware & Software - Material Buys	C/FFP	NSWC Dahlgren : Dahlgren, VA	50.052	2.580	Nov 2022	2.000	Dec 2023	0.000		-		0.000	0.000	54.632	-
Engineering/Development/ Assembly, Tech Refresh	WR	NSWC Dahlgren : Dahlgren, VA	22.307	5.317	Oct 2022	8.295	Dec 2023	0.000		-		0.000	0.000	35.919	-
Software Development/ System Rqmts & Design	WR	NSWC Dahlgren : Dahlgren, VA	5.957	3.388	Oct 2022	3.100	Nov 2023	0.000		-		0.000	0.000	12.445	-
Engineering Development, HW and SW	C/CPFF	PSU EOC : Freeport, PA	11.669	2.025	Dec 2022	1.500	Dec 2023	0.000		-		0.000	0.000	15.194	-
Engineering/Development/ Material/DMSMS Analysis/ Design	WR	NSWC PHD : Port Hueneme, CA	2.778	0.000		0.300	Nov 2023	0.000		-		0.000	0.000	3.078	-
Engineering/Development	WR	NSWC Crane : Crane, IN	0.320	0.000		0.000		0.000		-		0.000	0.000	0.320	-
Engineering/Development	WR	NRL : Washington, D.C.	0.320	0.000		0.075	Dec 2023	0.000		-		0.000	0.000	0.395	-
Subsystem Maturation	Various	OTA : TBD	0.000	2.000	Apr 2023	2.821	Mar 2024	0.000		-		0.000	0.000	4.821	-
Test Unit Development & Design	WR	NIWC Pacific : San Diego, CA	0.000	0.099	Oct 2022	0.300	Nov 2023	0.000		-		0.000	0.000	0.399	-
Subtotal			93.403	15.409		18.391		0.000		-		0.000	0.000	127.203	N/A

Remarks
FY24 to FY25 decrease is a result of a funding realignment from RDT&E to OPN for procurement of repair parts and O&MN for sustainment support.

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			
Platform Integration/ ILS/ Installation	C/CPFF	CACI : Washington, D.C.	0.341	0.000		0.000		0.000		-		0.000	0.000	0.341	-
Platform Integration/ILS/ Installation	C/CPFF	SWRMC : San Diego, CA	1.175	0.000		0.000		0.000		-		0.000	0.000	1.175	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy Application</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			
Systems Engineering/Mgmt	C/CPFF	NAVFAC : Washington, D.C.	0.125	0.000		0.000		0.000		-		0.000	0.000	0.125	-
Safety, Product Support, Security & Operations	WR	AFRL : Wright-Patterson AFB, OH	0.160	0.435	Mar 2023	0.000		0.000		-		0.000	0.000	0.595	-
Installation Engineering	C/CPAF	Third Party Planning (3PP) : Not Specified	0.007	0.000		0.000		0.000		-		0.000	0.000	0.007	-
Spares	WR	NSWC Dahlgren : Dahlgren, VA	4.183	0.000		0.000		0.000		-		0.000	0.000	4.183	-
Platform/System Integration/ILS/Installation	WR	NSWC Dahlgren : Dahlgren, VA	14.001	1.185	Nov 2023	0.000		0.000		-		0.000	0.000	15.186	-
Platform Integration	C/CPAF	BIW : Bath, ME	1.541	0.050	Feb 2023	0.000		0.000		-		0.000	0.000	1.591	-
Platform Integration	C/CPFF	Lockheed Martin : Moorestown, NJ	0.323	0.000		0.000		0.000		-		0.000	0.000	0.323	-
Systems Engineering/Platform Integration	WR	NIWC Pacific : San Diego, CA	1.237	0.000		0.000		0.000		-		0.000	0.000	1.237	-
Safety, Product Support, Security & Operations	WR	NSWC Dahlgren : Dahlgren, VA	5.691	2.322	Nov 2023	0.000		0.000		-		0.000	0.000	8.013	-
Platform Integration	WR	NSWC Crane : Crane, IN	0.156	0.000		0.000		0.000		-		0.000	0.000	0.156	-
Platform/System Integration/Integrated Logistic Support/Installation & Spares	WR	NSWC PHD : Port Hueneme, CA	8.646	2.513	Oct 2022	0.500	Nov 2023	0.000		-		0.000	0.000	11.659	-
Packaging, Handling, Storage & Transportation, De-Install, Refurbishment	WR	NSWC Dahlgren : Dahlgren, VA	1.454	0.000		0.000		0.000		-		0.000	0.000	1.454	-
Platform Integration/ILS/Installation	C/CPFF	HRMC : Pearl Harbor, HI	0.021	0.000		0.000		0.000		-		0.000	0.000	0.021	-
Platform/System Integration/ILS/Installation & Spares	C/CPFF	NSWC PHD : Port Hueneme, CA	17.196	0.872	Oct 2022	0.000		0.000		-		0.000	0.000	18.068	-
Packaging, Handling, Storage & Transportation	C/CPFF	PSU EOC : Freeport, PA	0.425	0.000		0.000		0.000		-		0.000	0.000	0.425	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy											Date: March 2024				
Appropriation/Budget Activity 1319 / 4				R-1 Program Element (Number/Name) PE 0603925N / Directed Energy and Electric Weapon System					Project (Number/Name) 9823 / Lasers for Navy Application						

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			
Systems Engineering	C/CPFF	PSU EOC : Freeport, PA	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	-
Systems Engineering/ Mgmt	WR	Pax Partnership : Patuxent, MD	0.142	0.000		0.000		0.000		-		0.000	0.000	0.142	-
Platform Integration/ILS/ Installation	C/FFP	TMS via NSWC IH : Indian Head, MD	0.069	0.000		0.000		0.000		-		0.000	0.000	0.069	-
Platform Integration/ILS/ Installation	C/CPFF	NWRMC Puget Sound Naval Shipyard : Bremerton, WA	0.200	0.394	Feb 2023	0.000		0.000		-		0.000	0.000	0.594	-
Reliability, Maintainability & Assessment	WR	NSWC Corona : Corona, CA	0.185	0.000		0.000		0.000		-		0.000	0.000	0.185	-
Reliability, Maintainability & Assessment	MIPR	MIT LL : Cambridge MA	0.000	0.050	Mar 2023	0.000		0.000		-		0.000	0.000	0.050	-
Subtotal			57.978	7.821		0.500		0.000		-		0.000	0.000	66.299	N/A

Remarks
FY24 to FY25 decrease is a result of a funding realignment from RDT&E to OPN for procurement of repair parts and O&MN for sustainment support.

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			
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NAWC AD : Patuxent River, MD	0.160	0.000		0.000		0.000		-		0.000	0.000	0.160	-
Developmental Test & Evaluation (DT&E)	WR	NSWC PHD : Port Hueneme, CA	2.212	0.115	Mar 2023	0.000		0.000		-		0.000	0.000	2.327	-
Developmental Test & Evaluation (DT&E)	WR	NSWC Dahlgren : Dahlgren, VA	5.801	0.772	Mar 2023	0.250	Jan 2024	0.000		-		0.000	0.000	6.823	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Crane : Crane, IN	0.650	0.000		0.000		0.000		-		0.000	0.000	0.650	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy											Date: March 2024				
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603925N / Directed Energy and Electric Weapon System					Project (Number/Name) 9823 / Lasers for Navy applicat				

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)	WR	NIWC Pacific : San Diego, CA	0.504	0.051	Mar 2023	0.200	Jan 2024	0.000		-		0.000	0.000	0.755	-
Developmental Test & Evaluation (DT&E)	MIPR	NSMA, COTF : JBAB, D.C.	0.193	0.144	Mar 2023	0.000		0.000		-		0.000	0.000	0.337	-
Developmental Test & Evaluation (DT&E)	WR	WSMR : White Sands, NM	0.000	0.000		0.500	Jan 2024	0.000		-		0.000	0.000	0.500	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Corona : Corona, CA	0.024	0.000		0.000		0.000		-		0.000	0.000	0.024	-
Developmental Test & Evaluation (DT&E)	C/CPFF	PSU EOC : Freeport, PA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Subtotal			9.544	1.082		0.950		0.000		-		0.000	0.000	11.576	N/A

Remarks
FY24 to FY25 decrease is a result of a funding realignment from RDT&E to OPN for procurement of repair parts and O&MN for sustainment support.

Management Services (\$ 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 Mgmt/Support	C/CPFI	PSS : Washington, D.C.	0.052	0.168	Jun 2023	0.150	Jun 2024	0.000		-		0.000	0.000	0.370	-
Program Mgmt/Support	C/CPFI	Strategic Insight : Washington, D.C.	0.163	0.023	Mar 2023	0.010	Dec 2023	0.000		-		0.000	0.000	0.196	-
Program Mgmt/Support	C/CPFI	TMB : Washington, D.C.	0.486	0.095	Mar 2023	0.145	Dec 2023	0.000		-		0.000	0.000	0.726	-
Program Mgmt/Support	C/CPFF	GRYPHON Technologies : Washington, D.C.	1.086	0.000		0.000		0.000		-		0.000	0.000	1.086	-
Travel	Allot	NAVSEA : Washington, D.C.	0.090	0.025	Mar 2023	0.025	Feb 2024	0.000		-		0.000	0.000	0.140	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy **Date:** March 2024

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy applicat</i>
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Management Services (\$ 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 Mgmt/Support	C/CPIF	SPA : Washington, D.C.	1.708	0.323	Mar 2023	0.500	Mar 2024	0.000		-		0.000	0.000	2.531	-
Program Mgmt/Support	C/CPIF	BAH : Washington, D.C.	0.092	0.000		0.000		0.000		-		0.000	0.000	0.092	-
Subtotal			3.677	0.634		0.830		0.000		-		0.000	0.000	5.141	N/A

Remarks
FY24 to FY25 decrease is a result of a funding realignment from RDT&E to OPN for procurement of repair parts and O&MN for sustainment support.

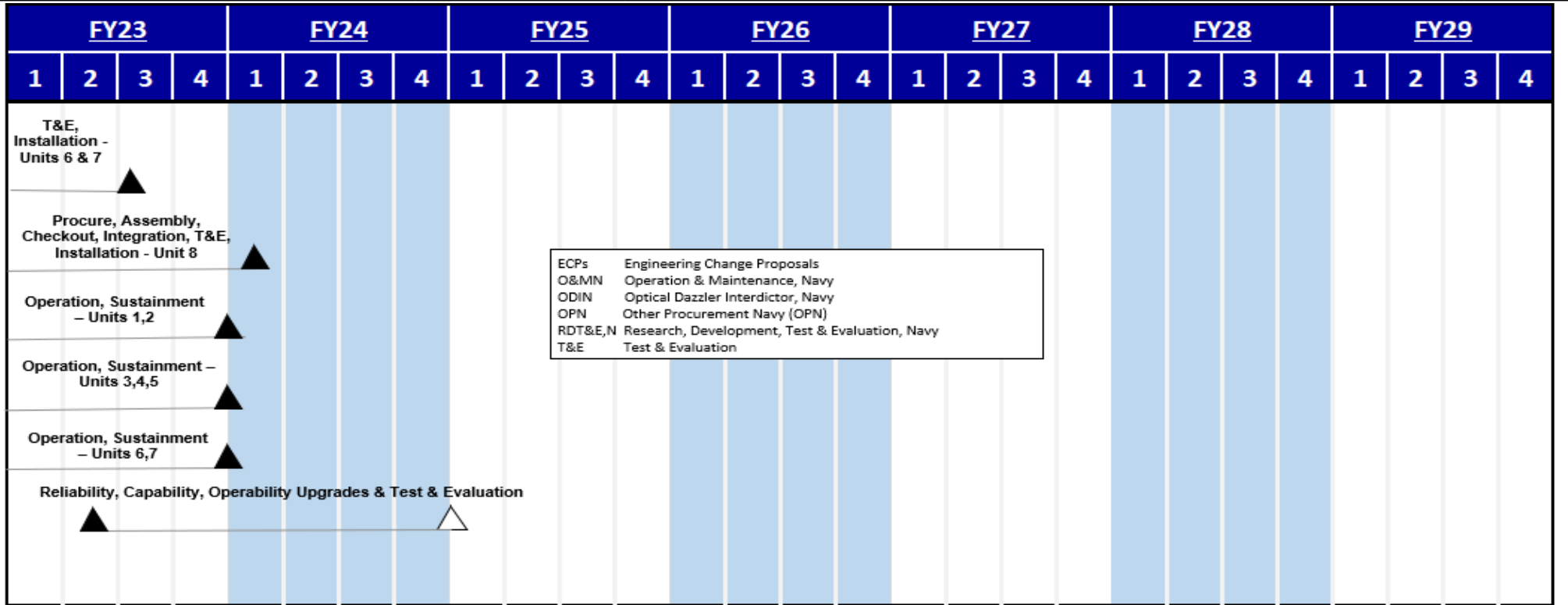
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	164.602	24.946	20.671	0.000	-	0.000	0.000	210.219	N/A

Remarks

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy applicat</i>
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- NOTES:**
1. T&E includes shore-based testing during assembly through shipboard testing after installation.
 2. Above schedule addresses ship availability changes that have occurred since the FY24 President's Budget submission.
 3. System Development, integration and installations delayed as a result of cost growth associated with funding delays, material availability, parts obsolescence, ship availability and installation costs, and COVID-19 cost and schedule impacts.
 4. Starting in FY24, funding for the operation and sustainment of 8 ODIN Units was converted/realigned from RDT&E,N to O&MN.
 5. In FY 25 & FY26 the majority of RDT&E funding was converted/realigned to OPN for procurement of spare parts.

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603925N / <i>Directed Energy and Electric Weapon System</i>	Project (Number/Name) 9823 / <i>Lasers for Navy applicat</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 9823				
Component Procurement, Assembly, Checkout, Integration, T&E & Installation Units 1-7	1	2023	4	2023
Operation and Sustainment of ODIN Units	1	2023	4	2023
Component Procurement, Assembly, Checkout, Integration, T&E & Installation Unit 8	1	2023	1	2024
Reliability, Capability, Operability Upgrades & Test & Evaluation	2	2023	4	2024