

UNCLASSIFIED

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 0603596N / <i>LCS Mission Modules</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
Total Program Element	852.437	31.191	31.464	28.801	-	28.801	32.643	42.285	44.933	45.831	Continuing	Continuing
2550: <i>Mine Countermeasure (MCM) Mission Package</i>	155.510	19.643	16.971	15.223	-	15.223	18.293	11.453	11.554	11.790	Continuing	Continuing
2552: <i>Surface Warfare (SUW) Mission Package</i>	35.760	2.988	0.851	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	39.599
3129: <i>LCS Mission Package Development</i>	661.167	8.560	13.642	13.578	-	13.578	14.350	30.832	33.379	34.041	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 443

A. Mission Description and Budget Item Justification

The Littoral Combat Ship (LCS) Mission Modules (MM) Program Element (PE) provides funds for detailed design, development, issue resolution, certification, integration, and testing of the LCS MM. LCS is a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats and ensure naval and joint force access into contested littoral regions. It uses open-systems architecture design, modular weapons, sensor systems, and a variety of manned and unmanned vehicles to expand the battle space and project offensive power into the littorals.

The LCS MM Program employs an incremental development approach to deliver capability, which allows for insertion of mature capabilities throughout the life of the program without the need for modifications to the seaframes. Future capabilities will be considered when joint warfighting objectives or changing threats create new operational capability requirements that cannot be met by current mission package designs, or when new technological opportunities allow significant progress toward delivering cost effective, enhanced capabilities. Future mission module increments can be tested, constructed, and incorporated into existing mission packages, which is one of the most important benefits of LCS modular design.

Mission Package funding is aligned into three (3) projects:
 2550 Mine Countermeasures (MCM) Mission Package
 2552 Surface Warfare (SUW) Mission Package
 3129 LCS Mission Package Development

MCM MP: Counters bottom, tethered, near surface, and surface mines in the littorals without putting sailors in the minefield. In FY24, the MCM MP will conduct Cyber Security testing of the MCM MP, certify the MCM MP deployment configuration, update and deliver various tactical and logistic documentation, commence development of MCM MPAS 4.0 software, modify the MCM MP to commence integration of Barracuda, development of the Near Surface Neutralization Module (NSN), and TBEC design upgrades and certify MCM MP for deployment.

UNCLASSIFIED

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 0603596N / <i>LCS Mission Modules</i>
---	--

SUW MP: Increases firepower and offensive/defensive capabilities against large numbers of highly maneuverable, fast, small craft threats, giving LCS the ability to protect the sea lanes while moving a force quickly through a choke point or other strategic waterway, and to conduct maritime security missions. In FY24, the SUW MP will complete the efforts to revise the SSMM hatch and cover design.

ASW MP: Enables the LCS to conduct detect-to-engage operations against modern submarines. In FY23, the ASW Mission Package was divested from the LCS Mission Modules program.

C5I: Enabling products required by all MPs such as common hardware interfaces, computer operating environment (Mission Package Computing Environment (MPCE)), communications systems (Multi-Vehicle Communications System (MVCS)), aviation interface systems, and Mission Package Portable Control Stations (MPPCS). MPCE provides common services and an Operating Environment to support all Mission Package Application Software (MPAS) and Open Architecture Products. MVCS enables the simultaneous control and data exchange between unmanned mission vehicles and the ship. Aviation interface systems include integration and management of data communications, data processing, and physical hardware interfaces such as common equipment and containers used by all mission packages. MPPCS provides a mobile operating environment installed in a 20ft ISO container and serves as a surrogate ship during mission package development and integration test events at test ranges. In FY24, project 3129 (LCS Mission Package Common Development) efforts include continuing MPCE v2.0 tech refresh development and initiation of MVCS v2.0 tech refresh development.

B. Program Change Summary (\$ in Millions)	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	31.707	31.464	29.472	-	29.472
Current President's Budget	31.191	31.464	28.801	-	28.801
Total Adjustments	-0.516	0.000	-0.671	-	-0.671
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.001	0.000			
• SBIR/STTR Transfer	-0.515	0.000			
• Program Adjustments	0.000	0.000	-0.649	-	-0.649
• Rate/Misc Adjustments	0.000	0.000	-0.022	-	-0.022

Change Summary Explanation

FY23 -\$0.516M SIBR Transfer

FY24 No change

FY25 -\$0.649M of program adjustments and -\$0.022M miscellaneous adjustments

UNCLASSIFIED

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 0603596N / LCS Mission Modules				Project (Number/Name) 2550 / Mine Countermeasure (MCM) Mission Package			
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
2550: Mine Countermeasure (MCM) Mission Package	155.510	19.643	16.971	15.223	-	15.223	18.293	11.453	11.554	11.790	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 443												

A. Mission Description and Budget Item Justification

The MCM Mission Package (MP) employs an incremental development approach to deliver capability which allows the continued insertion of mature capabilities throughout the life of the program without the need for modifications to the seaframes. The focus is to minimize service life extensions to both MCM-1 ships and the MH-53E helicopters. Future MCM MP capabilities will be considered when joint warfighting objectives or changing threats create new operational capability requirements that cannot be met by current mission package designs, or when new technological opportunities allow significant progress toward delivering cost effective enhanced capabilities. Future mission module increments can be tested, constructed, and incorporated into existing mission packages, one of the most important benefits of LCS modular design. MCM MP successfully completed IOT&E in Q4FY22 and achieved Initial Operational Capability (IOC) on 31MAR 2023. MCM MPs are being fielded beginning in Q3FY24.

The program has begun investigation into the feasibility of integrating the MCM MP on Vessels of Opportunity (VOO). In FY19 and FY20, the program demonstrated the flexibility of the modular MCM MP components by conducting a MCM Vessel of Opportunity (VOO) at-sea demonstration onboard the USS Hershel "Woody" Williams (T-ESB 4).

The MCM MP will counter deep, shallow, and tethered mines in the littorals without putting sailors in the minefield. When the MCM MP is embarked, LCS is capable of conducting detect-to-engage operations (hunting, sweeping, and neutralization) against very shallow to deep-water sea mine threats and detect mines in the Beach Zone. The MCM MP provides these capabilities through the use of sensors and weapons deployed from an MH-60S multi-mission helicopter, unmanned offboard vehicles, and support equipment/containers. The MCM MP consists of the following modules:

- Unmanned Minesweeping (UMS) Module: Unmanned Influence Sweeping System (UISS) (USV + Minesweeping Payload Delivery System (PDS))
- Airborne Mine Neutralization (AMN) Module: Airborne Mine Neutralization System (AMNS) + MH-60S helicopter
- Near Surface Detection (NSD) Module: Airborne Laser Mine Detection System (ALMDS) + MH-60S helicopter
- Coastal Mine Reconnaissance (CMR) Module: Coastal Battlefield Reconnaissance & Analysis (COBRA) + MQ-8 Fire Scout Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV)
- Buried Minehunting (BMH) Module: Knifefish Unmanned Undersea Vehicle (JUV)
- Remote Minehunting (RMH) Module: Unmanned Surface Vehicle (USV) + Minehunting PDS + AN/AQS-20 Minehunting Sonar
- Near-surface Mine Neutralization (NSN) Module: Barracuda (Barracuda Neutralizer + USV + Mine Neutralization PDS)

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 2550 / Mine Countermeasure (MCM) Mission Package

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p>Title: Mine Countermeasures (MCM) Mission Modules</p> <p align="right">Articles:</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Certify MCM MP for deployment - Deliver 4 MCM MPs to the Fleet - Support MCM Fleet Introduction Team efforts - Develop work package to increase weight capacity of the Twin Boom Extensible Crane (TBEC) to support increased MCM USV endurance. - Commence Integration of Common Control Station (CCS) into MCM MPAS 4.0 to include ensuring current CCS is integrated and running on the current MPOE Linux in the MPIL. Perform a System Operational Verification Test to verify that CCS is able to be successfully integrated within the current MCM MPAS architecture. - Certify the LCS MCM MP Logistic products and training material, including technical manuals and provisioning documentation. - Deliver and install Common PMA into LCS MPCE Hardware - Commence development of USV Support Container - Conduct engineering study to evaluation the MPAS architecture to accept Barracuda Software (weapons fire control circuit) - Integration and further development of all MCM MP Tactics - Integration and further development of all MCM MP Training - Support Fleet experimentation with Beyond Line Of Sight (BLOS) and other MCM capabilities with Unmanned Systems - Ship Change Documents and AIT for various efforts on first four deployers. <p>FY 2025 Base Plans:</p> <ul style="list-style-type: none"> - Support deployment of MCM MP - Commence follow on efforts for delivery of MP 5-8 - Further develop multiyear effort for Integration of Common Control Station (CCS) into MCM MPAS 4.0. Specifically create a simple Combat Management System (CMS) interface component using CCS in order to receive track reports from CMS and perform a stress test of the CMS interface component on MPCE 2.0 HW and provide an evaluation of the findings - Commence design of Barracuda Support Container - Commence design of Barracuda Sonobuoy storage container. 	19.643	16.971	15.223	0.000	15.223
	-	-	-	-	-

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 2550 / Mine Countermeasure (MCM) Mission Package

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"> - Commence integration of Barracuda software into MPAS. - Commence studies to integrate Barracuda PMA. - Certify the LCS MCM MP Logistic products and training material, including technical manuals and provisioning documentation. - Deliver and install Common PMA into LCS MPCE Hardware - Further development of all MCM MP Tactics - Achieve Ready For Training for the MCM MP. - Commence efforts towards developing and enhancing MCM MP capabilities. Specifically, environmental data collection integration efforts and outstanding Cyber System attributes. - Ship Change Documents and AIT for various efforts on MPs 5-8 - MCM MP from ashore efforts <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: - Decrease due to completion of engineering study of MPAS architecture to accept Barracuda Software. Completion of Integration of MCM MP Tactics & MCM MP Training.</p>					
Accomplishments/Planned Programs Subtotals	19.643	16.971	15.223	0.000	15.223

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPN 1600: LCS Common Mission Modules Equipment	54.883	49.060	56.105	-	56.105	38.562	29.752	25.068	31.313	348.290	1,281.118
• OPN 1601: LCS MCM Mission Modules	92.495	93.961	118.247	-	118.247	101.172	62.758	60.396	57.096	895.257	2,103.413

Remarks

D. Acquisition Strategy

The LCS MM Acquisition Strategy employs an incremental procurement approach to allow for the rapid introduction of additional capabilities as system technology matures. This phased plan provides incremental fielding of capability as technology is matured, into the MCM MP until the full baseline capability defined in the Capability Development Document (CDD) is reached.

UNCLASSIFIED

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 0603596N / LCS Mission Modules				2550 / Mine Countermeasure (MCM) Mission Package							
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
MCM MP	WR	NSWC PCD : Panama City, FL	73.253	9.581	Nov 2022	14.251	Nov 2023	12.732	Nov 2024	-		12.732	Continuing	Continuing	Continuing
MCM MP	Sub Allot	PMS 406 : Various	7.650	0.000		0.000		0.000		-		0.000	0.000	7.650	-
MCM MP	Sub Allot	PMS 495 : Various	1.000	0.000		0.000		0.000		-		0.000	2.400	3.400	-
MCM MP	WR	NSWC PHD : Port Hueneme, CA	9.571	1.154	Dec 2022	0.500	Nov 2023	0.500	Nov 2024	-		0.500	12.800	24.525	-
MCM MP	C/CPFF	Northrop Grumman : Bethpage, NY	20.047	0.800	Nov 2022	1.338	Dec 2023	1.250	Dec 2024	-		1.250	2.100	25.535	-
MCM MP TBEC Modifications	WR	NSWC PD : Philadelphia, PA	0.000	1.000	Apr 2023	0.000		0.000		-		0.000	0.000	1.000	-
MCM MP TBEC Modifications	C/CPIF	Various : Various	0.000	2.500	Jun 2023	0.000		0.000		-		0.000	0.000	2.500	-
MCM MP Mine Neutralization	WR	NSWC PCD : Panama City, FL	0.000	3.500	Apr 2023	0.000		0.000		-		0.000	0.000	3.500	-
Subtotal			111.521	18.535		16.089		14.482		-		14.482	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
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC PCD : Panama City, FL	26.765	0.000		0.000		0.000		-		0.000	0.000	26.765	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC PHD : Port Hueneme, CA	15.004	0.250	Oct 2022	0.000		0.000		-		0.000	0.000	15.254	-
Subtotal			41.769	0.250		0.000		0.000		-		0.000	0.000	42.019	N/A

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 2550 / Mine Countermeasure (MCM) Mission Package

	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				
Proj 2550																																
MCM Integration and Testing on Independence Variant		MCM MP IOC		MCM MP Cyber Planning			MCM MP Cyber OT																									
									Post Test MPAS Find-Fix-Repair																							
					TBEC MODs				MN PDS Intg																							
Follow-on Efforts													Barracuda S/W Integration												NSN Integration							
																									NSN Integration Test							

2025OSD - 0603596N - 2550

UNCLASSIFIED

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 0603596N / <i>LCS Mission Modules</i>	Project (Number/Name) 2550 / <i>Mine Countermeasure (MCM) Mission Package</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2550				
MCM Integration and Testing on Independence Variant: MCM MP IOC	2	2023	2	2023
MCM Integration and Testing on Independence Variant: MCM MP Cyber Planning & Test	4	2023	4	2023
MCM Integration and Testing on Independence Variant: MCM MP Cyber OT	3	2024	3	2024
MCM Integration and Testing on Independence Variant: Post Test MPAS Find-Fix-Repair	1	2024	4	2026
MCM Integration and Testing on Independence Variant: TBEC Modification	2	2023	4	2024
MCM Integration and Testing on Independence Variant: MN PDS Integration	1	2025	4	2026
Follow-on Efforts: Barracuda Software Integration	1	2025	1	2026
Follow-on Efforts: Near Surface Neutralization (NSN) Module Integration	1	2026	1	2029
Follow-on Efforts: Near Surface Neutralization (NSN) Module Integration Testing	1	2028	4	2029

UNCLASSIFIED

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 0603596N / LCS Mission Modules				Project (Number/Name) 2552 / Surface Warfare (SUW) Mission Package			
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
2552: Surface Warfare (SUW) Mission Package	35.760	2.988	0.851	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	39.599
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 443

A. Mission Description and Budget Item Justification

The SUW MP increases firepower and offensive/defensive capabilities against large numbers of highly maneuverable, fast, small craft threats, giving LCS the ability to protect the sea lanes and move a force quickly through a choke point or other strategic waterway. The SUW MP is composed of several mission modules including the Gun Mission Module (GMM), the Aviation Module, the Maritime Security Module (MSM), and the Surface-to-Surface Missile Module (SSMM). The GMM is composed of two high velocity 30mm cannons which is augmented by the ship's resident 57mm gun to counter close in to mid-range threats. The Aviation Module uses the embarked MH-60R helicopter with Hellfire missile and the MQ-8B Fire Scout VTUAV for the detection, identification, and classification of surface contacts and to engage long range threats. The MSM supports the embarkation of a Visit, Board, Search, and Seizure (VBSS) team. The SSMM is a self-contained module consisting of 2 Missile Exhaust Containment Structures (MECS), integrated articulating hatch covers, a fire control system, and 12 two-rail MK 210 launchers to support load out and firing of 24 Longbow Hellfire missiles. SSMM provides missile coverage for mid-range threats and small boats.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Surface Warfare (SUW) Mission Modules	2.988	0.851	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2024 Plans: Complete SSMM Hatch Modification Development & Design					
FY 2025 Base Plans: N/A					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease in FY25 SSMM hatch development efforts complete					
Accomplishments/Planned Programs Subtotals	2.988	0.851	0.000	0.000	0.000

UNCLASSIFIED

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 0603596N / LCS Mission Modules				Project (Number/Name) 2552 / Surface Warfare (SUW) Mission Package			

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

Line Item	FY 2023	FY 2024	FY 2025	FY 2025	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Cost To	
			Base	OCO	Total					Complete	Total Cost
• OPN 1600: LCS Common Mission Module Equipment	54.883	49.060	56.105	-	56.105	38.562	29.752	25.068	31.313	348.290	1,281.118
• OPN 1603: LCS SUW Mission Module	5.100	12.102	11.101	-	11.101	3.500	0.100	0.146	0.149	14.236	207.166
• WPN 4221: LCS Module Weapons	4.580	3.264	2.463	-	2.463	2.266	2.258	2.322	2.368	63.142	124.771

Remarks

D. Acquisition Strategy

The LCS MM Acquisition Strategy is employing an incremental procurement approach to allow for the rapid introduction of additional capabilities as system technology matures. This phased plan provides incremental fielding of capability through the introduction of mature programs of record into the respective Mission Packages until the full baseline capability defined in the Capability Development Document (CDD) is reached.

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 2552 / Surface Warfare (SUW) Mission Package
--	---	--

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			
3.0 SUW MP	MIPR	JAMS PO : Various	2.250	0.000		0.000		0.000		-		0.000	0.000	2.250	-
3.0 SUW MP	WR	NSWC DD : Dahlgren, VA	7.465	2.988	Nov 2022	0.851	Nov 2023	0.000		-		0.000	0.000	11.304	-
Subtotal			9.715	2.988		0.851		0.000		-		0.000	0.000	13.554	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			
3.0 SUW MP	C/CPIF	Northrop Grumman : Bethpage, NY	2.600	0.000		0.000		0.000		-		0.000	0.000	2.600	-
3.0 SUW MP	WR	NSWC PHD : Port Hueneme, CA	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	-
Subtotal			4.600	0.000		0.000		0.000		-		0.000	0.000	4.600	N/A

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)	Sub Allot	NSWC PHD : Port Hueneme, CA	5.778	0.000		0.000		0.000		-		0.000	0.000	5.778	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Corona : Corona, CA	1.950	0.000		0.000		0.000		-		0.000	0.000	1.950	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC DD : Dahlgren, VA	11.553	0.000		0.000		0.000		-		0.000	0.000	11.553	-
Prior Year Operational Test & Evaluation Not Funded FYDP (PYOT&E)	WR	COMOPTEVFOR : Norfolk, VA	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	-
Subtotal			20.081	0.000		0.000		0.000		-		0.000	0.000	20.081	N/A

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 2552 / Surface Warfare (SUW) Mission Package

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 2552	
SUW Mission Package: SSMM Shock Qualification Testing	
SUW Mission Package: SSMM Hatch Modification Development & Design	

UNCLASSIFIED

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 0603596N / <i>LCS Mission Modules</i>	Project (Number/Name) 2552 / <i>Surface Warfare (SUW) Mission Package</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 2552</i>				
SUW Mission Package: SSMM Shock Qualification Testing	1	2023	4	2023
SUW Mission Package: SSMM Hatch Modification Development & Design	1	2024	4	2024

UNCLASSIFIED

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 0603596N / LCS Mission Modules				Project (Number/Name) 3129 / LCS Mission Package Development			
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
3129: LCS Mission Package Development	661.167	8.560	13.642	13.578	-	13.578	14.350	30.832	33.379	34.041	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Project MDAP/MAIS Code: 443												

A. Mission Description and Budget Item Justification

The LCS Mission Modules Common Equipment consists of enabling products required by all Mission Packages to provide common hardware interfaces, computer operating environment, communications systems, aviation interface systems, and portable development & integration test-sets. Common hardware interfaces include definition, installation, and control of mechanical, electrical, and cooling requirements common to all mission packages. The Mission Package Computing Environment (MPCE) provides common services and Operating Environment to support all Mission Package Application Software (MPAS) and Open Architecture Products. The Multi-Vehicle Communications System (MVCS) enables the control and data exchange of simultaneous unmanned mission vehicles and the ship. Aviation interface systems include integration and management of data communications, data processing, and physical hardware interfaces such as common equipment and containers used by all mission packages. Development and integration test-sets provide a mobile operating environment installed in the Mission Package Portable Control Stations (MPPCSs) to serve as a surrogate ship during mission package development and integration test events at test ranges.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Command, Control, Communication, Computers, Cyber and Intelligence (C5I) and Mission Package Tactical Team Trainers	8.560	13.642	13.578	0.000	13.578
Articles:	-	-	-	-	-
FY 2024 Plans: Mission Package Computing Environment (MPCE) - AN/SYK-31 In support of Technology Refresh of MPCE and certification of version 2.X: - Complete integration and testing of MPCE v2.X with the MCM Mission Package Application Software (MPAS) - Conduct and complete integration testing of MPCE v2.X with LCS Lethality and Survivability Combat System - Conduct integration and testing of MPCE v2.X with the SUW Mission Package Application Software (MPAS) - Deliver first MPCE 2.X unit in support of LCS Lethality and Survivability upgrades - Begin development of next version of MPCE to address post MCM IOC requirements, new SUW MP requirements, cybersecurity improvements, and general hardware obsolescence/necessary technology refresh Multi-Vehicle Communications System (MVCS) - AN/SYC-1: - Support the implementation of Unmanned Vehicle transition to the Common Control Software (Beyond Line of Sight) - Begin development of MVCS 2.X (Tech Refresh)					

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 3129 / LCS Mission Package Development

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"> - Conduct MVCS 2.X PDR - Investigate/select replacement antenna for MVCS to support alternate operating frequencies - Continue development of software/security improvements to meet latest cybersecurity requirements <p>LCS Common Mission Package Portable Control Station (MPPCS)/Common Mission Package Trainer (CMPT)</p> <ul style="list-style-type: none"> - Develop and integrate latest versions of SUW and MCM CMPT systems - Develop improvements to MPPCS to ensure system meets MCM Vessel of Opportunity requirements and supports follow-on SUW capabilities <p>FY 2025 Base Plans:</p> <p>Mission Package Computing Environment (MPCE) - AN/SYK-31 In support of Technology Refresh of MPCE and certification of version 2.X:</p> <ul style="list-style-type: none"> - Complete integration testing of MPCE v2.X with LCS Lethality and Survivability Combat System - Complete integration and testing of MPCE v2.X with the SUW Mission Package Application Software (MPAS) - Complete MPCE 2.x Technical Data Package (TDP) - Deliver MPCE 2.X unit in support of LCS Lethality and Survivability upgrades - Begin development of next version of MPCE to address post future Mission Package requirements/capabilities, cybersecurity improvements, and general hardware obsolescence/necessary technology refresh <p>Multi-Vehicle Communications System (MVCS) - AN/SYC-1:</p> <ul style="list-style-type: none"> - Support the implementation of Unmanned Vehicle transition to the Common Control Software (Beyond Line of Sight) - Complete development of MVCS 2.X (Tech Refresh) - Conduct MVCS 2.X PRR - Complete antenna replacement for MVCS to support alternate operating frequencies - Continue development of software/security improvements to meet latest cybersecurity requirements <p>LCS Common Mission Package Portable Control Station (MPPCS)/Common Mission Package Trainer (CMPT)</p> <ul style="list-style-type: none"> - Develop and integrate latest versions of SUW and MCM CMPT systems - Develop improvements to MPPCS to ensure system meets MCM Vessel of Opportunity requirements and supports follow- on capabilities - Investigate unmanned architecture improvements <p>FY 2025 OCO Plans:</p>					

UNCLASSIFIED

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 0603596N / <i>LCS Mission Modules</i>	Project (Number/Name) 3129 / <i>LCS Mission Package Development</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A					
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase due to investigation of unmanned architecture improvements					
Accomplishments/Planned Programs Subtotals	8.560	13.642	13.578	0.000	13.578

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 1600: <i>LCS Common Mission Modules Equipment</i>	54.883	49.060	56.105	-	56.105	38.562	29.752	25.068	31.313	348.290	1,281.118
• OPN 1601: <i>LCS MCM Mission Modules</i>	92.495	93.961	118.247	-	118.247	101.172	62.758	60.396	57.096	895.257	2,103.413
• OPN 1602: <i>LCS ASW Mission Modules.</i>	3.594	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	68.135
• OPN 1603: <i>LCS SUW Mission Modules</i>	5.100	12.102	11.101	-	11.101	3.500	0.100	0.146	0.149	14.236	207.166
• WPN 4221: <i>LCS Module Weapons</i>	4.580	3.264	2.463	-	2.463	2.266	2.258	2.322	2.368	63.142	124.771

Remarks

D. Acquisition Strategy

The LCS Mission Module Acquisition Strategy is employing an incremental procurement approach to allow for the rapid introduction of additional capabilities as system technology matures. This phased plan provides incremental fielding of capability through the introduction of mature programs of record into the respective Mission Packages until the full baseline capability defined in the Capability Development Document (CDD) is reached.

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 3129 / LCS Mission Package Development
--	---	--

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			
6.1 System Engineering	WR	NSWC PCD : Panama City, FL	0.275	0.000		0.000		0.000		-		0.000	0.000	0.275	-
6.1 System Engineering	WR	NSWC DD : Dahlgren, VA	1.784	0.000		0.000		0.000		-		0.000	0.000	1.784	-
6.1 System Engineering	WR	NAVSEALOGCEN : Norfolk, VA	1.520	0.000		0.000		0.000		-		0.000	0.000	1.520	-
6.1 System Engineering	C/CPFF	Northrop Grumman : Bethpage, NY	14.542	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
6.1 System Engineering	WR	NSWC Carderock : Bethesda, MD	2.610	0.000		0.000		0.000		-		0.000	0.000	2.610	-
6.1 System Engineering	WR	NSWC PHD : Port Hueneme, CA	1.568	0.000		0.000		0.000		-		0.000	0.000	1.568	-
6.1 System Engineering	WR	NIWC : San Diego, CA	7.660	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
6.1 System Engineering	C/CPIF	Booz Allen Hamilton : Washington, DC	0.355	0.000		0.000		0.000		-		0.000	0.000	0.355	-
6.4 Integration, Assembly, Test and Checkout	Sub Allot	CECOM Bldg 1207 : Various	1.092	0.000		0.000		0.000		-		0.000	0.000	1.092	-
6.4 Integration, Assembly, Test and Checkout	WR	NAWC AD : Patuxent River, MD	1.930	0.000		0.000		0.000		-		0.000	0.000	1.930	-
6.4 Integration, Assembly, Test and Checkout	WR	NSWC DD : Dahlgren, VA	0.203	0.000		0.000		0.000		-		0.000	0.000	0.203	-
6.4 Integration, Assembly, Test and Checkout	WR	NSWC PC : Panama City, FL	0.075	0.000		0.000		0.000		-		0.000	0.000	0.075	-
6.4 Integration, Assembly, Test and Checkout	C/CPFF	Northrop Grumman : Bethpage, NY	1.498	0.000		0.000		0.000		-		0.000	0.000	1.498	-
6.4 Integration, Assembly, Test and Checkout	WR	NSWC Carderock : Bethesda, MD	8.625	0.000		0.000		0.000		-		0.000	0.000	8.625	-
6.4 Integration, Assembly, Test and Checkout	C/CPFF	PMS 501 : Various	1.075	0.000		0.000		0.000		-		0.000	0.000	1.075	-
6.4 Integration, Assembly, Test and Checkout	WR	NIWC : San Diego, CA	1.857	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 3129 / LCS Mission Package Development
--	---	--

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			
6.4 Integration, Assembly, Test and Checkout	WR	NSWC PHD : Port Hueneme, CA	1.312	0.000		0.000		0.000		-		0.000	0.000	1.312	-
6.4 Integration, Assembly, Test and Checkout	C/CPIF	Booz Allen Hamilton : Washington, DC	0.950	0.000		0.000		0.000		-		0.000	0.000	0.950	-
6.4 Integration, Assembly, Test and Checkout	WR	NAVAIR : Lakehurst, NJ	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	-
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	C/CPFF	AAC : Uniontown, PA	25.761	2.464	Dec 2022	4.794	Dec 2023	4.279	Dec 2024	-		4.279	0.000	37.298	-
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	WR	NAWC TSD : Orlando, FL	2.304	0.552	Jan 2023	2.195	Jan 2024	1.975	Jan 2025	-		1.975	0.000	7.026	-
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	C/CPFF	Northrop Grumman : Bethpage, NY	5.312	0.030	Nov 2022	0.050	Nov 2023	0.150	Dec 2024	-		0.150	Continuing	Continuing	Continuing
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	WR	NSWC PC : Panama City, FL	22.884	4.296	Nov 2022	4.382	Nov 2023	5.340	Nov 2024	-		5.340	Continuing	Continuing	Continuing
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	WR	NUWC NPT : Newport, RI	3.539	0.260	Dec 2022	0.275	Dec 2023	0.000		-		0.000	Continuing	Continuing	Continuing
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	C/CPIF	Booz Allen Hamilton : Washington, DC	3.927	0.000		0.000		0.000		-		0.000	0.000	3.927	-
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	WR	NIWC PAC : San Diego, CA	7.251	0.200	Jan 2023	0.612	Jan 2024	0.500	Jan 2025	-		0.500	0.000	8.563	-

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 3129 / LCS Mission Package Development
--	---	--

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			
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	WR	NSWC DD : Dahlgren, VA	4.837	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	WR	PMW 760 : Various	0.889	0.000		0.000		0.000		-		0.000	0.000	0.889	-
4.0 Command, Control, Communication, Computers, Collaboration and Intelligence (C5I)	C/CPFF	Progeny : Manassas, VA	1.730	0.000		0.000		0.000		-		0.000	0.000	1.730	-
1.0 MCM MP	WR	NSWC PC : Panama City, FL	71.297	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
1.0 MCM MP	Sub Allot	PMS 406 : Various	42.761	0.000		0.000		0.000		-		0.000	0.000	42.761	-
1.0 MCM MP	Sub Allot	PMS 495 : Various	0.249	0.000		0.000		0.000		-		0.000	0.000	0.249	-
1.0 MCM MP	WR	NSWC PHD : Port Hueneme, CA	2.300	0.000		0.000		0.000		-		0.000	0.000	2.300	-
1.0 MCM MP	C/CPIF	Booz Allen Hamilton : Washington, DC	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	-
1.0 MCM MP	C/CPFF	Northrop Grumman : Bethpage, NY	1.892	0.000		0.000		0.000		-		0.000	0.000	1.892	-
1.0 MCM MP	WR	Various : Various	1.124	0.000		0.000		0.000		-		0.000	0.000	1.124	-
2.0 ASW MP	Sub Allot	PEO IWS5E : Various	41.094	0.000		0.000		0.000		-		0.000	0.000	41.094	-
2.0 ASW MP	WR	NUWC NPT : Newport, RI	29.320	0.000		0.000		0.000		-		0.000	0.000	29.320	-
2.0 ASW MP	WR	SSC PAC : San Diego, CA	4.967	0.000		0.000		0.000		-		0.000	0.000	4.967	-
2.0 ASW MP	WR	CDSA Dam Neck : Virginia Beach, VA	11.145	0.000		0.000		0.000		-		0.000	0.000	11.145	-
2.0 ASW MP	C/CPFF	Northrop Grumman : Bethpage, NY	10.914	0.000		0.000		0.000		-		0.000	0.000	10.914	-

UNCLASSIFIED

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 0603596N / LCS Mission Modules				Project (Number/Name) 3129 / LCS Mission Package Development					
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
2.0 ASW MP	WR	PEO IWS 5A : Various	9.301	0.000		0.000		0.000		-		0.000	0.000	9.301	-
2.0 ASW MP	C/CPFF	SPA : Washington, DC	1.687	0.000		0.000		0.000		-		0.000	0.000	1.687	-
2.0 ASW MP	WR	NSWC DD : Dahlgren, VA	0.871	0.000		0.000		0.000		-		0.000	0.000	0.871	-
2.0 ASW MP	WR	NUWC KPT : Keyport, WA	1.095	0.000		0.000		0.000		-		0.000	0.000	1.095	-
2.0 ASW MP	WR	NSWC PHD : Port Hueneme, CA	1.550	0.000		0.000		0.000		-		0.000	0.000	1.550	-
2.0 ASW MP	C/FPIF	Booz Allen Hamilton : Washington, DC	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
2.0 ASW MP	WR	NAWC WD : Point Mugu, CA	5.430	0.000		0.000		0.000		-		0.000	0.000	5.430	-
2.0 ASW MP	C/CPFF	Various : Various	3.757	0.000		0.000		0.000		-		0.000	0.000	3.757	-
2.0 ASW MP	Sub Allot	Raytheon : Portsmouth, RI	42.056	0.000		0.000		0.000		-		0.000	0.000	42.056	-
3.0 SUW MP	C/CPFF	JAMS PO : Various	7.980	0.000		0.000		0.000		-		0.000	0.000	7.980	-
3.0 SUW MP	WR	NAWC WD : Ridgecrest, CA	7.826	0.000		0.000		0.000		-		0.000	0.000	7.826	-
3.0 SUW MP	C/CPFF	Northrop Grumman : Bethpage, NY	60.524	0.000		0.000		0.000		-		0.000	0.000	60.524	-
3.0 SUW MP	WR	NSWC CD : Crane, IN	0.396	0.000		0.000		0.000		-		0.000	0.000	0.396	-
3.0 SUW MP	WR	NSWC Corona : Corona, CA	1.695	0.000		0.000		0.000		-		0.000	0.000	1.695	-
3.0 SUW MP	WR	NSWC DD : Dahlgren, VA	60.316	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
3.0 SUW MP	WR	NSWC PHD : Port Hueneme, CA	30.437	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
3.0 SUW MP	Sub Allot	PEO IWS 3 : Various	9.819	0.000		0.000		0.000		-		0.000	0.000	9.819	-
Subtotal			590.268	7.802		12.308		12.244		-		12.244	Continuing	Continuing	N/A

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 3129 / LCS Mission Package Development
--	---	--

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			
6.5 Training Systems Development	WR	NAWC TSD : Orlando, FI	0.909	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
6.5 Training Systems Development	WR	NSWC PHD : Port Hueneme, CA	0.390	0.000		0.000		0.000		-		0.000	0.000	0.390	-
6.5 Training Systems Development	C/CPIF	Booz Allen Hamilton : Washington, DC	0.268	0.000		0.000		0.000		-		0.000	0.000	0.268	-
6.5 Training Systems Development	C/CPAF	Northrop Grumman : Bethpage, NY	0.575	0.000		0.000		0.000		-		0.000	0.000	0.575	-
6.5 Training Systems Development	Sub Allot	Various : Various	3.221	0.000		0.000		0.000		-		0.000	0.000	3.221	-
6.5 Training Systems Development	WR	JHU/APL : Laurel, MD	1.479	0.000		0.000		0.000		-		0.000	0.000	1.479	-
Subtotal			6.842	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

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 PHD : Port Hueneme, CA	27.963	0.000		0.000		0.000		-		0.000	0.000	27.963	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	COMOPTEVFOR : Norfolk, VA	4.944	0.000		0.000		0.000		-		0.000	0.000	4.944	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC Corona : Corona, CA	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NIWC : San Diego, CA	5.258	0.000		0.000		0.000		-		0.000	0.000	5.258	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	C/CPIF	Booz Allen Hamilton : Washington, DC	0.750	0.000		0.000		0.000		-		0.000	0.000	0.750	-

UNCLASSIFIED

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 0603596N / LCS Mission Modules	Project (Number/Name) 3129 / LCS Mission Package Development
--	---	--

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			
Subtotal			39.415	0.000		0.000		0.000		-		0.000	0.000	39.415	N/A

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			
6.2 Program Management	C/CPFF	CACI : Fairfax, VA	7.698	0.000		0.000		0.000		-		0.000	0.000	7.698	-
6.2 Program Management	C/CPIF	Booz Allen Hamilton : Washington DC	6.361	0.758	Dec 2022	0.755	Dec 2023	0.731	Dec 2024	-		0.731	0.000	8.605	-
6.2 Program Management	FFRDC	Mitre : McLean, VA	2.679	0.000		0.000		0.000		-		0.000	0.000	2.679	-
6.2 Program Management	FFRDC	JHU/APL : Laurel, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
6.2 Program Management	C/CPFF	Northrop Grumman : Bethpage, NY	4.977	0.000		0.579	Nov 2023	0.603	Nov 2024	-		0.603	0.000	6.159	-
6.2 Program Management	C/CPFF	NSWC Crane : Various	2.927	0.000		0.000		0.000		-		0.000	0.000	2.927	-
Subtotal			24.642	0.758		1.334		1.334		-		1.334	0.000	28.068	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		661.167	8.560	13.642	13.578	-	13.578	Continuing	Continuing	N/A

Remarks
 Mission package funding prior to FY 2019 was funded in Project 3129. They have been separated into the following projects:
 2550 Mine Countermeasures (MCM) Mission Package
 2551 Anti-Submarine Warfare (ASW) Mission Package (effort concluded in FY 2023)
 2552 Surface Warfare (SUW) Mission Package
 3129 LCS Mission Package Development

UNCLASSIFIED

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 0603596N / <i>LCS Mission Modules</i>	Project (Number/Name) 3129 / <i>LCS Mission Package Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3129				
LCS C5I: MPCE: MPCE v2.X Tech Refresh Development	1	2023	2	2024
LCS C5I: MPCE: Certify MPCE v2.X	2	2024	2	2024
LCS C5I: MPCE: MPCE v3.0 Tech Refresh Development	1	2024	4	2029
LCS C5I: Multi-Vehicle Communication System (MVCS): Deliver MVCS v1.2.1	1	2023	1	2023
LCS C5I: Multi-Vehicle Communication System (MVCS): MVCS v2.X Tech Refresh Development	1	2023	1	2029
LCS C5I: Multi-Vehicle Communication System (MVCS): MVCS: CDR for MVCS v2.X	2	2025	2	2025
LCS C5I: Multi-Vehicle Communication System (MVCS): MVCS: Certify MVCS v2.X	1	2026	1	2029