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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 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</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	1,706.626	53.382	62.350	60.438	-	60.438	69.088	54.822	41.938	38.712	Continuing	Continuing
1707: <i>MH-60 Development</i>	1,689.249	43.728	62.350	60.438	-	60.438	69.088	54.822	41.938	38.712	Continuing	Continuing
9999: <i>Congressional Adds</i>	17.377	9.654	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	27.031

A. Mission Description and Budget Item Justification

This Program Element funds the development and improvement of MH-60R/S systems. The MH-60R provides persistent distributed, integrated, and maneuverable capabilities in the support of the Navy's Fleet Design and Distributed Maritime Operations concepts through its primary missions: Intelligence, Surveillance, Reconnaissance & Targeting (ISR&T), Antisubmarine Warfare, Surface Warfare (SUW), Electronic Warfare, Command and Control, and Non-Combat Operations. Secondary missions include: Amphibious Warfare, Air Warfare, Health Services, Fleet Support - Operations, Logistics, and Naval Special Warfare (NSW). Primary missions of the MH-60S include Combat Logistics, SUW, NSW, Combat Search and Rescue, and Airborne Mine Countermeasures. Additional missions include ISR&T, Search and Rescue, Humanitarian Assistance and Defense Support for Civil Authorities.

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	54.684	62.350	63.851	-	63.851
Current President's Budget	53.382	62.350	60.438	-	60.438
Total Adjustments	-1.302	0.000	-3.413	-	-3.413
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.302	0.000			
• Program Adjustments	0.000	0.000	-2.875	-	-2.875
• Rate/Misc Adjustments	0.000	0.000	-0.538	-	-0.538

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

Project: 9999: *Congressional Adds*

Congressional Add: *MH-60 Capability Upgrades*

	FY 2023	FY 2024
	9.654	0.000
Congressional Add Subtotals for Project: 9999	9.654	0.000
Congressional Add Totals for all Projects	9.654	0.000

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	

Change Summary Explanation

The FY 2025 funding request decreased by a total of \$3.413M since the previous President's Budget submission for the following adjustments:

-Decrease of \$2.875M for programmatic adjustments and \$.538M for other rate/miscellaneous adjustments.

Schedule: Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) end date extended from 4QFY24 to 4QFY26 to account for integration of JTRS Concurrent Multi-netting 4 (CMN4) Block Upgrade 3 (BU3). Mid Life Upgrade (MLU) end date extended from 4QFY26 to 4QFY29 for ongoing Future Capabilities Studies, Common Aircraft Survivability Equipment (ASE) end date extended from 4QFY23 to 2QFY24 to align with System Configuration (SC) 24; System Configurations 24/26/28/30 extended from 4QFY28 to 4QFY29 to introduce SC30 development. Next Generation Joint Mission Planning System (NGJMPS) extended from 4QFY28 to 4QFY29 to accommodate an agile/incremental development effort to incorporate full capabilities into SC30. Air Vehicle Diminishing Manufacturing Sources and Material Shortages (DMSMS) solutions development extended from 4QFY28 to 4QFY29 to account for an Automatic Flight Control Computer (AFCC) system configuration release independent of the SC28 release. Extending the Avionics Obsolescence end date from 4QFY28 to 4QFY29 to account for future avionics, mission system obsolescence as well as scheduled software updates from the OEM. Avionics Display Obsolescence T&E line starting in 2QFY25 and ending in 4QFY27 to account for the extensive testing required to qualify the new displays in the aircraft.

PU 9999 Schedule: Common ASE Architecture extended from 3QFY23 to 2QFY24 to align with SC24.

Technical: Not Applicable

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>				Project (Number/Name) 1707 / <i>MH-60 Development</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
1707: <i>MH-60 Development</i>	1,689.249	43.728	62.350	60.438	-	60.438	69.088	54.822	41.938	38.712	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The MH-60R/S program pursues upgrades and enhancements that pace the rapidly evolving threat and improve safety-of-flight for its pilots and aircrew. These efforts include improvements to existing sensors, network capabilities, weapon systems, avionics, communications, and navigation systems as well as integration of modern precision guided air-to-ground missiles, fixed-forward and crew-served weapons, the Sensor Operator Console, and data-fusion capability. The program is also evaluating Diminishing Manufacturing Sources and Material Shortages (DMSMS) and making incremental improvements to various airframe, flight safety, and mission-planning systems. The program will continue development of architecture to support integration of secure, over-the-horizon communications in addition to modern en route navigation and terminal approach systems. MH-60R/S research and development initiatives include the evaluation and validation of the platform's cybersecurity posture. The MH-60R/S program is pursuing capability studies on open hardware and software architectures, avionics, mission systems, and air-vehicle performance.

FY 2025 budget request funds the following:

1. System Configuration (SC) capability increases, including fuel management and safety, Advanced Offboard Electronic Warfare (AOEW), Modernized Tactical Networks (to include CMN and Concurrent Contention Receive (CCR), and Tactical Targeting Network Technology), Radar Hardware and Software enhancements in support of Minotaur Family of Systems (MFOs), and Air Vehicle, Mission Systems and Avionics DMSMS solutions, to include MH-60 Displays, Embedded Global Positioning System (GPS)/Inertial Navigation System (INS), Radar technical refresh, and Advanced Flight Control Computer obsolescence redesign. Obsolescence issues are expected to impact MH-60 readiness/availability beginning in FY27.
2. Integration of Link 16 Advanced Capabilities and Tactical Networking (i.e. mesh network) to enable over-the-horizon targeting, enhance target sorting, and serve as a force multiplier in network enabled and long range maritime targeting weapon engagements.
3. DMSMS engineering, replacement part development, and qualification testing for known and forecasted Avionics (Displays), Mission Systems (sensors, i.e. passive detection/modern RWR), Air Vehicle systems (AFCC), survivability and other obsolete parts. These DMSMS solutions will provide considerations for cost reduction and improvement in reliability and performance. The obsolescence solutions will align with the Future Capabilities Roadmap to minimize duplication and align the mid-life upgrade configuration changes with the needed solutions.
4. Radar Hardware and Software refreshment will enable the MH-60R to input into MFOs capabilities and integrated third-party applications will provide enhanced Battlespace Awareness and enriched over-the-horizon targeting support through improved national and tactical sensor integration via common data exchanges via enhanced Tactical Data Networks in support of Distributed Maritime Operations concepts.
5. Developmental activities including capability studies, interoperability studies, and open hardware and software architectures definition in support of MH-60 mid-life upgrades.
6. Continued development and integration of the MH-60 Next Generation Mission Planning System.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 1707 / <i>MH-60 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
Title: Avionics H/W and S/W Development	33.928	52.234	50.267	0.000	50.267
Articles:	-	-	-	-	-
<p>Description: Development efforts support aircraft integration, problem investigation, lab management and upgrades, and repairs in support of the test program. Individual Avionics and Mission Systems hardware and software upgrades are integrated, tested and fielded as part of an overall MH-60 System Configuration (e.g. SC26, SC28, SC30, etc.). System Configuration fleet releases are planned for every two years to meet fleet requirements, add new capabilities, pace the threat, address obsolescence, and incorporate technology insertion. Avionics hardware and software development and integration efforts include: Pre-planned Product Improvements, new System Configurations, Radar enhancements, the integration of Tactical Data Network modernization efforts, to include enhancements of the network architecture to include MIDS JTRS CMN-4 and TTNT, integration of critical ASE upgrades, cyber evaluations/validations, Diminishing Manufacturing Sources and Material Shortages (DMSMS) solutions (to include Air Vehicle Systems, ALFS, Automatic Flight Control Computer (AFCC), Mission Systems and Avionics with emphasis on displays, Radar upgrades in support of Minotaur Family of Systems (MFoS)/Enhanced Data Correlation integration. Prototype efforts support developing carry on/carry off federated system solutions to rapidly address emergent threats.</p> <p>FY 2024 Plans: Continue activities for System Configuration development including integration of the Common ASE/DAIRCM and initial investigation of a Passive Detection modern Radar Warning Receiver system to improve the battlespace awareness of the Fleet, survivability and MFoS capabilities and third-party applications. Continue development efforts for MH-60 Air Vehicle, Avionics and Mission Systems DMSMS solutions to include Radar, AFCC and Display obsolescence efforts. Commence Next Generation Naval Mission Planning System (NGNMPS) development and integration.</p> <p>FY 2025 Base Plans: Continue activities for System Configuration development including integration of the Radar Tech Refresh in support of MFoS capabilities and initial requirements validation of a Passive Detection modern Radar Warning Receiver system to improve the battlespace awareness of the Fleet, survivability and MFoS capabilities and third-party applications. Continue development and integration efforts for MH-60 Air Vehicle, Avionics and Mission Systems DMSMS solutions to include Radar, AFCC and Display obsolescence efforts. Continue Next Generation Naval Mission Planning System (NGNMPS) development and integration.</p> <p>FY 2025 OCO Plans:</p>					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease of \$1.967M from FY 2024 to FY 2025 for the decrease in Display Obsolescence requirements.					
Title: Engineering and Logistics					
Articles:					
FY 2024 Plans: Continue to provide MH-60 engineering support, integrated logistics support, government furnished equipment, support equipment, program management, contract support services, and travel to support Radar corrections, System Configuration activities, Common ASE, and Tactical Data Links, to include data review, deficiency identification and correction, and capability fielding plans. Continue requirements definition and solution analysis for Mission Systems, Avionics and Air Vehicle obsolescence mitigation efforts and Radar upgrades in support of MFoS capabilities and third-party applications. Continue MH-60 Cyber Engineering and Mid-Life Upgrade Architectural analyses. Provide requirements decomposition and Systems Engineering and Logistics support in support of MIDS JTRS CMN-4 and future System Configuration efforts. Commence requirements development and integration activities for Next Generation Mission Planning System.					
FY 2025 Base Plans: Continue to provide MH-60 engineering support, integrated logistics support, government furnished equipment, support equipment, program management, contract support services, and travel to support Radar Tech Refresh, System Configuration activities, ASE, and Tactical Data Links, to include data review, deficiency identification and correction, and capability fielding plans. Continue development and solution analysis for Mission Systems, Avionics and Air Vehicle obsolescence mitigation efforts and Radar upgrades in support of MFoS capabilities and third-party applications. Continue MH-60 Cyber Engineering and Mid-Life Upgrade Architectural analyses. Provide requirements decomposition and Systems Engineering and Logistics support in support of MIDS JTRS CMN-4, DESM and future System Configuration efforts. Continue systems development and integration activities for Next Generation Mission Planning System.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease of \$.018M from FY 2024 to FY 2025 in Engineering and Logistics support for MIDS JTRS CMN4.					
Title: Test and Evaluation					
	3.550	3.689	3.671	0.000	3.671
	-	-	-	-	-
	6.250	6.427	6.500	0.000	6.500

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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
Articles:	-	-	-	-	-
<i>FY 2024 Plans:</i> Continue System Configuration testing (SC24 and SC26), ALFS/ Avionics Obsolescence, MIDS JTRS, and Radar test and evaluation activities. Continue Common ASE and Tactical Data Link modernization test and evaluation, Obsolescence Solution test and evaluation planning. Commence Radar Tech Refresh in support of Minotaur.					
<i>FY 2025 Base Plans:</i> Continue System Configuration testing (SC26 and additional SC24 minor changes (double point fleet release)), Avionics Obsolescence, MIDS JTRS, Radar test and evaluation activities, Tactical Data Link modernization test and evaluation, and Obsolescence Solution test and evaluation planning. Continue Radar Tech Refresh in support of Minotaur. Commence Display Obsolescence testing.					
<i>FY 2025 OCO Plans:</i> N/A					
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Increase of \$.073M from FY 2024 to FY 2025 for Avionics Display Obsolescence Solutions.					
Accomplishments/Planned Programs Subtotals	43.728	62.350	60.438	0.000	60.438

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
• APN/0530: <i>SH60 Series</i>	136.172	106.495	108.072	-	108.072	124.584	136.002	155.298	165.533	Continuing	Continuing

Remarks

D. Acquisition Strategy

MH-60 research and development efforts will be developed using cost plus incentive fee type and cost plus fixed fee contracts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604216N / Multi-Mission Helicopter Upgrade Dev				Project (Number/Name) 1707 / MH-60 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
Network Enabled Weapons/Data Link Enhancement	SS/CPIF	Lockheed Martin : Owego, NY	23.789	1.738	Nov 2022	0.000		0.000		-		0.000	0.000	25.527	25.527
Cyber Evaluation/Validation	C/CPFF	JHU/APL : Laurel, MD	4.111	0.250	Jan 2023	0.200	Jan 2024	0.100	Jan 2025	-		0.100	0.300	4.961	4.961
Common ASE Architecture	SS/CPFF	Lockheed Martin : Owego, NY	5.300	0.500	Dec 2022	0.000		0.000		-		0.000	0.000	5.800	5.800
Radar Development	C/CPFF	Lockheed Martin : Owego, NY	4.483	1.250	Jan 2023	0.000		0.000		-		0.000	0.000	5.733	5.733
MH-60 DMSMS Solutions/Tech Insertion	SS/IDIQ	Various : Various	10.852	14.000	Dec 2022	0.700	Mar 2024	0.552	Mar 2025	-		0.552	21.690	47.794	47.794
Minotaur Development	SS/CPFF	Lockheed Martin : Owego, NY	7.071	5.000	Dec 2022	13.125	Dec 2023	11.000	Dec 2024	-		11.000	19.700	55.896	55.896
System Configuration Releases	SS/CPFF	Lockheed Martin : Owego, NY	12.464	5.000	Dec 2022	6.000	Dec 2023	6.000	Dec 2024	-		6.000	24.000	53.464	53.464
Mid-Life Upgrade	SS/CPFF	Lockheed Martin : Owego, NY	0.500	0.250	May 2023	0.300	May 2024	0.100	May 2025	-		0.100	0.300	1.450	1.450
MIDS JTRS CMN-4	SS/CPIF	Lockheed Martin : Owego, NY	11.700	5.940	Dec 2022	1.500	Dec 2023	0.750	Dec 2024	-		0.750	0.500	20.390	20.390
NextGen JMPS (NGNMPS)	SS/CPIF	Various : Various	0.000	0.000		9.784	Jan 2024	13.276	Jan 2025	-		13.276	53.224	76.284	76.284
Avionics Obsolescence Efforts	TBD	Various : Various	0.000	0.000		0.800	Jan 2024	1.750	Jan 2025	-		1.750	13.000	15.550	15.550
Air Vehicle AFCC Obsolescence	SS/CPIF	Lockheed Martin : Owego, NY	0.000	0.000		10.625	Jan 2024	10.000	Jan 2025	-		10.000	24.300	44.925	44.925
Display Obsolescence	SS/CPIF	Lockheed Martin : Owego, NY	0.000	0.000		9.200	Jan 2024	6.739	Jan 2025	-		6.739	16.600	32.539	32.539
Prior year Product Dev Cost no longer funded in the FYDP	Various	Various : Various	1,176.887	0.000		0.000		0.000		-		0.000	0.000	1,176.887	1,176.887
Subtotal			1,257.157	33.928		52.234		50.267		-		50.267	173.614	1,567.200	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 / 5				PE 0604216N / Multi-Mission Helicopter Upgrade Dev					1707 / MH-60 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
Remarks															
Decrease from FY24 to FY25 reflects the decrease in Display Obsolescence requirements.															
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
Government Eng Support, Mid-Life Upgrade	Various	Various : Various	1.444	0.049	Nov 2022	0.200	Nov 2023	0.100	Nov 2024	-		0.100	Continuing	Continuing	Continuing
Government Eng Support, Net Enabled Weapons/ Data Link Enhancement	Various	Various : Various	1.974	0.287	Nov 2022	0.000		0.000		-		0.000	0.000	2.261	-
Government Eng Support, Common ASE Architecture	Various	Various : Various	1.350	0.296	Nov 2022	0.100	Nov 2023	0.000		-		0.000	0.000	1.746	-
Government Eng Support, Radar Dev	Various	Various : Various	2.355	0.296	Nov 2022	0.281	Nov 2023	0.000		-		0.000	0.000	2.932	-
Government Eng Support, DMSMS	WR	NAWC AD : Patuxent River, MD	0.954	1.090	Nov 2022	0.200	Nov 2023	0.100	Nov 2024	-		0.100	Continuing	Continuing	Continuing
Government Eng Support, System Configuration Releases	Various	Various : Various	1.170	0.296	Nov 2022	0.350	Nov 2023	0.350	Nov 2024	-		0.350	Continuing	Continuing	Continuing
Government Eng Support, Cyber Evaluation	Various	Various : Various	0.400	0.198	Nov 2022	0.050	Nov 2023	0.050	Nov 2024	-		0.050	Continuing	Continuing	Continuing
Government Eng Support, Minotaur	Various	Various : Various	0.250	0.494	Nov 2022	1.000	Nov 2023	1.050	Nov 2024	-		1.050	2.750	5.544	-
Government Eng Support, MIDS JTRS CMN-4	Various	Various : Various	0.500	0.494	Nov 2022	0.200	Nov 2023	0.100	Nov 2024	-		0.100	0.100	1.394	-
Government Eng Support, NextGen JMPS (NGNMPS)	Various	Various : Various	0.000	0.000		0.500	Nov 2023	0.671	Nov 2024	-		0.671	2.729	3.900	-

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Appropriation/Budget Activity				R-1 Program Element (Number/Name)					Project (Number/Name)						
1319 / 5				PE 0604216N / Multi-Mission Helicopter Upgrade Dev					1707 / MH-60 Development						
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
Government Eng Support, Air Vehicle AFCC Obsolescence	Various	Various : Various	0.000	0.000		0.379	Nov 2023	0.500	Nov 2024	-		0.500	1.500	2.379	-
Government Eng Support, Display Obsolescence	Various	Various : Various	0.000	0.000		0.379	Nov 2023	0.500	Nov 2024	-		0.500	1.500	2.379	-
Government Eng Support, Avionics Obsolescence	Various	Various : Various	0.000	0.000		0.000		0.200	Nov 2024	-		0.200	0.800	1.000	-
Prior year support cost no longer funded in the FYDP	Various	Various : Various	168.546	0.000		0.000		0.000		-		0.000	0.000	168.546	-
Subtotal			178.943	3.500		3.639		3.621		-		3.621	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	WR	NAWC AD : Patuxent River, MD	14.515	6.250	Nov 2022	6.427	Nov 2023	6.500	Nov 2024	-		6.500	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	199.163	0.000		0.000		0.000		-		0.000	0.000	199.163	-
Subtotal			213.678	6.250		6.427		6.500		-		6.500	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NAWC AD : Patuxent River, MD	5.215	0.050	Oct 2022	0.050	Oct 2023	0.050	Oct 2024	-		0.050	0.200	5.565	-
Prior year Mgmt Serv cost no longer funded in the FYDP	Various	Various : Various	34.256	0.000		0.000		0.000		-		0.000	0.000	34.256	-
Subtotal			39.471	0.050		0.050		0.050		-		0.050	0.200	39.821	N/A

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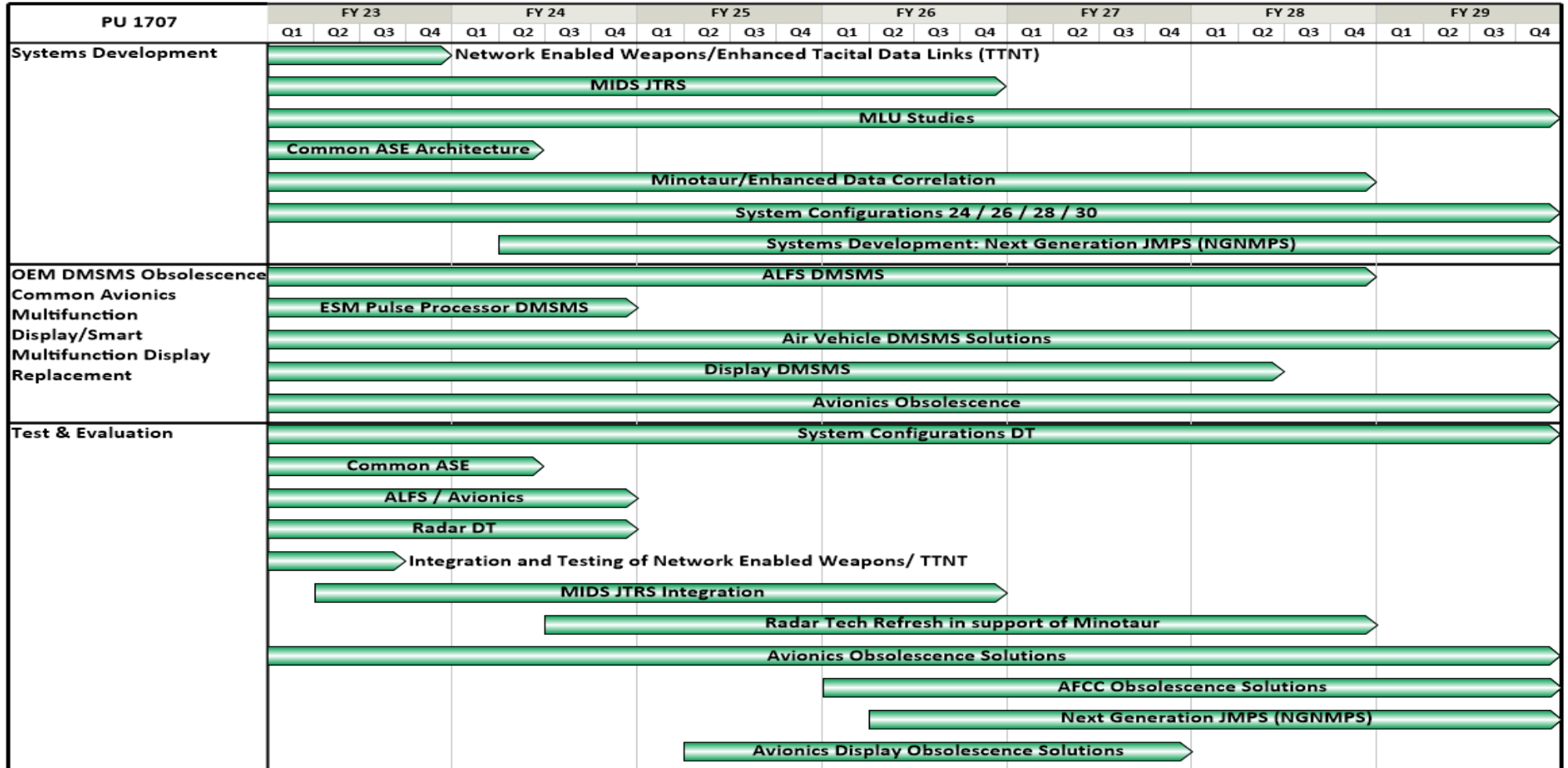
Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

Date: March 2024

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604216N / Multi-Mission Helicopter U
pgrade Dev

Project (Number/Name)
1707 / MH-60 Development



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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
<i>PE 0604216N: Multi-Mission Helicopter Upgrade Development</i>				
Systems Development: Network Enabled Weapons/Enhanced Tactical Data Links (TTNT)	1	2023	4	2023
Systems Development: MIDS JTRS	1	2023	4	2026
Systems Development: MLU Studies	1	2023	4	2029
Systems Development: Common ASE Architecture	1	2023	2	2024
Systems Development: Minotaur/Enhanced Data Correlation	1	2023	4	2028
Systems Development: System Configurations 24 / 26 / 28 / 30	1	2023	4	2029
Systems Development: Systems Development: Next Generation JMPS (NGNMPS)	2	2024	4	2029
OEM DMSMS Obsolescence: ALFS DMSMS	1	2023	4	2028
OEM DMSMS Obsolescence: ESM Pulse Processor DMSMS	1	2023	4	2024
OEM DMSMS Obsolescence: Air Vehicle DMSMS Solutions	1	2023	4	2029
OEM DMSMS Obsolescence: Display DMSMS	1	2023	2	2028
OEM DMSMS Obsolescence: Avionics Obsolescence	1	2023	4	2029
Test and Evaluation: System Configurations DT	1	2023	4	2029
Test and Evaluation: Common ASE	1	2023	2	2024
Test and Evaluation: ALFS / Avionics	1	2023	4	2024
Test and Evaluation: Radar DT	1	2023	4	2024
Test and Evaluation: Integration and Testing of Network Enabled Weapons/TTNT	1	2023	3	2023
Test and Evaluation: MIDS JTRS Integration	2	2023	4	2026
Test and Evaluation: Radar Tech Refresh in support of Minotaur	3	2024	4	2028
Test and Evaluation: Avionics Obsolescence Solutions	1	2023	4	2029

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 1707 / <i>MH-60 Development</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Test and Evaluation: AFCC Obsolescence Solutions	1	2026	4	2029
Test and Evaluation: Next Generation JMPS (NGNMPS)	2	2026	4	2029
Test and Evaluation: Avionics Display Obsolescence Solutions	2	2025	4	2027

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	17.377	9.654	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	27.031
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

FY 2023 Congressional Capability Upgrade funding of \$9.654 million will fund initial analysis and development of enhanced Electronic Support Measures, Lab and Ground Test Vehicle upgrades, continued studies in support of Avionics and Mission Systems obsolescence upgrades, Integration and Test of the MH-60R Digital Magnetic Anomaly Detection System, and updates to MH-60 training certificates.

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

	FY 2023	FY 2024
Congressional Add: MH-60 Capability Upgrades	9.654	0.000
FY 2023 Accomplishments: FY 2023 funding supports initial analysis and development of enhanced Electronic Support Measures, Lab and Ground Test Vehicle upgrades, continued studies in support of Avionics and Mission Systems obsolescence upgrades, Integration and Test of the MH-60R Digital Magnetic Anomaly Detection System, and updates to MH-60 training certificates.		
FY 2024 Plans: N/A		
Congressional Adds Subtotals	9.654	0.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

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

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Avionics SC24 IFF Mode 5 SW	SS/CPAF	Lockheed Martin : Owego, NY	0.733	0.000		0.000		0.000		-		0.000	0.000	0.733	-
Common ASE	SS/CPFF	Lockheed Martin : Owego, NY	0.786	0.000		0.000		0.000		-		0.000	0.000	0.786	-
System Configuration Releases	SS/CPFF	Lockheed Martin : Owego, NY	0.583	0.000		0.000		0.000		-		0.000	0.000	0.583	-
Tactical Targeting Network Technology	C/CPFF	ViaSat, Inc. : Carlsbad, CA	0.902	0.000		0.000		0.000		-		0.000	0.000	0.902	-
Digital ESM	C/CPIF	Various : Various	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	-
AFCC Control Laws for ALFS	C/CPIF	Lockheed Martin : Owego, NY	0.780	0.000		0.000		0.000		-		0.000	0.000	0.780	-
AMCM Trade Study	C/CPIF	Lockheed Martin : Owego, NY	1.750	0.000		0.000		0.000		-		0.000	0.000	1.750	-
Display Trade Study	C/CPIF	Lockheed Martin : Owego, NY	2.500	0.000		0.000		0.000		-		0.000	0.000	2.500	-
AFCS Control Laws	SS/CPFF	Lockheed Martin : Owego, NY	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Radar Tech Refresh	SS/CPFF	Lockheed Martin : Owego, NY	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
AV Improvements: Pitch Rate Gyro	SS/CPFF	Lockheed Martin : Owego, NY	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
Radar Interim Level Maintenance Enhancements	C/CPFF	Various : Various	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Net Ready Certification	C/CPFF	Various : Various	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
Enhanced Electronic Support Measures Demo	SS/CPFF	Lockheed Martin : Owego, NY	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
Commercial Off The Shelf Trainer Improvements	SS/CPFF	Lockheed Martin : Owego, NY	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Advanced Anti Submarine Warfare Analysis of Alternatives	C/CPFF	Various : Various	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-

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

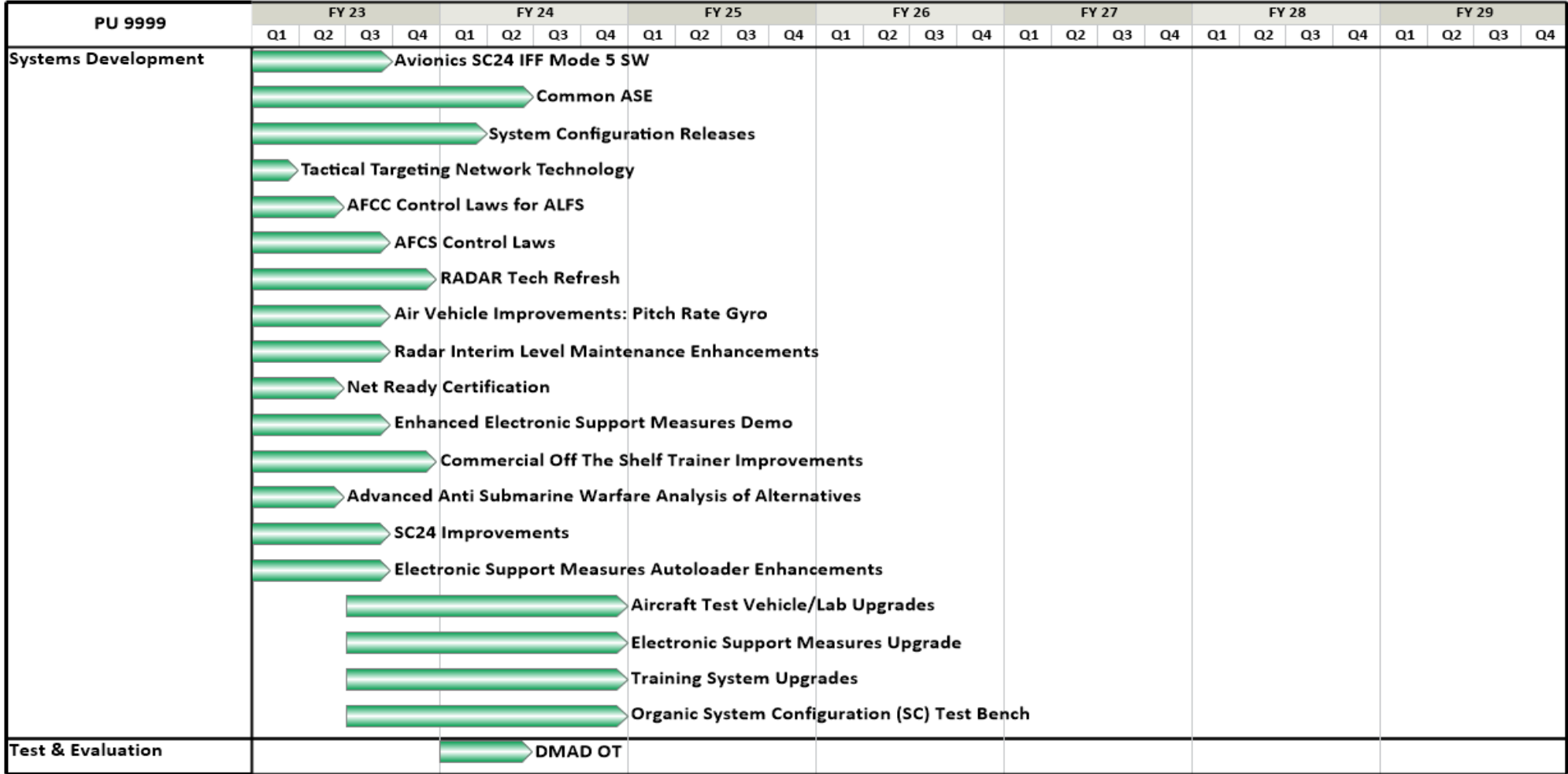
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>
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Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SC24 Improvements	SS/CPFF	Lockheed Martin : Owego, NY	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	-
Electronic Support Measures Autoloader Enhancements	SS/CPFF	Lockheed Martin : Owego, NY	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	-
Aircraft Test Vehicle/Lab Upgrades	C/CPFF	Lockheed Martin : Owego, NY	0.000	4.800	Jun 2023	0.000		0.000		-		0.000	0.000	4.800	-
Electronic Support Measures Upgrade	C/CPFF	General Dynamics Information Technology : Falls Church, VA	0.000	0.950	Jun 2023	0.000		0.000		-		0.000	0.000	0.950	-
Training System Upgrades	C/CPFF	Lockheed Martin : Owego, NY	0.000	1.104	Jun 2023	0.000		0.000		-		0.000	0.000	1.104	-
Training System Upgrades	WR	NAWC AD : Patuxent River, MD	0.000	0.600	Apr 2023	0.000		0.000		-		0.000	0.000	0.600	-
Organic Software Test Bench	WR	NAWC AD : Patuxent River, MD	0.000	1.200	Apr 2023	0.000		0.000		-		0.000	0.000	1.200	-
Subtotal			15.834	8.654		0.000		0.000		-		0.000	0.000	24.488	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			
Government Eng Support, Obsolescence	Various	Various : Various	0.689	0.000		0.000		0.000		-		0.000	0.000	0.689	-
Government Eng Support, Capability Upgrade	WR	NAWC WD : China Lake, CA	0.170	0.000		0.000		0.000		-		0.000	0.000	0.170	-
Contractor Eng Support, Obsolescence	Various	Various : Various	0.061	0.000		0.000		0.000		-		0.000	0.000	0.061	-
Government Eng Support, Capability Upgrade	WR	NAWC AD : Patuxent River, MD	0.623	0.500	Apr 2023	0.000		0.000		-		0.000	0.000	1.123	-
Subtotal			1.543	0.500		0.000		0.000		-		0.000	0.000	2.043	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>



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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604216N / <i>Multi-Mission Helicopter Upgrade Dev</i>	Project (Number/Name) 9999 / <i>Congressional Adds</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 9999				
Systems Development: Avionics SC24 IFF Mode 5 Software	1	2023	3	2023
Systems Development: Common ASE	1	2023	2	2024
Systems Development: System Configuration Releases	1	2023	1	2024
Systems Development: Tactical Targeting Network Technology	1	2023	1	2023
Systems Development: AFCC Control Laws for ALFS	1	2023	2	2023
Systems Development: AFCS Control Laws	1	2023	3	2023
Systems Development: Radar Tech Refresh	1	2023	4	2023
Systems Development: Air Vehicle Improvements: Pitch Rate Gyro	1	2023	3	2023
Systems Development: Radar Interim Level Maintenance Enhancements	1	2023	3	2023
Systems Development: Net Ready Certification	1	2023	2	2023
Systems Development: Enhanced Electronic Support Measures Demo	1	2023	3	2023
Systems Development: Commercial Off The Shelf Trainer Improvements	1	2023	4	2023
Systems Development: Advanced Anti Submarine Warfare Analysis of Alternatives	1	2023	2	2023
Systems Development: SC24 Improvements	1	2023	3	2023
Systems Development: Electronic Support Measures Autoloader Enhancements	1	2023	3	2023
Systems Development: Aircraft Test Vehicle/Lab Upgrades	3	2023	4	2024
Systems Development: Electronic Support Measures Upgrade	3	2023	4	2024
Systems Development: Training Systems Upgrades	3	2023	4	2024
Systems Development: Organic Software Test Bench	3	2023	4	2024
Test and Evaluation: DMAD OT	1	2024	3	2024