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

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 7: Operational Systems Development</i>					<b>R-1 Program Element (Number/Name)</b> PE 0605520M / <i>MARINE CORPS AIR DEFENSE WEAPONS SYS</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	128.443	64.902	99.860	74.119	-	74.119	38.659	30.303	27.226	27.799	Continuing	Continuing
2278: <i>Air Defense Weapons System</i>	120.899	37.056	77.454	67.775	-	67.775	31.816	27.709	26.246	26.798	Continuing	Continuing
2578: <i>GBAD: Medium Range Intercept Capability (MRIC)</i>	7.544	7.574	22.406	6.344	-	6.344	6.843	2.594	0.980	1.001	Continuing	Continuing
9999: <i>Congressional Adds</i>	0.000	20.272	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.272

**A. Mission Description and Budget Item Justification**

This program element supports the Low Altitude Air Defense (LAAD) Battalion's missions of Short Range Air Defense (SHORAD), Medium Range Air Defense and provides the Marine Air Ground Task Force (MAGTF) to include; maneuver forces, bases, posts and stations, the necessary force protection to defeat the full spectrum of threats associated with the Marine Corps Low-Altitude Air Defense mission, to include hostile aerial threats from Unmanned Aerial Systems (UAS). With the proliferation of both military and commercial UAS platforms, the program is pursuing and acquiring more lethal and survivable air defense weapon systems platforms; such as JLTV's with armored protection and better maneuverability than a HMMWV, providing increased Counter-UAS capabilities now and continually spiraling out increasing capability for the foreseeable future. The Medium Range Intercept Capability (MRIC) will provide a capability to defend fixed and operationally fixed sites primarily against threat cruise missiles; secondarily against UAS and other aerial threats that enter into the MRIC's Weapons Engagement Zone (WEZ). The system will be integrated into the Integrated Air Missile Defense (IAMD) Family of Systems (FoS) to facilitate a layered defense against aerial threats

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	69.663	99.860	62.320	-	62.320
Current President's Budget	64.902	99.860	74.119	-	74.119
Total Adjustments	-4.761	0.000	11.799	-	11.799
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.160	0.000			
• SBIR/STTR Transfer	-2.601	0.000			
• Program Adjustments	0.000	0.000	3.001	-	3.001
• Rate/Misc Adjustments	0.000	0.000	8.798	-	8.798

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

**Project:** 9999: *Congressional Adds*

Congressional Add: *COTS expeditionary radar augmentation*

Congressional Add: *Medium-Range Intercept Capability (MRIC)*

Congressional Add: *Next generation counter-UAS hard kill*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	FY 2023	FY 2024
	3.861	0.000
	6.757	0.000
	9.654	0.000
	20.272	0.000
	20.272	0.000

**Change Summary Explanation**

The increase from Previous President's Budget supports Installations-Counter Small Unmanned Aircraft System operational test as well as initiation of Stinger missile replacement for a new mounted and dismounted capability to defeat Fixed Wing/Rotary Wing threats.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS				<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2278: Air Defense Weapons System	120.899	37.056	77.454	67.775	-	67.775	31.816	27.709	26.246	26.798	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Marine Corps Air Defense Weapons Systems includes multiple Commandant of the Marine Corps (CMC) Force Design priority items. It supports the Low Altitude Air Defense (LAAD) Battalion's mission of Short Range Air Defense (SHORAD) and provides the Marine Air Ground Task Force (MAGTF) to include; maneuver forces, bases, posts and stations, the necessary force protection to defeat the full spectrum of threats associated with the Marine Corps Low Altitude Air Defense mission, to include hostile aerial threats from Unmanned Aircraft Systems (UAS) and manned fixed wing/rotary wing aircraft. With the proliferation of both military and commercial UAS and platforms, the program is pursuing and acquiring more lethal and survivable air defense weapons systems platforms; such as JLTV's with armored protection and better maneuverability than a HMMWV, providing increased Counter-UAS (C-UAS) and FW/RW capabilities now and continually spiraling out increasing capability for the foreseeable future.

Based on an Urgent Universal Need Statement (UUNS), a Joint Urgent Operational Need (JUON), and a Joint Emergent Operational Need (JEON) the Marine Corps has aggressively pursued CUAS solutions in support of deployed Marines and critical facilities. The development of these solutions has been leveraged heavily by the MADIS onto two Joint Light Tactical Vehicles (JLTV). MADIS is an ACAT II Program of Record that initiated at MS B in 3Q FY 2021 and achieved MS C in 3Q FY 2023.

Marine Air Defense Integrated System Family of Systems (MADIS FoS): MADIS FoS provides the Marine Corps with an organic, upgradable, and state of the art capability to protect MAGTF maneuver forces, installations and other designated defended assets from Fixed/Rotary Wing (FW/RW) aircraft and Unmanned Aircraft Systems. The MAGTF is at increased risk of lethal air attack and fires coordination from next generation aircraft as well as significant advances from small UAS (sUAS) threats due to their rapid development and proliferation by the commercial sector, which has increased their nefarious use by both state and non-state actors. To address these threats, the MADIS FoS consists of mission tailored variants designed for sustained operations ashore, afloat, and aboard installations.

The MADIS FoS includes the fielded Advanced Man Portable Air Defense System (A-MANPADS) which provides close-in, low altitude, surface-to-air fires and command and control in defense of the MAGTF. It also includes the MADIS, which will replace the A-MANPADS systems, which is accomplished with the development, test, and installation of Government Furnished C-UAS and air defense equipment on two Joint Light Tactical Vehicles (JLTV). The MADIS Inc 1 Block 1 system is comprised of two vehicles: a MK 1 (Stinger variant), and a MK 2 (CUAS variant). MADIS Increment 1 Block 2 focuses on the development of increased kinetic and non-kinetic lethality capabilities. This includes the development of various technologies to counter swarms and enhancements for a direct fire CUAS capability, that can be integrated into the MADIS FoS.

The MADIS FoS also includes the Light Marine Air Defense Integrated System (L-MADIS), which will be accomplished with the development, test, and installation of Government Furnished C-UAS equipment on two Ultra-Light Tactical Vehicle (ULTV). The L-MADIS Program of Record (PoR) system is comprised of a MK 1 (Command and Control vehicle), and a MK 2 (Early Warning / Electronic Warfare vehicle). The L-MADIS PoR replaces the systems fielded under a Joint Emergent

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Operational Need. The L-MADIS provides the Marine Corps a capability different than that of the MADIS. The L-MADIS is transportable within organic Marine Corps R/W aircraft, allowing Marines to face challenging operational scenarios during Marine Expeditionary Unit (MEU) operations. The L-MADIS protects the maneuver force from the threat of UAS, Fixed Wing and Rotary Wing (FW/RW), and other airborne threats throughout the operating environment while maintaining Marine Corps expeditionary requirements.

Marine Corps Air Defense Weapons Systems also includes the Installations-Counter small Unmanned Aircraft System (I-CsUAS). I-CsUAS provides protection of USMC critical assets on permanent and temporary installations from sUAS threats; primarily Group 1 through 3 commercial-off-the-shelf sUAS. This system enhances force protection of critical defended assets on USMC installations in both CONUS and OCONUS locations. The system will detect, track, identifies and defeats sUAS. I-CsUAS is currently operating under an Urgent Statement of Need (USON) and the capability is being provided as a service. This effort will inform a future Program of Record (PoR)

Stinger Replacement: The Stinger missile is the primary effector against short range air defense threats. However, the Stinger missile is becoming obsolete for the future force. The Stinger missile has limited range against current and emerging air threats, and industry has diminishing capability to sustain the current inventory and produce new materiel. The Marine Corps will be leveraging the US Army's efforts to pursue development of a new interceptor to replace the Stinger missile. The strategy is to provide an interceptor with improved target acquisition, range, and lethality against the evolving threat.

Overall, Marine Corps Air Defense Weapons Systems decreases \$18.551M from FY 2024 to FY 2025 due to the completion of the MADIS Inc 1 Block 2 fly-off, the completion of Initial Operational Test & Evaluation and subsequent Fielding Decision of the MADIS, and completion of system integration and verification test of the L-MADIS. This is offset by \$8.872M increase for Installations-Counter Small Unmanned Aircraft System operational test.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<b>Title:</b> MADIS INC 1: Product Development	0.000	3.524	8.774	0.000	8.774
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
-Initiates MADIS Inc 1 Gunnery Training System development; includes software development costs					
-Initiates MADIS Inc 1 Virtual Training System development; includes software development costs					
<b>FY 2025 Base Plans:</b>					
-Continues MADIS Inc 1 Gunnery Training System development; includes software development costs					
-Continues MADIS Inc 1 Virtual Training System development; includes software development costs					
-Initiates MADIS Inc 1 Virtual Training System hardware prototype development					
<b>FY 2025 OCO Plans:</b>					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase of \$5.250M from FY 2024 to FY 2025 to support the purchase of required hardware to build the MADIS Virtual Training System test asset.					
<b>Title:</b> MADIS INC 1: Hardware/Software ECPs	0.000	7.569	10.723	0.000	10.723
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> -Initiates purchase of components to increase system performance as technology improves. Components include the optic, Inertial Navigation Unit (INU), Global Positioning System (GPS), launcher, and launcher munitions. These components increase the fidelity of target data and accuracy for the integrated weapons. These components are distinct from MADIS Inc 1 Block 2.					
<b>FY 2025 Base Plans:</b> -Continues purchase of components to increase system performance as technology improves. Components include Power Distribution, Data Server and Network components, HF radios and Multiband radio components. These components increase the fidelity of target data and accuracy for the integrated weapons and increase the ability to meet the challenging radar cross section (RCS) UAS threats. These components are distinct from MADIS Inc 1 Block 2.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase of \$3.154M from FY 2024 to FY 2025 due to the additional component enhancements required to increase fidelity of target data and accuracy.					
<b>Title:</b> MADIS INC 1: Support Costs	9.899	4.836	3.934	0.000	3.934
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> The Government Technical Support Team provides functions such as technical planning, execution and analysis across multi-disciplinary competencies to include; Systems Architecture, Radar/Jamming Software Engineering,					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Radar/Jamming Systems Engineering, Cyber Security/Information Assurance, Human Systems Integration, Safety, Configuration Management and the coordination necessary to enable a System of Systems interface with other programs in the slew to cue kill chain to ensure platform/software compatibility.  <b>FY 2024 Plans:</b> -Initiates engineering and logistics support for the engineering changes required post Initial Operational Test & Evaluation (IOT&E) -Initiates engineering and logistics support for components purchased to improve system performance and counter the evolving threat.  <b>FY 2025 Base Plans:</b> -Continues engineering and logistics support for components purchased to improve system performance and counter the evolving threat.  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$0.902M from FY 2024 to FY 2025 is due to completion of engineering and logistics efforts required for engineering changes resulting from Initial Operational Test & Evaluation					
<b>Title:</b> MADIS INC 1: Test and Evaluation  <b>Articles:</b>	16.986	1.288	3.187	0.000	3.187
<b>FY 2024 Plans:</b> -Initiates testing of the MADIS Inc 1 Gunnery and Virtual Training System  <b>FY 2025 Base Plans:</b> -Completes testing of the MADIS Inc 1 Virtual Training System -Continues testing of the MADIS Inc 1 Gunnery Training System  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Increase of \$1.899M from FY 2024 to FY 2025 is due to the increased testing required to validate the MADIS Virtual Trainer					
<b>Title:</b> MADIS INC 1: Management Services					
<b>Articles:</b>	0.447	0.421	0.430	0.000	0.430
	-	-	-	-	-
<b>FY 2024 Plans:</b> -Funds travel in support of the development, integration, and testing of the MADIS Increment 1 Block 2.					
<b>FY 2025 Base Plans:</b> -Funds travel in support of development and testing of the MADIS Gunnery and Virtual Training Systems as well as integration and testing of the MADIS Increment 1 Block 2.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase of \$0.009M from FY 2024 to FY 2025 is due to inflation adjustments.					
<b>Title:</b> MADIS INC 1 (BLOCK 2) - INCREASED LETHALITY: Product Development					
<b>Articles:</b>	2.189	24.349	10.290	0.000	10.290
	-	-	-	-	-
<b>FY 2024 Plans:</b> -Initiates the procurement of hardware to support integration and testing of the MADIS Inc 1 Block 2 capability -Initiates the integration of Block 2 hardware onto the MADIS Inc 1 Engineering Development Models (EDMs) required prior to developmental testing					
<b>FY 2025 Base Plans:</b> -Continues the design for integration of Block 2 hardware onto the MADIS Inc 1 required prior to developmental testing of prototypes					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$14.059M from FY 2024 to FY 2025 is due to the completion of the purchase of hardware to support integration and testing of the MADIS Inc 1 Block 2 capability.					
<b>Title:</b> MADIS INC 1 (BLOCK 2)- INCREASED LETHALITY: Support					
	0.000	5.502	5.537	0.000	5.537

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> -Initiates engineering and logistics support to update documentation, such as the performance specifications, technical data package, and other logistics documents for the MADIS Inc 1 Block 2 -Initiates full logistics supportability to include MADIS Inc 1 Block 2 Level of Repair Analysis (LoRA), provisioning conferences, updates of manpower and training plan and manpower task lists -Initiates engineering, cyber security, information assurance, and safety required in support of MADIS Inc 1 Block 2 developmental test</p> <p><b>FY 2025 Base Plans:</b> -Continues engineering and logistics support to update documentation, such as the performance specifications, technical data package, and other logistics documents for the MADIS Inc 1 Block 2 -Continues full logistics supportability to include MADIS Inc 1 Block 2 Level of Repair Analysis (LoRA), provisioning conferences, updates of manpower and training plan and manpower task lists -Continues engineering, cyber security, information assurance, and safety required in support of MADIS Inc 1 Block 2 developmental test</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> No significant change.</p>	-	-	-	-	-
<p><b>Title:</b> MADIS INC 1 (BLOCK 2)-INCREASED LETHALITY: Test and Evaluation</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> -Initiates source selection fly-off testing -Initiates MADIS Inc 1 Block 2 developmental testing</p> <p><b>FY 2025 Base Plans:</b> -Initiates contractor testing prior to government acceptance</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b></p>	0.000	15.031	2.822	0.000	2.822
	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Decrease of \$12.209M from FY 2024 to FY 2025 due to completion of the source selection fly-off testing					
<b>Title:</b> Stinger Missile Replacement: Test & Evaluation  <div align="right"><b>Articles:</b></div>	0.000	0.000	4.488	0.000	4.488
<b>FY 2024 Plans:</b> N/A  <b>FY 2025 Base Plans:</b> -Initiates the purchase of prototype missiles and targets for Developmental Testing (DT) and Operational Assessment (OA) -Initiates the engineering and logistics efforts to support DT and OA. This support ensures USMC advocacy during the US Army's planned development of a Stinger Missile replacement.  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase of \$4.488M from FY 2024 to FY 2025 is due to the initiation of USMC efforts to align with the US Army's development timelines for a new mounted and dismounted capability to defeat FW/RW threats.	-	-	-	-	-
<b>Title:</b> L-MADIS: Product Development  <div align="right"><b>Articles:</b></div>	0.365	2.710	1.875	0.000	1.875
<b>FY 2024 Plans:</b> -Initiates the purchase of components that increase system performance and support countering the evolving threat. Components include the optic, Global Positioning System (GPS), and an Inertial Navigation System  <b>FY 2025 Base Plans:</b> -Continues purchase of components that increase system performance and support countering the evolving threat. Components include the Power Distribution, Wireless Access Point (WAP) and radios -Initiates integration of a System Integration Lab (SIL) required to independently verify software, cyber requirements, and development of engineering change proposals  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Decrease of \$0.835M from FY 2024 to FY 2025 is due to the increased component maturity of the L-MADIS as previously purchased enhancements are integrated					
<b>Title:</b> L-MADIS: Support Costs  <b>FY 2024 Plans:</b> -Continues engineering, cyber security, information assurance, and safety support required for integration and verification tests as well as Operational Test & Evaluation (IOT&E) -Initiates engineering and logistics efforts to support the purchase and testing of components to enhance the L-MADIS and continue to counter the evolving threat.  <b>FY 2025 Base Plans:</b> -Continues engineering and logistics efforts to support the purchase and testing of components to enhance the L-MADIS and continue to counter the evolving threat  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$0.399M from FY 2024 to FY 2025 is due to the completion of system integration and verification tests	2.867	3.568	3.169	0.000	3.169
<b>Articles:</b>	-	-	-	-	-
<b>Title:</b> L-MADIS: Test and Evaluation  <b>FY 2024 Plans:</b> -Initiates and completes training to support the System Verification Test #2 -Initiates and completes System Integration Test #2 -Initiates and completes System Verification Test #2 -Initiates testing of components purchased to improve system performance and support countering the evolving threat  <b>FY 2025 Base Plans:</b> -Initiates and completes Initial Operational Test & Evaluation (IOT&E)	4.283	6.032	1.050	0.000	1.050
<b>Articles:</b>	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>-Continues testing of components purchased to improve system performance and support countering the evolving threat</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$4.982M from FY 2024 to FY 2025 is due to the completion of System Integration and Verification Tests</p>					
<p><b>Title:</b> L-MADIS: Management Services</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> -Continues travel in support of System Integration Tests (SITs) and System Verification Tests (SVTs)</p> <p><b>FY 2025 Base Plans:</b> -Initiates and completes travel in support of Initial Operational Test &amp; Evaluation (IOT&amp;E) -Initiates travel to support testing of components purchased to improve system performance and support countering the evolving threat</p> <p><b>FY 2025 OCO Plans:</b> N/A</p>	0.020 -	0.150 -	0.150 -	0.000 -	0.150 -
<p><b>Title:</b> I-CsUAS: Support</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> -Initiates Manpower and Training (MPT) analysis to determine the manpower footprint required at the using units to properly operate and maintain the equipment</p> <p><b>FY 2025 Base Plans:</b> -Initiates engineering and logistics support for operational testing</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b></p>	0.000 -	0.526 -	0.562 -	0.000 -	0.562 -

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Increase of \$0.036M from FY 2024 to FY 2025 is due to increased support required to for operational testing					
<b>Title:</b> I-CsUAS: Test & Evaluation	0.000	1.948	10.784	0.000	10.784
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> -Initiates threat assessments -Initiates demonstration of vendor Installation-Counter small Unmanned Aircraft System (I-CsUAS) capabilities -Initiates evaluation in order to maintain pace with evolving threats and new technologies					
<b>FY 2025 Base Plans:</b> -Procure one (1) test asset for operational test -Initiates and completes operational test for the I-CsUAS PoR to ensure system operational readiness and suitability in the standard operating environment -Continues evaluation of I-CsUAS capabilities to maintain pace with evolving threats and new technologies					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase of \$8.836M from FY 2024 to FY 2025 support operational test to validate the I-CsUAS PoR capability					
<b>Accomplishments/Planned Programs Subtotals</b>	37.056	77.454	67.775	0.000	67.775

<b>C. Other Program Funding Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
<b>Line Item</b>											
• PMC/3006: Ground Based Air Defense (GBAD)	238.241	249.103	369.296	-	369.296	432.104	570.116	511.369	398.084	0.000	3,568.479
• RDTEN/0605520M/2578: GBAD: Medium Range Intercept Capability (MRIC)	7.574	22.406	6.344	-	6.344	6.843	2.594	0.980	1.001	Continuing	Continuing

**Remarks**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / <i>MARINE CORPS AIR DEFENSE WEAPONS SYS</i>	<b>Project (Number/Name)</b> 2278 / <i>Air Defense Weapons System</i>

**D. Acquisition Strategy**

MADIS is being developed in increments to meet the requirements established in the Capabilities Development Document (CDD) to include the evolution of technology while adjusting for the threat. Increment 1 modernizes the existing air defense legacy systems (A-MANPADS) by mounting a mix of legacy and technologically mature capabilities (leveraging UUNS related efforts) onto the Joint Light Tactical Vehicle (JLTV), mitigating the risk of attacks from UAS and FW/RW aircraft, while maintaining pace with maneuver forces. The MADIS full Increment 1 capability will be achieved via a 2-Block approach. The first block will include a remote weapon station (RWS) with a direct fire 30MM gun, non-kinetic (via electronic attack) UAS defeat capability, and a dual launch stinger. The second block introduces additional kinetic and non-kinetic C-UAS capability. Each MADIS Inc 1 system built to the Block 1 configuration, to include Low Rate Initial Production (LRIP), will be retrofitted to include block 2 capabilities. MADIS Inc 1 has been designated an ACAT II program. The MADIS Inc 1 development leverages JUON and JEON development efforts and initiated at Milestone B in 3Q FY 2021 and successfully achieved MS C in 3Q FY 2023.

L-MADIS is fully leveraging JEON efforts and has an approved CDD annex as of 1Q FY 2022. The Marine Corps is developing L-MADIS as a C-sUAS capability integrated on the Ultra-Light Tactical Vehicle (ULTV). The L-MADIS is designated as an ACAT IV(T) program and achieved MS C in 1Q FY 2024. Low Rate Initial Production (LRIP) vehicles are being produced to support operational testing in FY 2024 with the intent to field in FY 2025. L-MADIS uses a combination of contracts and other program offices to support sub-component procurement while utilizing Naval Warfare Integration Center Atlantic (NIWC-LANT) for the integration/production work.

I-CsUAS is fully leveraging USON efforts and has an approved CDD as of May 2023. A Product Support Business Case Analysis (BCA) was initiated for economic analysis to inform the PoR both acquisition and sustainment strategy which includes evaluating hardware procurement through traditional acquisition with Contractor Logistics Support, Performance Based Logistics or organic support. It was determined that the best approach was hardware procurement through traditional acquisition with Contractor Logistics Support. The Product Support BCA will be reevaluated every five years of this ten-year effort to ensure affordability for the Marine Corps

USMC Stinger missile replacement efforts will fully leverage the US Army's Next Generation Short Range Interceptor (NGSRI) Middle Tier Acquisition Rapid Prototyping efforts. The MTA phase will include the design, development, and testing of the NGSRI. The MTA utilizes Other Transaction Authority (OTA) under the Aviation and Missile Technology Consortium (AMTC). At the end of the MTA, there will be a residual operational capability in FY 2028.

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System
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<b>Product Development (\$ in Millions)</b>				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			
MADIS Inc 1 SW Development	C/IDIQ	MCSC : Quantico, VA	11.672	0.000		0.000		0.000		-		0.000	0.000	11.672	-
MADIS Inc 1 Desktop Trainer Development	Various	NSWC : Dahlgren, VA	2.758	0.000		0.000		0.000		-		0.000	0.000	2.758	-
MADIS Inc 1 Gunnery Training Sys Develop	TBD	TBD : TBD	0.000	0.000		1.541	Aug 2024	3.132	Apr 2025	-		3.132	0.000	4.673	-
MADIS Inc 1 Enhanced Hardware (ECPs)	MIPR	DLA : Philadelphia	0.000	0.000		7.569	Dec 2023	10.723	Dec 2024	-		10.723	0.000	18.292	-
MADIS Inc 1 Virtual Training Sys Develop	TBD	TBD : TBD	0.000	0.000		1.983	Aug 2024	5.642	Apr 2025	-		5.642	0.000	7.625	-
MADIS Inc 1 Blk 2 Kinetic Kill Development	MIPR	ARL : Adelphi, MD	1.919	2.189	Sep 2023	2.000	May 2024	1.000	May 2025	-		1.000	0.000	7.108	-
MADIS Inc 1 Blk 2 HW	Various	Various : Various	0.000	0.000		14.080	Nov 2023	0.000		-		0.000	0.000	14.080	-
MADIS Inc 1 Blk 2 Integration	MIPR	NIWC : Charleston, SC	0.000	0.000		8.269	Apr 2024	9.290	Apr 2025	-		9.290	0.000	17.559	-
L-MADIS Design and Architecture	Various	NSWC : Crane, IN	5.165	0.365	Dec 2022	0.000		0.000		-		0.000	0.000	5.530	-
L-MADIS Enhanced Hardware (ECPs)	Various	DLA : Philadelphia, PA	0.000	0.000		2.710	Dec 2023	1.275	Jan 2025	-		1.275	0.000	3.985	-
L-MADIS SIL Integration	MIPR	NIWC : Charleston, SC	0.000	0.000		0.000		0.600	Jan 2025	-		0.600	0.000	0.600	-
MRIC PY Consolidated	Various	Various : Various	2.743	0.000		0.000		0.000		-		0.000	0.000	2.743	-
MADIS Inc 1 PY Consolidated	Various	Various : Various	23.291	0.000		0.000		0.000		-		0.000	0.000	23.291	-
MADIS Inc 1 Blk 2 PY Consolidated	Various	Various : Various	8.400	0.000		0.000		0.000		-		0.000	0.000	8.400	-
<b>Subtotal</b>			55.948	2.554		38.152		31.662		-		31.662	0.000	128.316	N/A

**Remarks**  
Decrease of \$6.490M from FY 2024 to FY 2025 is comprised of the following:  
MADIS Inc 1:  
-Increase to support the purchase of required hardware to build the MADIS Virtual Training System test asset  
MADIS Inc 1 Blk 2:

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>											<b>Date: March 2024</b>				
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS					<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System				

<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
-Completion of the purchase and integration of weapons and munitions that support the Capabilities Development Document (CDD) requirement of increased lethality L-MADIS: -Decrease due to the increased component maturity of the L-MADIS as previously purchased enhancements are integrated, which requires fewer component purchases															

<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
MADIS Inc 1 HSI	Various	NSWC : Dahlgren	1.599	0.576	Nov 2022	0.000		0.000		-		0.000	0.000	2.175	-
MADIS Inc 1 NET Development	C/FFP	MCSC : Quantico, VA	4.886	2.167	Feb 2023	0.000		0.000		-		0.000	0.000	7.053	-
MADIS Inc 1 Test Support	C/FFP	MCSC : Quantico, VA	0.611	0.622	Jan 2023	0.000		0.000		-		0.000	0.000	1.233	-
MADIS Inc 1 Integrated Logistics Spt	Various	NIWC : Charleston, SC	2.843	1.947	Nov 2022	1.950	Nov 2023	1.693	Dec 2024	-		1.693	Continuing	Continuing	Continuing
MADIS Inc 1 Eng/Cyber Support	Various	NSWC : Dahlgren, VA	4.649	2.201	Nov 2022	0.910	Dec 2023	0.000		-		0.000	0.000	7.760	-
MADIS Inc 1 Engineering Spt	C/FFP	MCSC : Quantico, VA	6.309	1.745	May 2023	1.976	May 2024	2.241	May 2025	-		2.241	0.000	12.271	-
MADIS Inc 1 Eng/Cyber Support	Various	NSWC : Crane, IN	0.878	0.641	Nov 2022	0.000		0.000		-		0.000	0.000	1.519	-
MADIS Inc 1 Blk 2 IA/ Safety/Eng Spt	MIPR	NSWC : Dahlgren, VA	0.000	0.000		1.988	Dec 2023	2.100	Dec 2024	-		2.100	0.000	4.088	-
MADIS Inc 1 Blk 2 Integrated Logistics Spt	C/FFP	MCSC : Quantico, VA	0.000	0.000		2.007	May 2024	2.015	May 2025	-		2.015	0.000	4.022	-
MADIS Inc 1 Blk 2 Eng/ Cyber Support	MIPR	NSWC : Dahlgren, VA	0.000	0.000		1.507	Dec 2023	1.422	Dec 2024	-		1.422	0.000	2.929	-
LMADIS IA/Safety/Eng Spt	Various	NSWC : Dahlgren, VA	0.000	1.236	Dec 2022	1.883	Dec 2023	1.497	Dec 2024	-		1.497	0.000	4.616	-
LMADIS Eng/Cyber Support	C/FFP	MCSC : Quantico, VA	0.000	1.148	Mar 2023	1.185	Mar 2024	0.649	Mar 2025	-		0.649	0.000	2.982	-

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System
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<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
LMADIS Technical Support	C/FFP	MCSC : Quantico, VA	0.000	0.483	Feb 2023	0.500	Feb 2024	0.000		-		0.000	0.000	0.983	-
LMADIS Integrator Support	MIPR	NIWC : Charleston, SC	0.000	0.000		0.000		1.023	Jan 2025	-		1.023	0.000	1.023	-
ICsUAS Manpower Training Analysis	TBD	TBD : TBD	0.000	0.000		0.526	Nov 2023	0.000		-		0.000	0.000	0.526	-
ICsUAS Eng/Cyber Support	MIPR	NSWC : Dahlgren, VA	0.000	0.000		0.000		0.562	Dec 2024	-		0.562	0.000	0.562	-
Prior Year Consolidated	Various	Various : Various	4.284	0.000		0.000		0.000		-		0.000	0.000	4.284	-
<b>Subtotal</b>			26.059	12.766		14.432		13.202		-		13.202	Continuing	Continuing	N/A

**Remarks**  
 Total decrease of \$1.230M is due to the following:  
 MADIS Inc 1:  
 Decrease due to completion of engineering and logistics efforts required for engineering changes resulting from Initial Operational Test & Evaluation  
 L-MADIS:  
 -Decrease due to the completion of system integration and verification tests

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Developmental Test & Evaluation (DT&E)	MIPR	NSWC : Corona, CA	1.221	0.456	Mar 2023	0.000		0.000		-		0.000	0.000	1.677	-
Developmental Test & Evaluation (DT&E)	MIPR	NSWC : Crane, IN	0.900	1.534	Nov 2022	2.354	Mar 2024	0.000		-		0.000	0.000	4.788	-
Developmental Test & Evaluation (DT&E)	MIPR	ATC : Aberdeen, MD	0.673	0.000		0.000		0.000		-		0.000	0.000	0.673	-
Developmental Test & Evaluation (DT&E)	MIPR	NAWCWD : China Lake, CA	1.674	0.172	Jan 2023	0.000		0.000		-		0.000	0.000	1.846	-
Developmental Test & Evaluation (DT&E)	MIPR	MCOTEA : Quantico, VA	0.631	0.500	Jan 2023	0.000		0.000		-		0.000	0.000	1.131	-

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System
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<b>Test and Evaluation (\$ in Millions)</b>				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)	Various	NSWC : Dahlgren, VA	8.520	3.110	Dec 2022	1.976	Apr 2024	1.986	Apr 2025	-		1.986	0.000	15.592	-
Developmental Test & Evaluation (DT&E)	Various	YPG : Yuma, AZ	1.057	4.301	Dec 2022	3.286	Dec 2023	1.822	Dec 2024	-		1.822	0.000	10.466	-
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC : Quantico, VA	3.864	2.408	Nov 2022	0.000		0.000		-		0.000	0.000	6.272	-
Operational Test & Evaluation (OT&E)	Various	NIWC : Charleston, SC	19.555	8.402	Jan 2023	1.224	Dec 2023	1.617	Dec 2024	-		1.617	0.000	30.798	-
Developmental Test & Evaluation (DT&E)	MIPR	NSWC : China Lake, CA	0.000	0.386	Dec 2022	0.568	Dec 2023	0.433	Dec 2024	-		0.433	0.000	1.387	-
Developmental Test & Evaluation (DT&E)	TBD	MCIA : Quantico, VA	0.000	0.000		0.324	Feb 2024	0.000		-		0.000	0.000	0.324	-
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC : Quantico, VA	0.000	0.000		9.009	Jun 2024	0.000		-		0.000	0.000	9.009	-
Developmental Test & Evaluation (DT&E)	Various	Various : Various	0.000	0.000		2.558	Jun 2024	0.000		-		0.000	0.000	2.558	-
Developmental Test & Evaluation (DT&E)	C/FFP	TBD : TBD	0.000	0.000		3.000	Dec 2023	0.000		-		0.000	0.000	3.000	-
Developmental Test & Evaluation (DT&E)	TBD	PM Shield : Huntsville, AL	0.000	0.000		0.000		4.488	Dec 2024	-		4.488	0.000	4.488	-
Operational Test & Evaluation (OT&E)	MIPR	NSWC : Dahlgren, VA	0.000	0.000		0.000		2.121	Jan 2025	-		2.121	0.000	2.121	-
Operational Test & Evaluation (OT&E)	C/FFP	MCSC : Quantico, VA	0.000	0.000		0.000		1.066	Apr 2025	-		1.066	0.000	1.066	-
Operational Test & Evaluation (OT&E)	TBD	TBD : TBD	0.000	0.000		0.000		8.798	Dec 2024	-		8.798	0.000	8.798	-
<b>Subtotal</b>			38.095	21.269		24.299		22.331		-		22.331	0.000	105.994	N/A

**Remarks**  
 Decrease of \$1.968M from FY 2024 to FY 2025 is comprised of the following:  
 MADIS Inc 1:  
 -Increase in testing required to validate the MADIS Gunnery Training System  
 MADIS Inc 1 Blk 2:

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System
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<b>Test and Evaluation (\$ in Millions)</b>				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			
-Decrease due to completion of the source selection fly-off testing L-MADIS: -Decrease due to the completion of system integration and verification tests Stinger Replacement: -Increase due to the USMC initiation of efforts aligned to the US Army's development of a Stinger missile replacement I-CsUAS: -Increase for operational test to validate the I-CsUAS PoR capability															

<b>Management Services (\$ in Millions)</b>				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			
MADIS FoS Travel	Various	Various : Various	0.797	0.447	Sep 2023	0.421	Sep 2024	0.430	Sep 2025	-		0.430	0.000	2.095	-
LMADIS Travel	Various	Various : Various	0.000	0.020	Sep 2023	0.150	Sep 2024	0.150	Sep 2025	-		0.150	0.000	0.320	-
<b>Subtotal</b>			0.797	0.467		0.571		0.580		-		0.580	0.000	2.415	N/A

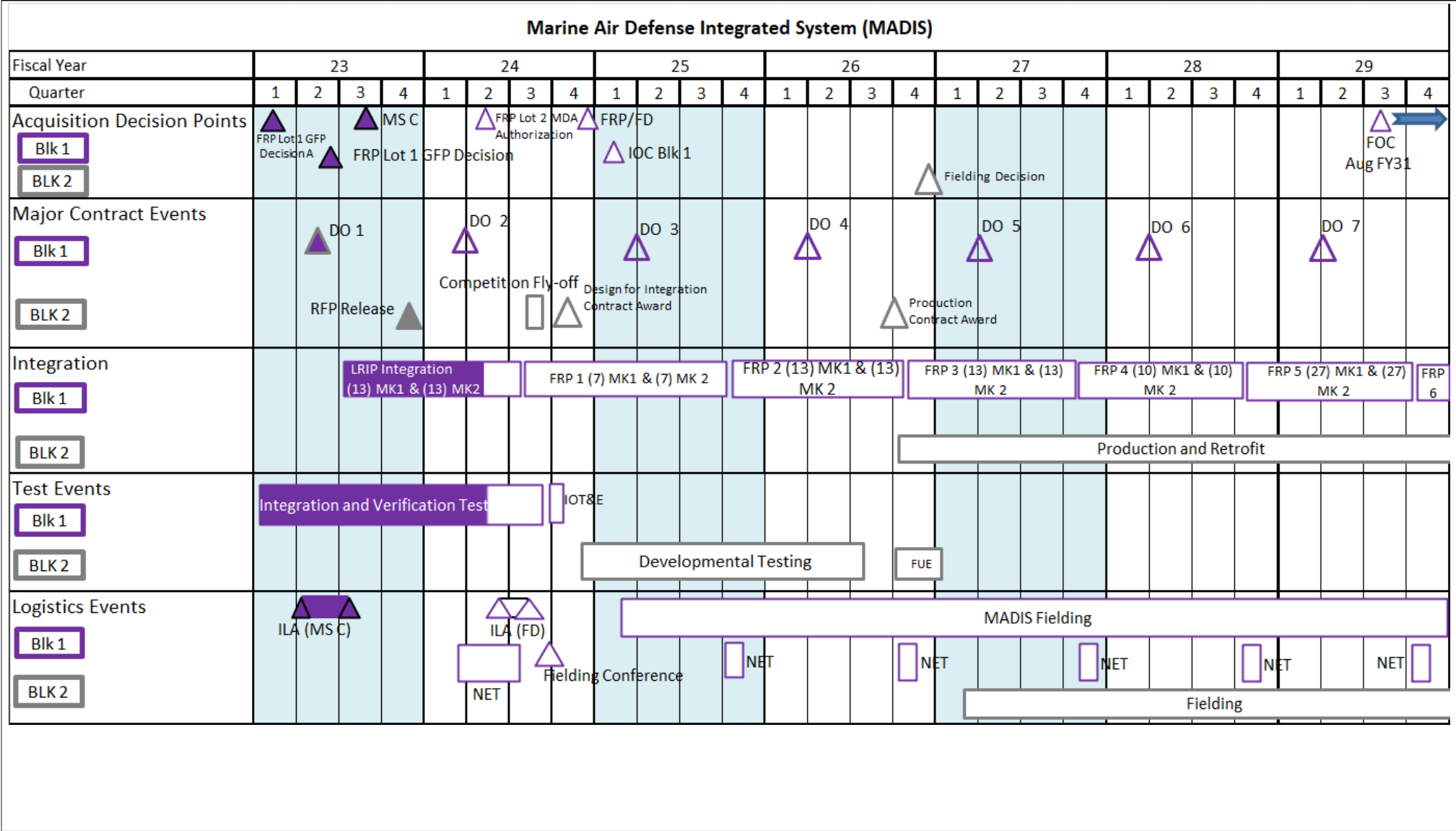
**Remarks**  
Increase due to inflation adjustments

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		120.899	37.056	77.454	67.775	67.775	Continuing	Continuing	N/A

**Remarks**  
Overall, Marine Corps Air Defense Weapons Systems decreases \$18.551M from FY 2024 to FY 2025 due to the completion of the MADIS Inc 1 Block 2 fly-off, the completion of Initial Operational Test & Evaluation and subsequent Fielding Decision of the MADIS, and completion of system integration and verification test of the L-MADIS. This is offset by \$8.872M increase for Installations-Counter Small Unmanned Aircraft System operational test.

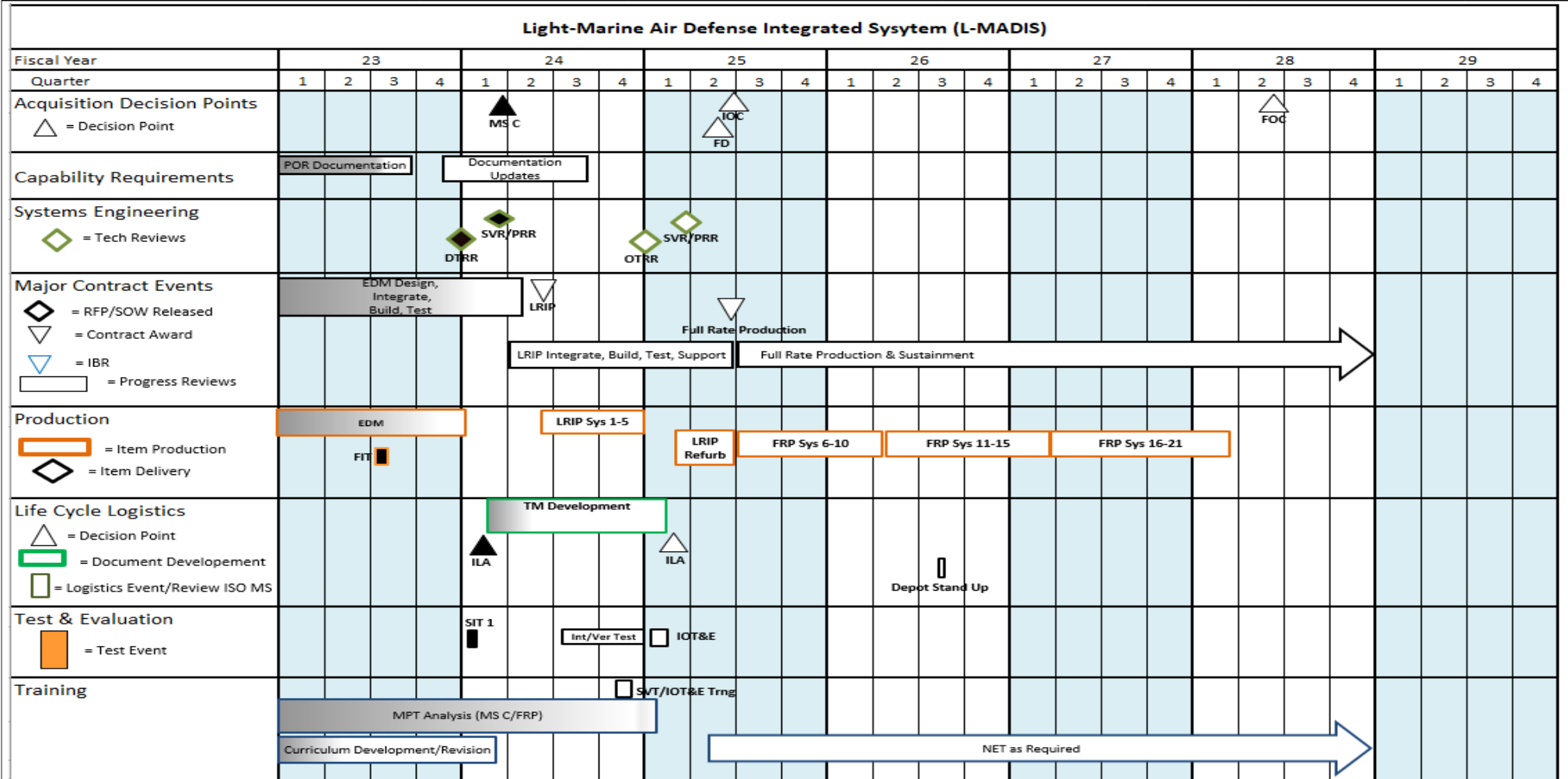
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2278</b>				
MADIS INCREMENT 1: MS "C"/LRIP DECISION	3	2023	3	2023
MADIS INCREMENT 1: LRIP COMPONENT PRODUCTION INTEGRATION	3	2023	3	2024
MADIS INCREMENT 1: OPERATIONAL ASSESSMENT	2	2023	2	2023
MADIS INCREMENT 1: INITIAL OPERATIONAL TEST & EVALUATION	3	2024	4	2024
MADIS INCREMENT 1: FULL RATE PRODUCTION DECISION	4	2024	4	2024
MADIS INCREMENT 1: MADIS INC 1 BLOCK 2 CONTRACT AWARD	4	2024	4	2024
MADIS INCREMENT 1: MADIS INC 1 BLOCK 2 DESIGN FOR INTEGRATION	4	2024	1	2026
MADIS INCREMENT 1: INITIAL OPERATIONAL CAPABILITY	1	2025	1	2025
MADIS INCREMENT 1: MADIS INC 1 BLOCK 2 FLY OFF	3	2024	3	2024
MADIS INCREMENT 1: MADIS INC 1 BLOCK 2 DT/FIELD USER EVALUATION	3	2024	4	2026
MADIS INCREMENT 1: MADIS INC 1 BLOCK 2 FIELDING DECISION	4	2026	4	2026
L-MADIS: MILESTONE C	1	2024	1	2024
L-MADIS: LRIP Build	2	2024	2	2025
L-MADIS: FIELDING DECISION	2	2025	2	2025
L-MADIS: INITIAL OPERATIONAL CAPABILITY (IOC)	2	2025	2	2025
I-CsUAS: CAPABILITIES DEVELOPMENT DOCUMENT	3	2023	3	2023
I-CsUAS: RFP RELEASE	2	2024	3	2024
I-CsUAS: AWARD CONTRACT	4	2024	4	2024
I-CsUAS: OPERATIONAL ASSESSMENT	2	2025	2	2025
I-CsUAS: INITIAL OPERATIONAL CAPABILITY	3	2025	3	2025
Stinger Replacement: Purchase Prototyping Missiles	1	2025	1	2025

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2278 / Air Defense Weapons System

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Stinger Replacement: System Level Demonstration	2	2025	2	2025

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS				<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2578: GBAD: Medium Range Intercept Capability (MRIC)	7.544	7.574	22.406	6.344	-	6.344	6.843	2.594	0.980	1.001	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Medium Range Intercept Capability (MRIC) is a CMC Force Design program providing the Marine Corps Expeditionary Force Commander a capability to defend forward deployed forces primarily against threat cruise missiles; secondarily against UAS and other aerial threats that enter the MRIC's Weapons Engagement Zone (WEZ). MRIC is designed as a system-of-systems and will be integrated with Marine Corps organic Command and Control (C2) and Joint Integrated Air and Missile Defense (IAMD) architecture. The program will enhance the expeditionary force ground-based air defense (GBAD) capability to rapidly prosecute aerial threats and expand layered defense of the Expeditionary and Naval Forces. The MRIC prototype firing exercises were completed 4Q FY 2022 and informed the decision point in 1Q FY2023 to certify for deployment. The certification efforts are occurring FY 2023 through FY 2024. This effort informs the investment to meet the Force Design requirements to field an MRIC Battery to each of the three LAAD Battalions in FY 2026, FY 2027, and FY 2028.

Decrease from FY 2024 to FY 2025 is due to the completion of rapid prototyping and initiation of rapid fielding in 2Q FY 2025.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Medium Range Intercept Capability (MRIC) Test and Evaluation	3.427	17.993	4.823	0.000	4.823
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
-Continued integration testing required prior to Developmental Testing (DT) and Quick Reaction Assessment (QRA). This includes software and cybersecurity testing					
-Initiated and completed developmental test, transportability testing, environmental testing, and joint interoperability testing (JIT).					
-Initiated and completed training prior to DT and QRA and travel associated with testing events					
-Continued safety testing and evaluation					
-Initiated the QRA and QRA findings required prior to Middle Tier Acquisition (MTA) rapid fielding decision point					
-Initiated required engineering changes to the system based on testing					
<b>FY 2025 Base Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
-Initiates and completes integration testing of Engineering Change Proposals (ECPs) required based on results from the QRA. <b>FY 2025 OCO Plans:</b> N/A <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$13.170M from FY 2024 to FY 2025 is due to the completion of the rapid prototyping and movement to rapid fielding in 2Q FY 2025					
<b>Title:</b> Medium Range Intercept Capability (MRIC) Support  <b>Articles:</b> <b>FY 2024 Plans:</b> -Initiated the engineering and logistics support required for system review, as well as, updates to documentation required post test and prior to prototype deployment -Continued modeling and simulation verification through testing <b>FY 2025 Base Plans:</b> -Initiates the engineering and logistics support required for integration of engineering change proposals resulting of the quick reaction assessment (QRA) <b>FY 2025 OCO Plans:</b> N/A <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$2.892M from FY 2024 to FY 2025 is due to the completion of the rapid prototyping and movement to rapid fielding in 2Q FY 2025	4.147 -	4.413 -	1.521 -	0.000 -	1.521 -
<b>Accomplishments/Planned Programs Subtotals</b>	7.574	22.406	6.344	0.000	6.344

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PMC/3006: Ground Based Air Defense (GBAD)	238.241	249.103	369.296	-	369.296	432.104	570.116	511.369	398.084	0.000	3,568.479

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)

**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>
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**Remarks**

MRIC PMC begins in FY 2023 and is only a portion of the GBAD PMC funding line under BLI 3006.

**D. Acquisition Strategy**

To support an MRIC Material Support Decision, a concept demonstration of a proposed counter cruise missile (CM) defense system occurred in 4Q FY 2019. The MRIC received an approved Middle Tier Acquisition decision in 3Q FY 2020 placing the system into Rapid Prototyping. A single prototype cruise missile defense capability was successfully demonstrated during live fire testing events and a Certification Decision occurred in 1Q FY 2023. Following the Rapid Prototyping efforts, a transition to Rapid Fielding is anticipated in order to develop a capability that meets Force Design requirements providing an MRIC Battery and munitions to each of the three USMC LAAD Battalions in FY 2026, FY 2027, and FY 2028, and to support Expeditionary Advanced Base Operations (EABO) planning. The Rapid Fielding will be accomplished via a sole-source production contract which will build on the prototype development and is augmented by a Government-to-Government agreement with the Israeli Ministry of Defense.

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)
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<b>Support (\$ in Millions)</b>				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			
Modeling & Simulation	MIPR	NSWC : Dahlgren, VA	2.603	2.325	Apr 2023	2.612	Nov 2023	0.000		-		0.000	0.000	7.540	-
MRIC IA/Safety/Eng/Log Spt	MIPR	NSWC : Dahlgren, VA	2.060	1.822	Mar 2023	1.801	Nov 2023	1.521	Nov 2024	-		1.521	0.000	7.204	-
<b>Subtotal</b>			4.663	4.147		4.413		1.521		-		1.521	0.000	14.744	N/A

**Remarks**  
Decrease of \$2.892M from FY 2024 to FY 2025 is due to the completion of the rapid prototyping and movement to rapid fielding in 2Q FY 2025

<b>Test and Evaluation (\$ in Millions)</b>				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			
Live Fire Test & Evaluation (LFT&E)	MIPR	WSMR : White Sands, NM	2.611	0.000		0.000		0.000		-		0.000	0.000	2.611	-
Live Fire Test & Evaluation (LFT&E)	Various	NSWC : Corona, CA	0.270	0.000		0.000		0.000		-		0.000	0.000	0.270	-
Developmental Test & Evaluation (DT&E)	MIPR	WSMR : White Sands, NM	0.000	0.000		5.642	Feb 2024	0.000		-		0.000	0.000	5.642	-
Developmental Test & Evaluation (DT&E)	TBD	TBD : TBD	0.000	0.000		2.253	Aug 2024	0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC : Quantico, VA	0.000	3.427	Mar 2023	4.550	Dec 2023	4.823	Dec 2024	-		4.823	0.000	12.800	-
Operational Test & Evaluation (OT&E)	C/CPFF	DMEA : McClellan, CA	0.000	0.000		3.658	Jun 2024	0.000		-		0.000	0.000	3.658	-
Operational Test & Evaluation (OT&E)	Various	Various : Various	0.000	0.000		1.890	Jan 2024	0.000		-		0.000	0.000	1.890	-
<b>Subtotal</b>			2.881	3.427		17.993		4.823		-		4.823	Continuing	Continuing	N/A

**Remarks**  
Decrease of \$13.170M from FY 2024 to FY 2025 is due to the completion of the rapid prototyping and movement to rapid fielding in 2Q FY 2025

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>								<b>Date: March 2024</b>			
<b>Appropriation/Budget Activity</b> 1319 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS				<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)			
	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>		<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>	7.544	7.574	22.406		6.344	-	6.344	Continuing	Continuing	N/A	

**Remarks**  
 Decrease from FY 2024 to FY 2025 is due to the completion of rapid prototyping and initiation of rapid fielding in 2Q FY 2025.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>	<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEF ENSE WEAPONS SYS
	<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)

Fiscal Year	Medium Range Intercept Capability																											
	23				24				25				26				27				28				29			
Quarter	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
<b>Acquisition Decision Points</b>	<b>MTA Prototype</b>				Initiate MTA Rapid Fielding				<b>MTA Rapid Fielding</b>																			
	Proceed to Prototype Cert DP				Deploy DP				Approved Reqt's Memo (To support incremental improvements and Fielding Quantities)																			
<b>Contracts</b>	<b>MRIC Proto</b>				Dev Draft RFP/J&A				RFP Release				Production Missiles/Platoons/Batteries															
◇ = RFP/SOW Released	G2G (IMOD) Agreement				Contract Award								Procure 3 PLTs HW/SW				Procure 2D BATT HW/SW				Proc 3D BATT HW/SW							
▽ = Contract Award					Proc 80 Missiles (MTA Prototype)				Proc 240 Missiles for 3 PLTs				Proc 320 Missiles for 2D BATT				Proc 320 Missiles for 3D BATT				Proc 320 Reload Missiles				Proc 320 Reload Missiles			
□ = Progress Reviews									Final Residual Prototype Capability Assembly																			
<b>Systems Engineering</b>	Transportability Test				MRIC Dev/Integration				Final Residual Prototype Capability Assembly																			
◇ = Tech Review	SDR				FDR				PRR																			
					Modeling & Simulation																							
<b>Logistics</b>	Dev Spt Strat				TM Review/Dev				TM V/V																			
					TM V/V				TMs Signed/Approved				1st PLT IOC				3d Battery FOC											
					Provisioning Development				3 PLT/1st Battery IOC				2d Battery															
<b>Test &amp; Evaluation</b>					DI #4				DT																			
■ = Test Event					QRA TRR				QRA				QRA Findings															
					NET Package Development																							
<b>Training</b>					Conduct/Tailored MPTA																							
					QRA Training				I&KPT				1st PLT NET				2,3,4 PLT NET				2D BATT NET				3D BATT NET			

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 2578 / GBAD: Medium Range Intercept Capability (MRIC)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2578</b>				
Acquisition Decisions: Certification Decision	1	2023	1	2023
Systems Engineering: Modeling and Simulation	1	2023	4	2023
Systems Engineering: MRIC Development/Integration	1	2023	4	2023
Training: DT #1 Training	2	2024	2	2024
Training: QRA Training	4	2024	4	2024
Test and Evaluation: Integration Testing	4	2023	3	2024
Test and Evaluation: Developmental Test (DT #1)	3	2024	3	2024
Test and Evaluation: Quick Reaction Assessment (QRA)	4	2024	4	2024
Acquisition Decisions: Prototype Deployment Decision	2	2025	2	2025
Acquisition Decisions: Transition to MTA Rapid Fielding	2	2025	2	2025
Contracts: Rapid Fielding Production Award	2	2025	2	2025
Training: 1st Platoon New Equipment Training (NET)	3	2025	3	2025
Logistics: 1st Platoon Initial Operating Capability (IOC)	3	2025	3	2025

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEFENSE WEAPONS SYS	<b>Project (Number/Name)</b> 9999 / Congressional Adds
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	0.000	20.272	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.272
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

C906: COTS expeditionary radar augmentation  
Development of a radar mode file to support the counter cruise missile mission with the use of the Extended Multi-Mission Hemispheric Radar (exMHR) in order to demonstrate a more expeditionary subset of Medium Range Intercept Capabilities (MRIC).

C907: Medium Range Intercept Capability (MRIC)  
The Medium Range Intercept Capability (MRIC) is a CMC Force Design program providing the Marine Corps Expeditionary Force Commander a capability to defend forward deployed forces primarily against threat cruise missiles; secondarily against UAS and other aerial threats that enter into the MRIC's Weapons Engagement Zone (WEZ). MRIC is designed as a system-of-systems and will be integrated with Marine Corps organic Command and Control (C2) and Joint Integrated Air and Missile Defense (IAMD) architecture. The program will enhance the expeditionary force ground based air defense (GBAD) capability to rapidly prosecute aerial threats and expand layered defense of the Expeditionary and Naval Forces. The MRIC prototype firing exercises were completed 4Q FY 2022 and informed the decision point in 1Q FY 2023 to certify for deployment. The certification efforts will occur FY 2023 through FY 2024. This effort informs the investment to meet the Force Design requirements to field an MRIC Battery to each of the three LAAD Battalions in FY 2026, FY 2027, and FY 2028 to support operations including Expeditionary Advanced Based Operations (EABO)

C908: Next generation counter-Unmanned Aerial Systems (UAS) hard kill  
Funding supports the development of the Expeditionary-Mobile Air Defense Integrated System (X-MADIS) that is currently executed within the Department of the Navy (DON).

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

	FY 2023	FY 2024
<b>Congressional Add:</b> COTS expeditionary radar augmentation	3.861	0.000
<b>FY 2023 Accomplishments:</b> -Initiated and completed an analysis, integration, and development of radar mode files for the exMHR to integrate with selected government Command and Control (C2) hardware/software -Initiated and completed a demonstration event at a government test range -Initiated and completed a trade study identifying a recommended technical approach		
<b>FY 2024 Plans:</b> N/A		
<b>Congressional Add:</b> Medium-Range Intercept Capability (MRIC)	6.757	0.000

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEF ENSE WEAPONS SYS	<b>Project (Number/Name)</b> 9999 / Congressional Adds
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>
<b>FY 2023 Accomplishments:</b> -Initiate purchase of hardware for safety testing (HERO missile, Electro Static Discharge (ESD) missile) -Initiate labor and hardware in support of containerized transport of the mini-Battle Management & Control (mini-BMC) -Initiate labor in support of safety, cyber, and uplink information that can only be provided Government to Government <b>FY 2024 Plans:</b> N/A		
<b>Congressional Add:</b> Next generation counter-UAS hard kill <b>FY 2023 Accomplishments:</b> -Develop X-MADIS (to be executed by the Department of Navy) <b>FY 2024 Plans:</b> N/A	9.654	0.000
<b>Congressional Adds Subtotals</b>	20.272	0.000

<b>C. Other Program Funding Summary (\$ in Millions)</b>										<b>Cost To</b>	
<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>Complete</u>	<u>Total Cost</u>
• RDTEN/0605520M/2578: GBAD: Medium Range Intercept Capability (MRIC)	7.574	22.406	6.344	-	6.344	6.843	2.594	0.980	1.001	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

C906: COTS expeditionary radar augmentation  
 A demonstration will be held in 3Q FY 2024 order to provide data to support a trade study that will identify a recommended technical approach to meet detection and track rate update requirements across multiple GBAD Program of Records.

C907: Medium Range Intercept Capability (MRIC)  
 To support an MRIC Material Support Decision, a concept demonstration of a proposed counter cruise missile (CM) defense system occurred in 4Q FY 2019. The MRIC received an approved Middle Tier Acquisition decision in 3Q FY 2020 placing the system into Rapid Prototyping. A single prototype cruise missile defense capability was successfully demonstrated during live fire testing events and a Certification Decision occurred in 1Q FY 2023. Prototype efforts support the anticipated development of a capability that meets Force Design requirements providing an MRIC Battery to each of the three USMC LAAD Battalions in FY 2026, FY 2027, and FY 2028, and to support Expeditionary Advanced Base Operations (EABO) planning.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / <i>MARINE CORPS AIR DEFENSE WEAPONS SYS</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>

C908: Next generation counter-UAS hard kill  
The acquisition strategy for X-MADIS will be determined by the DON  
Funding will be executed by the Department of the Navy

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

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEF ENSE WEAPONS SYS	<b>Project (Number/Name)</b> 9999 / Congressional Adds
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<b>Product Development (\$ in Millions)</b>				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			
C908: X-MADIS	Various	DON : DON	0.000	9.654	Sep 2023	0.000		0.000		-		0.000	0.000	9.654	-
C907: Labor/HW for mini-BMC/Safety/Cyber/Uplink	C/FFP	Rafael/Raytheon : Tucson, AZ	0.000	5.400	Jul 2023	0.000		0.000		-		0.000	0.000	5.400	-
<b>Subtotal</b>			0.000	15.054		0.000		0.000		-		0.000	0.000	15.054	N/A

**Remarks**  
Decrease of \$15.054M from FY 2023 to FY 2024 is due to DON decisions on path forward on exMHR as well as the continuation of MRIC deployment efforts under PE 0605520M; Project 2578

<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	C/CPFF	Rada : Germantown, MD	0.000	3.861	May 2023	0.000		0.000		-		0.000	0.000	3.861	-
Developmental Test & Evaluation (DT&E)	C/FFP	Rafael/Raytheon : Tucson, AZ	0.000	1.357	Jul 2023	0.000		0.000		-		0.000	0.000	1.357	-
<b>Subtotal</b>			0.000	5.218		0.000		0.000		-		0.000	0.000	5.218	N/A

**Remarks**  
Decrease of \$5.218M from FY 2023 to FY 2024 is due to the completion of the demonstration of the xMHR capability as well as the continuation of MRIC efforts within PE 0605520M; Proj 2578.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		0.000	20.272	0.000	0.000	0.000	0.000	20.272	N/A

**Remarks**  
Total decrease of \$20.272M from FY 2023 to FY 2024 is due to the completion of the exMHR demonstration as well as continuation of efforts for MRIC deployment within PE 0605520M; Proj 2578. X-MADIS is a program executed within the DON.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEF ENSE WEAPONS SYS	<b>Project (Number/Name)</b> 9999 / Congressional Adds

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

<b>Proj 9999</b>	
C906: COTS expeditionary radar augmentation (exMHR): Contract Award	■

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0605520M / MARINE CORPS AIR DEF ENSE WEAPONS SYS	<b>Project (Number/Name)</b> 9999 / Congressional Adds

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 9999</b>				
C906: COTS expeditionary radar augmentation (exMHR): Contract Award	3	2023	3	2023