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

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</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	-	3.987	12.789	35.942	-	35.942	20.909	14.502	13.683	13.820	0.000	115.632
CR8: <i>Army Reprogramming Analysis Team (ARAT)</i>	-	-	-	5.718	-	5.718	5.792	5.853	5.920	5.979	0.000	29.262
DX5: <i>Electronic Warfare And Management Tool</i>	-	1.887	5.022	12.271	-	12.271	5.762	5.823	4.918	4.967	0.000	40.650
DX6: <i>Multi-Function Electronic Warfare (MFEW)</i>	-	-	5.596	16.378	-	16.378	7.778	1.232	1.233	1.245	0.000	33.462
VS6: <i>Integrated Electronic Warfare Systems</i>	-	2.100	2.171	1.575	-	1.575	1.577	1.594	1.612	1.629	0.000	12.258

Note

Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS) to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT) in FY25.

A. Mission Description and Budget Item Justification

A portion of this funding line is a key enabler of the Army Modernization Priorities in support of Electronic Warfare Planning and Management Tool (EWPMT) program.

This Program Element (PE) encompasses engineering and manufacturing development for tactical Electronic Warfare (EW). The Integrated Electronic Warfare System (IEWS) is a capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army Brigade Combat Team (BCT) and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios.

The IEWS capability set is structured along four program lines of effort: 1) Project DX5 Electronic Warfare Planning and Management Tool (EWPMT), 2) Project DX6 Multi-Function EW (MFEW), 3) Project VS6 Counter Radio-Controlled Improvised Explosive Devices (RCIED) Electronic Warfare (CREW) which provides current defensive electronic attack capability.

Project DX5 - This funding line is in support of the Electronic Warfare Planning and Management Tool (EWPMT) which is a key enabler of Army Modernization Priorities, APNT CFT and Network CFT. EWPMT is the Commander's tool to control, manage, and dominate the Electromagnetic Spectrum (EMS). It will provide the ability to control & manage Electronic Warfare (EW) assets in order to execute offensive and defensive Electronic Attack, EW targeting, and synchronize EW and Spectrum Management Operations (SMO) across Intelligence, Operations, and Signals in support of Multi-Domain Operations (MDO). As a Commander's tool, EWPMT is predominantly utilized by the Cyber Electromagnetic Activities (CEMA) cell for mission planning, access to national and strategic sensors, data repositories, as well as enabling the synchronization of EW, Signals Intelligence (SIGINT) operations, and Cyber Domains.

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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>
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Project DX6 - MFEW-AL is the Army's only program providing tactical Commanders with deep look, organic, airborne, offensive electronic warfare (EW), empowering Commanders to shape the Electromagnetic Spectrum (EMS) to their advantage. The MFEW Air Large system will provide: 1) Offensive Electronic Attack (OEA) - Non-Kinetic Fires capability with the intent of denying, degrading, or disrupting enemy communications capability and non-communications emitters; 2) Electronic Warfare Support (ES) - Capability to search, intercept, identify, and locate or localize sources of intentional and unintentional radiated electromagnetic (EM) energy for the purpose of immediate threat recognition, targeting, planning, and execution of future operations; 3) Dissemination of Military Information Support Operations (MISO) products; and 4) Support of Offensive Cyber Operations (OCO) and Multi-Domain Operations.

Project VS6 - Counter Radio Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW) provides protection of ground forces operating in vehicle convoys, single vehicles and fixed locations in operational theaters which enables freedom of movement across the depth and breadth of the operational environment. Current CREW systems are programmable with techniques to mitigate emerging threats. In order to keep pace with the threat evolution, development efforts will provide fielded CREW systems as well as other Electronic Warfare (EW) systems with techniques that mitigate the range of threats as required. These development efforts may include development of new techniques, integration of existing techniques, as well as hardware and software development and integration in order to pace the threat.

Project CR8 - Army Reprogramming Analysis Team (ARAT) supports the tactical Commander by providing timely rapid reprogramming of mission software and information dissemination for Army supported, Joint and allied services. ARAT supports integrated reprogramming of target acquisition, target engagement, vehicle survivability, and Aircraft Survivability Equipment (ASE). ARAT rapid-reprogramming infrastructure supports tactical requirements for deployed aircraft and ground-based (e.g., CREW) survivability systems. ARAT identifies and analyzes threat signature changes which affect EW systems; determines the impact of observed signature changes; develops new mission software to adapt the system to the changes; disseminates the mission software; and provides methods to upload the new mission software into the affected EW systems. Each element within the ARAT infrastructure plays a specific role within the program's rapid reprogramming process, providing the Soldier with the capability to install mission and target identification software at the lowest possible level, thus maximizing flexibility for tactical commanders.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	4.140	12.789	13.832	-	13.832
Current President's Budget	3.987	12.789	35.942	-	35.942
Total Adjustments	-0.153	0.000	22.110	-	22.110
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.001	-			
• SBIR/STTR Transfer	-0.152	-			
• Adjustments to Budget Years	-	-	22.110	-	22.110

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	
<u>Change Summary Explanation</u> Fiscal Year (FY) 2025 Total funding increase for 0604270A is \$22.110 million to support engineering and logistics development, capability maturation, performance technology improvements, system hardening, software architecture modernization, and sensor integration.		

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</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
CR8: <i>Army Reprogramming Analysis Team (ARAT)</i>	-	-	-	5.718	-	5.718	5.792	5.853	5.920	5.979	0.000	29.262
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS) to 0604270A (EW Development), Project CR8 (Army Reprogramming Analysis Team (ARAT) in FY25.

A. Mission Description and Budget Item Justification

Current military operations are conducted in a rapidly changing threat environment, where Improvised Explosive Devices (IEDs), Infra Red (IR) man-portable air defense systems (MANPADS) seekers, radar guided surface-to-air-missiles (SAM), laser guided weapons, anti-helicopter mines, and targeting sensors are proliferating and evolving. Integrated solutions are required to counter increasingly sophisticated EW threats. The ARAT reprogramming infrastructure supports the tactical Commander by providing timely rapid reprogramming of mission software and information dissemination for Army supported, Joint and allied services. ARAT supports integrated reprogramming of target acquisition, target engagement, vehicle survivability, and Aircraft Survivability Equipment (ASE). ARAT rapid-reprogramming infrastructure supports tactical requirements for deployed aircraft and ground-based (e.g. Counter Radio-Controlled Improvised Explosive Device (CREW)) survivability systems. ARAT identifies and analyzes threat signature changes which affect EW systems; determines the impact of observed signature changes; develops new mission software to adapt the system to the changes; disseminates the mission software; and provides methods to upload the new mission software into the affected EW systems. Each element within the ARAT infrastructure plays a specific role within the program's rapid reprogramming process, providing the Soldier with the capability to install mission and target identification software at the lowest possible level, thus maximizing flexibility for tactical commanders. ARAT participates in the operational and developmental test design of Army EW systems, and supports Joint Service Reprogramming Exercises in all theaters. ARAT Research and Development enables continuous development of: 1) automated threat analysis tools to rapidly detect (flag) threat changes within the intelligence system, 2) tools to minimize the time to develop Mission Software and Products (MSP), 3) tools and technology to minimize the time required to test and validate MSPs, 4) improved communications conduits to rapidly transmit mission software to upload into supported EW systems. These efforts allow for rapid threat analysis, threat modeling and simulation, mission software development and testing, distribution and uploading of mission software directly to the supported Soldier in the field. Additionally, beginning in FY26 ARAT CR8 will begin mission support to the Terrestrial Layer System (TLS) in support of PM EW&C mission. ARAT CR8 will develop the capability to produce system techniques, integration, test, archive, and distribute mission software to forward deployed combat forces.

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

	FY 2023	FY 2024	FY 2025
Title: Keeping Pace with the Enemy and Technology	-	-	1.529
Description: This effort focuses on developing a capability for the Government to rapidly develop and distribute organic mission software solutions for multiple EW systems. The Army must continually modernize and enhance software tools, hardware modernization, and processes counter enemy technology. ARAT EW6 executes Research, Development, Test, and Evaluation			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
(RDTE) funding to provide an organic Army capability for this organization to rapidly develop, test and distribute mission software solutions for forward deployed combat forces.			
<p>FY 2025 Plans: ARAT plans to execute funding to enhance current software development and test infrastructure. ARAT will modernize to include threat simulations utilizing Software Defined Radios (SDR). ARAT CR8 plan to integrate Software Defined Radios into the program's software development and test infrastructure to enhance the Army's ability to replicate sophisticated peer and near peer Electronic Warfare systems. The modernized Software Defined Radios once integrated into the laboratory will allow for expedited development and testing of mission software to detect and defeat enemy Electronic Warfare systems.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS).</p>			
<p>Title: Infrastructure Improvements Multispectral</p> <p>Description: This effort focuses on enhancing the Army's Multispectral Missile Warning System (MWS) software sustainment infrastructure. With the worldwide proliferation of MANPADS the Army must have the capability to rapidly analyze and develop mission software solutions that detect and counter MANPADS to defend Army Aviation platforms against this lethal threat.</p> <p>FY 2025 Plans: Infrastructure enhancements to include preparations for integrating new ground Electronic Warfare systems into the ARAT Development and Testing Enterprise in support of migrating to a multispectral capability to incorporate Multi-Domain Operations.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS).</p>	-	-	0.894
<p>Title: Infrastructure Improvement Radio Frequency General</p> <p>Description: This effort focuses on enhancing the Army's Radio Frequency (RF) EW system Mission Software and Products (MSP) development and distribution infrastructure. The Army must fight in a contested and congested EW environment. Mission software solutions to defend against RF threats must be rapidly developed, tested, and distributed to Soldiers on an ever changing battlefield.</p> <p>FY 2025 Plans: ARAT CR8 with modernization efforts to enhance Radio Frequency simulations of sophisticated peer and near peer threat systems. The modernization efforts will provide the Army the ability to rapidly program aircraft Radar Warning Receivers (RWR) to accurately detect and defeat enemy radar guided missiles directed against Army Aviation platforms. ARAT EW6 will leverage</p>	-	-	1.162

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
modernized Software Defined Radio technologies that will provide more accurate representation of enemy Electronic Warfare systems.				
FY 2024 to FY 2025 Increase/Decrease Statement: Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS).				
Title: Threat Flagging and Mission Data Set Reprogramming Tool Development		-	-	1.128
Description: This effort focuses on enhancing the Army's capability to monitor changes in enemy Electronic Warfare systems that affect system performance of Army detection, declaration, and countermeasure Electronic Warfare systems onboard both air and ground platforms. The enemy is continuously developing or modifying it's Electronic Warfare systems. For Army platforms to have protection against enemy systems it must have a robust capability to immediately detect changes in threat system performance and rapidly develop, test, and distribute a mission software solution that counters the threat. This effort will enhance the Army's capability bridge detection of a change in enemy threat and the rapid development of Mission Software and Products.				
FY 2025 Plans: ARAT CR8 will enhance threat change detection capabilities and tailor the flagging model to system specific to Electronic Warfare systems on Blackhawk and Apache helicopters. Threat change detection provides the Army the capability to rapidly assess parametric changes in enemy Radio Frequency radar systems. The ability to detect changes in enemy Radio Frequency systems increases the accuracy of mission software for Radar Warning systems on Army Aviation platforms.				
FY 2024 to FY 2025 Increase/Decrease Statement: Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS).				
Title: Arsenal Technique Development and Distribution		-	-	1.005
Description: Provides the Army an Electronic Warfare Enterprise-wide spectrum techniques (effectors and detectors) development and delivery ecosystem to address the dynamic threat for both deliberate/enduring and rapid/agile capabilities for integrated EW/SIGINT. The Techniques Arsenal ecosystem will focus on governance, development and delivery of deliberate/ enduring and agile/rapid effects.				
FY 2025 Plans: Executes governance, manages pipeline to include test & verification; hosts arsenal; supports intel requirements.				
FY 2024 to FY 2025 Increase/Decrease Statement: Funding realigned from PE 0304270A / Electronic Warfare Development, Project EW6 (ARAT-TSS).				
Accomplishments/Planned Programs Subtotals		-	-	5.718

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</i>

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

N/A

Remarks

D. Acquisition Strategy

The ARAT CR8 program will leverage authorities including, but not limited to Middle Tier of Acquisition to accelerate delivery through rapid prototyping with rapid fielding authorities or a Milestone C Decision Point.

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

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</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			
USG Labor	C/Various	TBD : TBD	-	-		-		0.600	Jan 2025	-		0.600	Continuing	Continuing	Continuing
Travel	C/Various	TBD : TBD	-	-		-		0.107	Jan 2025	-		0.107	Continuing	Continuing	Continuing
Subtotal			-	-		-		0.707		-		0.707	Continuing	Continuing	N/A

Remarks
Product development

Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Development Support	C/Various	TBD : TBD	-	-		-		5.011	Jan 2025	-		5.011	Continuing	Continuing	Continuing
Subtotal			-	-		-		5.011		-		5.011	Continuing	Continuing	N/A

Remarks
support cost

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	-	5.718	-	5.718	Continuing	Continuing	N/A

Remarks
General remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</i>	

Event Name	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
Software Development Enhancement Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) CR8 / <i>Army Reprogramming Analysis Team (ARAT)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Software Development Enhancement Support	2	2025	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) DX5 / <i>Electronic Warfare And Management Tool</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
<i>DX5: Electronic Warfare And Management Tool</i>	-	1.887	5.022	12.271	-	12.271	5.762	5.823	4.918	4.967	0.000	40.650
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding line is in support of the Electronic Warfare Planning and Management Tool (EWPMT) which is a key enabler of Army Modernization Priorities, APNT CFT and Network CFT. EWPMT is the Commander's tool to control, manage, and dominate the Electromagnetic Spectrum (EMS). It will provide the ability to control & manage Electronic Warfare (EW) assets in order to execute offensive and defensive Electronic Attack, EW targeting, and synchronize EW and Spectrum Management Operations (SMO) across Intelligence, Operations, and Signals in support of Multi-Domain Operations (MDO). As a Commander's tool, EWPMT is predominantly utilized by the Cyber Electromagnetic Activities (CEMA) cell for mission planning, access to national and strategic sensors, data repositories, as well as enabling the synchronization of EW, Signals Intelligence (SIGINT) operations, and Cyber Domains.

Justification:

Fiscal Year (FY) 2025 Base RDT&E funding in the amount of \$12.271 million to continue relevancy updates, sensor integration (TLS, MFEW, and other), and improved messaging standards. Additionally, it funds the EWPMT software architecture modernization required in order to make the software more efficient and enables easier integration with other EW systems.

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

	FY 2023	FY 2024	FY 2025
Title: EWPMT	1.887	5.022	12.271
Description: EWPMT software application provides Electronic Warfare and Spectrum Management soldiers the ability to plan, coordinate, integrate, and synchronize Cyber Electromagnetic Activities (CEMA) across all Warfighting Functions in support of Multi-Domain Operations across all Army echelons.			
FY 2024 Plans: EWPMT capability maturation, performance improvements, system hardening, and Terrestrial Layer System (TLS) / Multi-Function Electronic Warfare (MFEW) and other sensor integration.			
FY 2025 Plans: Continued relevancy updates, sensor integration (TLS, MFEW, and other), and improved messaging standards. Additionally, the EWPMT software architecture modernization required in order to make the software more efficient and enables easier integration with other EW systems.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX5 / <i>Electronic Warfare And Management Tool</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Fiscal Year (FY) 2025 increase of \$7.249 million funds the EWPMT software architecture modernization required to increase software efficiency and enable integration with other EW systems.			
Accomplishments/Planned Programs Subtotals	1.887	5.022	12.271

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
• K00002: <i>EW Planning & Management Tools (EWPMT)</i>	4.482	21.278	26.327	-	26.327	17.935	8.597	3.110	3.141	0.000	84.870

Remarks

Supports EWPMT New Equipment Fielding/New Equipment Training (NEF/NET) to Army 2030.

D. Acquisition Strategy

EWPMT is an Acquisition Category II program of record that follows an agile acquisition strategy under the governance and requirements in the Information System Capability Development Document approved 11 JUN 2013. The acquisition strategy includes the delivery of software biannually as part of Development, Security, Operations (DEVSECOPS) model that will include refined or new capability and functionality. Operations will include executing fielding activities and supporting experimentation while moving to a continuous Authority to Operate. This acquisition and requirements strategy enables frequent delivery of critical EW planning and management capabilities in response to changing threat, technology, and techniques in support of MDO.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0604270A / <i>Electronic Warfare Development</i>				DX5 / <i>Electronic Warfare And Management Tool</i>							
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
Program Management Office Support	Various	PM Electronic Warfare & Cyber : Aberdeen Proving Ground, MD	14.561	0.395	Jan 2023	0.285	Nov 2023	0.337	Nov 2024	-		0.337	Continuing	Continuing	Continuing
Subtotal			14.561	0.395		0.285		0.337		-		0.337	Continuing	Continuing	N/A
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
EMD Contract- EWPMT Software Development & Interim Contractor Support	C/IDIQ	Raytheon : Fort Wayne, IN	8.360	0.201	Feb 2023	-		-		-		-	0.000	8.561	14.953
Contract - EWPMT Fielding, Training, Support and Product Improvement	C/CPFF	TBD : TBD	-	-		2.647	Apr 2024	7.327	Dec 2024	-		7.327	Continuing	Continuing	Continuing
Subtotal			8.360	0.201		2.647		7.327		-		7.327	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
EWPMT Technical and Engineering Support	Various	Various : Various	44.934	1.291	Mar 2023	1.620	Nov 2023	3.252	Nov 2024	-		3.252	Continuing	Continuing	Continuing
Subtotal			44.934	1.291		1.620		3.252		-		3.252	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
EWPMT Test Support	IA	Various : Various	8.685	-		0.470	Jun 2024	1.355	Jan 2025	-		1.355	Continuing	Continuing	Continuing

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX5 / <i>Electronic Warfare And Management Tool</i>

Event Name	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
Full Deployment Decision (FDD)			1 FDD																									
Full Operational Capability (FOC)									2 FOC																			
EWPMT Contract Software Development & Interim Contractor...	PoP 29 JUL 2014 - 30 APR 2024																											
EWPMT Contract Fielding, Training, Support and Product I...									PoP JAN 2024 - JAN 2029																			
EWPMT Fielding ARMY 2030									EWPMT Fielding ARMY 2030																			
EWPMT Fielding TOTAL ARMY																	EWPMT Fielding TOTAL ARMY											
Cybersecurity, Functional, and Acceptance Testing	Cybersecurity, Functional, and Acceptance Testing								(2x per FY)																			
EWPMT Software Updates									EWPMT Software Updates (2x per FY minimally)																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX5 / <i>Electronic Warfare And Management Tool</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Full Deployment Decision (FDD)	4	2023	4	2023
Full Operational Capability (FOC)	4	2025	4	2025
EWPMT Contract Software Development & Interim Contractor Support	4	2014	3	2024
EWPMT Contract Fielding, Training, Support and Product Improvement	2	2024	2	2029
EWPMT Fielding ARMY 2030	3	2024	2	2027
EWPMT Fielding TOTAL ARMY	3	2027	4	2029
Cybersecurity, Functional, and Acceptance Testing	3	2022	4	2029
EWPMT Software Updates	1	2024	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) DX6 / <i>Multi-Function Electronic Warfare (MFEW)</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
DX6: <i>Multi-Function Electronic Warfare (MFEW)</i>	-	-	5.596	16.378	-	16.378	7.778	1.232	1.233	1.245	0.000	33.462
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

MFEW-AL is the Army's only program providing tactical Commanders with deep look, organic, airborne, offensive electronic warfare (EW), empowering Commanders to shape the Electromagnetic Spectrum (EMS) to their advantage. The MFEW Air Large system will provide: 1) Offensive Electronic Attack (OEA) - Non-Kinetic Fires capability with the intent of denying, degrading, or disrupting enemy communications capability and non-communications emitters; 2) Electronic Warfare Support (ES) - Capability to search, intercept, identify, and locate or localize sources of intentional and unintentional radiated electromagnetic (EM) energy for the purpose of immediate threat recognition, targeting, planning, and execution of future operations; 3) Dissemination of Military Information Support Operations (MISO) products; and 4) Support of Offensive Cyber Operations (OCO) and Multi-Domain Operations.

Army Futures Command has designated MFEW-AL a CFT "Priority 2 Critical Enabler" with endorsements from: Long Range Precision Fires, Assured Position Navigation & Timing, Future Vertical Lift and Network CFTs.

MFEW-AL is a key technology in support of Army 2030 Priorities.

Justification:

Fiscal Year (FY) 2025 funding of \$16.378 million is for completion of Gray Eagle Integration, Developmental Test & Evaluation (DT&E) and Operational Test & Evaluation (OT&E).

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

	FY 2023	FY 2024	FY 2025
Title: Multi-Function Electronic Warfare (MFEW) Air Large	-	5.596	16.378
Description: MFEW-Air Large is an airborne Electronic Warfare payload to be integrated onto the Gray Eagle Unmanned Aerial Vehicle to provide offensive Electronic Attack (EA) and Electronic Warfare Support (ES) capability to the Brigade Combat Team (BCT).			
FY 2024 Plans: Gray Eagle Integration			
FY 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army	Date: March 2024
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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX6 / <i>Multi-Function Electronic Warfare (MFEW)</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Fiscal Year (FY) 2025 funding of \$16.378 million is for completion of Gray Eagle Integration, Developmental Test & Evaluation (DT&E) and Operational Test & Evaluation (OT&E).			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Fiscal Year (FY) 2025 funding increase of \$10.782 million is to accomplish the continuation and completion of the Gray Eagle integration and formal test and evaluation, to include IOT&E.			
Accomplishments/Planned Programs Subtotals	-	5.596	16.378

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 Complete</u>	<u>Total Cost</u>
• B05000: <i>Multi-Function Electronic Warfare (MFEW) Systems</i>	3.060	15.941	17.004	-	17.004	40.605	3.894	3.896	3.936	0.000	88.336

Remarks

D. Acquisition Strategy
 A competitive acquisition approach was utilized for MFEW-AL using an Other Transaction Authority (OTA) to develop the Army's only airborne EW/Cyber enabled capability to support the maneuver commander to enable Multi-Domain Operations and Long-Range Precision Fires. MFEW-AL received an affirmative Milestone C Decision on 14 May 2021 and approval to conduct Low-Rate Initial Production (LRIP). Subsequent MFEW production may leverage 10 U.S.C. 4022(f) ("Authority of the Department of Defense to carry out certain prototype projects") pending a determination that MFEW has successfully met the OTA transition requirements. MFEW-AL will conduct IOT&E in FY25 followed by First Unit Equipped (FUE) in FY26. MFEW-AL will employ Sensor Open Systems Architecture (SOSA) to enable the pursuit of continuous capability improvements to pace the threat.

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

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX6 / <i>Multi-Function Electronic Warfare (MFEW)</i>
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Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management and Technical Support	Various	PM Electronic Warfare & Cyber (PM EW&C) : Aberdeen Proving Ground, MD	1.902	-		0.582	Jan 2024	0.633	Jan 2025	-		0.633	12.520	15.637	-
Subtotal			1.902	-		0.582		0.633		-		0.633	12.520	15.637	N/A

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			
Gray Eagle Integration	C/CPFF	General Atomics : San Diego, CA	2.661	-		4.000	Jan 2024	3.004	Jan 2025	-		3.004	0.000	9.665	-
Engineering & Logistics Development	SS/CPFF	Lockheed Martin Corporation : Owego, NY	8.561	-		0.457	Dec 2023	-		-		-	0.000	9.018	-
Subtotal			11.222	-		4.457		3.004		-		3.004	0.000	18.683	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			
Matrix Engineering - MFEW Air	IA	DEVCOM : Aberdeen Proving Ground, MD	5.663	-		0.557	Jan 2024	0.575	Jan 2025	-		0.575	0.000	6.795	-
Subtotal			5.663	-		0.557		0.575		-		0.575	0.000	6.795	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX6 / <i>Multi-Function Electronic Warfare (MFEW)</i>

Event Name	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
MFEW Air OTA EMD																												
Developmental Test																												
Gray Eagle Integration																												
MFEW Air Production and Fielding																												
Gray Eagle Developmental Test																												
IOT&E																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX6 / <i>Multi-Function Electronic Warfare (MFEW)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MFEW Air OTA EMD	2	2020	2	2023
Developmental Test	4	2023	4	2023
Gray Eagle Integration	2	2024	4	2025
MFEW Air Production and Fielding	2	2024	4	2031
Gray Eagle Developmental Test	2	2025	2	2025
IOT&E	4	2025	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
VS6: <i>Integrated Electronic Warfare Systems</i>	-	2.100	2.171	1.575	-	1.575	1.577	1.594	1.612	1.629	0.000	12.258
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Counter Radio Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW) provides protection of ground forces operating in vehicle convoys, single vehicles and fixed locations in operational theaters which enables freedom of movement across the depth and breadth of the operational environment. Current CREW systems are programmable with techniques to mitigate emerging threats. In order to keep pace with the threat evolution, development efforts will provide fielded CREW systems as well as other Electronic Warfare (EW) systems with techniques that mitigate the range of threats as required. These development efforts may include development of new techniques, integration of existing techniques, as well as hardware and software development and integration in order to pace the threat.

Justification:

Fiscal Year (FY) 2025 Base funding in the amount of \$1.575 million funds the continued support of CREW systems as well as other EW systems with techniques that mitigate the range of threats as required. These efforts include development of new techniques, integration of existing techniques, as well as hardware and software enhancement and integration in order to pace the threat.

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

	FY 2023	FY 2024	FY 2025
Title: IEWS - CREW	2.100	2.171	1.575
Description: The Integrated Electronic Warfare System (IEWS) will provide multiple capabilities, to include Electronic Warfare Planning and Management Tool (EWPMT), Multi-Function EW (MFEW), and Defensive Electronic Attack (DEA). The Army's current Defensive Electronic Attack solution is Counter Radio Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW).			
FY 2024 Plans: Continue IEWS development of new techniques, integration of existing techniques, and hardware and software development and integration in order to pace the threat.			
FY 2025 Plans: Continue IEWS development of new techniques, integration of existing techniques, and hardware and software development and integration in order to pace the threat.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Fiscal Year (FY) 2025 funding decrease of \$0.596 million is a reduction in effort to characterize, exploit and test new techniques to pace the threat.				
Accomplishments/Planned Programs Subtotals		2.100	2.171	1.575
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy VS6 funding supports hardware and software enhancement, to include open architecture waveforms, techniques, hardware, and integration to pace the threat leveraging Other Government Agencies' competitively awarded contracts and task orders.				

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

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>
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Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PMO Staff/Travel for CREW	Various	PM Electronic Warfare & Cyber : Aberdeen Proving Ground, MD	2.920	0.020	Dec 2022	0.020	Dec 2023	0.020	Dec 2024	-		0.020	0.000	2.980	-
Subtotal			2.920	0.020		0.020		0.020		-		0.020	0.000	2.980	N/A

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			
IEWS Engineering and Development	IA	DEVCOM : Aberdeen Proving Ground, MD	9.569	1.780	Dec 2022	1.841	Dec 2023	1.255	Dec 2024	-		1.255	0.000	14.445	-
Subtotal			9.569	1.780		1.841		1.255		-		1.255	0.000	14.445	N/A

Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Continuous evaluation of IEWS Technologies	IA	Yuma Proving Ground Yuma, AZ : YPG, AZ	1.718	0.300	Dec 2022	0.310	Dec 2023	0.300	Dec 2024	-		0.300	0.000	2.628	-
Subtotal			1.718	0.300		0.310		0.300		-		0.300	0.000	2.628	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		14.207	2.100	2.171	1.575	1.575	0.000	20.053	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>	

Event Name	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
Integrated Electronic Warfare System Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Integrated Electronic Warfare System Development	2	2021	4	2028