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

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration
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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	-	11.548	36.016	59.563	-	59.563	55.348	50.680	55.924	56.483	0.000	325.562
CQ7: C-sUAS Joint New Capabilities	-	8.719	30.351	53.230	-	53.230	50.018	45.350	50.594	51.153	0.000	289.415
CQ8: C-sUAS Joint Enabling Capabilities	-	2.829	5.665	6.333	-	6.333	5.330	5.330	5.330	5.330	0.000	36.147

A. Mission Description and Budget Item Justification

The Secretary of Defense (SecDef) designated the Secretary of the Army (SA) as the Department of Defense's (DoD) Executive Agent (EA) for Counter-small Unmanned Aircraft Systems (C-sUAS). The EA is tasked with leading, directing, and synchronizing DoD efforts to counter small Unmanned Aircraft System (sUAS) threats while minimizing unnecessary duplication and redundancy. The C-sUAS efforts are in response to the DoD Joint Requirements Oversight Council Memorandum (JROC-M) requirement for identification, development, testing, evaluation, and integration of technologies to defeat sUAS threats across the DoD. The C-sUAS efforts provide warfighters the ability to comprehensively detect, track, identify, and defeat enemy Group 1, 2 and 3 UAS platforms. The efforts will be joint development efforts to provide integrated solutions to meet the needs of the Military Services and DoD Agencies against emerging threats.

B. Program Change Summary (\$ in Millions)

	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	14.892	36.016	40.481	-	40.481
Current President's Budget	11.548	36.016	59.563	-	59.563
Total Adjustments	-3.344	0.000	19.082	-	19.082
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.801	-			
• SBIR/STTR Transfer	-0.543	-			
• Adjustments to Budget Years	-	-	19.082	-	19.082

Change Summary Explanation

Increase of \$19.082 million reflects additional efforts for development and integration efforts for Roadrunner (kinetic effector) and the Advanced Precision Kill Weapon System (APWKS; kinetic effector) and revised economic assumptions.

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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 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration				Project (Number/Name) CQ7 / C-sUAS Joint New Capabilities			
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
CQ7: C-sUAS Joint New Capabilities	-	8.719	30.351	53.230	-	53.230	50.018	45.350	50.594	51.153	0.000	289.415
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Counter- small Unmanned Aircraft Systems (C-sUAS) new joint capability efforts develop new technologies and programs to enable joint acquisition programs to counter Groups 1-3 s UAS threats. These developments are aligned with the Joint Requirements Oversight Council Memorandum 078-20 Operational Requirements. Joint solutions will address Fixed Site / Semi-Fixed Site, Mobile, and Dismounted required by the Joint Forces. Efforts include development, test and evaluation, and integration sufficient for transition to fieldable capabilities.

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

	FY 2023	FY 2024	FY 2025
Title: Counter-small Unmanned Aircraft Development Defeat	8.719	14.781	22.100
Description: Development, test & evaluation, and integration of new technologies to defeat sUAS.			
FY 2024 Plans: Continue the development, integration, and test of new technologies to defeat sUAS. Within the Special Application Module, integrate with the latest electronic warfare defeat software, assess the current Software Defined Radio (SDR) and antenna, implement a government owned advanced Positioning, Navigation, and Timing (PNT) software solution, and current Group 1-3 Advance Kinetic Defeat.			
FY 2025 Plans: Continue the system development, integration, and test of new technologies to defeat sUAS to inform systems transition. Within Advanced Kinetic Defeat, develop advanced sensor package that assist in higher defeat efficacy for Group 3 sUAS and system development and integration for the Advanced Precision Kill Weapons System (APKWS).			
FY 2024 to FY 2025 Increase/Decrease Statement: FY2025 increase of \$7.319 million supports the development of upgrade components for fixed site and mobile launcher for Advanced Kinetic Defeat missiles and APKWS integration with Common Remotely Operated Weapon System (CROWS).			
Title: Counter-small Unmanned Aircraft Development Command and Control	-	15.570	31.130
Description: Development, test & evaluation, and integration of new technologies to improve command and control for C-sUAS.			
FY 2024 Plans:			

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605531A / <i>Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration</i>	Project (Number/Name) CQ7 / <i>C-sUAS Joint New Capabilities</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Continue the development, integration and test of new technologies to reduce operator burden, increase situational awareness, automate/autonomy for decision making, and improve interoperability of C-sUAS system. High Level Data Fusion effort develops data products and standards for Data Fusion Architectures and transition to Services for use in C-sUAS C2 Systems and support ongoing assessments at the Fusion Integration and Evaluation Lab. Cross Domain Solution continues prototyping efforts, testing, and approval of the bi-directional cross domain solution. Advanced command and control adds new capabilities to the current joint FAAD C2 system.</p> <p>FY 2025 Plans: Continue the development, integration and test of new technologies to reduce operator burden, increase situational awareness, automate/autonomy for decision making, and improve interoperability of C-sUAS systems. Advanced command and control adds new capabilities integration to the current joint Forward Area Air Defense Command and Control (FAAD) C2 system.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: FY2025 increase of \$15.560 million supports integration of Roadrunner and APKWS integration with FAAD C2.</p>			
Accomplishments/Planned Programs Subtotals	8.719	30.351	53.230

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

N/A

Remarks

D. Acquisition Strategy

The Joint C-sUAS new capability will address the Joint Requirements Oversight Council Memorandum (JROCM) 078-20 and be approved by the Department of Defense C-sUAS Executive Agent (EA) Governance. The C-sUAS EA Governance will approve the development efforts that meet identified gaps and the joint capability will be funded under this Program Element. The Joint Counter-sUAS Office will identify modifications to existing systems or identify new technologies within industry and Government S&T organization. Programs will leverage the flexibility of the Adaptive Acquisition Framework, and Service Acquisition Policies, and pursue a combination of acquisition pathways to deliver prototypes for evaluation and future decisions. Upon completion, Services will utilize a common procurement contract to meet the needs of the Military Services and DoD Agencies.

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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 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration	Project (Number/Name) CQ7 / C-sUAS Joint New Capabilities

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
Low Collateral Effects Interceptor Increment 1 - Enginee...	[Redacted]				LCEI Increment 1 - Engineering and Integration																							
Low Collateral Effects Interceptor Increment 1 - Test Event					▲ LCEI Increment 1 - Test Event																							
Low Collateral Effects Interceptor Engineering and Integ...	[Redacted]				LCEI Increment 2 - Engineering and Integration																							
Low Collateral Effects Interceptor Engineering and Integ...					■ LCEI Increment 2 - Test Event																							
C2 Decision Aid - High Level Data (HDL) Fusion Development	[Redacted]				High Level Data Fusion Development																							
C2 Decision Aid - Cross Domain Solutions (CDS) Development	[Redacted]				Cross Domain Solutions Development																							
C2 Decision Aids - Cross Domain Solutions (CDS) Cyber / ...	[Redacted]				CDS Cyber / IA Updates																							
Special Application Module (SAM) Development					[Redacted] SAM Development																							
Special Application Module (SAM) Record Test					▲ SAM Record Test																							
Advanced Kinetic Defeat Development					[Redacted]				Advanced Kinetic Defeat Development																			
Advanced Kinetic Defeat Launcher Deliverable																	▲ Launcher Deliverable											
Advanced Kinetic Defeat Missile Deliverable													▲ Missile Deliverable															
Advanced Kinetic Defeat Full Prototype																	▲ Full Prototype Deliverable											

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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 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration	Project (Number/Name) CQ7 / C-sUAS Joint New Capabilities

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																																																																
Advanced Kinetic Defeat Operational Testing																					9 Operational Testing																																																																							
Advanced C2/MMI - FAAD C2 Integration																					Advanced C2/MMI - FAAD C2 Integration																																																																							
Advanced C2/MMI - Prototype Deliverable																					7 Prototype Deliverable																																																																							
Advanced C2/MMI - Prototype Testing																					10 Prototype Testing																																																																							
Advanced C2/MMI - Record Test #1																					3 Record Test #1																																																																							
Advanced C2/MMI - Record Test #2																					6 Record Test #2																																																																							
Roadrunner Integration with FAAD C2																					Roadrunner Integration with FAAD C2																																																																							

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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 0605531A / <i>Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration</i>	Project (Number/Name) CQ7 / <i>C-sUAS Joint New Capabilities</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Low Collateral Effects Interceptor Increment 1 - Engineering and Integration	1	2023	4	2024
Low Collateral Effects Interceptor Increment 1 - Test Event	3	2024	3	2024
Low Collateral Effects Interceptor Engineering and Integration Increment 2- Engineering and Integration -	2	2023	4	2024
Low Collateral Effects Interceptor Engineering and Integration Increment 2 - Test Event	2	2024	3	2024
C2 Decision Aid - High Level Data (HDL) Fusion Development	2	2022	4	2025
C2 Decision Aid - Cross Domain Solutions (CDS) Development	2	2022	4	2025
C2 Decision Aids - Cross Domain Solutions (CDS) Cyber / IA Updates	2	2023	2	2024
Special Application Module (SAM) Development	1	2024	4	2024
Special Application Module (SAM) Record Test	3	2024	3	2024
Advanced Kinetic Defeat Development	3	2024	4	2028
Advanced Kinetic Defeat Launcher Deliverable	1	2028	1	2028
Advanced Kinetic Defeat Missile Deliverable	4	2026	4	2026
Advanced Kinetic Defeat Full Prototype	4	2027	4	2027
Advanced Kinetic Defeat Operational Testing	4	2028	4	2028
Advanced C2/MMI - FAAD C2 Integration	2	2024	4	2028
Advanced C2/MMI - Prototype Deliverable	4	2027	4	2027
Advanced C2/MMI - Prototype Testing	4	2028	4	2028
Advanced C2/MMI - Record Test #1	2	2026	2	2026
Advanced C2/MMI - Record Test #2	4	2027	4	2027
Roadrunner Integration with FAAD C2	1	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 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration				Project (Number/Name) CQ8 / C-sUAS Joint Enabling Capabilities			
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
CQ8: C-sUAS Joint Enabling Capabilities	-	2.829	5.665	6.333	-	6.333	5.330	5.330	5.330	5.330	0.000	36.147
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Counter- small Unmanned Aircraft Systems (C-sUAS) effort is in response to the Department of Defense's (DoD) response to the Joint Requirements Oversight Council Memorandum (JROC-M) to support identification, development, testing, evaluation, and integration of technologies to provide capability to defeat small Unmanned Aircraft System threats across the DoD. The C-sUAS efforts provide warfighters the ability to comprehensively detect, track, identify, and defeat enemy Group 1, 2 and 3 UAS platforms. The efforts will be joint development efforts to provide integrated solutions to meet the needs of the Military Services and DoD Agencies against emerging threats.

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

	FY 2023	FY 2024	FY 2025
Title: Common Data Repository Development	2.829	5.665	6.333
Description: Provide a joint multi-classification platforms to provide cross collaboration C-sUAS data and analytic eco-system for Class 1-3 small Unmanned Aircraft Systems. Data repositories will consume disparate data sources across the Department of Defense to include intelligence data, commercial data, and Military Service developed data to support acquisition and deployed C-sUAS systems.			
FY 2024 Plans: Continue the development of a Common Data Repository for emerging sUAS threats and C-sUAS requirements to support analytics. The data repository is in collaboration with intelligence organizations for sUAS threat characterization and signature development. VR Trainer, as part of the data repository architecture, provides virtual reality training resources to the Joint Warfighter by leveraging analytics supported by the Common Data Repository.			
FY 2025 Plans: Continue the development of a Common Data Repository for centralized management of emerging sUAS threat profiles and the recommended software-based detect, track, identify, and defeat techniques based on advanced analytics. Electro Optical/Infrared Imagery database provides an additional level of fidelity to improve threat profile analytics.			
FY 2024 to FY 2025 Increase/Decrease Statement: FY2025 increase of \$0.668 million supports build out of cloud service architecture for the common data repository and acceleration of system accreditation at a classified level.			
Accomplishments/Planned Programs Subtotals	2.829	5.665	6.333

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration	Project (Number/Name) CQ8 / C-sUAS Joint Enabling Capabilities

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

N/A

Remarks

D. Acquisition Strategy

The Joint C-sUAS enabling efforts will address the Joint Requirements Oversight Council Memorandum (JROCM) 058-23 and be approved by the Department of Defense C-sUAS Executive Agent (EA) Governance. The JCO will establish a Common Data Repository for all Military Services and DoD Agencies to access current and relevant data for future C-sUAS system development and support to currently fielded systems. The JCO will draw from the intelligence community, academia, commercial, and Military Service databases to ensure consistency in datasets. This will eliminate redundant efforts for systems specific threat databases for use by all the Military Services and DoD Agencies. The Army Rapid Capabilities and Critical Technology Office (RCCTO) will provide acquisition support to the JCO to execute these efforts.

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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 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration				CQ8 / C-sUAS Joint Enabling Capabilities							
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
Common Data Repository Development	TBD	Various : Various	2.792	1.200		2.295		2.556		-		2.556	Continuing	Continuing	Continuing
Electro Optical / Infrared Imagery Database	TBD	Various : Various	1.551	1.629		1.570		2.570		-		2.570	Continuing	Continuing	Continuing
Joint Virtual Reality Trainer	TBD	Various : Various	-	-		1.800		1.207		-		1.207	Continuing	Continuing	Continuing
Subtotal			4.343	2.829		5.665		6.333		-		6.333	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
Intelligence Community Database Linkages	TBD	Various : Various	1.137	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			1.137	-		-		-		-		-	Continuing	Continuing	N/A
Project Cost Totals			5.480	2.829		5.665		6.333		-		6.333	Continuing	Continuing	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 0605531A / Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration		Project (Number/Name) CQ8 / C-sUAS Joint Enabling Capabilities	

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
Common Data Repository Development					Common Data Repository Development Operations																							
Common Data Repository U-1 Deliverable									1 Common Data Repository Unclassified System Deliverable #1																			
Common Data Repository U-2 Deliverable													5 Common Data Repository Unclassified System Deliverable #2															
Common Data Repository S-1 Deliverable																	7 Common Data Repository Classified System Deliverable #1											
Common Data Repository S-2 Deliverable																					8 Common Data Repository Classified Sys							
Electro-Optical Imagery Database Development	Electro-Optical Imagery Database Development																											
Joint Virtual Reality Trainer Development	Joint VR Trainer Development																											
Joint Virtual Reality Trainer System Deployment #1													2 Joint VR Trainer System Content Deployment (SmartShooter and Drone Buster)															
Joint Virtual Reality Trainer System Deployment #2													3 Joint VR Trainer System Content Deployment (Corien and Bal Chatri)															
Joint Virtual Reality Trainer System Deployment #3													4 Joint VR Trainer System Content Deployment (L-MADIS and FS-LIDS)															
Joint Virtual Reality Trainer Cloud Deployment													6 Joint VR Trainer Cloud Deployment															
APKWS Integration with FAAD C2									APKWS Integration with FAAD C2																			

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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 0605531A / <i>Counter - Small Unmanned Aircraft Systems Sys Dev & Demonstration</i>	Project (Number/Name) CQ8 / <i>C-sUAS Joint Enabling Capabilities</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Common Data Repository Development	4	2023	4	2028
Common Data Repository U-1 Deliverable	3	2025	3	2025
Common Data Repository U-2 Deliverable	4	2026	4	2026
Common Data Repository S-1 Deliverable	3	2027	3	2027
Common Data Repository S-2 Deliverable	4	2028	4	2028
Electro-Optical Imagery Database Development	2	2022	4	2024
Joint Virtual Reality Trainer Development	2	2023	4	2026
Joint Virtual Reality Trainer System Deployment #1	1	2026	1	2026
Joint Virtual Reality Trainer System Deployment #2	3	2026	3	2026
Joint Virtual Reality Trainer System Deployment #3	4	2026	4	2026
Joint Virtual Reality Trainer Cloud Deployment	4	2026	4	2026
APKWS Integration with FAAD C2	1	2025	1	2025