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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	49.667	14.892	36.016	-	36.016	40.481	55.240	50.582	55.816	0.000	302.694
CQ7: C-sUAS Joint New Capabilities	-	44.187	8.726	30.351	-	30.351	32.873	43.185	33.901	33.368	0.000	226.591
CQ8: C-sUAS Joint Enabling Capabilities	-	5.480	6.166	5.665	-	5.665	7.608	12.055	16.681	22.448	0.000	76.103

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 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	33.386	14.892	15.190	-	15.190
Current President's Budget	49.667	14.892	36.016	-	36.016
Total Adjustments	16.281	0.000	20.826	-	20.826
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	16.281	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	20.826	-	20.826

Change Summary Explanation

FY 2024 funding increase reflects the Department's additional investment in joint C-sUAS ongoing efforts and new capabilities to address sUAS emerging threats.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army										Date: March 2023		
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 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
CQ7: C-sUAS Joint New Capabilities	-	44.187	8.726	30.351	-	30.351	32.873	43.185	33.901	33.368	0.000	226.591
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 2022	FY 2023	FY 2024
<p>Title: Counter-small Unmanned Aircraft Development Defeat</p> <p>Description: Development, test & evaluation, and integration of new technologies to defeat sUAS.</p> <p>FY 2023 Plans: Continue the development, integration, and test of new technologies to defeat sUAS. Low Collateral Effects Interceptor (LCEI) Inc. 1 will complete development and testing to inform Service and DoD procurement of LCEI. Executing concurrent development and testing of Increment 2 during this fiscal year.</p> <p>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.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY2024 increase supports the latest integration of Special Application Module, an electronic warfare defeat software and Group 3 Kinetic Updates..</p>	17.719	4.408	14.781
<p>Title: Counter-small Unmanned Aircraft Development Command and Control</p> <p>Description: Development, test & evaluation, and integration of new technologies to improve command and control for C-sUAS.</p> <p>FY 2023 Plans:</p>	23.518	4.000	15.570

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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 2022	FY 2023	FY 2024
<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.</p> <p>FY 2024 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 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 2023 to FY 2024 Increase/Decrease Statement: FY2024 increase supports Advanced Command and Control for the JCO approved Forward Area Air Defense Command and Control system.</p>				
<p>Title: Counter-small Unmanned Aircraft Development Detection and Identification</p> <p>Description: Development, integration, and test of new technologies to improve detection and identification of emerging sUAS threats.</p>		2.950	-	-
<p>Title: SBIR/STTR</p> <p>FY 2023 Plans: Funding transferred in accordance with Title 15 USC §638 FY 2023 to FY 2024</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY23 funding transferred in accordance with Title 15 USC §638</p>		-	0.318	-
Accomplishments/Planned Programs Subtotals		44.187	8.726	30.351
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
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

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-3, RDT&E Project Cost Analysis: PB 2024 Army **Date:** March 2023

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
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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
SBIR/STTR Transfer	TBD	Various : Various	-	-		0.318		-		-		-	Continuing	Continuing	Continuing
Subtotal			-	-		0.318		-		-		-	Continuing	Continuing	N/A

Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Low Collateral Effects Interceptor Development and Integration	TBD	Various : Various	-	13.260		4.408		-		-		-	Continuing	Continuing	Continuing
High Power Microwave Development and Integration	TBD	Various : Various	-	1.089		-		-		-		-	Continuing	Continuing	Continuing
Windtalker Development and Integration	TBD	Various : Various	-	2.968		-		-		-		-	Continuing	Continuing	Continuing
High Level Data Fusion	TBD	Various : Various	-	3.000		1.000		1.000		-		1.000	Continuing	Continuing	Continuing
Cross Domain Solution	TBD	Various : Various	-	2.000		3.000		3.000		-		3.000	Continuing	Continuing	Continuing
Special Application Module	TBD	Various : Various	-	-		-		5.170		-		5.170	Continuing	Continuing	Continuing
Omnibus Funding (Sensitive)	TBD	Various : Various	-	17.500		-		-		-		-	Continuing	Continuing	Continuing
Advanced Command and Control	TBD	Various : Various	-	-		-		11.570		-		11.570	Continuing	Continuing	Continuing
Advanced Kinetic Defeat	TBD	Various : Various	-	-		-		9.611		-		9.611	Continuing	Continuing	Continuing
Subtotal			-	39.817		8.408		30.351		-		30.351	Continuing	Continuing	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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 Integration and testing																												
Low Collateral Effects Interceptor Engineering and fina...																												
Low Collateral Effects Interceptor Production Transition																												
Windtalker data schema and software development																												
Windtalker Software Development Kits Delivery																												
High Power Microwave Interceptor Development																												
C2 Decision Aid - High Level Data Fusion Development																												
C2 Decision Aid - High Level Data Fusion Transition																												
C2 Decision Aid - High Level Data Fusion Integration and...																												
C2 Decision Aid - Cross Domain Solutions Development																												
C2 Decision Aid -Cross Domain Solution Transition																												
C2 Decision Aids - Cross Domain Solutions Cyber / IA Updates																												
C-sUAS Detection and Identification Enhancement Development																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army			Date: March 2023		
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 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
Special Application Module Development									Special Application Module Development																			
Special Application Module Developmental Test 1													5 Special Application Module Developmental Test 1															
Special Application Module Developmental Test 2													6 Special Application Module Developmental Test 2															

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
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 Integration and testing	2	2022	1	2023
Low Collateral Effects Interceptor Engineering and final integration	1	2023	4	2023
Low Collateral Effects Interceptor Production Transition	4	2023	4	2023
Windtalker data schema and software development	2	2022	2	2023
Windtalker Software Development Kits Delivery	2	2023	2	2023
High Power Microwave Interceptor Development	2	2022	3	2023
C2 Decision Aid - High Level Data Fusion Development	2	2022	2	2023
C2 Decision Aid - High Level Data Fusion Transition	2	2023	2	2023
C2 Decision Aid - High Level Data Fusion Integration and Lab Evaluation	1	2023	4	2027
C2 Decision Aid - Cross Domain Solutions Development	2	2022	3	2023
C2 Decision Aid -Cross Domain Solution Transition	3	2023	3	2023
C2 Decision Aids - Cross Domain Solutions Cyber / IA Updates	1	2023	4	2026
C-sUAS Detection and Identification Enhancement Development	1	2023	4	2023
Special Application Module Development	1	2024	4	2025
Special Application Module Developmental Test 1	3	2024	3	2024
Special Application Module Developmental Test 2	2	2025	2	2025

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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) CQ8 / <i>C-sUAS Joint Enabling Capabilities</i>			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
CQ8: <i>C-sUAS Joint Enabling Capabilities</i>	-	5.480	6.166	5.665	-	5.665	7.608	12.055	16.681	22.448	0.000	76.103
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 2022	FY 2023	FY 2024
Title: Common Data Repository Development	5.480	5.941	5.665
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 2023 Plans: Continue the development of a Common Data Repository and C-sUAS databases that address emerging sUAS threats and requirements to maintain technology that supports analytics and populates data repository with intelligence organization sUAS threat characterization and signature development.			
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 2023 to FY 2024 Increase/Decrease Statement: FY2024 decrease aligns funding requirements to support C-sUAS Databases and virtual reality trainers to address emerging threats.			
Title: SBIR/STTR	-	0.225	-

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army	Date: March 2023
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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) CQ8 / <i>C-sUAS Joint Enabling Capabilities</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p><i>FY 2023 Plans:</i> Funding transferred in accordance with Title 15 USC §638 FY 2023 to FY 2024</p> <p><i>FY 2023 to FY 2024 Increase/Decrease Statement:</i> FY23 funding transferred in accordance with Title 15 USC §638</p>			
Accomplishments/Planned Programs Subtotals	5.480	6.166	5.665

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) 078-20 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 2024 Army												Date: March 2023				
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								
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	
SBIR/STTR Transfer	TBD	Various : Various	-	-		0.225		-		-		-	Continuing	Continuing	Continuing	
Subtotal			-	-		0.225		-		-		-	Continuing	Continuing	N/A	
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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		3.161		2.295		-		2.295	Continuing	Continuing	Continuing	
Electro Optical / Infrared Imagery Database	TBD	Various : Various	-	1.551		1.570		1.570		-		1.570	Continuing	Continuing	Continuing	
Joint Virtual Reality Trainer	TBD	Various : Various	-	-		-		1.800		-		1.800	Continuing	Continuing	Continuing	
Subtotal			-	4.343		4.731		5.665		-		5.665	Continuing	Continuing	N/A	
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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		1.210		-		-		-	Continuing	Continuing	Continuing	
Subtotal			-	1.137		1.210		-		-		-	Continuing	Continuing	N/A	
Project Cost Totals			-	5.480		6.166		5.665		-		5.665	Continuing	Continuing	N/A	
Remarks																

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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 Full Operational Capability	<div style="text-align: center;">  Common Data Repository Full Operational Capability </div>																											
Intelligence Community Database Linkages and threat char...	Intelligence linkages and threat characterization																											
Electro-Optical Imagery Database Development	Electro-Optical Imagery Database Development																											
Electro-Optical Imagery Database Validation #1	<div style="text-align: center;">  Electro-Optical Imagery Database Validation #1 </div>																											
Electro-Optical Imagery Database Validation #2	<div style="text-align: center;">  Electro-Optical Imagery Database Validation #2 </div>																											
Electro-Optical Imagery Database Validation #3	<div style="text-align: center;">  Electro-Optical Imagery Database Validation #3 </div>																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
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	2020	4	2026
Common Data Repository Initial Operational Capability	3	2021	3	2021
Common Data Repository Full Operational Capability	4	2022	4	2022
Intelligence Community Database Linkages and threat characterization	2	2022	4	2024
Electro-Optical Imagery Database Development	2	2022	4	2026
Electro-Optical Imagery Database Validation #1	4	2022	4	2022
Electro-Optical Imagery Database Validation #2	2	2023	2	2023
Electro-Optical Imagery Database Validation #3	4	2023	4	2023