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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV
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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	0.000	144.827	81.123	7.074	0.000	7.074	0.297	0.303	0.315	0.322	19.333	253.594
675212: <i>MQ-9 SLAM</i>	0.000	92.898	80.846	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.280	192.024
675247: <i>Squadron Operations Centers (SOC)</i>	0.000	0.268	0.277	0.260	0.000	0.260	0.297	0.303	0.315	0.322	1.053	3.095
675249: <i>MQ-9 Upgrade</i>	0.000	51.661	0.000	6.814	0.000	6.814	0.000	0.000	0.000	0.000	0.000	58.475

Program MDAP/MAIS Code: 424

A. Mission Description and Budget Item Justification

The basic MQ-9 Reaper system consists of the aircraft, sensors, Ground Control Station (GCS), communications equipment, weapon kits, support equipment, simulator and training devices, Readiness Spares Packages (RSP), technical data/training, and personnel required to operate, maintain, and sustain the system. The system is designed to be modular and open-ended. Mission-specific equipment is employed in a plug-and-play mission kit concept allowing specific aircraft and GCS configurations to be tailored to fit mission needs.

The MQ-9 Reaper system has three separate development programs. This PE includes:

1. MQ-9 System Lifecycle Agile Modernization (SLAM). This effort enables rapid fielding of new software, hardware, and sustainability for integration into the MQ-9 fleet with requirements from the Combat Capability List (CCL).
2. Squadron Operations Centers (SOC). This effort is for development and fielding of standardized operations centers. SOCs contain the equipment necessary for remote split operations, to provide mission data and tasking information to aircrew, and to disseminate and/or exchange mission data with decision-makers and the intelligence community.
3. MQ-9 Upgrade. This effort develops improvements for existing systems and fields new capabilities for the baseline MQ-9 fleet using an Agile Acquisition Strategy.

The Air Force established the MQ-9 Multi-Domain Operation (M2DO) aircraft configuration which consists of multiple projects intended to keep the platform viable in the wide-spectrum of armed conflict. The configuration includes Anti-Jam Global Positioning System, Enhanced Power, Link 16, Open Mission System/Stellar Relay, enhanced data processing, and Command and Control Resiliency. The number of M2DO aircraft, and final capabilities within this configuration, are subject to change as requirements and funding evolve.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 \$2.314M was expended for civilian pay expenses in this program element and in FY2024 \$3.132M is forecasted for civilian pay expenses in this program element.

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV
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This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	145.499	81.123	44.938	0.000	44.938
Current President's Budget	144.827	81.123	7.074	0.000	7.074
Total Adjustments	-0.672	0.000	-37.864	0.000	-37.864
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	4.000	0.000			
• SBIR/STTR Transfer	-4.672	0.000			
• Other Adjustments	0.000	0.000	-37.864	0.000	-37.864

Change Summary Explanation

FY2023 Changes: (-\$0.672M) for -\$4.672M SBIR and \$4M BTR

FY2025 Changes: (-\$44.679M) for higher Air Force priorities

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV				Project (Number/Name) 675212 / MQ-9 SLAM			
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
675212: MQ-9 SLAM	0.000	92.898	80.846	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.280	192.024
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program is Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate 6.814M development funding in the current (FY25) or subsequent (FY26) fiscal year. Additional funding was allocated to support resilient C2 capability for the SLAM initiative. Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the Air Force will correct this error and internally move the funding to the correct MQ-9 SLAM BPAC (675212).

The MQ-9 System Lifecycle Agile Modernization (SLAM) Program develops and integrates improvements for existing systems and fields new capabilities for the MQ-9 fleet through an Agile Acquisition Strategy to meet evolving mission needs. SLAM includes concept exploration.

The objective is to enable rapid fielding of new software, hardware, and sustainability for integration into the MQ-9 fleet with requirements from the Combat Capability List (CCL) that may include, but are not limited to, efforts to reduce system configurations; perform technology upgrades; increase pilot awareness and usability; improve reconnaissance targeting and exploitation; expand weapons system selection and lethality; enlarge suitability to varying operational theaters; improve security and self-protection; reduce logistics footprint; train the warfighter, and prototype.

Activities also include, but are not limited to, studies, analysis, simulations, demonstrations, prototyping and testing, use of subject matter experts agencies to develop and test all current and follow-on MQ-9 system capabilities which include, but are not limited to System Integration Laboratory (SIL)/ Hardware in the Loop Laboratory (HILL) and Detachment 3 (Det 3) improvements.

Funding may be used to address Diminishing Manufacturing Source (DMS) and Non-Recurring Engineering issues.

Where appropriate there will be cost sharing on joint efforts that are required by all programs to support new capabilities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.

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

	FY 2023	FY 2024	FY 2025
Title: MQ-9 SLAM	69.598	80.446	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: Develops and integrates upgrade capabilities to support the MQ-9 modernization strategy. Development combines the rigor of an event driven development process (referred to as Technology Maturation Effort (TME)) with the expedited delivery of a schedule driven integration and fielding process. New capabilities include, but are not be limited to, upgrades of existing aircraft, Ground Control Station (GCS), communication, payload systems, software updates, and the resolution of Diminishing Manufacturing Sources (DMS) issues.</p> <p>Candidate Capabilities are determined by ACC and AFSOC direction and inputs from MQ-9 enterprise stakeholders and mission partners, to include Joint Urgent Operational Need (JUON) and Urgent Operational Need (UON) requests.</p> <p>Activities also include, but are not limited to, operator simulators, reliability and maintainability, test support, communications, and urgent services.</p> <p>During development, there will be cost sharing on joint efforts that are required by all programs to support new capabilities.</p> <p>Includes but is not limited to, program planning for concept exploration which explores Multi-Role UAS capabilities in a contested environment.</p> <p>FY 2024 Plans: Continue to develop M2DO capability upgrades for resilient C2 which includes PLEO, Open Mission System, and autonomy. Resolve DMS issues and continue upgrading mandated capabilities to include, but not limited to, Mode 5, data encryption, and weapons usability improvements.</p> <p>FY 2025 Plans: Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$6.414M to the correct MQ-9 SLAM BPAC (675212).</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding has decreased, however additional funding was allocated to support resilient C2 capability for the SLAM initiative. Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$6.414M to the correct MQ-9 SLAM BPAC (675212).</p>			
<p>Title: Reliability and Maintainability</p> <p>Description: Develops MQ-9 Reliability and Maintainability (R&M) improvements for aircraft and ground based infrastructure. Includes engineering change orders, studies, and general research. Addresses and resolves DMS issues.</p> <p>FY 2024 Plans:</p>	0.100	0.100	0.000

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
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Continue to develop aircraft and ground based infrastructure to improve mission capable rates and reduce reliability and maintainability costs. Includes addressing and resolving DMS issues.			
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FY 2025 Plans:

Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212).

FY 2024 to FY 2025 Increase/Decrease Statement:

Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212).

Title: Test Support	0.100	0.100	0.000
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Description: Provides support for, but is not limited to, activities for MQ-9 testing of weapon system hardware/software testing in accordance with (IAW) contract standards, developmental testing of new capabilities, and R&M upgrades.

FY 2024 Plans:

Continue to provide government agencies support for MQ-9 testing to include continued acceptance testing of weapon system hardware/software IAW with contract standards, developmental testing of new capabilities, and R&M improvements.

FY 2025 Plans:

Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212).

FY 2024 to FY 2025 Increase/Decrease Statement:

Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212).

Title: Communications	0.100	0.100	0.000
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Description: Develops communications capabilities such as, but not limited to, network systems managers, SATCOM, and relay site upgrades. Includes drafting technical orders and support documentation, training materials, production drawings, and retrofit acceptance plans (e.g., Bandwidth Efficient Common Data Link (BE-CDL) Secure Voice Multi Level Security (MLS), ARC-210 Guard Squelch, and Secure Communications).

FY 2024 Plans:

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024		
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
Continue to develop communications capabilities on encrypted data links, terminal, command and control, ISR transmission, GCS communications, SATCOM, integrated IP-based network interfaces, primary data links, network system managers, operational durability, remote split operations, and support equipment. Also includes associated technical orders and flight manuals. FY 2025 Plans: Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212). FY 2024 to FY 2025 Increase/Decrease Statement: Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212).				
Title: Concept Exploration Description: Includes but is not limited to concept exploration to support Multi-Role UAS capabilities in a contested environment. FY 2024 Plans: There are no concept explorations activities funding or planned in FY24. FY 2025 Plans: There are no concept explorations activities funding or planned in FY25.		23.000	0.000	0.000
Title: Operator Simulator Description: Develop operator simulators for training and perform updates to keep operator simulators current with the aircraft and GCSs. Operator Simulator also includes, but is not limited to: JUONs, UONs, and support for emerging AFSOC configurations. FY 2024 Plans: Funding increased to implement updates to keep the operator simulator current with the aircraft and GCSs under SLAM program. FY 2025 Plans: Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212). FY 2024 to FY 2025 Increase/Decrease Statement: Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$0.100M to the correct MQ-9 SLAM BPAC (675212).		-	0.100	0.000
Accomplishments/Planned Programs Subtotals		92.898	80.846	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 06 PRDTB1: MQ-9	14.078	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	14.078
• APAF 05 PRDTB2: MQ-9 Mods	211.507	98.063	12.325	-	12.325	71.530	29.226	29.834	30.425	0.000	482.910

Remarks

D. Acquisition Strategy

Acquisition of MQ-9 SLAM is accomplished via sole-source contracts with General Atomics-ASI, Raytheon, and L-3 Communications, prime contractors, and United States Government (USG) Labs. Management of development and fielding of new capabilities will be through an Agile Acquisition Strategy that combines the rigor of an event driven development process (referred to as a Technology Maturation Effort (TME)) with the expedited delivery of a schedule driven integration and fielding process. This will allow continued baseline improvements while rapidly integrating limited urgent needs.

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM
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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			
MQ-9 SLAM	SS/CPAF	GA-ASI : Poway, CA	0.000	58.118	Nov 2022	66.787	Nov 2023	0.000	Nov 2024	-		0.000	196.236	321.141	-
Reliability and Maintainability	SS/CPAF	GA-ASI : Poway, CA	0.000	0.100	Nov 2022	0.100	Nov 2023	0.000	Nov 2024	-		0.000	2.722	2.922	-
Communications	SS/CPAF	GA-ASI : Poway, CA	0.000	0.100	Jan 2023	0.100	Jan 2024	0.000	Nov 2024	-		0.000	0.934	1.134	-
Concept Exploration	Various	Various : Various	0.000	23.000	Mar 2023	-		-		-		-	0.000	23.000	-
Operator Simulator	MIPR	Various : Huntsville, AL	0.000	0.100	Jan 2023	0.100	Jan 2024	0.000	Nov 2024	-		0.000	0.000	0.200	-
Subtotal			0.000	81.418		67.087		0.000		-		0.000	199.892	348.397	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			
Test Support	Various	Various : Various	0.000	0.100	Jun 2023	0.100	Jun 2024	0.000	Nov 2024	-		0.000	1.655	1.855	-
Subtotal			0.000	0.100		0.100		0.000		-		0.000	1.655	1.855	N/A

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			
Other Government Costs	Various	Various : Various	0.000	11.380	Apr 2023	13.659	Apr 2024	-		-		-	40.524	65.563	-
Subtotal			0.000	11.380		13.659		-		-		-	40.524	65.563	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			0.000	92.898	80.846	0.000	-	0.000	242.071	415.815	N/A

Remarks
 Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move \$6.414M to SLAM, \$.100M to Reliability/Maintainability, \$.100M to Test Support, \$.100M to Communications, \$.100M to Operator Simulator within the correct MQ-9 SLAM BPAC (675212).

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM
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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

MQ-9 SLAM	
MQ-9 SLAM	
Reliability and Maintainability	
Communications	
Test Support	
Concept Exploration	
Operator Simulator	

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675212 / MQ-9 SLAM
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MQ-9 SLAM				
MQ-9 SLAM	1	2023	4	2029
Reliability and Maintainability	1	2023	4	2029
Communications	2	2023	4	2029
Test Support	3	2023	4	2029
Concept Exploration	3	2023	4	2024
Operator Simulator	1	2023	4	2029

Note
FY25 funding should be in SLAM (675212) but it is incorrectly showing in Upgrade (675249).

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV				Project (Number/Name) 675247 / Squadron Operations Centers (SOC)			
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
675247: Squadron Operations Centers (SOC)	0.000	0.268	0.277	0.260	0.000	0.260	0.297	0.303	0.315	0.322	1.053	3.095
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The SOC is required to employ Remote Split Operations (RSO). It provides the communications, network, aircraft control and sensor distribution circuits to effectively execute RSO missions. The SOC provides CONUS-based aircrews mission data, tasking, and ability to disseminate and exchange mission data with decision-makers and intelligence entities. This effort defines component standards, develops and stands up a SOC Systems Integration Lab (SIL), and integrates new technologies to maintain currency with technological and platform advancements.

RPA SOC RDT&E funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/ demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.0M was expended for civilian pay expenses in this program element and in FY24 0.0M is forecasted for civilian pay expenses in this program element.

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

	FY 2023	FY 2024	FY 2025
Title: Squadron Operations Center	0.268	0.277	0.260
Description: Development of a SOC common to Air Combat Command (ACC), Air Force Special Operations Command (AFSOC), and Air National Guard (ANG). Major capabilities include secure mission communications; data reception, recording, editing, analysis, dissemination, and exchange; mission planning, preparation, and support; mission execution (e.g., updates to threat tracking and targeting, weather tracking, mission status and capability; tactical situational awareness; etc.); and mission reconstruction and debriefing.			
FY 2024 Plans: Necessary for the continued Developmental/Operational Testing of the DT/OT SOC. This is required to develop and test new technologies to enable the Squadron Operation Centers to remain up to date with technological and platform advancements for use throughout the enterprise.			
FY 2025 Plans:			

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675247 / Squadron Operations Centers (SOC)

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Continued Developmental/Operational Testing of the DT/OT SOC. This is required to develop and test new technologies to enable the Squadron Operation Centers to remain up to date with technological and platform advancements for use throughout the enterprise.			
<i>FY 2024 to FY 2025 Increase/Decrease Statement:</i> Funding remains stable for completion of DT/OT.			
Accomplishments/Planned Programs Subtotals	0.268	0.277	0.260

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
• OPAF 03 Line Item 837300: <i>Base Communications Infrastructure</i>	5.981	0.000	0.000	-	0.000	0.000	-	-	-	0.000	5.981

Remarks
 Since 2004, MQ-1/MQ-9 squadrons have acquired equipment, on an ad hoc basis, to provide the communications, network, aircraft control, and sensor distribution circuits needed to execute RSO missions. OPAF funding will be used to standardize and modernize existing RPA SOC capability, which is required to reduce security vulnerabilities, as well as address end of life/end of support issues of existing RPA SOC equipment. The Developmental Testing (DT) SOC will be used to further enhance the program's ability to update future RPA-SOC modernization efforts.

D. Acquisition Strategy
 AFLCMC/WII manages the SOC Program for ACC, AFSOC, and ANG through organic development at the 577 Software Engineering Squadron (SWES) / 578 SWES, and hardware/software procurement utilizing the installation contractor.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675247 / Squadron Operations Centers (SOC)

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

DT/OT SOC Development , Testing, Installation and Maintenance

DT/OT SOC

[Redacted]																											
[Redacted]																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675247 / Squadron Operations Centers (SOC)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>DT/OT SOC Development , Testing, Installation and Maintenance</i>				
DT/OT SOC	2	2023	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV				Project (Number/Name) 675249 / MQ-9 Upgrade			
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
675249: MQ-9 Upgrade	0.000	51.661	0.000	6.814	0.000	6.814	0.000	0.000	0.000	0.000	0.000	58.475
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the Air Force will correct this error and internally move the funding to the correct MQ-9 SLAM BPAC (675212).

The MQ-9 Upgrade Program develops and integrates improvements for existing systems and fields new capabilities for the MQ-9 fleet through an Agile Acquisition Strategy.

The objective is to enable rapid fielding of new software, hardware, and sustainability measures for integration into the MQ-9 fleet. Per the Candidate Capability List (CCL) signed on 3 August 2023, capabilities may include, but are not limited to, address National Defense Strategy Directives, enable readiness, enable effective and reliable open architecture systems, reduce MX and ops logistics footprint, reduce impacts of multiple configurations, and enable airspace integration/access.

*Indicates efforts and solutions in support of the modernization MQ-9 Multi-Domain Operations (M2DO) configuration.

Activities also include studies, analysis, simulations, demonstrations, prototyping, and testing. The Upgrade Program may use subject matter experts and agencies to develop and test MQ-9 system capabilities and make improvements to System Integration Laboratory (SIL)/ Hardware in the Loop Laboratory (HILL) and Detachment 3 (Det 3).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.

This program is Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

Funding may be used to address Diminishing Manufacturing Source (DMS) and Non-Recurring Engineering issues.

Where appropriate, there will be cost sharing on joint efforts that are required by all programs to support new capabilities.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
Title: MQ-9 Upgrade	51.461	0.000	6.614

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2023	FY 2024	FY 2025
<p>Description: Develop and integrate upgrade capabilities in support of the MQ-9 Upgrade Strategy. Development will combine the rigor of an event driven development process (referred to as Technology Maturation Effort (TME)) with the expeditious delivery of a schedule driven integration and fielding process. New capabilities include, but are not limited to, upgrades of existing aircraft, Ground Control Stations (GCSs), communication capabilities, payload systems, and the Multi-Spectral Targeting System (MTS-B). Upgrade capabilities also include software updates, the addition of new capabilities and subsystems, and the resolution of DMS issues.</p> <p>Candidate capabilities are determined by Major Command (Air Combat Command (ACC), Air Force Special Operations Command (AFSOC)) direction and inputs that included Joint Urgent Operational Need (JUON) and Urgent Operational Need (UON) requests.</p> <p>Activities also include, but are not limited to, operator simulators, reliability and maintainability, test support, communications, and urgent services.</p> <p>There will be cost sharing on development, where appropriate, on joint efforts that are required by all programs to support the new capabilities.</p> <p>FY 2024 Plans: MQ-9 Upgrade Program is complete</p> <p>FY 2025 Plans: Continue to develop M2DO capability upgrades for resilient C2 which includes PLEO, Open Mission System, and autonomy. Resolve DMS issues and continue upgrading mandated capabilities to include, but not limited to, Mode 5, data encryption, and weapons usability improvements.</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Funding was increased to support resilient C2 capability for the SLAM initiative. Due to a database error, the funding was incorrectly placed in the MQ-9 Upgrade BPAC (675249). Upon budget approval, the AF will correct this error and internally move the funding to the correct MQ-9 SLAM BPAC (675212).</p>			
<p>Title: Operator Simulator</p> <p>Description: Develop operator simulators for training and perform updates to keep operator simulators current with the aircraft and GCSs. Operator Simulator also includes, but is not limited to: JUONs, UONs, and support for emerging AFSOC configurations.</p> <p>FY 2024 Plans:</p>	0.100	0.000	0.100

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675249 / MQ-9 Upgrade		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
MQ-9 Upgrade Program is complete FY 2025 Plans: Continue to develop operator simulators for training and perform updates to keep operator simulators current with the aircraft and GCSs. Operator Simulator also includes, but is not limited to: JUONs, UONs, and support for emerging AFSOC configurations. FY 2024 to FY 2025 Increase/Decrease Statement: FY25 funding should be in SLAM (675212) but it is incorrectly showing in Upgrade (675249).				
Title: Test Support Description: MQ-9 Upgrade testing provides support including, but not limited to: activities for MQ-9 testing of weapon system hardware and software IAW contract standards, developmental testing of new capabilities, and R&M upgrades. FY 2024 Plans: MQ-9 Upgrade Program is complete FY 2025 Plans: Continue to provide test support including, but not limited to: activities for MQ-9 testing of weapon system hardware and software IAW contract standards, developmental testing of new capabilities, and R&M upgrades. FY 2024 to FY 2025 Increase/Decrease Statement: FY25 funding should be in SLAM (675212) but it is incorrectly showing in Upgrade (675249).		0.100	0.000	0.100
Title: Communications Description: Develop MQ-9 communications capabilities including, but not limited to: network system managers, SATCOM, and relay site upgrades. MQ-9 Upgrade Communications also includes drafting technical orders, support documentation, training materials, production drawings, and retrofit acceptance plans (i.e., BE CDL, Secure Voice Multi-Level Security (MLS), ARC-210 Guard Squelch, and Secure Communications). FY 2024 Plans: MQ-9 Upgrade Program is complete FY 2024 to FY 2025 Increase/Decrease Statement: N/A		0.000	0.000	-
Accomplishments/Planned Programs Subtotals		51.661	0.000	6.814

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force	Date: March 2024
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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675249 / MQ-9 Upgrade
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF 06 PRDTB1: MQ-9 UAV	14.078	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	14.078
• APAF 05 PRDTB2: MQ-9 Mods	211.507	98.063	12.325	-	12.325	12.175	29.226	29.834	30.425	0.000	423.555

Remarks

PMA costs are included in Other Government Costs.
 FY25 funding should be in SLAM (675212) but it is incorrectly showing in Upgrade (675249).

D. Acquisition Strategy

Acquisition of MQ-9 Upgrade is accomplished via sole-source contracts with General Atomics-ASI, Raytheon, and L-3 Communications, prime contractors, and Other Government Agencies. Management of development and fielding of new capabilities will be through an Agile Acquisition Strategy that combines the rigor of an event driven development process (referred to as a Technology Maturation Effort (TME)) with the expedited delivery of a schedule driven integration and fielding process. This will allow continued baseline improvements while rapidly integrating limited urgent needs fleet-wide.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675249 / MQ-9 Upgrade
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	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

MQ-9 ACAT II Development	
MQ-9 Upgrade	
Operator Simulator	
Test Support	
Communications	

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / MQ-9 UAV	Project (Number/Name) 675249 / MQ-9 Upgrade
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MQ-9 ACAT II Development</i>				
MQ-9 Upgrade	1	2023	4	2025
Operator Simulator	1	2023	4	2025
Test Support	1	2023	4	2025
Communications	1	2023	4	2023

Note
FY25 funding should be in SLAM (675212) but it is incorrectly showing in Upgrade (675249).