Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0203752A *I Aircraft Engine Component Improvement Program*							
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	-	0.148	0.146	0.142	-	0.142	0.142	0.143	0.145	0.146	0.000	1.012
106: *A/C Compon Improv Prog*	-	0.148	0.146	0.142	-	0.142	0.142	0.143	0.145	0.146	0.000	1.012

A. Mission Description and Budget Item Justification

The Aircraft Engine Component Improvement Program (CIP) develops, tests, and qualifies improvements to aircraft engine components to correct service-revealed deficiencies, improve flight safety, enhance readiness and reduce operating and support (O&S) costs. In addition, CIP provides the test vehicles for the testing and qualification efforts required as a part of the Army's Critical Safety Item (CSI) program. Non-program specific Auxiliary Power Unit (APU) as well as Unmanned Aircraft Systems (UAS) safety and readiness issues are also addressed under this Program Element.

Work in this Project is performed by the United States Army Futures Command (AFC), U.S. Army Combat Capabilities Development Command (DEVCOM), Aviation & Missile Center (AvMC), Redstone Arsenal, AL

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.148	0.146	0.146	-	0.146
Current President's Budget	0.148	0.146	0.142	-	0.142
Total Adjustments	0.000	0.000	-0.004	-	-0.004
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.004	-	-0.004

Change Summary Explanation

Decrease in FY25 funding reflects an Army approved minor reduction.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203752A / *Aircraft Engine Component Improvement Program*	Project (Number/Name) 106 / *A/C Compon Improv Prog*	

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
106: *A/C Compon Improv Prog*	-	0.148	0.146	0.142	-	0.142	0.142	0.143	0.145	0.146	0.000	1.012
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Aircraft Engine Component Improvement Program (CIP) develops, tests, and qualifies improvements to aircraft engine components to correct service-revealed deficiencies, improve flight safety, enhance readiness and reduce operating and support (O&S) costs. In addition, CIP provides the test vehicles for the testing and qualification efforts required as a part of the Army's Critical Safety Item (CSI) program. Non-program specific Auxiliary Power Unit (APU) as well as Unmanned Aircraft Systems (UAS) safety and readiness issues are also addressed.

Work in this Project is performed by the United States Army Futures Command (AFC), U.S. Army Combat Capabilities Development Command (DEVCOM) Aviation & Missile Center (AvMC), Redstone Arsenal, AL.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: In-House Support	0.055	0.057	0.055
Description: In-house support for the CIP engineers. Contracting support for CIP contracts.			
FY 2024 Plans: Will continue to provide in-house engineering support for UAV engine CIP programs.			
FY 2025 Plans: Will continue to provide in-house engineering support for UAV engine CIP programs.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding decrease reflects planned lifecycle of the effort.			
Title: UAS Fuel System Component Evaluation	0.093	0.089	0.087
Description: This program is to improve aircraft readiness and reliability by mitigating the root cause of common component failures.			
FY 2024 Plans: UAS component investigations will continue to support airworthiness, reliability and performance improvements of the critical Unmanned Aerial Vehicle (UAV) components (e.g., Full Authority Digital Engine Controls (FADECs), fuel injectors, and high pressure fuel pumps) to determine root cause of occurrences which result in performance anomalies during aircraft operation.			
FY 2025 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203752A / *Aircraft Engine Component Improvement Program*	**Project (Number/Name)** 106 / *A/C Compon Improv Prog*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
UAS component investigations will continue to support airworthiness, reliability and performance improvements of the critical Unmanned Aerial Vehicle (UAV) components (e.g., Full Authority Digital Engine Controls (FADECs), fuel injectors, and high pressure fuel pumps) to determine root cause of occurrences which result in performance anomalies during aircraft operation. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects planned lifecycle of the effort.			
Accomplishments/Planned Programs Subtotals	0.148	0.146	0.142

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Improved designs will be implemented via Engineering Change Proposal (ECP) and follow-on procurement or modification to a production contract to introduce the improved hardware.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203752A / *Aircraft Engine Component Improvement Program*	Project (Number/Name) 106 / *A/C Compon Improv Prog*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
In-house Engineering	Allot	US Army DEVCOM AvMC : Redstone Arsenal, AL	3.139	0.055	Oct 2022	0.057	Oct 2023	0.055	Oct 2024	-		0.055	Continuing	Continuing	Continuing
		Subtotal	3.139	0.055		0.057		0.055		-		0.055	Continuing	Continuing	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UAS Fuel System Component Evaluation	TBD	Army Research Lab : Aberdeen Proving Ground	0.039	0.093	Oct 2022	0.089	Oct 2023	0.087	Oct 2024	-		0.087	Continuing	Continuing	Continuing
		Subtotal	0.039	0.093		0.089		0.087		-		0.087	Continuing	Continuing	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	3.178	0.148		0.146		0.142		-		0.142	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203752A / *Aircraft Engine Component Improvement Program*	**Project (Number/Name)** 106 / *A/C Compon Improv Prog*

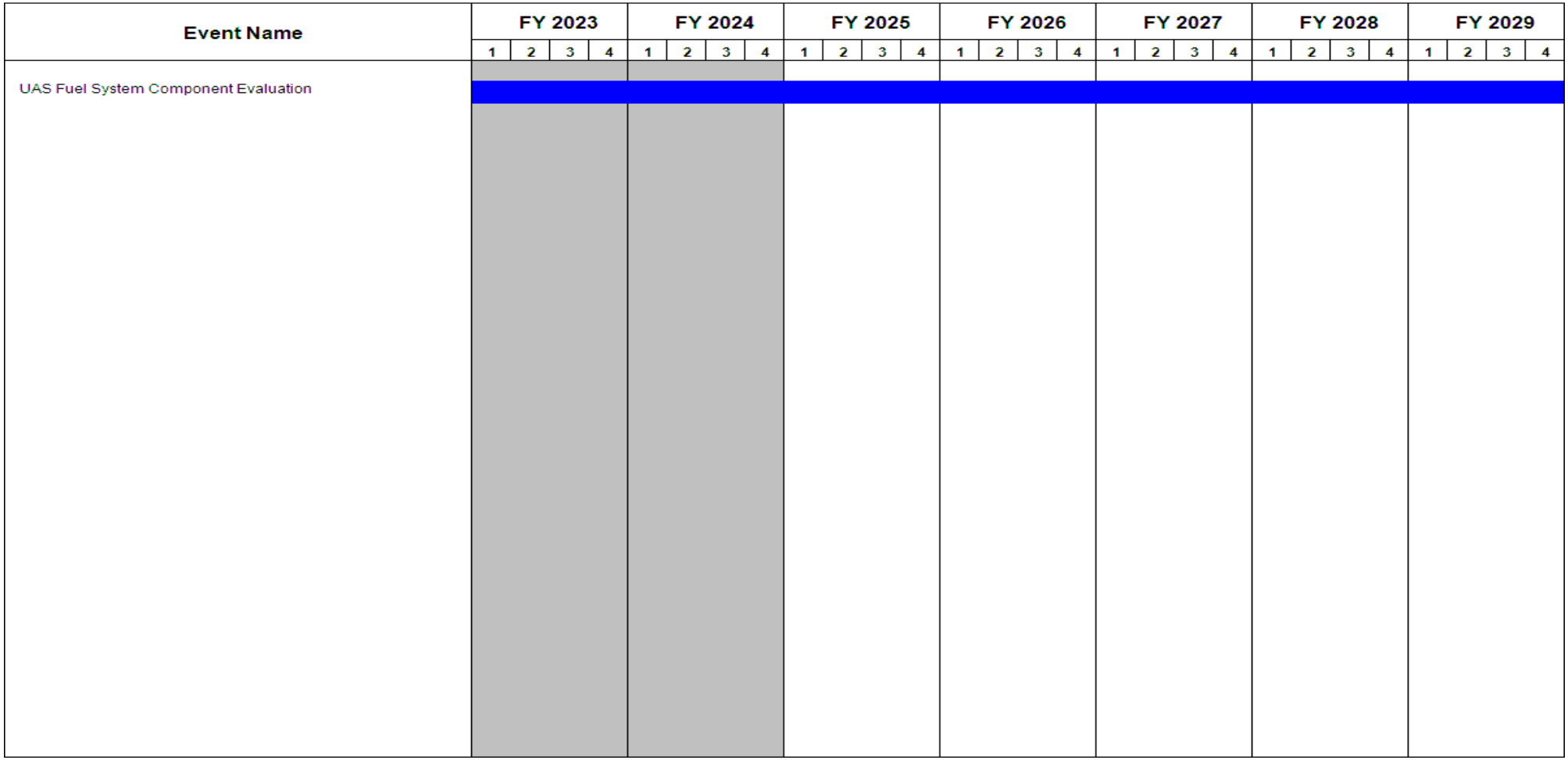

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203752A / *Aircraft Engine Component Improvement Program*	**Project (Number/Name)** 106 / *A/C Compon Improv Prog*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
T700 Engine Spit Pit Testing	1	2011	4	2012
T700 Engine Temperature Survey	2	2014	4	2015
T55 Engine 1553 Engine Control Unit (ECU)	2	2012	1	2013
T55 Engine N1 Drive Line Redesign	1	2010	4	2012
T55 Engine ECU Block Upgrade	2	2013	4	2015
Auxiliary Power Units (APUs)	1	2014	4	2015
UAV Shadow Engine	2	2014	4	2021
T700 CSI Update	1	2017	4	2017
UAS Fuel System Component Evaluation	1	2022	4	2029