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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605830A / <i>Aviation Ground Support Equipment</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	1.413	1.201	2.959	-	2.959	1.192	1.022	1.023	1.033	0.000	9.843
EE5: <i>Aviation Ground Support Equipment</i>	-	1.413	1.201	2.959	-	2.959	1.192	1.022	1.023	1.033	0.000	9.843

A. Mission Description and Budget Item Justification

Aviation Ground Support Equipment (AGSE) Product Directorate conducts development, testing and acquisition to enhance the functionality of enduring fleet and future aircraft maintenance equipment. This will be accomplished by identifying more effective aircraft maintenance equipment, validating new maintenance concepts, improving machine interfaces, updating aircraft maintenance processes, and developing improved diagnostic technologies which will reduce Operation and Support costs. This program provides for the development of rapid battle repair procedures, tools, ground handling, and test equipment to speed the return of aircraft to a fully mission capable status. Included in this program are: Aviation Ground Power Unit (AGPU 1.0) and its next generation systems (AGPU 1.1), Aircraft Cleaning and Deicing System (ACDS), Flexible Engine Diagnostic Systems (FEDS), Aircraft Jacks, Aviation Central Tool Management (ACTM), Self-propelled Crane Aircraft Maintenance and Positioning Increment II (SCAMP II) - (Expeditionary Variant) and development of support equipment required for maintenance of the enduring fleet and Future Vertical Lift (FVL) aircraft.

B. Program Change Summary (\$ in Millions)	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	1.413	1.201	0.000	-	0.000
Current President's Budget	1.413	1.201	2.959	-	2.959
Total Adjustments	0.000	0.000	2.959	-	2.959
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	2.959	-	2.959

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Army										Date: April 2022		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605830A / Aviation Ground Support Equipment				Project (Number/Name) EE5 / Aviation Ground Support Equipment			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
EE5: Aviation Ground Support Equipment	-	1.413	1.201	2.959	-	2.959	1.192	1.022	1.023	1.033	0.000	9.843
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Aviation Ground Support Equipment (AGSE) Product Directorate conducts development, testing and acquisition to enhance the functionality of enduring fleet and future aircraft maintenance equipment. This will be accomplished by identifying more effective aircraft maintenance equipment, validating new maintenance concepts, improving machine interfaces, updating aircraft maintenance processes, and developing improved diagnostic technologies which will reduce Operation and Support costs. This program provides for the development of rapid battle repair procedures, tools, ground handling, and test equipment to speed the return of aircraft to a fully mission capable status. Included in this program are: Aviation Ground Power Unit (AGPU 1.0) and its next generation systems (AGPU 1.1), Aircraft Cleaning and Deicing System (ACDS), Flexible Engine Diagnostic Systems (FEDS), Aircraft Jacks, Aviation Central Tool Management (ACTM), Self-propelled Crane Aircraft Maintenance and Positioning Increment II (SCAMP II) - (Expeditionary Variant) and development of support equipment required for maintenance of the enduring fleet and Future Vertical Lift (FVL) aircraft.

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

	FY 2021	FY 2022	FY 2023
<p>Title: Aviation Ground Power Unit Next Generation (AGPU 1.1)</p> <p>Description: The AGPU 1.1 provides external hydraulic, pneumatic, and AC/DC electrical power to meet enduring and future Army aircraft servicing requirements.</p> <p>FY 2022 Plans: Conduct performance verification testing and environmental testing of the AGPU 1.1 Next Gen candidates.</p> <p>FY 2023 Plans: Continue development and testing of AGPU 1.1 (Next Generation system).</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: FY23 increase for GPU 1.1 Next Generation system to complete developmental efforts.</p>	1.413	1.158	2.959
<p>Title: FY22 SBIR/STTR Transfer</p> <p>FY 2022 Plans: SBIR/STTR amount in accordance with Title 15 USC 638</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p>	-	0.043	-

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605830A / Aviation Ground Support Equipment	Project (Number/Name) EE5 / Aviation Ground Support Equipment

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
SBIR/STTR amount in accordance with Title 15 USC 638			
Accomplishments/Planned Programs Subtotals	1.413	1.201	2.959

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

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• AZ3520: AVIATION GROUND SUPPORT EQUIPMENT	17.584	13.561	20.823	-	20.823	16.317	13.110	16.287	16.223	0.000	113.905

Remarks

D. Acquisition Strategy

This project is an aggregate of Aviation Ground Support Equipment (AGSE) related products. While the detailed acquisition strategy varies from program to program, the general strategy for each individual program is to complete the development effort through Government tests (developmental and operational). Program documentation for each milestone decision is prepared, as appropriate, concurrently with the development effort.

AGSE will assess two vendor solutions to determine the best down select candidate for the AGPU 1.1 system. Aligned with the transition to APA funding in FY23, a follow-on production contract will be awarded to procure the selected AGPU 1.1 solution.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army												Date: April 2022				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
2040 / 5				PE 0605830A / Aviation Ground Support Equipment				EE5 / Aviation Ground Support Equipment								
Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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	TBD : TBD	-	-		0.043	Apr 2022	-		-		-	0.000	0.043	-	
Subtotal			-	-		0.043		-		-		-	0.000	0.043	N/A	
Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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	
SCAMP II, Expeditionary Variant	Various	AMCOM, RSA; CCDC, RSA : Redstone Arsenal, AL	8.288	-		-		-		-		-	0.000	8.288	-	
AGPU 1.1	IA	RTC : Redstone Arsenal, AL	-	1.413	Apr 2021	1.158	Jun 2022	1.555	Apr 2023	-		1.555	0.000	4.126	-	
AGPU 1.1	Various	CCDC AvMC : Redstone Arsenal, AL	-	-		-		1.404	Apr 2023	-		1.404	0.000	1.404	-	
Subtotal			8.288	1.413		1.158		2.959		-		2.959	0.000	13.818	N/A	
Project Cost Totals			8.288	1.413		1.201		2.959		-		2.959	0.000	13.861	N/A	
Remarks																

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army			Date: April 2022		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0605830A / Aviation Ground Support Equipment		Project (Number/Name) EE5 / Aviation Ground Support Equipment	

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Aviation Ground Power Unit 1.1 (AGPU 1.1)	[REDACTED]				[REDACTED]																							
Aircraft Cleaning and Deicing System (ACDS)	[REDACTED]				[REDACTED]								[REDACTED]															
Aircraft Jacks	[REDACTED]				[REDACTED]																[REDACTED]							

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605830A / Aviation Ground Support Equipment	Project (Number/Name) EE5 / Aviation Ground Support Equipment

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Aviation Ground Power Unit 1.1 (AGPU 1.1)	1	2021	4	2023
Aircraft Cleaning and Deicing System (ACDS)	1	2024	4	2026
Aircraft Jacks	1	2027	4	2028