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

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0708051F / <i>Rapid Sustainment Modernization (RSM)</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	-	34.693	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	99.693
648051: <i>Rapid Sustainment Modernization Technologies</i>	-	34.693	65.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	99.693
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**A. Mission Description and Budget Item Justification**

The Rapid Sustainment Modernization program provides funding to the Rapid Sustainment Office (RSO). The RSO will develop, test and deploy new technologies for implementation across the sustainment enterprise, to improve readiness, and reduce sustainment costs.

RSO will achieve this by reaching across the sustainment enterprise to include the warfighter, depot maintenance, field maintenance, supply chain and program offices to identify enterprise needs. RSO will then identify, assess, develop, validate and verify new technology projects that support these areas, all while reducing costs and increasing aircraft readiness

RSO New Sustainment technologies such as; Conditioned Based Mtx Plus (CBM+), Advanced Manufacturing (AM/Coldspray), Digital Engineering, Automation/Robotics, Augmented and Virtual Reality, Austere/Contested environments are evaluated across the technology space in support of the Department of the Air Force (DAF) sustainment enterprise

This is a new program element created based off the FY 2021 appropriation line item 56A. This requirement is not a new start as it was previously funded and executed with DAF Research, Development, Test and Evaluation (RDT&E) funding.

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 FY 2021 \$0 million was expended for civilian pay expenses in this program element.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	19.964	0.000	0.000	0.000	0.000
Current President's Budget	34.693	65.000	0.000	0.000	0.000
Total Adjustments	14.729	65.000	0.000	0.000	0.000
• 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	14.729	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	65.000	0.000	0.000	0.000
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Rapid Sustainment Modernization	34.693	65.000	0.000	0.000	0.000
<b>Description:</b> Advanced Repair and Qualification					
<b>FY 2022 Plans:</b> Not Applicable					
<b>FY 2023 Base Plans:</b> Not applicable					
<b>FY 2023 OCO Plans:</b> Not applicable					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> FY 2023 has decreased by \$65.000 million compared to FY 2022 due to the program mentioned above.					
<b>Accomplishments/Planned Programs Subtotals</b>	34.693	65.000	0.000	0.000	0.000
<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A					
<b>Remarks</b>					

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**E. Acquisition Strategy**  
Funding in this program is used toward Rapid Sustainment Office requirements.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0708051F / <i>Rapid Sustainment Modernization (RSM)</i>	<b>Project (Number/Name)</b> 648051 / <i>Rapid Sustainment Modernization Technologies</i>
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<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Digital Engineering - Digital Twin	TBD	Various : Wichita, KS	-	34.693		65.000		-		-		-	Continuing	Continuing	-
Advanced Repair and Qualification Processes	C/Various	Various : Tinker AFB, OK	-	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	34.693		65.000		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	-	34.693	65.000	-	-	-	Continuing	Continuing	N/A

**Remarks**  
 FY20 - New areas of additive manufacturing and cold spray technologies, equipment and qualification processes that are maturing and providing benefit to the DAF  
 FY21 - Digital Engineering/Digital Twin: digital transformation of the existing Air Force fleet to increase operational readiness levels, decrease parts obsolescence and diminishing manufacturing sources required to get mission capable rates to acceptable levels

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Air Force</b>		<b>Date:</b> April 2022
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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

<b>Advanced Repair and Qualification Processes</b>	
AM/Cold Spray	████████████████████
<b>Digital Engineering</b>	
F-16 Digital Twin Effort	██

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0708051F / <i>Rapid Sustainment Modernization (RSM)</i>	<b>Project (Number/Name)</b> 648051 / <i>Rapid Sustainment Modernization Technologies</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Advanced Repair and Qualification Processes</i></b>				
AM/Cold Spray	2	2021	4	2022
<b><i>Digital Engineering</i></b>				
F-16 Digital Twin Effort	4	2021	4	2023