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

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0901226F / <i>Air Force Studies and Analysis Agency</i>
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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	-	1.202	0.899	5.309	0.000	5.309	13.702	8.763	5.924	6.494	Continuing	Continuing
676009: <i>M &amp; S DEVELOPMENT</i>	-	1.202	0.899	5.309	0.000	5.309	13.702	8.763	5.924	6.494	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Provides for development and enhancement of modeling and simulation (M&S) tools for strategic planning, operational requirements, modernization and recapitalization of systems and programs, as well as the Planning, Programming, Budgeting and Execution (PPBE) processes for the AF Analytic Community and Secretary of the Air Force Standard Analysis Toolkit in support of AF Senior Leadership. As new technologies are introduced to the battlefield (Digital Electronic Jammers, maneuvering Surface-to-Surface Missiles, Directed Energy Weapons, etc.) along with evolving warfighting techniques and support operations, the range of capabilities that needs to be covered by analytic tools needs to expand as well. M&S creation and enhancement can require extensive research in how to properly implement the emerging weapons capabilities as well as demand development of software techniques to implement the changes. Additionally, emerging and continuing focus areas such as Space, Irregular Warfare, Information Operations, Cyber warfare and ISR demand specific tools of their own for new exploration and development. These focus areas require examination in isolation as well as cross-domain making the problem more complex and increasing the R&D challenges to field new decision support tools.

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 FY2022 \$0 was expended for civilian pay expenses in this program element, and in FY2023 \$0 is forecasted for civilian pay expenses in this program element.

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.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>	
Previous President's Budget	1.248	0.899	1.584	0.000	1.584	
Current President's Budget	1.202	0.899	5.309	0.000	5.309	
Total Adjustments	-0.046	0.000	3.725	0.000	3.725	
• 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	0.000	0.000				
• SBIR/STTR Transfer	-0.046	0.000				
• Other Adjustments	0.000	0.000	3.725	0.000	3.725	
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>				<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>
<b>Title:</b> Modeling and Simulation Development				1.202	0.899	5.309
<b>Description:</b> Develop and Update Modeling & Simulation (M&S) tools.						
<b>FY 2023 Plans:</b> Continue research and development of M&S tools						
<b>FY 2024 Plans:</b> Continue research and development of M&S tools						
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> Funding increased to match the requirement.						
<b>Accomplishments/Planned Programs Subtotals</b>				1.202	0.899	5.309
<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A						
<b>Remarks</b> N/A.						
<b>E. Acquisition Strategy</b> Previous and planned future efforts have been/will be awarded under existing Task Order contracts.						



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0901226F / Air Force Studies and Analysis Agency	<b>Project (Number/Name)</b> 676009 / M & S DEVELOPMENT

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

<b>M&amp;S Development</b>	
Modeling & Simulation Development	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2024 Air Force		<b>Date:</b> March 2023
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0901226F / <i>Air Force Studies and Analysis Agency</i>	<b>Project (Number/Name)</b> 676009 / <i>M &amp; S DEVELOPMENT</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>M&amp;S Development</i></b>				
Modeling & Simulation Development	1	2022	4	2028

**Note**

A9 anticipates work continuing in the following areas: (1) research into how to better model new friendly and enemy weapons systems, (2) development of tools to better examine evolving weapons technologies and (3) development of new models to better populate the data requirements of existing tools.