#### UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force Date: May 2017

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

3600: Research, Development, Test & Evaluation, Air Force I BA 7:

PE 0901226F I Air Force Studies and Analysis Agency

Operational Systems Development

COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	1.064	1.523	1.563	0.000	1.563	1.429	1.454	1.479	1.510	Continuing	Continuing
676009: M & S DEVELOPMENT	-	1.064	1.523	1.563	0.000	1.563	1.429	1.454	1.479	1.510	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 is in Budget Activity 7, Operational System Development as this budget activity includes development efforts to provide new and evolving 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 7	<u> Total</u>
Previous President's Budget	1.103	1.523	1.559	0.000	1	.559
Current President's Budget	1.064	1.523	1.563	0.000	1	.563
Total Adjustments	-0.039	0.000	0.004	0.000	0	.004
<ul> <li>Congressional General Reductions</li> </ul>	0.000	0.000				
<ul> <li>Congressional Directed Reductions</li> </ul>	0.000	0.000				
<ul> <li>Congressional Rescissions</li> </ul>	0.000	0.000				
<ul> <li>Congressional Adds</li> </ul>	0.000	0.000				
<ul> <li>Congressional Directed Transfers</li> </ul>	0.000	0.000				
<ul> <li>Reprogrammings</li> </ul>	0.000	0.000				
SBIR/STTR Transfer	0.000	0.000				
Other Adjustments	-0.039	0.000	0.004	0.000	0	.004
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018
Title: Modeling and Simulation Development					1.523	1.563

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3600: Research, Development, Test & Evaluation, Air Force I BA 7:	PE 0901226F I Air Force Studies and Analysis Agency	
Operational Systems Development		

C. Accomplishments/Planned Programs (\$ in Millions)	FY 20	16 FY 2017	FY 2018
<b>Description:</b> Develop and Update Modeling & Simulation (M&S) tools.			
FY 2016 Accomplishments: Continued research and development of M&S Tools.			
FY 2017 Plans: Continued to research and development of M&S Tools.			
FY 2018 Plans: Research and development of M&S Tools.			
Accor	nplishments/Planned Programs Subtotals 1.	064 1.523	3 1.56

## D. Other Program Funding Summary (\$ in Millions)

N/A

#### Remarks

N/A.

# E. Acquisition Strategy

Previous and planned future efforts have been/will be awarded under existing Task Order contracts. AF/A9 does not anticipate awarding a new contract for R&D work in the next year.

### F. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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