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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 0606017F I Requirements Analysis and Maturation							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	-	16.350	16.507	-	16.507	16.759	17.001	17.275	17.539	Continuing	Continuing
666157: Development Planning	-	-	16.350	13.030	-	13.030	13.287	13.530	13.804	14.069	Continuing	Continuing
666158: INTEGRATED SIMULATION AND ANALYSIS	-	-	-	3.477	-	3.477	3.472	3.471	3.471	3.470	Continuing	Continuing

Note

In FY2016, Project 666158, Integrated Simulation and Analysis includes new start efforts to improve organic Air Force analysis and assessment capabilities.

In FY2015, PE 0604337F, Requirements Analysis and Maturation, Project 645349, Development Planning efforts were transferred to PE 0606017F, Requirements Analysis and Maturation to appropriately align activities to Budget Activity 6.

A. Mission Description and Budget Item Justification

The Requirements Analysis and Maturation (RAM) program funds development planning (DP) to include early systems engineering and pre-acquisition planning and analysis. These activities include requirements analysis, capability decomposition and trade space characterization, concept development (system of systems, air, space, and cyber), cost analysis, modeling and simulation of representative or prototype systems, and costs associated with these activities to include analytical tools and travel. Outcomes of these activities are fiscally and technologically informed requirements, mature concepts that are technically feasible, and areas for science and technology (S&T) investment to reduce technology risks. These activities provide the analytic basis for cost and capability trades to inform weapon systems requirements and acquisition milestones, decision points, and phases. A number of Department of Defense (DoD), Government Accountability Office (GAO), and independent studies point to a need for more disciplined, early-phase systems engineering and pre-systems acquisition planning and analysis to produce decision-quality acquisition information that previously did not surface until after the initiation of a program. Early-phase systems engineering and technical planning activities funded by this program provide the foundation for informed investment decisions leading to successful acquisition programs. Specific efforts are determined each year based upon the highest Air Force priorities.

This program is in Budget Activity 6, RDT&E Management Support, because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0606017F <i>I Requirements Analysis and Maturation</i>
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B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	13.850	14.116	-	14.116
Current President's Budget	-	16.350	16.507	-	16.507
Total Adjustments	-	2.500	2.391	-	2.391
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	2.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	2.391	-	2.391

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 666157: *Development Planning*

Congressional Add: *Program Increase*

	FY 2014	FY 2015
	-	2.500
Congressional Add Subtotals for Project: 666157	-	2.500
Congressional Add Totals for all Projects	-	2.500

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 6					R-1 Program Element (Number/Name) PE 0606017F / Requirements Analysis and Maturation				Project (Number/Name) 666157 / Development Planning			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
666157: Development Planning	-	-	16.350	13.030	-	13.030	13.287	13.530	13.804	14.069	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY2015, PE 0604337F, Requirements Analysis and Maturation, Project 645349, Development Planning efforts were transferred to PE 0606017F, Requirements Analysis and Maturation to appropriately align activities to Budget Activity 6.												
A. Mission Description and Budget Item Justification												
The Development Planning project funds activities to analyze Air Force capability needs and requirements to identify potential materiel shortfalls and opportunities; formulate candidate concepts and solution options to address Air Force capability needs and shortfalls; and conduct coordinated analysis and assessment activities to address requirements, technology needs, capability trades, schedule, cost, and pre-systems acquisition planning.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2014	FY 2015	FY 2016
Title: Long-range Capability Analyses										-	2.216	2.085
Description: Conduct long-range capability analyses by analyzing warfighter capability needs and requirements to identify potential materiel shortfalls and opportunities.												
FY 2014 Accomplishments: N/A												
FY 2015 Plans: Develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future materiel solutions to warfighter capability needs.												
FY 2016 Plans: Continue to develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future materiel solutions to warfighter capability needs.												
Title: Concept Development										-	9.280	8.730
Description: Conduct concept development activities, including early-phase systems engineering, by devising candidate materiel solution options to address Air Force air, space, and cyber capability needs and shortfalls.												
FY 2014 Accomplishments:												

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Appropriation/Budget Activity 3600 / 6	R-1 Program Element (Number/Name) PE 0606017F / <i>Requirements Analysis and Maturation</i>	Project (Number/Name) 666157 / <i>Development Planning</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
N/A			
FY 2015 Plans: Execute concept development activities, to include requirements support and analysis, early-phase systems engineering, early concept characterization and technical descriptions, market research, budget estimates, and technology assessments.			
FY 2016 Plans: Continue to execute concept development activities, to include requirements support and analysis, early-phase systems engineering, early concept characterization and technical descriptions, market research, budget estimates, and technology assessments.			
Title: Pre-systems Acquisition Planning Description: Conduct coordinated pre-systems acquisition planning activities that address requirements, schedule, cost, technology, and acquisition strategy.		-	2.354
FY 2014 Accomplishments: N/A			
FY 2015 Plans: Perform pre-systems acquisition planning activities, to include concept refinement, cost estimates, acquisition courses of action, and acquisition milestone documentation.			
FY 2016 Plans: Continue to perform pre-systems acquisition planning activities, to include concept refinement, cost estimates, acquisition courses of action, and acquisition milestone documentation.			
Accomplishments/Planned Programs Subtotals		-	13.850
		FY 2014	FY 2015
Congressional Add: Program Increase		-	2.500
FY 2015 Plans: Conduct Congressionally-directed effort.			
Congressional Adds Subtotals		-	2.500
C. Other Program Funding Summary (\$ in Millions)			
N/A			

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

Remarks

D. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures.

E. 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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Appropriation/Budget Activity 3600 / 6					R-1 Program Element (Number/Name) PE 0606017F / Requirements Analysis and Maturation				Project (Number/Name) 666158 / INTEGRATED SIMULATION AND ANALYSIS			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
666158: INTEGRATED SIMULATION AND ANALYSIS	-	-	-	3.477	-	3.477	3.472	3.471	3.471	3.470	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2016, Project 666158, Integrated Simulation and Analysis includes new start efforts to improve organic Air Force analysis and assessment capabilities.

A. Mission Description and Budget Item Justification

The Integrated Simulation and Analysis project provides system-of-systems synthetic environments for modeling, simulation, and analysis of systems and concepts under assessment. This effort accomplishes development of software, system performance representations and models, environments, architectures, and tools that underpin variable fidelity; stand-alone, interactive, and distributed simulations; and virtual prototyping using high performance computing for rapid assessment of warfighting capabilities. Integrated simulation and analyses combines real-time and constructive simulations, operators-in-the-loop, experimental and operational software and hardware engineered in synthesized environments to conduct air, space, and cyber capabilities assessments in support of development planning and related activities.

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

	FY 2014	FY 2015	FY 2016
Title: Integrated Simulation and Analysis	-	-	3.477
Description: Develop cross-domain system of systems modeling, simulation, and analysis capabilities to support development planning, capabilities assessment, and acquisition decisions.			
FY 2014 Accomplishments: N/A			
FY 2015 Plans: N/A			
FY 2016 Plans: Develop and mature models and toolsets to provide integrated simulation capabilities with variable levels of fidelity and realistic representation of battlespace environments.			
Accomplishments/Planned Programs Subtotals	-	-	3.477

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C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2016</u>	<u>FY 2016</u>	<u>FY 2016</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Complete</u>	<u>Total Cost</u>
• N/A: N/A	-	-	-	-	-	-	-	-	-	-	-
Remarks											
D. Acquisition Strategy											
All contracts will be awarded using competitive procedures.											
E. 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.											