Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force

5, (1.2.

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0901226F: AF STUDIES AND ANALYSIS AGENCY

BA 7: Operational Systems Development

COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	-	-	0.928	-	0.928	1.050	1.035	1.197	1.385	Continuing	Continuing
676009: M & S DEVELOPMENT	-	-	0.928	-	0.928	1.050	1.035	1.197	1.385	Continuing	Continuing

A. Mission Description and Budget Item Justification

HQ USAF/A9, Studies & Analyses, Assessments and Lessons Learned (L2), provides Air Force senior leadership (up to and including the SECAF/CSAF) with independent and objective analytic insights, risk assessments, and lessons learned. AF/A9 also provides analyses to underpin strategic planning, operational requirements, modernization and recapitalization of systems and programs, and the Planning, Programming, Budgeting and Execution (PPBE) processes. AF/A9 is the lead of the AF Analytic Community and the Secretary for the Air Force Standard Analysis Toolkit. AF/A9 staff champions AF efforts with the DoD modeling community through the DoD Analytic Agenda.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	0.928	-	0.928
Total Adjustments	-	-	0.928	-	0.928
 Congressional General Reductions 		-			
 Congressional Directed Reductions 		-			
 Congressional Rescissions 	-	-			
 Congressional Adds 		-			
 Congressional Directed Transfers 		-			
 Reprogrammings 	-	-			
 SBIR/STTR Transfer 	-	-			
Other Adjustments	-	-	0.928	-	0.928

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Exhibit R-2A, RD1&E Project Justification: PB 2012 Air Force								DAIE: Feb	ruary 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0901226F: AF STUDIES AND ANALYSIS AGENCY				PROJECT 676009: M & S DEVELOPMENT			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
676009: M & S DEVELOPMENT	-	-	0.928	-	0.928	1.050	1.035	1.197	1.385	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

HQ USAF/A9, Studies & Analyses, Assessments and Lessons Learned (L2), provides Air Force senior leadership (up to and including the SECAF/CSAF) with independent and objective analytic insights, risk assessments, and lessons learned. AF/A9 also provides analyses to underpin strategic planning, operational requirements, modernization and recapitalization of systems and programs, and the Planning, Programming, Budgeting and Execution (PPBE) processes. AF/A9 is the lead of the AF Analytic Community and the Secretary for the Air Force Standard Analysis Toolkit. AF/A9 staff champions AF efforts with the DoD modeling community through the DoD Analytic Agenda.

B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2012	FY 2012
	FY 2010	FY 2011	Base	oco	Total
Title: Modeling & Simulation Development	-	-	0.928	-	0.928
Description: Models and simulations (M&S) are key ingredients that allow the analytic community to advise decision-makers with repeatable, high quality, quantifiable and justifiable information/options to use in evaluating alternatives and assessing risks. HQ USAF/A9 uses and has developed a wide range of Engagement, Mission and Campaign level tools to assist analysts in examining a wide range of problems (e.g. STORM, CFAM, BRAWLER, etc) and then presenting results to a wide audience up to and including the SecAF/CSAF. These tools serve across the entire AF Analytic Community and many are also staples across all of DoD. As new technologies are introduced to the battlefield (Digital Electronic Jammers, manuevering Surface-to-Surface Missiles, Directed Energy Weapons, etc.) along with evolving warfighting techniqes and support operations, the range covered by existing analytic tools needs to be expanded as well. M&S creation and enhancement can require extensive research in how to implement the emerging weapons capabilities as well as demand development of software techniques to implement the changes.					
Additionally, new focus areas such as Space, Irregular Warfare, Information Operations, Cyberwarfare and ISR are mandating tools of their own to examine and these also require new exploration and development. These focus areas will need to be examined in isolation and cross-domain through populating data in existing models.					
FY 2010 Accomplishments:					
FY 2011 Plans:					
FY 2012 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force DATE: February 2011								
APPROPRIATION/BUDGET ACTIVITY	PROJECT							
3600: Research, Development, Test & Evaluation, Air Force	PE 0901226F: AF STUDIES AND ANALYSIS	676009: M & S DEVELOPMENT						
BA 7: Operational Systems Development	AGENCY							

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY12 efforts will have 3 focus areas. The first focus area will be researching how to effectively upgrade existing major use military models (like STORM, CFAM, BRAWLER) so they will not only be ready ro examine emerging weapons technologies for near term analytic requirements, but meet the long term challenges for the analystic community as well. This research will then transition to developing new techniques to keep the existing tools at the cutting edge of analysis. The second focus area will be to research, better define and then examine all space asset missions followed by developing techniques to make better tradeoffs in terrestrial/space crossmission analyses. The final focus area will be to explore new modeling techniques to build better, quicker and more verifiable data to support existing tools. This will likely entail creating smaller process-based models that will be easier to operate and update by government personnel.	1 1 2010	112011	Duse		Total
FY 2012 OCO Plans:					
Accomplishments/Planned Programs Subtotals	-	-	0.928	-	0.928

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

			FY 2012	FY 2012	FY 2012					Cost To	
<u>Line Item</u>	FY 2010	FY 2011	Base	OCO	<u>Total</u>	FY 2013	FY 2014	FY 2015	FY 2016	Complete	Total Cost
• N/A:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

All efforts will be awarded under existing Task Order contracts capable of accepting R&D dollars. Due to size of effort (small) and need for flexibility (high) to adjust R&D to emerging capabilities (friendly and enemy), AF/A9 does not see awarding a specific contract in the first year of this effort (FY12).

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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force DATE: February 2011 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0901226F: AF STUDIES AND ANALYSIS 676009: M & S DEVELOPMENT **AGENCY** BA 7: Operational Systems Development FY 2012 FY 2012 FY 2012 **Product Development (\$ in Millions)** FY 2011 oco Base Total **Total Prior** Contract Target Method Performing Years Award Award Award **Cost To** Value of **Cost Category Item Activity & Location** Cost Date Cost Date Cost Date Complete **Total Cost** Contract & Type Cost Cost 0.000 0.000 0.000 Subtotal FY 2012 FY 2012 FY 2012 Support (\$ in Millions) FY 2011 Base oco Total **Total Prior** Contract Target Method Performing Years Award Award Award **Cost To** Value of Contract **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Software Development **TBD** 0.928 Jan 2012 0.928 0.000 0.928 0.000 Not specified .: , Subtotal 0.928 0.928 0.000 0.928 0.000 FY 2012 FY 2012 FY 2012 Test and Evaluation (\$ in Millions) FY 2011 Base oco Total Target Contract **Total Prior** Years **Cost To** Method Performing Award Award Award Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract Subtotal 0.000 0.000 0.000 FY 2012 FY 2012 FY 2012 Management Services (\$ in Millions) FY 2011 Base oco Total **Total Prior** Contract Target Method Performing Years Award Award Award **Cost To** Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract Subtotal 0.000 0.000 0.000 **Total Prior** Target FY 2012 FY 2012 Value of Years FY 2012 Cost To oco Cost **FY 2011** Base Total Complete **Total Cost** Contract **Project Cost Totals** 0.928 0.928 0.000 0.928 0.000 Remarks

Air Force

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0901226F: AF STUDIES AND ANALYSIS AGENCY	PROJECT 676009: M & S DEVELOPMENT

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force	DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0901226F: AF STUDIES AND ANALYSIS	676009: M	& S DEVELOPMENT
BA 7: Operational Systems Development	AGENCY		

Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Modeling & Simulation Development	1	2012	2	2013	

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