Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force

R-1 ITEM NOMENCLATURE

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

APPROPRIATION/BUDGET ACTIVITY

PE 0604337F: Requirements Analysis and Maturation

**DATE:** February 2012

BA 4: Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	32.797	23.511	16.343	-	16.343	16.018	15.911	16.316	16.532	Continuing	Continuing
645349: Non-Space Systems Requirements Analysis & Maturation	26.298	17.837	11.649	-	11.649	11.357	11.245	11.520	11.673	Continuing	Continuing
64A024: Space Systems Requirements Analysis & Maturation	6.499	5.674	4.694	-	4.694	4.661	4.666	4.796	4.859	Continuing	Continuing

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

The Requirements Analysis and Maturation (RAM) program addresses a critical need for decision-quality information prior to initiating a new acquisition program by executing integrated materiel studies and analyses across the Air Force (AF) enterprise (air, space, and cyber). A number of Department of Defense (DoD), Government Accountability Office, and industry studies point to a need for more disciplined, early-phase systems engineering and pre-systems acquisition planning to produce the detailed acquisition information that previously did not surface until after the initiation of a program. Activities funded by the RAM program element include system and sub-system concept development, acquisition strategy development, modeling and simulation, cost analysis, pre-planning required for successful demonstration and validation of prototypes and systems-of-systems demonstrations, and costs associated with these activities, to include travel. This comprehensive approach supports acquisition courses of action to initiate high-confidence acquisition programs. Specific efforts are determined each year by requests submitted from AF Major Commands and subsequently prioritized and approved by the AF Development Planning Governance Structure. This effort is in Budget Activity 4, Advanced Component Development and Prototypes, since it involves system specific efforts that expedite technology transition from the laboratory to operational use.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	34.339	24.217	16.312	-	16.312
Current President's Budget	32.797	23.511	16.343	-	16.343
Total Adjustments	-1.542	-0.706	0.031	-	0.031
<ul> <li>Congressional General Reductions</li> </ul>	-	-0.706			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.983	-			
Other Adjustments	-0.559	-	0.031	-	0.031

PE 0604337F: Requirements Analysis and Maturation Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation	
Change Summary Explanation In FY11, Other Adjustments include: -0.386 (Congressional Ger	neral Reductions), -0.173 (Congressional Rescissions)	

Exhibit R-2A, RDT&E Project Jus	Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)			R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation PROJECT 645349: No Analysis & I				on-Space Systems Requirements Maturation							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost			
645349: Non-Space Systems Requirements Analysis & Maturation	26.298	17.837	11.649	-	11.649	11.357	11.245	11.520	11.673	Continuing	Continuing			
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0					

## A. Mission Description and Budget Item Justification

Accomplishments/Planned Programs (\$ in Millions)

The Non-Space Systems project is responsible for analyzing documented capability needs and requirements to identify potential material shortfalls and opportunities; devising candidate material solution options to address AF non-space capability needs and shortfalls; and conducting coordinated pre-systems acquisition planning activities that address requirements, schedule, cost, technology, and acquisition strategy for air and cyber efforts.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Major Thrust 1	4.159	2.962	1.857	-	1.857
<b>Description:</b> Conduct long-range capability analyses by analyzing documented warfighter capability needs and requirements to identify potential material shortfalls and opportunities.					
FY 2011 Accomplishments:  Developed capability roadmaps, advanced concept studies and analyses, and derived technology needs required to realize future material solutions to warfighter capability needs.					
FY 2012 Plans: Develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future material solutions to warfighter capability needs.					
FY 2013 Base Plans: Continue to develop capability roadmaps, advanced concept studies and analyses, and derive technology needs required to realize future material solutions to warfighter capability needs.					
FY 2013 OCO Plans: N/A.					
Title: Major Thrust 2	17.650	11.853	7.812	-	7.812
<b>Description:</b> Conduct concept development activities, including early-phase systems engineering, by devising candidate material solution options to address AF air and cyber capability needs and shortfalls.					

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PE 0604337F: Requirements Analysis and Maturation Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force			D	ATE: Febru	ary 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis a Maturation	is and 645349: Non-Space Systems Requirem Analysis & Maturation					
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	
FY 2011 Accomplishments:  Executed concept development activities, to include requirements su engineering, early concept characterization and technical description technology assessments.							
FY 2012 Plans: Execute concept development activities, to include requirements supengineering, early concept characterization and technical description technology assessments.							
FY 2013 Base Plans: Continue to execute concept development activities, to include require phase systems engineering, early concept characterization and technology assessments.							
FY 2013 OCO Plans: N/A.							
Title: Major Thrust 3		4.489	3.022	1.980	-	1.980	
<b>Description:</b> Conduct coordinated pre-systems acquisition planning schedule, cost, technology, and acquisition strategy.	activities that address requirements,						
FY 2011 Accomplishments:  Performed pre-systems acquisition planning activities, to include concourses of action, and acquisition milestone documentation.	cept refinement, cost estimates, acquisition						
FY 2012 Plans: Perform pre-systems acquisition planning activities, to include conce courses of action, and acquisition milestone documentation.	pt refinement, cost estimates, acquisition						
FY 2013 Base Plans: Continue to perform pre-systems acquisition planning activities, to in acquisition courses of action, and acquisition milestone documentation							
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PE 0604337F: Requirements Analysis and Maturation Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
3600: Research, Development, Test & Evaluation, Air Force	PE 0604337F: Requirements Analysis and	645349: No	on-Space Systems Requirements

BA 4: Advanced Component Development & Prototypes (ACD&P) Analysis & Maturation Maturation

B. Accomplishments/Planned Programs (\$ in Millions) FY 2013 FY 2013 FY 2013 FY 2011 FY 2012 **Base** oco Total N/A. **Accomplishments/Planned Programs Subtotals** 26.298 17.837 11.649 11.649

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

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	<b>Base</b>	<u>000</u>	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	<b>Complete</b>	<b>Total Cost</b>
• N/A: <i>N/A</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

## 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.

PE 0604337F: Requirements Analysis and Maturation Air Force

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation	PROJECT 645349: Non-Space Systems Requirements Analysis & Maturation

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604337F: Requirements Analysis and 645349: Non-Space Systems Requirements

BA 4: Advanced Component Development & Prototypes (ACD&P)

Maturation

Analysis & Maturation

## Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Studies & Analysis Requests	1	2011	4	2017	
FY12 RAM Portfolio Development	3	2011	3	2011	
FY13 RAM Portfolio Development	3	2012	3	2012	
FY14 RAM Portfolio Development	3	2013	3	2013	
FY15 RAM Portfolio Development	3	2014	3	2014	
FY16 RAM Portfolio Development	3	2015	3	2015	
FY17 RAM Portfolio Development	3	2016	3	2016	
RAM Effort Execution	1	2011	4	2017	
Studies & Analysis Outbriefs	1	2011	4	2017	

Exhibit R-2A, RDT&E Project Just		DATE: February 2012									
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)			PE 0604337F: Requirements Analysis and 64A0					OJECT A024: Space Systems Requirements alysis & Maturation			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
64A024: Space Systems Requirements Analysis & Maturation	6.499	5.674	4.694	-	4.694	4.661	4.666	4.796	4.859	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

## A. Mission Description and Budget Item Justification

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

The Space Systems project is responsible for analyzing documented capability needs and requirements to identify potential material shortfalls and opportunities; devising candidate material solution options to address AF space capability needs and shortfalls; and conducting coordinated pre-systems acquisition planning activities that address requirements, schedule, cost, technology, and acquisition strategy for space efforts.

FY 2011	FY 2012	Base	OCO	Total
1.021	0.881	0.703	-	0.703
4.006	3.346	2.820	-	2.820
	1.021	1.021 0.881	FY 2011         FY 2012         Base           1.021         0.881         0.703	1.021 0.881 0.703 -

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FY 2013 FY 2013 FY 2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force			D	ATE: Febru	ary 2012	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis a Maturation	PROJECT				nts
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
FY 2011 Accomplishments:  Executed concept development activities, to include requirements supengineering, early concept characterization and technical descriptions technology assessments.						
FY 2012 Plans: Execute concept development activities, to include requirements supplengineering, early concept characterization and technical descriptions technology assessments.						
FY 2013 Base Plans: Continue to execute concept development activities, to include require phase systems engineering, early concept characterization and technology assessments.						
FY 2013 OCO Plans: N/A.						
Title: Major Thrust 3		1.472	1.447	1.171	-	1.17
<b>Description:</b> Conduct coordinated pre-systems acquisition planning a schedule, cost, technology, and acquisition strategy.	activities that address requirements,					
FY 2011 Accomplishments:  Performed pre-systems acquisition planning activities, to include concourses of action, and acquisition milestone documentation.	cept refinement, cost estimates, acquisition					
FY 2012 Plans: Perform pre-systems acquisition planning activities, to include concept courses of action, and acquisition milestone documentation.	ot refinement, cost estimates, acquisition					
FY 2013 Base Plans: Continue to perform pre-systems acquisition planning activities, to incacquisition courses of action, and acquisition milestone documentation						
FY 2013 OCO Plans:						

PE 0604337F: Requirements Analysis and Maturation Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force **DATE:** February 2012 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 

3600: Research, Development, Test & Evaluation, Air Force 64A024: Space Systems Requirements

PE 0604337F: Requirements Analysis and BA 4: Advanced Component Development & Prototypes (ACD&P)

Analysis & Maturation Maturation

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
N/A.					
Accomplishments/Planned Programs Subtotals	6.499	5.674	4.694	-	4.694

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

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	<b>Base</b>	<u>000</u>	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	<b>Total Cost</b>
• N/A: <i>N/A</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

## 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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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604337F: Requirements Analysis and Maturation	PROJECT 64A024: Space Systems Requirements Analysis & Maturation

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604337F: Requirements Analysis and 64A024: Space Systems Requirements

BA 4: Advanced Component Development & Prototypes (ACD&P)

Maturation

Analysis & Maturation

## Schedule Details

	St	End		
Events	Quarter	Year	Quarter	Year
Studies & Analysis Requests	1	2011	4	2017
FY12 RAM Portfolio Development	3	2011	3	2011
FY13 RAM Portfolio Development	3	2012	3	2012
FY14 RAM Portfolio Development	3	2013	3	2013
FY15 RAM Portfolio Development	3	2014	3	2014
FY16 RAM Portfolio Development	3	2015	3	2015
FY17 RAM Portfolio Development	3	2016	3	2016
RAM Effort Execution	1	2011	4	2017
Studies & Analyses Outbriefs	1	2011	4	2017