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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603830F: Space Protection Program							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	8.349	0.000	8.349	9.852	10.456	11.517	12.479	Continuing	Continuing
64A025: Space Protection Program Assessment and Analysis	0.000	0.000	8.349	0.000	8.349	9.852	10.456	11.517	12.479	0.000	0.000

Note
This is a new PE in FY 2011. All Space Protection Program funding and content transferred from PE 0603438F, Space Control Technology and PE 0305940F, Space Situation Awareness.

A. Mission Description and Budget Item Justification
Growing dependence on space and demonstrated vulnerabilities have highlighted the need to actively plan and respond to threats against national security space effects and deliver informed options to national leaders and system acquirers. Public Law 110-181 mandated development of a DoD space protection strategy and the recent "Sense of Congress" has been that "the United States should place greater priority on the protection of national security space systems." In response to these needs, concerns and direction, the Air Force (AF) and National Reconnaissance Office (NRO) formed a partnership and leveraged a combination of Department of Defense (DoD) and Office of the Director of National Intelligence (ODNI) resources in March 2008 to establish and execute the Space Protection Program (SPP); a joint, enduring program to develop an integrated protection approach for the nation covering all defense, intelligence, civil, commercial and allied space systems. In the absence of a SPP-specific construct or Program Element Code (PEC), the DoD portion of the SPP was budgeted and executed under existing program/mission areas in FY08-FY10. As the SPP mission matured and specific efforts were defined/directed, the activity evolved into an independent effort requiring implementation of a financial construct consistent with this evolution and emergent mission. FY11 marks the initiation and use of the SPP-specific Program Element Code and SPP-specific inputs/exhibits to planning, programming and budgeting processes.

SPP is the foundational element of the National Space Protection Strategy; unifying and integrating AF, NRO, DoD and IC activities to deliver strategic recommendations to senior leaders and inform their decisions on how best to protect our space systems and stay ahead of the threat. The SPP mission is to preserve national security space effects through an integrated strategy to articulate vulnerabilities, assess threat impacts, identify options and recommend solutions leading to comprehensive space protection capabilities.

A fully-functioning SPP effort allows for the active planning, comprehensive analysis and timely delivery of products/tools to respond to threats against national security space effects and deliver informed options to national leaders and system acquirers. As designed, the SPP is to execute an integrated strategy to articulate vulnerabilities, assess threat impacts, identify options and recommend solutions leading to comprehensive space protection capabilities. Specifically, this involves

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<p>identifying and initiating protection-focused architectural decisions, generating comprehensive products to identify national capabilities and interdependencies, delivering tailored decision aids to operations centers, instituting key defense initiatives to address vulnerabilities in multiple orbit regimes, integrating cyberspace into the National Infrastructure Protection Framework, and continuing specific tasks to implement the Space Protection Strategy.</p> <p>Task A - Analytical Justification. Identify, prioritize, and develop recommendations for space protection options to preserve national space capabilities and guide future Science and Technology (S&T) research and investment focus areas. This task will conduct capability-based vulnerability and susceptibility assessments of blue architectures to identify options to enhance the survivability of the overall architectures. These assessments will deliver comprehensive technically justified set of space protection recommendations. Task A will also develop a set of protection roadmaps to establish core protection capabilities and prioritize protection investments across the entire space domain.</p> <p>Task B – Capabilities and Interdependencies (C&I). Develop and maintain a capabilities and interdependencies analysis capability for our nation by operating a C&I analysis team and continuously updating a C&I database. This task will provide senior leaders and our nation's space operational command centers with understanding of space capabilities, interdependencies, and consequence of loss in support of planning and decision making that impact the economic and physical security of the United States. In coordination with USTRATCOM and Joint Functional Component Command-Space, the task will provide Combatant Commanders a specific C&I product capturing theater space services dependencies, reliance on those services, and the consequence of the loss of those services. This product will be tailored to highlight space service reliance in each phase of the theater OPLANS/CONPLANS and have the capability to export data for use in other tools (e.g. visualization tools). Additionally, Task B will develop and maintain a future space architecture identifying the future on-orbit space architecture for the current year through additional 12 years focusing on DoD, Intelligence Community, Civil, Commercial-leased, and Friends & Allies space systems. This task also includes participation in wargames and exercises; ensuring that SPP C&I products and analysis are leveraged to improve strategy development at the strategic and operational levels.</p> <p>Task C - Alternative Futures. Provide insight to senior space leaders on how their space activities shape the strategic environment. Directly responsible to develop and coordinate Strategic Communication strategies on space protection across DoD and IC agencies. These strategies focus on space mission areas, architectures, programs and significant space and cyber events and how it relates to the overarching space protection strategy. Develops protection policy and strategy recommendations to include the development and implementation of the SECDEF and DNI approved National Space Protection Strategy for the nation. This strategy must be updated every 2 years.</p> <p>This project is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because it supports the research, analysis, development and prototyping of space protection activities.</p>		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0603830F: Space Protection Program			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	8.349	0.000	8.349
Total Adjustments	0.000	0.000	8.349	0.000	8.349
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	8.349	0.000	8.349
Change Summary Explanation					
FY 2011: The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603830F: <i>Space Protection Program</i>				PROJECT 64A025: <i>Space Protection Program Assessment and Analysis</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
64A025: <i>Space Protection Program Assessment and Analysis</i>	0.000	0.000	8.349	0.000	8.349	9.852	10.456	11.517	12.479	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note This is a new Program Element in FY2011. All Space Protection Program funding and content were transferred from PE 0630438F, Space Control Technology, and PE 0305940F, Space Situational Awareness, in FY 2011.											
A. Mission Description and Budget Item Justification Funds for the Space Protection Program (SPP) were not loaded into BPAC A025 during the budget cycle. They currently reside in BPAC 2611 Technology Insertion Planning and Analysis.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Space Protection/Security Systems & Capabilities							0.000	0.000	5.785	0.000	5.785
<i>FY 2009 Accomplishments:</i> In FY 2009: Not applicable											
<i>FY 2010 Plans:</i> In FY 2010: Not applicable											
<i>FY 2011 Base Plans:</i> In FY 2011: Identify, prioritize, and develop recommendations for space protection options to guide future Science and Technology (S&T) research and investment focus areas. Compile and analyze US National Security systems/capabilities (current and future) for decision makers. Develop alternative											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603830F: Space Protection Program		PROJECT 64A025: Space Protection Program Assessment and Analysis		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
futures support to provide senior space leaders insights and recommendations on how space activities shape the strategic environment. FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Provide oversight, advisory and other technical support to the Space Protection Program. FY 2009 Accomplishments: In FY 2009: Not applicable FY 2010 Plans: In FY 2010: Not applicable FY 2011 Base Plans: In FY 2011: Provide oversight, advisory and other technical support to the Space Protection Program. FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.		0.000	0.000	1.761	0.000	1.761
MAJOR THRUST: Provide program support and infrastructure. FY 2009 Accomplishments: In FY 2009: Not applicable FY 2010 Plans: In FY 2010: Not applicable		0.000	0.000	0.803	0.000	0.803

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<p><i>FY 2011 Base Plans:</i> In FY 2011: Provide program support and infrastructure.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>											
Accomplishments/Planned Programs Subtotals						0.000	0.000	8.349	0.000	8.349	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE 0603438F: Space Control Technology, AF RDT&E	6.300	6.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
• PE 0305940F: Space Situational Awareness, OMAF	2.800	2.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D. Acquisition Strategy											
All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. The program consists of numerous small projects.											
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 2011 Air Force											DATE: February 2010																																																											
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603830F: <i>Space Protection Program</i>				PROJECT 64A025: <i>Space Protection Program Assessment and Analysis</i>																																																														
Product Development (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Assessment and Analysis Projects</td> <td>Various/ Various</td> <td>Various Various</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">5.785</td> <td align="center">Dec 2010</td> <td align="right">0.000</td> <td></td> <td align="right">5.785</td> <td align="center">Continuing</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">5.785</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">5.785</td> <td></td> <td></td> <td></td> </tr> </table>																			FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	Assessment and Analysis Projects	Various/ Various	Various Various	0.000	0.000		5.785	Dec 2010	0.000		5.785	Continuing	Continuing	Continuing	Subtotal			0.000	0.000		5.785		0.000		5.785			
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																												
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																																									
Assessment and Analysis Projects	Various/ Various	Various Various	0.000	0.000		5.785	Dec 2010	0.000		5.785	Continuing	Continuing	Continuing																																																									
Subtotal			0.000	0.000		5.785		0.000		5.785																																																												
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Support (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Program Support and Infrastructure</td> <td>Various/ Various</td> <td>Various Various</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.803</td> <td align="center">Dec 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.803</td> <td align="center">Continuing</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.803</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.803</td> <td></td> <td></td> <td></td> </tr> </table>																			FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	Program Support and Infrastructure	Various/ Various	Various Various	0.000	0.000		0.803	Dec 2010	0.000		0.803	Continuing	Continuing	Continuing	Subtotal			0.000	0.000		0.803		0.000		0.803			
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																												
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																																									
Program Support and Infrastructure	Various/ Various	Various Various	0.000	0.000		0.803	Dec 2010	0.000		0.803	Continuing	Continuing	Continuing																																																									
Subtotal			0.000	0.000		0.803		0.000		0.803																																																												
Remarks																																																																						

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Management Services (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Oversight, Advisory and other Technical Support	Various/ Various	Various Various	0.000	0.000		1.761	Dec 2010	0.000		1.761	Continuing	Continuing	Continuing	
Subtotal			0.000	0.000		1.761		0.000		1.761				
Remarks														
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			0.000	0.000		8.349		0.000		8.349				
Remarks Total Prior Years Cost may include only FY 2009 data.														

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

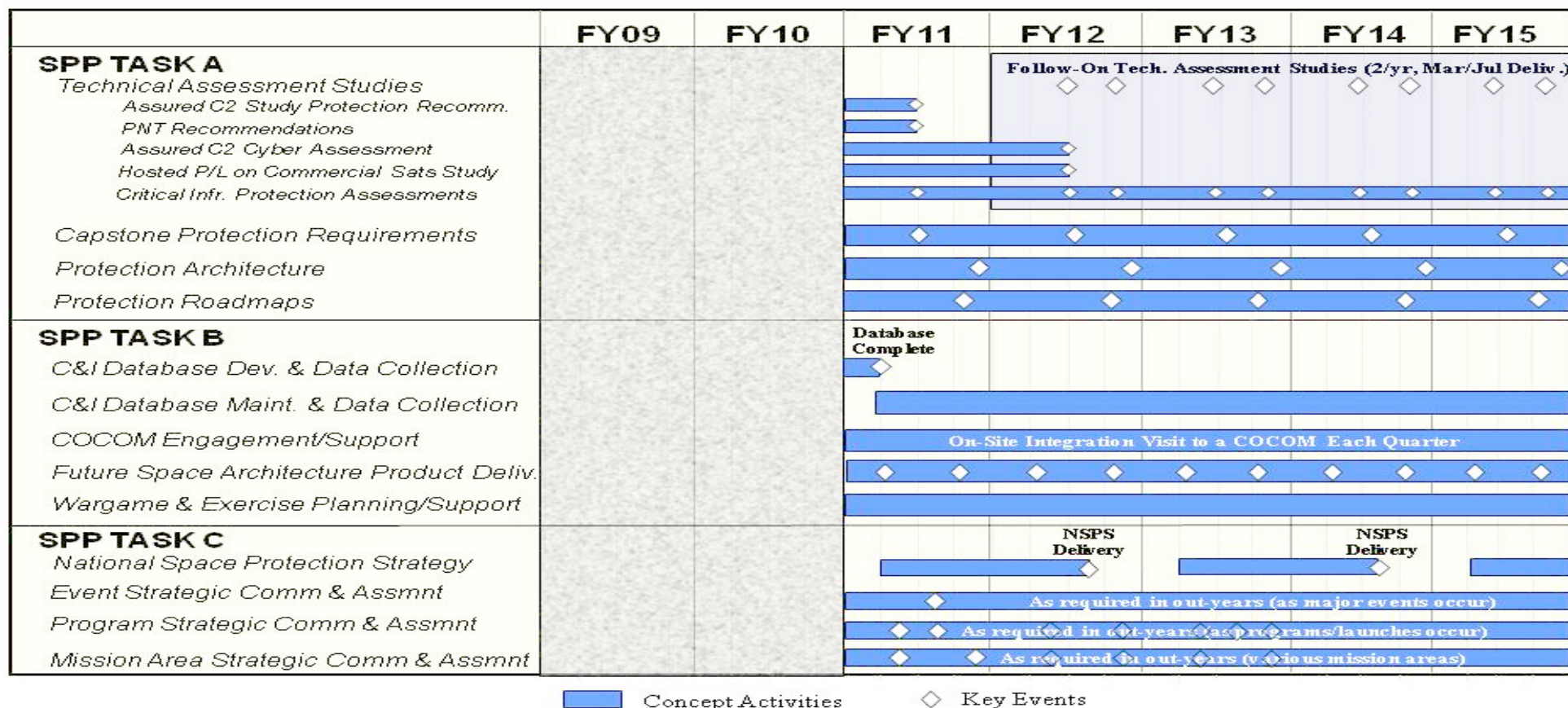
R-1 ITEM NOMENCLATURE

PE 0603830F: Space Protection Program

PROJECT

64A025: Space Protection Program
Assessment and Analysis

SPACE PROTECTION PROGRAM (SPP) Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603830F: <i>Space Protection Program</i>	PROJECT 64A025: <i>Space Protection Program Assessment and Analysis</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Task A Assured C2 Study Protection Recommendations Development	1	2011	2	2011
Task A Position, Navigation, Timing Recommendations	1	2011	2	2011
Task A Critical Infrastructure Protection Assessments	1	2011	4	2011
Task A Assured C2 Cyber Assessment	1	2011	4	2011
Task A Hosted Payloads on Commercial Satellites Study	1	2011	4	2011
Task B C&I Database Development & Data Collection	1	2011	1	2011
Task B C&I Database Maintenance & Data Collection	2	2011	4	2011
Task B COCOM Support	1	2011	4	2011
Task B Future Space Architecture Development	2	2011	2	2011
Task B Future Space Architecture Development (II)	4	2011	4	2011
Task C National Space Protection Strategy (NSPS)	2	2011	4	2011
Task C Event Strategic Communication	3	2011	3	2011
Task C Program Strategic Communication	2	2011	2	2011
Task C Mission Area Strategic Communication	2	2011	2	2011

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