Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*					R-1 ITEM NOMENCLATURE PE 0208088F: *AF Defensive Cyberspace Operations*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.000	0.000	5.853	-	5.853	5.961	6.181	6.290	6.404	Continuing	Continuing
677820: *Computer Security RDTE: Firestarter*	-	0.000	0.000	5.853	-	5.853	5.961	6.181	6.290	6.404	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY2014, 0208088F, 677820, AF Defensive Cyberspace Operations were transferred from PE 0303140F, Information Systems Security Program, 677820, Firestarter, in order to consolidate Firestarter efforts into the Air Force Defensive Cyberspace Operations PE 0208088F.

A. Mission Description and Budget Item Justification

The Firestarter program provides new/improved capabilities and technical transition opportunities for Cyber Defense and Information Assurance (IA) technologies and tools needed to defend Air Force Command, Control, Communications, Computer, and Intelligence (C4I) systems from Cyber-attacks, while ensuring recovery in the event of an attack. Also provides defensive Cyber Command and Control/Situational Awareness (C2/SA), which enables cyber commanders to monitor Air Force network status and execute courses of action to mitigate threats. The emphasis of the program is directed toward defensive cyberspace capabilities; computer and network systems security; damage assessment and recovery; cyber threat recognition, attribution, and mitigation; and active response methodologies in response to evolving threats and changes to cyber environment. These areas of emphasis are realized through research and development, test and acquisition in the areas of: proactive defense, defensive counter cyberspace, cyberspace intelligence, surveillance and reconnaissance & situational awareness, persistent network operations, as well as decision support, recovery, and digital forensics. Current Air Force systems, such as the AFNET NIPRNet Gateways, SIPRNet Modernization program, and Host Based Security System leverage this technology to meet their information assurance and defensive cyberspace needs/requirements.

This program utilizes cyber and IA technology investments by US Cyber Command, the Defense Advanced Research Projects Agency (DARPA), the National Security Agency (NSA), Director of National Intelligence (DNI), Intelligence Advanced Research Projects Activity (IARPA), and the Department of Homeland Security (DHS) to jump-start its development of solutions to existing Air Force cyber and IA requirements. This program supports AF Space Commands Cyberspace strategic direction in support of Cyber Defense which provides capabilities to 24th AF, as AF component to Cyber Command (CYBERCOM)), Defense Information Systems Agency (DISA), National Security Agency (NSA), and other services to ensure Global Information Grid (GIG) cyber and IA requirements are being met. Activities performed include those designed to identify, analyze, test, rapidly acquire, and integrate emerging IA and cyber technology and defensive cyberspace weapons systems and capabilities into all regions of the GIG - terrestrial, airborne, and space systems. Activities include studies and analysis to support both current program planning and execution and future program planning.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force	DATE: April 2013
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This program is in Budget Activity 7, Operational System Development, because it addresses the development and transition of information security, protection, and defensive capabilities and technologies.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	5.853	-	5.853
Total Adjustments	0.000	0.000	5.853	-	5.853
• 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	5.853	-	5.853

Change Summary Explanation

In FY2014, Information Systems Security Program 667820 RDTE: Firestarter efforts transferred to PE 0208088F, AF Defensive Cyberspace Operations, 667820, Computer Security RDTE: Firestarter, in order to align defensive cyber programs and projects.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013	FY 2014
Title: Cyber Forensic Tools & Methodologies	0.000	0.000	1.940
Description: Cyber forensic tools & methodologies. Includes: Initial metrics for reliable info assurance; secure coalition cyber data management, collaboration and visualization; analysis of cyber security bots. ***FY 2014 Plans:*** Will continue the development of methods and technologies to enhance "real time" cyber network forensic analysis.			
Title: Cyber Threat Recognition	0.000	0.000	1.257
Description: Enhancing cyber platform technology to identify zero-day threats in real time. ***FY 2014 Plans:*** Will continue development of technologies to detect and attribute distributed computer network attacks over time and distance to specific adversaries.			
Title: Cyber Threat Attribution & Mitigation	0.000	0.000	1.362

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force	DATE: April 2013
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C. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013	FY 2014
Description: Cyber Threat Attribution and Mitigation. Includes: risk mitigation techniques for wireless networks and systems; active response, dynamic policy enforcement and computer/net attack attribution efforts. ***FY 2014 Plans:*** Will continue development of technologies to detect and attribute distributed computer network attacks, over time and distance, to specific adversaries.			
Title: Transition of Cyber and IA Technologies ***Description:*** Transition cyber defense technologies that support AFSPC's Defense architecture. Includes: space systems cyber solutions; terrestrial net defense technology development; airborne IP network cyber and IA tools; IA / cyber modeling & sim; secure interoperable distributed agent computing, and others that relate to defending the AF networks. ***FY 2014 Plans:*** Will continue enhancing and transitioning customer funded cyber and IA technology to operational USAF components in accordance with rapid requirements documentation provided by AFSPC.	0.000	0.000	0.894
Title: Program Management and Administration ***Description:*** Program management support, to include FFRDC support, travel and laboratory infrastructure. ***FY 2014 Plans:*** Program management support to include FFRDC, travel and laboratory infrastructure support.	0.000	0.000	0.400
Accomplishments/Planned Programs Subtotals	0.000	0.000	5.853

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

All major contracts within this project are awarded after full and open competition utilizing evolutionary capability and incremental development.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0208088F: *AF Defensive Cyberspace Operations*	PROJECT 677820: *Computer Security RDTE: Firestarter*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC (MITRE)	C/CPFF	Various:Various,	-	0.000		0.000		0.427	Jan 2014	-		0.427	Continuing	Continuing	
Multiple Contractors	C/CPFF	Various:Various,	-	0.000		0.000		3.850	Jan 2014	-		3.850	Continuing	Continuing	
Multiple Universities	C/CPFF	Various:Various,	-	0.000		0.000		1.176	Jan 2014	-		1.176	Continuing	Continuing	
		Subtotal	0.000	0.000		0.000		5.453		0.000		5.453			

Remarks

Multiple contractors and multiple universities reflect on-going efforts with over a dozen contractors and universities. Each has a different contract date depending on when that particular contract was awarded.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	C/CPFF	Various:Various,	-	0.000		0.000		0.400	Jan 2013	-		0.400	Continuing	Continuing	
		Subtotal	0.000	0.000		0.000		0.400		0.000		0.400			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0208088F: *AF Defensive Cyberspace Operations*	PROJECT 677820: *Computer Security RDTE: Firestarter*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		5.853		0.000		5.853			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force		DATE: April 2013
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Firestarter Schedule

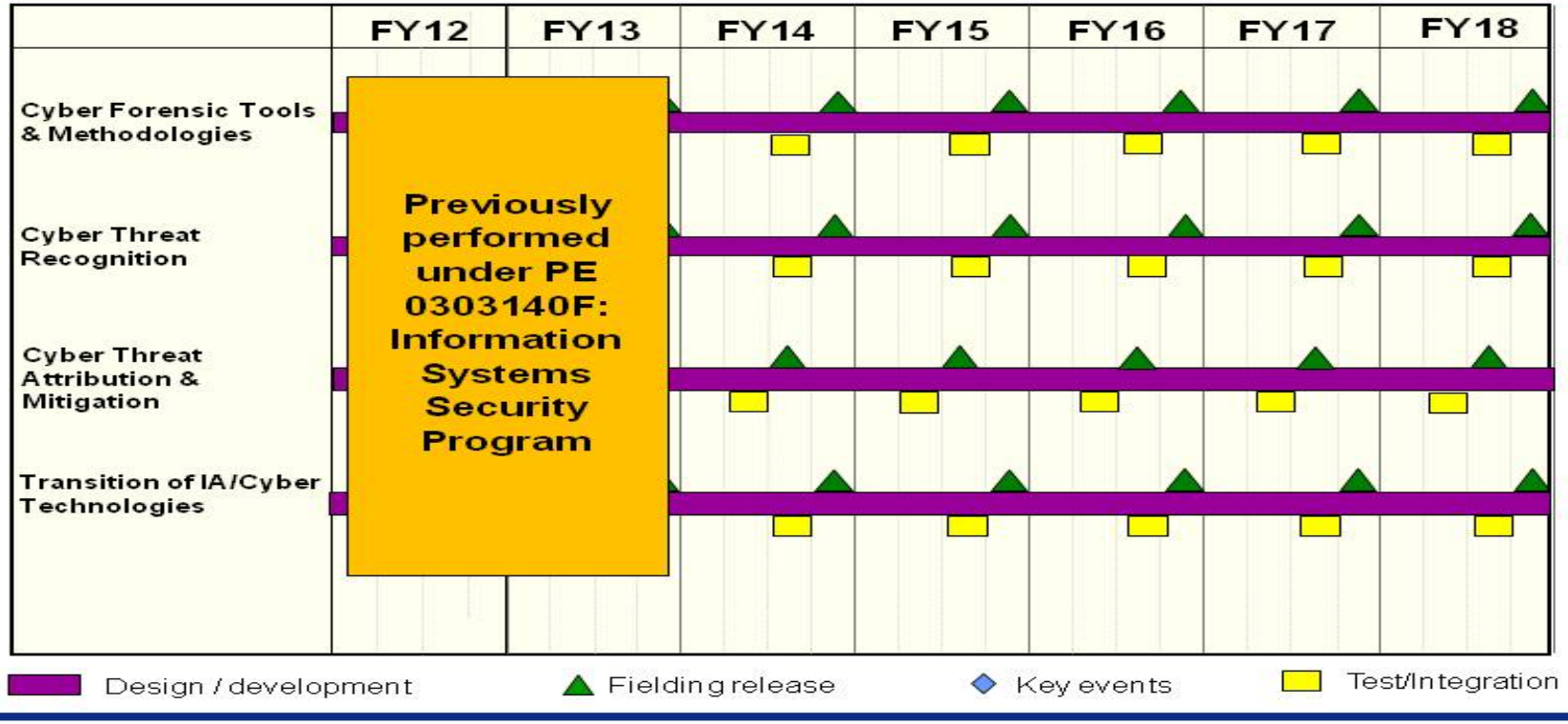

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force		DATE: April 2013
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Cyber Forensic Tools & Methodologies	1	2014	4	2018
Cyber Threat Recognition	1	2014	4	2018
Cyber Threat Attribution & Mitigation	1	2014	4	2018
Transition of Cyber/IA Technologies	1	2014	4	2018