

**UNCLASSIFIED**

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 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	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		
<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
<sup>##</sup> 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.												

**UNCLASSIFIED**

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				
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

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force		<b>DATE:</b> April 2013	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0208088F: <i>AF Defensive Cyberspace Operations</i>		

  

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<b>Description:</b> 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.  <b>FY 2014 Plans:</b> Will continue development of technologies to detect and attribute distributed computer network attacks, over time and distance, to specific adversaries.			
<b>Title:</b> Transition of Cyber and IA Technologies  <b>Description:</b> 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.  <b>FY 2014 Plans:</b> 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
<b>Title:</b> Program Management and Administration  <b>Description:</b> Program management support, to include FFRDC support, travel and laboratory infrastructure.  <b>FY 2014 Plans:</b> Program management support to include FFRDC, travel and laboratory infrastructure support.	0.000	0.000	0.400
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.000	5.853

  

<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A
<b>Remarks</b>
<b>E. Acquisition Strategy</b> All major contracts within this project are awarded after full and open competition utilizing evolutionary capability and incremental development.
<b>F. Performance Metrics</b> 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.

## UNCLASSIFIED

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2014 Air Force</b>												<b>DATE:</b> April 2013			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>						<b>R-1 ITEM NOMENCLATURE</b> PE 0208088F: <i>AF Defensive Cyberspace Operations</i>						<b>PROJECT</b> 677820: <i>Computer Security RDTE: Firestarter</i>			
<b>Product Development (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
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	
<b>Subtotal</b>			0.000	0.000		0.000		5.453		0.000		5.453			
<b>Remarks</b> 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.															
<b>Support (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
PMA	C/CPFF	Various:Various,	-	0.000		0.000		0.400	Jan 2013	-		0.400	Continuing	Continuing	
<b>Subtotal</b>			0.000	0.000		0.000		0.400		0.000		0.400			

UNCLASSIFIED

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

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: 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



# Firestarter Schedule



Design / development
  Test/Integration
  Fielding release
  Key events

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Air Force			<b>DATE:</b> April 2013
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0208088F: <i>AF Defensive Cyberspace Operations</i>	<b>PROJECT</b> 677820: <i>Computer Security RDTE: Firestarter</i>	

Schedule Details

Events	Start		End	
	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