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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0306250F I Cyber Operations Technology Development							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	-	-	81.732	-	81.732	94.643	94.754	93.593	95.179	Continuing	Continuing
646008: US Cyber Command Technology Development	-	-	-	81.732	-	81.732	94.643	94.754	93.593	95.179	Continuing	Continuing

Note

In FY 2016, funding in PECs 0208059F and 0306250F, Project 676002 Cyber Systems Modernization, BA 07, was transferred to PE 0306250F, Cyber Operations Technology Development, Project 646008, US Cyber Command Technology Development, BA 04 in order to align efforts.

This is not a new start.

A. Mission Description and Budget Item Justification

US Cyber Command (USCYBERCOM) plans, coordinates, integrates, synchronizes, and conducts activities to: direct the operations and defense of specified Department of Defense information networks and; prepare to, and when directed, conduct full-spectrum military cyberspace operations in order to enable actions in all domains, ensure US/Allied freedom of action in cyberspace and deny the same to our adversaries. Emphasis is on providing component and subsystem maturity prior to integration in major and complex systems and may involve risk reduction initiatives.

USCYBERCOM in conjunction with the Services and National Agencies will develop and expand Infrastructure modules to support Cyber Mission Forces.

This program is in Budget Activity 4, Advanced Component Development and Prototypes, because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	-	-	-	-
Current President's Budget	-	-	81.732	-	81.732
Total Adjustments	-	-	81.732	-	81.732
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	81.732	-	81.732

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3600: Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0306250F I Cyber Operations Technology Development	
<p><u>Change Summary Explanation</u></p> <p>In FY16, 676002, Cyber Systems Modification, efforts were transferred to PE 030650F, Cyber Operations Technology Development, 646008, US Cyber Command Technology Development, to align all USCYBERCOM investment funding into one Program Element and WSC.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 4					R-1 Program Element (Number/Name) PE 0306250F / Cyber Operations Technology Development				Project (Number/Name) 646008 / US Cyber Command Technology Development			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
646008: US Cyber Command Technology Development	-	-	-	81.732	-	81.732	94.643	94.754	93.593	95.179	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2016, funding in PECs 0208059F and 0306250F, Project 676002 Cyber Systems Modernization, BA 07, was transferred to PE 0306250F, Cyber Operations Technology Development, Project 646008, US Cyber Command Technology Development, BA 04 in order to align efforts.

This is NOT a new start.

A. Mission Description and Budget Item Justification

US Cyber Command (USCYBERCOM) plans, coordinates, integrates, synchronizes, and conducts activities to: direct the operations and defense of specified Department of Defense information networks and; prepare to, and when directed, conduct full-spectrum military cyberspace operations in order to enable actions in all domains, ensure US/Allied freedom of action in cyberspace and deny the same to our adversaries. Emphasis is on providing component and subsystem maturity prior to integration in major and complex systems and may involve risk reduction initiatives.

USCYBERCOM in conjunction with the Services and National Agencies will develop and expand Infrastructure modules to support Cyber Mission Forces.

Defend the Nation - CYBERCOM in conjunction with the Services and Agencies will develop the tools and capabilities, as well as tactics, techniques and procedures (TTPs) to be prepared to Defend the Nation. Developing a diverse cyber portfolio is essential for USCYBERCOM to conduct operations to include reconnaissance, surveillance, and target acquisition (RSTA); block; and counter TTPs against imminent or hostile cyber activity in support of the Defend the Nation mission from adversary cyberspace operations.

Combatant Command Support - CYBERCOM in conjunction with the Services and Agencies will develop the tools and capabilities necessary to support Geographic or Functional Combatant Command (CCMD) contingency and crisis action plans. Focus is on developing target accesses and capabilities necessary to achieve CCMD objectives during OPLAN execution and expediting technology transition from the laboratory to operational use. Increase the cyberspace capability portfolio by investing in the tools and capabilities that will be able to cause the desired effects using cyber at the exact time and place required by the Combatant Commander (CCDR). This essential development work is focused exclusively on CCMD priorities and will ensure achievement of CCMD military objectives.

Operate and Defend the DODIN - CYBERCOM in conjunction with the Services and Agencies will develop essential tools, and TTPs to defend the DoD Information Networks and cyber key terrain. CYBERCOM conducts global cyberspace operations to deter, disrupt, and defeat adversary cyberspace operations in order to defend U.S. Critical Infrastructure and Key Resources (CIKR). Enabling active defense of key terrain, operationally linked to aggressive counter-cyber threat actions, improvement of overall mission security posture, and reinforcement of organic network defenders during a cyber event.

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Appropriation/Budget Activity 3600 / 4		R-1 Program Element (Number/Name) PE 0306250F / Cyber Operations Technology Development		Project (Number/Name) 646008 / US Cyber Command Technology Development		
CYBER Situational Awareness - To develop a Common Operating Picture for cyber situational awareness for the Services and CCMDs. Cyber Situational Awareness is critical to a Commander's ability to plan, execute, and assess the mission by providing an IT over-watch environment to decision makers. This capability will enable Commanders to understand their network topology, identify cyber terrain, determine mission impact, increase Commander information flow while enabling decisions and action within operationally relevant timelines.						
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2014	FY 2015	FY 2016
Title: Defend the Nation Description: Funding supports the development of a diverse cyber capability portfolio to enable SEE, BLOCK,and MANEUVER efforts in order to defeat a wide variety of cyber attacks. Efforts include research, integration, analysis, access development, training, testing, and assessments for offensive, and defensive cyber capabilities. Any further details are held at higher classification levels. FY 2014 Accomplishments: N/A FY 2015 Plans: N/A FY 2016 Plans: Will continue to support cyber operations tools development, engineering, data strategy, and development of a common operating picture that enables USCYBERCOM to conduct operations in defense of specified Department of Defense information networks. Funding will support tool development for Joint Cyber Centers with an event detection capability and engineering support to ensure smooth integration and development. Funding will also support efforts to solve operational limitations, vulnerabilities and requirements.				-	-	35.218
Title: Combatant Command Support Description: Funding supports development and testing of various tools critical to achieving Combatant Command military objectives. Including research, studies, integration, analysis, access development and operational assessment of cyberspace capabilities, methodologies and tactics in support of Combatant Command objectives. Further details are held at higher classification levels. FY 2014 Accomplishments: N/A FY 2015 Plans: N/A FY 2016 Plans:				-	-	19.05

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Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0306250F / <i>Cyber Operations Technology Development</i>	Project (Number/Name) 646008 / <i>US Cyber Command Technology Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
Will continue to support studies, analysis, testing and development of cyber operations capabilities and tools in support of Combatant Command military objectives. Will also support advanced reverse engineering efforts, development of EW and cyberspace targeting efforts, a framework to underpin analytic and targeting efforts and seed funding for cyber capabilities and tools in support of cyber operations requirements.			
Title: Operate and Defend the DODIN and Cyber Situational Awareness Description: Funding supports engineering and development of tools, data strategy, and management of a common operating picture support operations focused on cyber key terrain at the global and national level and for cyber situational awareness for the services and CCMDs to support operations focused on cyber key terrain at the global and national level. Further details are held at higher classification levels. FY 2014 Accomplishments: N/A FY 2015 Plans: N/A FY 2016 Plans: Continue to support cyber operations tools development, engineering, data strategy, and development of a common operating picture that enables USCYBERCOM to conduct operations in defense of specified Department of Defense information networks. Funding supports tool development for Joint Cyber Centers with an event detection capability and engineering support to ensure smooth integration and development. Funding supports efforts to solve operational limitations, vulnerabilities and requirements.		-	-
Accomplishments/Planned Programs Subtotals		-	27.463
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy Contracts are awarded under full and open competition whenever possible. Variations of both Fixed Price (FP) and Cost Plus (CP) contracting vehicles will be used and managed by various Service Components contracting offices, COCOM contracting offices and the National Security Administration contracting offices.			
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 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 4						R-1 Program Element (Number/Name) PE 0306250F / Cyber Operations Technology Development				Project (Number/Name) 646008 / US Cyber Command Technology Development					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Combatant Command Support	Various	Service Partners: Various : ,	-	-		-		19.051	Nov 2015	-		19.051	Continuing	Continuing	TBD
Defend the Nation	Various	Service Partners: Various : ,	-	-		-		35.218	Nov 2015	-		35.218	Continuing	Continuing	TBD
Operate and Defend the DoDIN and Cyber Situational Awareness	Various	Service Partners: Various : ,	-	-		-		17.962	Nov 2015	-		17.962	Continuing	Continuing	TBD
Subtotal			-	-		-		72.231		-		72.231	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA - FFRDC	C/CPAF	Various: Ft Meade, MD : ,	-	-		-		9.501	Oct 2015	-		9.501	Continuing	Continuing	TBD
Subtotal			-	-		-		9.501		-		9.501	-	-	-

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	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		-		81.732		-		81.732	-	-	-
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force			Date: February 2015		
Appropriation/Budget Activity 3600 / 4		R-1 Program Element (Number/Name) PE 0306250F / <i>Cyber Operations Technology Development</i>			Project (Number/Name) 646008 / <i>US Cyber Command Technology Development</i>

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Command Command Support																												
Defend the Nation																												
GIG Ops and Defense and Cyber Situational Awareness																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0306250F / <i>Cyber Operations Technology Development</i>	Project (Number/Name) 646008 / <i>US Cyber Command Technology Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Command Command Support	1	2016	4	2020
Defend the Nation	1	2016	4	2020
GIG Ops and Defense and Cyber Situational Awareness	1	2016	4	2020