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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force										Date: February 2016		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0208087F I AF Offensive Cyberspace Operations							
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	12.928	12.874	25.025	0.000	25.025	26.092	26.762	27.259	27.744	Continuing	Continuing
670375: Network Warfare Systems and Support	-	12.928	12.874	25.025	0.000	25.025	26.092	26.762	27.259	27.744	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The AF Offensive Cyberspace Operations (OCO) program rapidly develops operations-ready cyberspace superiority capabilities from laboratory, industry, and academia via studies, rapid prototyping, technology demonstrations, and other Research, Development, Testing and Evaluation (RDT&E) efforts. This program consists of a portfolio of small programs and projects called the Offensive Cyber Product Line (OCPL) that contribute to an overall Distributed Cyber Weapons Operations (DCWO) architecture. The OCPL establishes a flexible and balanced approach to the rapid acquisition of cyber operational capabilities. OCPL effectiveness comes from balancing funding into three capability areas required for effective operations: Platforms, Access and Capabilities.

OCPL provides cyber warfare capabilities to the 24th Air Force in direct support of US Cyber Command (USCYBERCOM), AF Major Commands (MAJCOMs), unified commands, and national agencies. In accordance with AF Policy, the program office develops capabilities in the cyberspace superiority core areas. OCPL efforts also directly support the Joint Network Attack Initial Capabilities Document (ICD), the National Military Strategy for Cyberspace Operations (NMS-CO), the USCYBERCOM operational directives, the latest AF Space Command (AFSPC) Offensive Cyberspace Operations System Flight Plan, and other formal requirements documents. Planned areas of development, prototyping, and technology demonstration will be used to provide warfighters access, platforms, and tools. This includes mission planning, intelligence, and Command and Control/Situational Awareness (C2SA) tools needed to attack enemy networks, telephony, Integrated Air Defense Systems (IADS), electronic warfare operations and Command and Control systems. These advancements will be used to develop and deliver cutting-edge technologies to the warfighter. This capability area leverages cyber technology investments by the Defense Advanced Research Projects Agency (DARPA), the National Security Agency (NSA), Air Force Research Labs (AFRL), DOD national laboratories, and other sources. Many program activities are protected under AF Network Warfare Special Access Programs.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	
Previous President's Budget	13.355	12.874	25.274	0.000	25.274	
Current President's Budget	12.928	12.874	25.025	0.000	25.025	
Total Adjustments	-0.427	0.000	-0.249	0.000	-0.249	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	0.000				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	0.000				
• Reprogrammings	0.000	0.000				
• SBIR/STTR Transfer	-0.427	0.000				
• Other Adjustments	0.000	0.000	-0.249	0.000	-0.249	
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2015	FY 2016	FY 2017
Title: Cyber SA (Platforms)				5.057	8.093	14.060
Description: The Cyber Mission Platform (CMP) provides the hardware/software host for offensive cyber operations, i.e., architecture that enables mission execution						
- CMP integrates the Offensive Cyber Production Line (OCPL) developed capabilities into a common framework						
- Network Attack System sustainment to include key upgrades and modifications						
FY 2015 Accomplishments:						
- Developed platforms via necessary upgrades, modifications, equipment modernization and integration						
- Developed the core service oriented architecture for CMP (Spiral 2)						
- Initiated CMP Spiral 3 to integrate cyber services into CMP service oriented architecture						
- Some aspects of the effort are classified and will be provided on an need-to-know basis						
FY 2016 Plans:						
- Develop platforms via necessary upgrades, modifications, equipment modernization, and integration						
- Deliver the end- to-end CMP Spiral 3 system ready for operational testing and acceptance						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
- Some aspects of the effort are classified and will be provided on an need-to-know basis FY 2017 Plans: - Will develop platforms via necessary upgrades, modifications, equipment modernization, and integration leveraging industry and AFRL-developed applications - Complete fielding of CMP Spiral 3 - Begin developing additional services (Spiral 4) for CMP framework required to execute and enhance OCO mission - Begin developing CMP based Telephony Network Attack applications and services - Some aspects of the effort are classified and will be provided on an need-to-know basis				
Title: Cyber Tech Projects (Access) Description: Access provides operators with the means to enable offensive cyber operations. Specific details are classified and available upon request FY 2015 Accomplishments: - Provided access programs via necessary upgrades, modifications, equipment modernization and integration - Some aspects of the effort are classified and will be provided on an need-to-know basis FY 2016 Plans: - Provide access programs via necessary upgrades, modifications, equipment modernization, integration - Some aspects of the effort are classified and will be provided on an need-to-know basis FY 2017 Plans: - Will provide access programs via necessary upgrades, modifications, equipment modernization and integration - Some aspects of the effort are classified and will be provided on an need-to-know basis		0.500	0.942	1.033
Title: Cyber Tech Projects (Capabilities)		6.439	2.540	8.631

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
Description: The cyber capability area delivers desired effects to the target. Specific details are classified and available upon request FY 2015 Accomplishments: - Developed solutions supporting USCENTCOM, USCYBERCOM, Weapons System modernization, AFSPC Cyber Need Forms in the area of OCO capabilities - Identified and transitioned Offensive Cyber Operations technologies to meet capability gaps - Some aspects of the effort are classified and will be provided on an need-to-know basis FY 2016 Plans: - Develop solutions as required to support Combatant Commanders, Weapons System modernization, and MAJCOM Cyber Needs in the area of OCO capabilities - Some aspects of the effort are classified and will be provided on an need-to-know basis FY 2017 Plans: - Will develop solutions as required to support Combatant Commanders, Weapons System modernization, and MAJCOM Cyber Needs in the area of OCO capabilities - Some aspects of the effort are classified and will be provided on an need-to-know basis				
Title: Cyber SA (Test & Evaluation) Description: Test and Evaluation provides both developmental testing of new tool development and a secure network environment for such testing. FY 2015 Accomplishments: - Provided the required developmental testing for new platform, access, and capability products prior to fielding - Provided the secure network environment for all tests FY 2016 Plans: - Provide the required developmental testing for new platform, access, and capability products prior to fielding		0.932	1.299	1.301

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
- Provide the secure network environment for all tests FY 2017 Plans: - Will provide the required developmental testing for new platform, access, and capability products prior to fielding - Provide the secure network environment for all tests			
Accomplishments/Planned Programs Subtotals	12.928	12.874	25.025

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• OPAF: BA03: Line Item # 834320: <i>C3 Countermeasures</i>	9.894	6.332	12.140	0.000	12.140	12.033	10.631	10.819	11.014	Continuing	Continuing
• OPAF: BA03: Line Item # 834010: <i>General Information Technology</i>	1.705	1.329	1.805	0.000	1.805	1.777	1.691	1.722	1.753	Continuing	Continuing
Remarks											
E. Acquisition Strategy The Offensive Cyberspace Operations program office will utilize Concept, Development, Risk Management, or Production and Deployment Plans as part of a phased approach to acquisition planning. All plans will contain sufficient information for the Milestone Decision Authority (MDA) to determine readiness to enter into the applicable phase of the acquisition process. Offensive Cyberspace Operations will utilize both new and existing contractual vehicles, such as Government-Wide Acquisition Contract (GWAC) vehicles (Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules and a new Cyber IDIQ contract. The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that should be able to meet many requirements related to Offensive Cyberspace Operations. These multiple-award contractual vehicles have already met the statutory requirements of the Competition in Contracting Act (CICA) and require that Offensive Cyber Operations provide a fair opportunity to all contract holders, in accordance with Federal Acquisition Regulation (FAR) 16.505, unless an exception to fair opportunity applies.											
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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force												Date: February 2016			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0208087F / AF Offensive Cyberspace Operations						Project (Number/Name) 670375 / Network Warfare Systems and Support			
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
HNCY Cyber SA (Platforms)	C/CPFF	Northrup Grumman : Dayton, OH	-	5.221	Dec 2014	5.151	Jan 2016	11.561	Nov 2016	0.000		11.561	Continuing	Continuing	-
Cyber Tech Projects (Access)	Various	Army : Ft Belvoir, VA	-	0.489	Apr 2015	0.600	Jan 2016	0.850	Jun 2017	0.000		0.850	Continuing	Continuing	-
Cyber Tech Projects (Capabilities)	C/Various	Various : Various	-	2.100	Feb 2015	1.616	Jan 2016	5.980	Feb 2017	0.000		5.980	Continuing	Continuing	-
Subtotal			-	7.810		7.367		18.391		0.000		18.391	-	-	-
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
HNCY Cyber SA (Test & Evaluation)	MIPR	TASC : San Antonio, TX	-	0.932	Dec 2014	1.299	Dec 2015	1.300	Dec 2016	0.000		1.300	Continuing	Continuing	-
Subtotal			-	0.932		1.299		1.300		0.000		1.300	-	-	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 - Engineering & Technical Assistance Support Services (ETASS & FFRDC)	C/FFP	Various : San Antonio, TX	-	2.814	Dec 2014	2.894	Oct 2015	3.992	Oct 2016	0.000		3.992	Continuing	Continuing	-

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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 - Acquisition Support	C/Various	Various : San Antonio, TX	-	1.372	Oct 2014	1.314	Oct 2015	1.342	Oct 2016	0.000		1.342	Continuing	Continuing	-
Subtotal			-	4.186		4.208		5.334		0.000		5.334	-	-	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	12.928	12.874	25.025	0.000	25.025	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force			Date: February 2016		
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	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	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
Platforms CMP Sp II Development																												
Platforms CMP Sp III Development																												
Platforms CMP Sp III DT and OT Events																												
Platforms CMP Sp III OA/Fielding																												
Platforms CMP Sp IV Development																												
Platforms CMP Sp IV DT and OT Events (Jun 2017)																												
Platforms CMP Sp IV Fielding																												
Platforms CMP Sp V Development																												
Platforms CMP Sp V DT and OT Events (Sep 2018)																												
Platforms CMP Sp V OA/Fielding																												
Platforms CMP Sp VI Development																												
Platforms CMP Sp VI DT and OT Events (Dec 2019))																												
Platforms CMP SpVI OA/Fielding																												
Access																												
Capabilities																												
Test & Evaluation - 46TS Det 2																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force			Date: February 2016
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208087F / AF Offensive Cyberspace Operations	Project (Number/Name) 670375 / Network Warfare Systems and Support	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Platforms CMP Sp II Development	1	2015	3	2015
Platforms CMP Sp III Development	3	2015	3	2016
Platforms CMP Sp III DT and OT Events	4	2016	1	2017
Platforms CMP Sp III OA/Fielding	1	2017	2	2017
Platforms CMP Sp IV Development	1	2017	4	2017
Platforms CMP Sp IV DT and OT Events (Jun 2017)	3	2017	3	2017
Platforms CMP Sp IV Fielding	4	2017	1	2018
Platforms CMP Sp V Development	1	2018	4	2018
Platforms CMP Sp V DT and OT Events (Sep 2018)	4	2018	4	2018
Platforms CMP Sp V OA/Fielding	4	2018	1	2019
Platforms CMP Sp VI Development	1	2019	4	2019
Platforms CMP Sp VI DT and OT Events (Dec 2019))	1	2020	1	2020
Platforms CMP SpVI OA/Fielding	2	2020	3	2020
Access	1	2015	4	2021
Capabilities	1	2015	4	2021
Test & Evaluation - 46TS Det 2	1	2015	4	2021

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