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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0305881F I Rapid Cyber Acquisition							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	4.720	4.303	4.383	0.000	4.383	4.460	4.552	4.635	9.289	Continuing	Continuing
670374: Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt	-	4.720	4.303	4.383	0.000	4.383	4.460	4.552	4.635	9.289	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Rapid Cyber Acquisition as executed by the Cyber Capabilities Support Office (CCSO) delivers rapid offensive cyber and network exploitation capabilities to the 24th Air Force, Combatant Commanders, and Joint Force Commanders in mission-relevant timeframes (0-60 days). These capabilities support US national security interests and enhance the nation's ability to operate within the highly-dynamic cyberspace domain. The CCSO provides novel solution sets for offensive cyberspace operations to include attack, network exploitation, command and control, situational awareness, and combat support during all phases of warfare.

The CCSO expedites cyber development and modifications of USAF and DoD cyber capabilities through the integration with and technical support to other Service and Government Agency activities to leverage select Air Force-developed technologies and/or operational capabilities. CCSO develops material or non-material cyber solutions and conducts rapid prototyping, integration, and transition activities of cyber capabilities. Activities include but are not limited to development of software/hardware systems, integration and transition of lab-developed cyber capabilities, developmental testing, operational evaluation, manpower, studies, analysis, pilots, demonstrations, and risk reduction efforts for emerging technologies.

As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total		
Previous President's Budget		4.899	4.303	4.383	0.000	4.383		
Current President's Budget		4.720	4.303	4.383	0.000	4.383		
Total Adjustments		-0.179	0.000	0.000	0.000	0.000		
• 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		-0.179	0.000					
• Other Adjustments		0.000	0.000	0.000	0.000	0.000		
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: RCA Hardware/Software Development				4.121	0.000	0.000	0.000	0.000
Description: Hardware and software cyber security enhancement in support of offensive, defensive, command and control/situational awareness weapon system requirements.								
FY 2019 Plans: N/A								
FY 2020 Base Plans: N/A								
FY 2020 OCO Plans: N/A								
FY 2019 to FY 2020 Increase/Decrease Statement: N/A								
Title: RCA Hardware Integration				0.499	0.000	0.000	0.000	0.000
Description: Integrates organically developed and/or acquired capabilities for the following AF Weapon System Sustainment (WSS) programs: Cyberspace Vulnerability Assessment/Hunter (CVA/H), Cyber Security Control System (CSCS), Cyberspace Defense Analysis (CDA), Air Force Cyber Defense (ACD), and Cyber Command and Control Mission System (C3MS).								

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
FY 2019 Plans: N/A						
FY 2020 Base Plans: N/A						
FY 2020 OCO Plans: N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: N/A						
Title: Test and Evaluation		0.100	0.000	0.000	0.000	0.000
Description: Provides a secure network environment to support developmental testing in preparation for the fielding of RCA efforts.						
FY 2019 Plans: N/A						
FY 2020 Base Plans: N/A						
FY 2020 OCO Plans: N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: N/A						
Title: Cyber Capability Support Office		0.000	4.303	4.383	0.000	4.383
Description: Provides a standing research and development team to leverage funding from cyber operations requirements owners to conduct quick look assessments, solution design, rapid prototyping, testing and quick reaction fielding of cyber capabilities.						
FY 2019 Plans: - Provide professional and technical subject matter expertise and guidance for offensive and defensive cyber operations and computer network exploitation information systems to support the Air Force's mission objectives						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
<ul style="list-style-type: none"> - Develop a highly skilled rapid reaction team to prototype and deliver capability within 0-60 days, and perform quick look operational and technical assessments of cyber capabilities - Execute target systems with a multidisciplinary targeting cell to analyze and accomplish developmental planning in support of the USAF cyber operations mission - Provide a secure lab capability to support research, prototyping, development, and testing of cyber capabilities <p>FY 2020 Base Plans:</p> <ul style="list-style-type: none"> - Will provide professional and technical subject matter expertise to deliver direction and guidance for offensive cyber operations and computer network exploitation information systems to support the Air Force's cyber mission objectives - Will implement multidisciplinary targeting, execute target systems analysis, and conduct developmental planning in support of the USAF cyber mission - Will design cyber solutions to meet specific combatant command, AF major command, and other agency requirements - Will utilize a highly skilled rapid reaction team to prototype and deliver cyber capability and perform quick look operational and technical assessments - Will provide a secure lab capability to support research, prototyping, development, and testing of cyber warfare capabilities <p>FY 2020 OCO Plans: N/A</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: Funding increased due to additional offensive & defensive cyber operations architecture and analytical efforts.</p>						
Accomplishments/Planned Programs Subtotals		4.720	4.303	4.383	0.000	4.383
D. Other Program Funding Summary (\$ in Millions) N/A						
Remarks						
E. Acquisition Strategy Within Rapid Cyber Acquisition, the Cyber Capabilities Support Office (CCSO) utilizes a tailorable acquisition strategy that facilitates rapid delivery of material and non-material solutions to solve operational cyber operations requirements. This approach allows flexibility for solutions to enter the acquisitions process at any phase of the acquisition life cycle. All plans contain sufficient information for the Milestone Decision Authority to determine readiness to enter into the applicable phase of the						

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<p>acquisition process. CCSO provides the research and development, developmental testing, necessary facilities, and associated costs supporting cyber innovation leveraging funding from Air Force and combatant commands with offensive cyber operations requirements. This funding supports rapid development, technology transition and/or acquisition of cyber capabilities. CCSO analyzes, develops, tests, and transitions cyber capabilities to meet sponsor requirements. CCSO acquisition strategies in support of sponsor funded projects consider existing contracting and other transaction authority vehicles.</p>		
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 2020 Air Force												Date: February 2019			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0305881F / <i>Rapid Cyber Acquisition</i>				Project (Number/Name) 670374 / <i>Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt</i>					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
RCA HW Integration	Various	Various : Various	-	0.158	May 2018	-		-		-		-	0.000	0.158	0.000
RCA (LOGAN) ACTD	MIPR	AFRL : Rome, NY	-	2.410	Jan 2018	-		-		-		-	0.000	2.410	0.000
RCA HW/SW (Architecture Development)	Various	Various : Various	-	1.618	Jun 2018	-		-		-		-	0.000	1.618	0.000
Subtotal			-	4.186		-		-		-		-	0.000	4.186	N/A
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Cyber Capabilities Support Office (CCSO) Interagency Personnel Agreement (IPA)	SS/FFP	MIT Lincoln Laboratory : Lexington, MA	-	-		0.389	Dec 2018	0.389	Dec 2019	-		0.389	Continuing	Continuing	0.389
Due Diligence Research & Analysis	SS/CPFF	Novetta solutions : Mclean, VA	-	-		0.157	Mar 2019	0.157	Mar 2020	-		0.157	Continuing	Continuing	0.157
Cyber Capability Design	C/FFP	X8 Solutions, Inc : Oak Hill, VA	-	-		1.670	Nov 2018	1.750	Nov 2019	-		1.750	Continuing	Continuing	1.670
Internal Development	SS/CPFF	JHU Applied Physics Lab : Baltimore, MD	-	-		1.728	Apr 2019	1.728	Apr 2020	-		1.728	Continuing	Continuing	1.728
Subtotal			-	-		3.944		4.024		-		4.024	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Test and Evaluation Support	MIPR	Various : Various	-	0.100		-		-		-		-	0.000	0.100	0.000
Joint Information Range Development Environment	SS/CPFF	Novetta Solutions : Mclean, VA	-	-		0.359	May 2019	0.359	May 2020	-		0.359	Continuing	Continuing	0.359

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Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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			-	0.100		0.359		0.359		-		0.359	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 and Technical Support Services (FFRDC)	C/CPFF	MITRE : Hanscom, MA	-	0.200	Mar 2018	-		-		-		-	0.000	0.200	0.000
PMA Acquisition Support	C/Various	Various : San Antonio, TX	-	0.234	Mar 2018	-		-		-		-	0.000	0.234	0.000
Subtotal			-	0.434		-		-		-		-	0.000	0.434	N/A

			Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	4.720	4.303	4.383	-	4.383	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force		Date: February 2019
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	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Cyber Capability Support Office (CCSO)																												
CCSO Technical Direction																												
Due Diligence Research and Analysis																												
Cyber Capability Design																												
Internal Development																												
Joint Information Operations Range Development Environment																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force		Date: February 2019
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305881F / <i>Rapid Cyber Acquisition</i>	Project (Number/Name) 670374 / <i>Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Cyber Capability Support Office (CCSO)</i>				
CCSO Technical Direction	1	2019	4	2024
Due Diligence Research and Analysis	1	2019	4	2024
Cyber Capability Design	1	2019	4	2024
Internal Development	1	2019	4	2024
Joint Information Operations Range Development Environment	1	2019	4	2024