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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0208064F / <i>OPERATIONAL HQ - CYBER</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	5.323	2.115	2.347	0.000	2.347	15.100	0.000	0.000	0.000	0.000	24.885
676002: <i>Cyber Systems Modernization</i>	-	5.323	2.115	2.347	0.000	2.347	15.100	0.000	0.000	0.000	0.000	24.885
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**  
 C3MS capabilities will fully transition to Joint Cyber Command and Control (JCC2) in FY23. Funds displayed for FY24 are due to database error. No funds will be requested in FY24.

**A. Mission Description and Budget Item Justification**

Cyber Command and Control Mission System (C3MS) Mission Description: Provides the AFCYBER Commander with the tools necessary to effectively and efficiently plan, monitor, and execute missions in the cyber domain. This includes development and dissemination of Cyberspace Tasking Orders to ensure commander's intent is supported through the application of cyber forces using the latest intelligence. C3MS provides a common operational picture to maintain cyberspace threat activities and integrates cyberspace indications and warnings, analysis, and other actionable intelligence products into overall situational awareness, planning, and execution.

C3MS capabilities will fully transition to Joint Cyber Command and Control (JCC2). All efforts support continuous development with focus on interoperability and integration into JCC2. C3MS will continue modernization efforts based on a backlog of validated requirements to automate battle management capabilities and provide comprehensive cyber situational awareness. Developmental Activities include: machine-to-machine interfaces to dynamically interoperate with Air Operations Center (AOC) systems, enabling the 616 OC to conduct Command and Control (C2) and Situational Awareness (SA) at the operational level, publish AF Cyber Tasking Orders (CTOs), and quickly facilitate collaboration and mutual situational awareness; capabilities to present weapon system operators with near-real-time force location, mission, effect, and linked information, including a standardized, dynamic, map-based, situational awareness interface to display, manipulate, and manage units, missions, network elements, and effects; and multi-level security capabilities to support full-spectrum operations.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2021 \$0.000M was expended for civilian pay expenses in this program element, and in FY2022 \$0.000M is forecasted for civilian pay expenses in this program element.

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>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	5.527	2.115	0.000	0.000	0.000
Current President's Budget	5.323	2.115	2.347	0.000	2.347
Total Adjustments	-0.204	0.000	2.347	0.000	2.347
• Congressional General Reductions	-0.010	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	-0.194	0.000			
• Other Adjustments	0.000	0.000	2.347	0.000	2.347

**Change Summary Explanation**

The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY2023 cannot be made in a relevant manner.

**C. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Cyber Command and Control Mission System (C3MS) Modernization	5.323	2.115	2.347	0.000	2.347
<b>Description:</b> Perform development activities to automate processes and ingest & visualize data in support of Air Force specific cyber command and control requirements. Funding includes agile/continuous software development, test, and evaluation.					
<b>FY 2022 Plans:</b>					
- Develop automated battle management processes to define and provide cyber situational awareness to improve Air Force cyber command and control.					
- Develop multi-level security capabilities.					
- Develop machine-to-machine interface to dynamically interoperate with Air Operations Center (AOC) systems.					
<b>FY 2023 Base Plans:</b>					
- Will continue development of automated battle management processes to define and provide cyber situational awareness to improve Air Force cyber command and control.					
- Will continue development of multi-level security capabilities.					
- Will continue development of machine-to-machine interface to dynamically interoperate with Air Operations Center (AOC) systems.					

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Will continue development for system interoperability and integration into JCC2					
<b>FY 2023 OCO Plans:</b> N/A					
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increased due to economic adjustments.					
<b>Accomplishments/Planned Programs Subtotals</b>	5.323	2.115	2.347	0.000	2.347

<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF 03 834320: <i>C3 Countermeasures</i>	4.794	4.882	8.417	-	8.417	23.634	0.000	0.000	-	0.000	41.727

**Remarks**  
Beginning in FY21 associated OPAF realigned from COMSEC Equipment WSC to C3 Countermeasures WSC for clarity in reporting.

**E. Acquisition Strategy**  
The Cyber Command and Control Mission System (C3MS) weapon system program office will lead development of new capabilities to provide automated battle management capabilities to plan, monitor, and execute missions in the cyber domain. The program office will develop solutions based on a backlog of validated requirements. To meet these requirements, the C3MS program office will utilize various contractual vehicles when necessary, such as Government-Wide Acquisition Contract, Solutions for Enterprise-Wide Procurement IV, and General Services Administration Federal Supply Schedules, Network-Centric Solutions, Responsive Cyber Indefinite Delivery/Indefinite Quantity (IDIQ), Blanket Ordering Agreements (BOA) and competitive contract (if required). The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that will be able to meet emerging requirements related to Air Force Cyber Command and Control.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208064F / OPERATIONAL HQ - CYB ER	<b>Project (Number/Name)</b> 676002 / Cyber Systems Modernization
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<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C3MS Software Development	Various	Multiple : Various	-	5.185	Feb 2021	1.315	Feb 2022	2.294	Feb 2023	-		2.294	0.000	8.794	-
<b>Subtotal</b>			-	5.185		1.315		2.294		-		2.294	0.000	8.794	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C3MS Software Test and Evaluation	Various	Multiple : Various	-	0.138	Jun 2021	0.800	Oct 2021	0.053	Oct 2022	-		0.053	0.000	0.991	-
<b>Subtotal</b>			-	0.138		0.800		0.053		-		0.053	0.000	0.991	N/A

			Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			-	5.323	2.115	2.347	-	2.347	0.000	9.785	N/A

**Remarks**  
C3MS capabilities will fully transition to Joint Cyber Command and Control (JCC2) in FY23. Funds displayed for FY24 are due to database error. No funds will be requested in FY24.



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Air Force		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0208064F / OPERATIONAL HQ - CYB ER	<b>Project (Number/Name)</b> 676002 / Cyber Systems Modernization

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Automated Battle Management and Cyber SA</i></b>				
Architecture and Modeling Support	1	2021	4	2021
Software Development	1	2021	1	2024
Test and Evaluation	1	2021	4	2023

**Note**

1. C3MS Architecture and Modeling Support continued under Software Development as the transition to Commercial Cloud Services (C2S) environment requirement was incorporated into C3MS Software Development contracts.
2. C3MS capabilities will fully transition to Joint Cyber Command and Control (JCC2) in FY23. Funds displayed for FY24 are due to database error. No funds will be requested in FY24.
3. FY23 C3MS development contract period of performance ends 1Q FY24.