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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Air Force **Date:** March 2023

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305015F / C2 Air Operations Suite - C2 Info Services
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	0.000	7.708	13.751	0.000	13.751	13.500	13.888	14.159	14.451	Continuing	Continuing
675218: <i>Applications Development</i>	-	0.000	7.708	13.751	0.000	13.751	13.500	13.888	14.159	14.451	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 In FY 2023, DevOps efforts in PE 0207522F, Airbase Air Defense Systems (ABADS), Project 675218, Applications Development efforts were transferred to PE 0305015F, C2 Air Operations Suite - C2 Info Services, Project 675218, Applications Development.

A. Mission Description and Budget Item Justification

This budget line funds the development of Command and Control, Incident Management, Emergency Response Application (C2IMERA), a C2 system that addresses installation commander's and staff's ability to support Airfield, Flight and Emergency Operations. C2IMERA funds provide enhanced installation C2 to improve decision speed, quality, and lethality by incorporating direct user feedback, connecting people, automating daily operations, and integrating data from myriad systems. C2IMERA receives input from users and system interfaces and displays data on the real-time, interactive Common Operating Picture (COP) and consolidated dashboards. C2IMERA also provides a theater level Higher Headquarters (HHQ) module to aggregate critical data theater-wide to improve real-time awareness. C2IMERA provides automated updates via the COP, as well as notifications via emails and alerts, alleviating the need for briefings, meetings, and radio communication(s).

The C2IMERA operational concept has three capability areas:

- C2 collaboration across the Wing - operate/fight the base
- Wing Situational Awareness
- Wing Collaboration/reporting to HHQ (i.e., Air Operations Center (AOC), the Air Force Forces (AFFOR), Command Center etc.)

Requirements also include supporting base operations, mission management and monitoring, HHQ Information Exchange Requirements (IERs), Emergency Action Messaging, Situation Reports (SITREP) automation, and other key enablers supporting the operational concept.

FY24 funds will support the Agile DevOps of enhanced architecture to make C2IMERA more scalable, add integrations and enhance data automation. This includes architecting the application to operate in Degraded, Disconnected, Intermittent and Low-Bandwidth (D-DIL) environments to support key operational concepts such as Agile Combat Employment. Funds will also support scaling C2IMERA to additional CONUS and OCONUS Air Force installations.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funding would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY22, \$0.000M was expended for civilian pay expenses in this program element, and in FY23, \$0.797M is forecasted for civilian pay expenses in this program element.

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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.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	0.000	8.097	8.282	0.000	8.282
Current President's Budget	0.000	7.708	13.751	0.000	13.751
Total Adjustments	0.000	-0.389	5.469	0.000	5.469
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-0.389			
• 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	0.000	0.000			
• Other Adjustments	0.000	0.000	5.469	0.000	5.469

Change Summary Explanation

Program Changes table does not account for:
FY23, -\$0.209M for SBIR tax

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: Command and Control, Incident Management, Emergency Response Application (C2IMERA)	0.000	7.708	13.751
Description: C2IMERA will improve Installation command and control by connecting people, integrating data, and automating daily operations. The aggregation of theater data and activities enhances Operational C2 as well as increases decision speed and operational advantage. This is accomplished by incorporating direct user feedback, connecting people, automating daily operations, and integrating data from myriad systems. C2IMERA receives input from users and system interfaces and the data is displayed on the real-time, interactive COP. C2IMERA provides automated updates via the COP, as well as notifications via emails and alerts, alleviating the need for briefings, meetings, and radio communication(s).			
FY 2023 Plans:			
Activities supported with FY23 funding include, but are not limited to the following:			
-Will develop Advanced Battle Management System (ABMS)/Joint All Domain Command and Control (JADC2) integrations and capabilities.			
-Will share C2IMERA data with Air Base Air Defense Missile Defense (ABADS(MD)).			
-Will support architectural improvements to enable transition from a monolithic codebase to a scalable microservices codebase.			

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<ul style="list-style-type: none"> -Will expand Higher Headquarters capabilities and data aggregation. -Will lead and manage program through daily interaction with contractor and key stakeholders. -Will identify, monitor, mitigate and report program and known risks associated with software and testing. -Will develop efforts for interoperability with external agencies as required. -Will develop system integration & interoperability with operational C2 systems. -Will conduct C2 tabletop exercises. -Will conduct contractor integration testing of components & subsystems. -Will verify, validate, and accredit modeling & simulation tools for use in test. -Will conduct integrated contractor/government developmental test & evaluation to characterize performance and cybersecurity posture. -Will garner Foreign Disclosure Office approval for foreign partners to gain access to the application. -Will garner approval for 2-year ATO renewal. <p>FY 2024 Plans: Activities supported with FY24 funding include, but are not limited to the following:</p> <ul style="list-style-type: none"> -Will expand on D-DIL capabilities in support of JADC2/ACE. -Will integrate with ABADS(MD). -Will complete microservices architecture improvements and deprecation of monolith baseline. -Will develop two-way communications between HHQ and installation C2IMERA systems. -Will expand map layer services. -Will lead and manage program through daily interaction with contractor and key stakeholders. -Will identify, monitor, mitigate and report program and known risks associated with software and testing. -Will expand integration with the joint C2 framework. -Will begin transition to multi-tenant capabilities. -Will integrate with Kessel Run's Rebel Alliance data sharing service. -Will integrate with the Kessel Run All-Domain Operations Suite (KRADOS) applications. <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding increased to expand foundational capabilities, increase integrations, and scale across the global enterprise.</p>				
Accomplishments/Planned Programs Subtotals		0.000	7.708	13.751

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D. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE 07 0604617F: <i>Agile Combat Support</i>	0.000	8.199	5.645	-	5.645	0.000	0.000	0.000	-	0.000	13.844

Remarks

FY23 Project 675218 Applications Development funding incorrect due to a database error. Project 675218 Applications Development should equal FY23: \$7.499M.

E. Acquisition Strategy

The acquisition strategy builds on agile software engineering methodologies and modernization of existing capabilities utilizing evolutionary acquisition. Using Section 804, timelines are reduced by modularizing both software engineering solutions and the associated contracting and funding strategies. This enables dynamic resource allocation based on current warfighter needs. The desired end state is continuous delivery of Software. In FY20, the decision was made to transition from Middle Tier of Acquisition (MTA), Section 804 Rapid prototyping/Fielding to the Software Acquisition Pathway. This program is dependent on support from the All Domain Common Platform (ADCP).

Program management for the C2IMERA program is under direction of PEO Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hanscom AFB, MA is the contracting authority for the C2IMERA program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force **Date:** March 2023

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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
C2IMERA Development	TBD	TBD : TBD	-	-		4.477	Jan 2023	9.432	Jan 2024	-		9.432	Continuing	Continuing	-
Subtotal			-	-		4.477		9.432		-		9.432	Continuing	Continuing	N/A

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
C2IMERA Test Support	PO	96th Test Wing : Eglin, FL	-	-		0.250	Jan 2023	0.265	Jan 2024	-		0.265	Continuing	Continuing	-
Subtotal			-	-		0.250		0.265		-		0.265	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
C2IMERA Program Support	C/Various	Not specified. : Hanscom AFB, MA	-	-		2.592	Jul 2023	3.245	Jan 2024	-		3.245	Continuing	Continuing	-
C2IMERA Systems Engineer	SS/ Various	Not specified. : Hanscom AFB, MA	-	-		0.389	Oct 2022	0.809	Oct 2023	-		0.809	Continuing	Continuing	-
Subtotal			-	-		2.981		4.054		-		4.054	Continuing	Continuing	N/A

			Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-	7.708	13.751	-	13.751	Continuing	Continuing	N/A

Remarks
FY23: C2IMERA funding transferred from PE 0207522F, Airbase Air Defense Systems (ABADS), Project Number 675218, Applications Development.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force		Date: March 2023
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FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
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

Software Development	
C2IMERA Software development	
Test	
C2IMERA Test	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Software Development				
C2IMERA Software development	1	2023	4	2028
Test				
C2IMERA Test	1	2023	4	2028

Note

See PE 0207522F, Airbase Air Defense Systems (ABADS), Project Number 675218, Applications Development for previous development events.