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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 0207522F / <i>Airbase Air Defense Systems (ABADS)</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	-	0.000	7.392	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.392
675218: <i>Applications Development</i>	-	0.000	7.392	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.392
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**  
 In FY 2022, PE 0207410F, Air & Space Operations Center (AOC), Project 674596, AOC WS Modifications were transferred to PE 0207522F, Airbase Air Defense Systems (ABADS), Project 675218, Applications Development.

In FY 2023, DRF COP efforts in PE 0207522F, Airbase Air Defense Systems (ABADS), Project 675218, Applications Development efforts are transferred to PE 0604617F, Agile Combat Support, Project 675218, Applications Development.

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

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

Command and Control, Incident Management, Emergency Response Application (C2IMERA) is a C2 system that addresses installation commanders' and staffs' ability to execute daily C2 and Air Operations. C2IMERA funds provide enhanced installation command and control to improve decision speed, quality, and lethality by incorporating direct user feedback, connecting people, automating daily operations, and integrating data from a myriad of 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 module to aggregate theater-wide installation to provide real-time awareness of critical data. C2IMERA provides automated communications via the COP, automated emails, notifications, 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., AOC, AFFOR, Command Center etc.)

As part of C2IMERA emergency management, Disaster Response Force Common Operating Picture (DRF COP) funds identify and/or develop, implement, and maintain a standardized, singular, and near real-time situational awareness COP for Air Force disaster response forces. DRF COP supports incidents or events at the tactical, operational, and strategic level, allowing information to be shared and exchanged across the Air Force enterprise and other relevant external agencies within the Continental United States (CONUS) and Outside the Continental United States (OCONUS) Air Force Installations.

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Requirements include Command and Control Operations Career Field (1C3X1) community as the core Installation C2 node, supporting Base Operations, Mission Management and Monitoring, Higher Headquarters Information Exchange Requirements (IERS), Emergency Action Messaging, Situation Reports (SITREP) automation, and other key enablers supporting the operational concept.

C2IMERA FY23 funds will support the Agile Dev Ops development of enhanced architecture to make C2IMERA more scalable, add additional 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.

This program is part of the overarching Kessel Run portfolio.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver C2IMERA weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605831F. In FY19 \$00.000M, in FY20 \$00.000M, and in FY21 \$00.000M

was expended for civilian pay expenses in this program element.

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 2019 Air Force penalty total is \$50.0M. 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.

<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	0.000	7.392	0.000	0.000	0.000
Current President's Budget	0.000	7.392	0.000	0.000	0.000
Total Adjustments	0.000	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	0.000	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> Command and Control, Incident Management, Emergency Response Application (C2IMERA)</p> <p><b>Description:</b> C2IMERA will provide enhanced installation command and control 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 the data is displayed on the real-time, interactive COP. C2IMERA provides automated communications via COP, emails, notifications, and alerts, alleviating the need for briefings, meetings, and radio communication.</p> <p><b>FY 2022 Plans:</b> FY22 activities include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>-Continue to refine DRF COP capabilities to include enhanced automated integration with local, state, and federal safety agencies solutions.</li> <li>-Continue to further develop Advanced Battle Management System (ABMS)/Joint All Domain Command and Control (JADC2) capabilities to provide critical evolving capabilities integrating Installation Command and Control (IC2) with air operations at Major Command (MAJCOM) and Higher Headquarter (HHQ) levels. This includes enhancing system and data resiliency with edge computing technologies tied into the enterprise computing infrastructure.</li> <li>-Continue to extend Cross-Domain capabilities to support full data synchronization between the low side (NIPR) and high side (SIPR) C2IMERA instances to facilitate JADC2.</li> <li>-Continue with the enterprise employment of C2IMERA for installation and wing command and control to enhance warfighter effectiveness and impacts achieved through an overhaul of the C2IMERA data model and a consolidated/federated data access layer.</li> <li>-Continue with architectural improvements to transition from incrementally delivered micro services to a single-tenancy implementation with support for Software-as-a-Service (SaaS).</li> <li>-Continue with the automated workflow and improved system integration with continued interface development focusing on the fusion of installation/base C2 node data with MAJCOM and HHQ level systems at the strategic levels.</li> <li>-Migrate to All Domain Common Platform (ADCP).</li> </ul> <p><b>FY 2023 Plans:</b> See PE 0604617F, Agile Combat Support, Project 675218, Applications Development.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> See PE 0604617F, Agile Combat Support, Project 675218, Applications Development.</p>	-	7.392	0.000
<b>Accomplishments/Planned Programs Subtotals</b>	-	7.392	0.000

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<b>D. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>E. Acquisition Strategy</b> 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 Summer of FY20, the decision was made to transition from MTA, Sec 804 Rapid Prototyping/Fielding to the new NDAA FY20 - Software Acquisition Pathway, which is the preferred path for acquisition and development of software-intensive systems. This program is part of the overarching Kessel Run portfolio and is dependent on the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud-based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.		

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

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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			
C2IMERA Development	TBD	TBD : TBD	-	-		5.192	Jan 2022	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		5.192		-		-		-	Continuing	Continuing	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			
C2IMERA Test Support	PO	96th Test Wing : Eglin, FL	-	-		0.252	Mar 2022	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		0.252		-		-		-	Continuing	Continuing	N/A

<b>Management Services (\$ 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			
C2IMERA Program Management Administration	C/Various	Not specified. : Hanscom AFB, MA	-	-		1.560	Jul 2022	-		-		-	Continuing	Continuing	-
C2IMERA Systems Engineer	SS/ Various	Not specified. : Hanscom AFB, MA	-	-		0.388	Oct 2022	-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			-	-		1.948		-		-		-	Continuing	Continuing	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>		-	-	7.392	-	-	Continuing	Continuing

**Remarks**



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Air Force		<b>Date:</b> April 2022
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Software Development</b>				
C2IMERA Software Development	1	2022	4	2022
<b>Test</b>				
C2IMERA Test	1	2022	4	2022