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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 0604617F / <i>Agile Combat Support</i>
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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	8.199	5.645	0.000	5.645	0.000	0.000	0.000	0.000	0.000	13.844
675218: <i>Applications Development</i>	-	0.000	8.199	5.645	0.000	5.645	0.000	0.000	0.000	0.000	0.000	13.844
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This program is part of the overarching Kessel Run portfolio. In FY 2023, PE 0207522F, Airbase Air Defense Systems (ABADS), Project 675218, Applications Development efforts are transferred to PE 0604617F, Agile Combat Support (ACS), Project 675218, Applications Development.

Global all-hazards/threats to Department of the Air Force (DAF) installations continues to generate substantial risk to tactical, operational, and strategic missions. The DAF Emergency Management (EM) program builds secure and resilient installations with integrated, adaptable, and interoperable whole-of-community common core capabilities required across the range of military operations to prevent, protect against, mitigate, respond to, and recover from all-hazards/threats. The EM program is primarily concerned with natural, technological, and human-caused hazards/threats that pose the greatest risk to lives, resources, facilities, infrastructure, and mission assets. Included is DAF support to civil and host nation authorities; anti-terrorism programs; and Countering Weapons of Mass Destruction (CWMD).

Funding is required to leverage advanced information technology (IT) capabilities and develop a DAF Emergency Management Information System (EMIS). DAF EMIS will excavate, consolidate, correlate, and propagate interoperable authoritative information to and from diverse mission partners (e.g., local, state, tribal, federal, higher headquarters, joint, and allied). It will generate the ability to collaborate with multi-jurisdictional partners and manage resources to save lives, mitigate resource loss, and continue operational missions. Included are capabilities to compress decision-making cycles; propagate a tactical, operational, and strategic Common Operating Picture (COP); and facilitate convergence of information through sensing, making sense, and taking action. DAF EMIS will enhance complex multi-jurisdictional/mission partner interoperability through use of common terminology, a COP, standardized processes, data sharing, and systematic methods. DAF EMIS interoperable informational capabilities are rooted in and support Homeland Security Presidential Directive 5 (HSPD-5), Management of Domestic Incidents, Presidential Policy Directive 8, National Preparedness, the Department of Homeland Security (DHS) National Planning Framework/Mission Areas, the National Preparedness System, the National Incident Management System (NIMS), Incident Command System (ICS), and explicit requirements expressed in DoD/DAF Emergency Management; CWMD; and Chemical, Biological, Radiological, and Nuclear (CBRN) Defense doctrine/policy. DAF EMIS requirements support SecAF operational imperatives, the AF/A4 Basing and Logistics Enterprise Strategy (BLES), the Air Force Advanced Battle Management System (ABMS), and the Joint All Domain Command and Control (JADC2) construct.

DAF EMIS requirements will be filled through agile development and new additive capabilities by leveraging the Command and Control Incident Management Emergency Response Application (C2IMERA). This tool is an installation Command and Control (C2) situational awareness and decision making capability and allows DAF EMIS to connect and integrate with the Air Force user base and C2 nodes including mission execution to include the application of air/space power authorities during crisis response operations/major combat operations. The alignment of DAF EMIS (e.g., AF/A4 delegated authorities for EM & CBRN defense) within and

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through C2IMERA provides significant synergistic effects regarding cost burden sharing to include advancing response/ recovery outcomes in support of DAF tactical, operational, and strategic war-fighting capabilities.

Through RDT&E funding and agile development DAF EMIS will develop and deliver cross-cutting common core whole-of-community informational capabilities to 1) identify and manage all-hazard/threat risk to protected assets; 2) enhance planning and resource posturing and delivery; 3) support hazard/threat specific community resiliency training; 4) facilitate EM exercise planning and execution; 5) inform and warn the populace/public/higher headquarters; and 6) support incident/attack command and coordination during response and recovery operations.

Included are DAF EMIS capabilities synchronized with DHS planning framework/mission area information capabilities to 1) prevent a threatened or an actual act of terrorism and/or nation state adversary attack through consolidating and disseminating select threat information; 2) protect lives, resources, mission assets through escalation of physical protective measures (e.g., sheltering, evacuation, hardening, etc.) to include capturing and displaying mission partner CBRN hazard COP elements; 3) mitigate the impact, severity, or consequences for community determined hazard/threat vulnerabilities (and build resiliency); 4) respond to save lives, stabilize the incident, protect personnel/assets, meet basic human needs, and set the stage for initial recovery; and 5) recover the installation by stabilizing infrastructure and restoring lifeline systems through whole-of-community collaboration (e.g., water, electrical systems, cyber systems, communications, shelter, transportation, and hazardous material), meeting the needs of individuals/the installation/local community, and prioritizing recovery of near and long-term mission generation ability.

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 FY22 0.00M was expended for civilian pay expenses in this program element, and in FY23 0.50M is forecasted for Government Program Office manpower to include civ pay, MITRE, & A&AS 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.

B. Program Change Summary (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	0.000	8.199	5.632	0.000	5.632
Current President's Budget	0.000	8.199	5.645	0.000	5.645
Total Adjustments	0.000	0.000	0.013	0.000	0.013
• 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	0.013	0.000	0.013

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Title: Department of the Air Force Emergency Management Information System (DAF EMIS), formerly known as Disaster Response Force Common Operating Picture (DRF COP)</p> <p>Description: DAF EMIS 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.</p> <p>FY 2023 Plans:</p> <ul style="list-style-type: none"> - Establish baseline interoperability with EM mission partners. -- Operational: Develop functionality that is aligned and synchronized with standardized and systematic DHS/ DoD/DAF EM processes, cross-cutting information common core capabilities, and national planning framework/mission areas. -- IT System: Seamlessly share user selected information with mission partner applications. Entails ability to access and share authoritative info from a multitude of select systems/applications/sensors (e.g., intelligence, Law Enforcement, EM, public health, DHS/Host Nation CWMD/CBRN sensor networks, off installation critical and routine infrastructure monitoring systems, etc.). - Develop initial whole-of-community EM planning and integrated risk management capabilities to enhance resource posturing/delivery for response/recovery actions; support all-hazard/threat community resiliency training; facilitate EM exercise planning and execution; and better inform and warn the populace/public through exploitation of advanced technology. - Develop, implement, and maintain a sharable and interoperable, standardized, singular, near real-time situational awareness COP for DAF and multi-jurisdictional response and recovery forces. - Monitor/consolidate installation and surrounding community infrastructure status to focus response/recovery priorities. - Provide ability to monitor holistic near-real time status of community lifelines (Safety and Security; Food, Water, Shelter; Health and Medical; Energy/Power & Fuel; Communications; Transportation; and Hazardous Material) and ability to target lifeline stabilization activities. - Support software architectural improvements to enable transition from incrementally delivered micro services to a multi-tenancy implementation with support for Software as a Service (SAAS) while supporting the additional DAF EMIS capabilities and increased user base. - Continue with the extension of cross-domain capabilities to support full data synchronization between the Non-Secure Internet Protocol Router (NIPR) (unclassified) and Secure Internet Protocol Router (SIPR) (classified) C2IMERA instances to facilitate sharing of threat data, plans, and ultimately the Joint All Domain Command and Control (JADC2) construct. - Support the Agile Dev Ops development of enhanced architecture to make C2IMERA more scalable, add additional integrations and enhance data automation, and increase interoperability across CONUS and OCONUS DAF installations. This includes application architecture to advance the ability to operate in Degraded, Disconnected, Intermittent and Low-Bandwidth (D-DIL) environments to support Homeland Defense, building EM mission partner capacity, Defense Support to Civil Authorities, and key operational concepts such as Agile Combat Employment. 		0.000	8.199	5.645

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>- Leverage emergent computational technologies in machine learning, artificial intelligence (AI), image analytics, and other advanced algorithms to save lives, mitigate resource loss, and continue DAF missions.</p> <p>FY 2024 Plans:</p> <ul style="list-style-type: none"> - Continue to develop DAF EMIS operational and IT system interoperability requirements. - Develop advanced whole-of-community EM planning and integrated risk management capabilities; leverage augmented reality/virtual reality (AR/VR) interface technologies for community resilience training/table top exercises; and enhance the ability to inform and warn the populace/public through connection/interoperability with emerging DHS CWMD sensors, DoD Joint Program Office for Chemical/Biological Defense Integrated Early Warning and CBRN support to C2 IT capabilities and concepts, and the Defense Threat Reduction Agency/DAF Austere Environment Reconnaissance and Surveillance (AERS) CBRN Defense sensors. - Continue to develop, implement, and maintain a sharable and interoperable, standardized, singular, near real-time situational awareness COP for DAF and multi-jurisdictional response and recovery forces. - Integrate sensors/drones to assess post incident/attack impacts regarding the surrounding community and installation infrastructure status - increase response/recovery actions. - Continue to provide the ability to monitor holistic near-real time status of community lifelines (Safety and Security; Food, Water, Shelter; Health and Medical; Energy/Power & Fuel; Communications; Transportation; and Hazardous Material). - Continue to software architectural improvements, enable transition from incrementally delivered micro services to a multi-tenancy implementation with software as a service, and support additional DAF EMIS capabilities and increased user base. - Continue with the extension of cross-domain capabilities to support full data synchronization between the NIPR and SIPR C2IMERA instances to facilitate the JADC2 construct. - Continue to support the Agile Dev Ops development of enhanced software and software architecture to make the system more scalable, add additional integrations and enhance data automation, and increase interoperability across CONUS and OCONUS DAF Installations. - Continue to leverage emergent computational technologies in machine learning, artificial intelligence (AI), image analytics, and other advanced algorithms to increase DAF capability to save lives, mitigate resource loss, and continue DAF missions. <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY24: Funding decreased as architecture development is realized, focus now primarily on feature development.</p>			
Accomplishments/Planned Programs Subtotals	0.000	8.199	5.645

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

Remarks

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E. Acquisition Strategy

The acquisition strategy builds on agile software engineering methodologies and modernization of existing capabilities utilizing evolutionary acquisition. In FY21, the acquisition strategy transitioned to the Software Acquisition Pathway to support the continuous integration/continuous deliver (CI/CD) agile methodology. This program is part of the overarching Kessel Run portfolio and is dependent on support from the All Domain Common Platform (ADCP).

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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	
DAF EMIS Software development	

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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				
DAF EMIS Software development	1	2023	4	2028