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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 0305099F / <i>Global Air Traffic Management (GATM)</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	-	4.658	4.533	5.031	0.000	5.031	5.142	5.273	5.380	5.575	Continuing	Continuing
674689: <i>Global Access Architecture</i>	-	4.658	4.533	5.031	0.000	5.031	5.142	5.273	5.380	5.575	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program element funds the Air Force Life Cycle Management Center (AFLCMC) Aerospace Management Systems Division (AMSD), the designated Air Force (AF) Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and Navigation Safety Center of Excellence (COE).

The COE provides centralized avionics expertise to Headquarters Air Force, AF Major Commands (MAJCOM), and weapon system program offices. This funding enables the COE to participate, influence, and vote in government and industry technical forums as well as U.S. and international civil aviation standards bodies such as the Federal Aviation Administration (FAA), International Civil Aviation Organization (ICAO), Radio Technical Commission for Aeronautics (RTCA), the DoD Airlines Electronic Engineering Committee (AEEC) and others. These organizations are responsible for the development and assessment of international civil aviation standards for safe and efficient flight operations in worldwide airspace. This centralized CNS/ATM technical expertise capability supports all MAJCOMs and AF weapon system program offices.

The COE develops strategies to update and implement CNS/ATM capability requirements on AF weapon systems, as well as tailor the GPMs to each airframe's unique avionics architecture and operational mission. Efforts include but are not limited to performance assessment, test support, performance monitoring, interoperability testing, cybersecurity assessments, and the development of CNS/ATM capabilities for unmanned platforms. Currently, the COE supports all AF Program Office work to modernize interfaces that support GPS M-Code, ARC-210 replacements, SATCOM upgrades, and performance based navigation.

The COE performs periodic and event driven audits of National Geospatial-Intelligence Agency (NGA) Digital Aeronautical Flight Information File (DAFIF). This electronic navigation database contains critical safety of flight information used by the majority of DoD flight crews to fly Instrument Flight Rules (IFR) procedures, safely navigate airways and fly Instrument Approach Procedures (IAPs) to civil and military airfields worldwide.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY22 \$0.000 million was expended for civilian pay expenses in this program element, and in FY23 \$0.000 million is forecast 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. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	4.672	4.895	5.020	0.000	5.020
Current President's Budget	4.658	4.533	5.031	0.000	5.031
Total Adjustments	-0.014	-0.362	0.011	0.000	0.011
• 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	-0.014	-0.362	0.011	0.000	0.011
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024		
Title: CNS/ATM COE Administration of DoD Avionics Equipment Catalog (CNS/ATM II)	0.425	0.457	0.164		
Description: In accordance with AFPAM 63-129 Section 2.7.7 and AFI 63-101 Section 5.4.6.2, the CNS/ATM COE maintains a centralized Indefinite Delivery/Indefinite Quantity (ID/IQ) contract which contains pre-approved products for use by implementing aircraft SPOs. These include or will include: navigation safety avionics equipment/components, navigation data, and technical engineering services. Supports numerous DoD, US Federal Agencies, and Foreign Military Sales program offices. Provide preferred customer pricing and extended warranty.					
FY 2023 Plans: Continue development and administration of the CNS/ATM II contract. Include new transponder products and SW capability updates.					
FY 2024 Plans: Continuation of the CNS/ATM II contract activities and monitor Federal and Military CNS/ATM mandates for potential inclusion onto future contracts.					
FY 2023 to FY 2024 Increase/Decrease Statement: Funding decreased due to reduced contract activities and requirements.					
Title: CNS/ATM COE Digital Aeronautical Flight Information File (DAFIF) Management	2.117	2.038	2.434		
Description: Perform periodic audits of the processes and procedures utilized by organizations involved in the development and distribution of critical safety of flight electronic databases used by aircrews to fly instrument flight rules procedures worldwide.					

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
Ensures the validity of multiple sources of information critical to implementation of international performance based navigation (PBN) standards. FY 2023 Plans: Continue efforts with DoD agencies and the FAA to audit/certify electronic navigational databases and sources, and develop performance based procedures required to operate without restriction in the National Airspace System (NAS) and in international civil aviation environments. Continue to publish procedures and databases with sufficient accuracy/performance necessary to operate manned and remotely piloted aircraft globally. FY 2024 Plans: Continuation of efforts with DoD agencies and the FAA to audit/certify electronic navigational databases and sources; and, develop performance based procedures required to operate without restriction in the National Airspace System (NAS) and in international civil aviation environments to include but not limited to publishing procedures and update databases to ensure accuracy/performance parameters necessary to operate manned and remotely piloted aircraft globally. FY 2023 to FY 2024 Increase/Decrease Statement: Funding increased due to amplified CNS/ATM COE DAFIF Management efforts.				
Title: CNS/ATM COE Standards Bodies Engagement and Generic Performance Matrix (GPM) Development Description: Participate in technical forums to understand and influence civil aviation standards and incorporate DoD interests to ensure safe and efficient access of AF manned and unmanned aircraft to the global airspace. Create new and/or revise GPMs used by AF platform program offices to ensure aircraft comply with civil aviation requirements. Tailor GPMs for program offices to apply standards to unique aircraft avionics architectures. Assist 30+ aircraft program offices with the development of CNS/ATM related test and evaluation plans, the analysis of test/performance data, and the assessment of aircraft CNS/ATM performance through preparation of a Performance Assessment Report (PAR). FY 2023 Plans: Prioritize participation in technical forums and civil aviation standards bodies based on funding and operational requirements of AF platforms. Continue development of generic and tailor performance matrices to ensure AF manned and remotely piloted aircraft are capable and certified to operate safely and efficiently in worldwide civil airspace in accordance with emerging performance based CNS/ATM requirements. Continue to support AF aircraft platform program office test and design reviews, analysis of test/performance data, and performance assessment reports. Prioritize manpower support to provide deliverable products such as the TPM or PAR to ACAT 1 and reportable modification programs across the AF fleet. Support will be provided to AF platform program offices based on manpower availability and operational requirements of AF platforms. FY 2024 Plans:		2.116	2.038	2.433

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Continue development of generic and tailored performance matrices to ensure manned and remotely piloted aircraft are proficient and certified to operate safely and effectively in worldwide civil airspace in accordance with emerging performance-based CNS/ATM requirements to include but not limited to program office test and design reviews, analysis of test/performance data, and performance assessment reports.			
<i>FY 2023 to FY 2024 Increase/Decrease Statement:</i> Funding increased due to slight ramp up of CNS/ATM COE Standards Bodies Engagement and GPM Development activities.			
Accomplishments/Planned Programs Subtotals	4.658	4.533	5.031

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

N/A

Remarks

A strategic pause was implemented to the CNS/ATM Storefront due to FY 2023 funding reduction. The COE will re-assess future goals and plans for the application to adequately develop and sustain the Storefront in the FYDP.

E. Acquisition Strategy

This program provides contractor Advisory and Assistance Service (A&AS) and other technical experts support to the Air Force Life Cycle Management Center (AFLCMC) Aerospace Management Systems Division (AMSD), the designated Air Force (AF) Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and Navigation Safety Center of Excellence (COE).

These services are acquired via the issuance of task/delivery orders against existing contractor support contract vehicles available to the CNS/ATM COE.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)					Project (Number/Name)						
3600 / 7				PE 0305099F / Global Air Traffic Management (GATM)					674689 / Global Access Architecture						
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Prime Contracts	C/CPAF	Not specified : TBD	-	0.353	Oct 2021	0.361	Oct 2022	0.065	Oct 2023	-		0.065	Continuing	Continuing	-
Subtotal			-	0.353		0.361		0.065		-		0.065	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
CNS/ATM Center of Excellence: Technical support for CNS/ATM requirement assessments, GPM development, DAFIF navigation data chain audits/certification, and CNS/ATM ID/IQ contract management.	C/T&M	MITRE : Bedford, MA	-	2.541	Oct 2021	2.667	Oct 2022	2.771	Oct 2023	-		2.771	Continuing	Continuing	-
CNS/ATM Center of Excellence: Technical support for operational requirement assessments, GPM development, DAFIF navigation data chain audits/certification, and CNS/ATM ID/IQ contract management.	C/CPFF	Oasis Systems : Lexington, MA	-	1.176	Jul 2022	1.409	Jul 2023	2.095	Jul 2024	-		2.095	Continuing	Continuing	-
Subtotal			-	3.717		4.076		4.866		-		4.866	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Program Support Costs - (Contract Services)	C/T&M	Oasis Systems : Lexington, MA	-	0.563	Jul 2022	0.000	Jul 2023	0.000	Jul 2024	-		0.000	Continuing	Continuing	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305099F / <i>Global Air Traffic Management (GATM)</i>	Project (Number/Name) 674689 / <i>Global Access Architecture</i>

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

CNS/ATM COE	
Generic Performance Matrix Development	
DAFIF Management	
CNS/ATM iGATM II Contract Administration	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force		Date: March 2023
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305099F / <i>Global Air Traffic Management (GATM)</i>	Project (Number/Name) 674689 / <i>Global Access Architecture</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CNS/ATM COE				
Generic Performance Matrix Development	1	2022	4	2028
DAFIF Management	1	2022	4	2028
CNS/ATM iGATM II Contract Administration	1	2022	2	2028