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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0305099F: Global Air Traffic Management (GATM)							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	4.604	4.461	4.430	-	4.430	4.209	4.312	4.478	4.559	Continuing	Continuing
674689: Global Access Architecture	-	4.604	4.461	4.430	-	4.430	4.209	4.312	4.478	4.559	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Unfettered access to civil airspace is required for all Air Force platforms to perform their operational mission.

To meet that requirement this program funds the AF Life Cycle Management Center (LCMC) Aerospace Management Systems Division (AMSD), the designated AF Communication, Navigation, Surveillance/Air Traffic Management and Navigational Safety (CNS/ATM) Center of Excellence (COE). This COE provides expertise to the Air Staff, MAJCOMs and all platform program offices, manned and un-manned, on meeting civil CNS/ATM performance standards necessary to operate in the US National Airspace System (NAS) and international civil airspace. This centralized capability precludes the necessity for the MAJCOMs and over 50 AF platform program offices to have resident technical CNS/ATM expertise.

The COE monitors and evaluates ever-evolving international civil aviation standards for operations in sovereign airspace worldwide. Analyzing civil documents, CNS/ATM experts identify specific technical and engineering criteria and document them for AF stakeholders in Generic Performance Matrices (GPMs). Once identified, the Air Staff and MAJCOMs determine how the AF will address these civil standards for each platform to best perform the AF specific mission. When a material solution is required, CNS/ATM experts, considering the platform's engineering characteristics, work with the platform program office to meet the civil standards in the GPM. Once the work is complete, the COE verifies and validates the CNS/ATM performance meets the standards necessary to operate in the civil airspace. This is an iterative process to address both changes in civil airspace standards and shifts in AF military operational requirements.

The COE manages Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts for centralized procurement of CNS/ATM and Nav Safety products. These contracts are used by platform programs across the AF and DOD, other federal agencies and in support of foreign military sales; they provide the benefits of quantity cost savings and industry-unique warranty clauses.

The CNS/ATM COE performs periodic audits on the processes and procedures used to develop and distribute the Digital Aeronautical Flight Information File (DAFIF). This electronic navigation database, created by the National Geospatial Intelligence Agency (NGA), contains safety of flight critical information and is used by AF and DOD aircrews to fly instrument departure and arrival procedures worldwide. The COEs unique expertise is recognized and accepted by the NGA, the FAA, AF and DOD operating organizations.

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The AF is the Lead Service for DOD to coordinate the department's support of the Congressionally mandated Next Generation Air Transportation System (NextGen) program to upgrade the US NAS over the next 25+ years. In 2012 the CNS/ATM COE was designated DOD's NextGen Joint Program Office (JPO). They are to provide acquisition and engineering support to coordinate activities across DOD and advocate for DOD interests as NextGen (and similar CNS/ATM programs being initiated worldwide) is implemented.						
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 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget		4.604	4.461	4.430	-	4.430
Current President's Budget		4.604	4.461	4.430	-	4.430
Total Adjustments		0.000	0.000	0.000	-	0.000
• Congressional General Reductions		-	0.000			
• Congressional Directed Reductions		-	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		-	0.000			
• Congressional Directed Transfers		-	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	0.000	-	0.000
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2012	FY 2013	FY 2014
Title: Contract Support and Administration for DOD Avionics Equipment Catalog				0.538	1.059	0.562
Description: Overarching contract vehicles that are actually individual contracts with multiple avionics vendors for multiple products. To date current versions have generated in excess of \$220M in purchases. Supports DoD, US Federal Agencies, and Foreign Military Sales. Provides price reasonableness and 10 year equipment warranty.						
FY 2012 Accomplishments: Generated \$42M+ in sales. Facilitated DoD compliance with European surveillance, Mode S upgrade requirements. Provided growth capable equipment for DoD ADS-B and RNAV/RNP requirements.						
FY 2013 Plans: Continuing administration of current catalog and preparation of Request for Proposal (RFP) for follow on CNS/ATM II contract. Ensure availability of avionics required for Congressionally mandated NextGen ADS-B requirements.						
FY 2014 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
Implement and advertise new CNS/ATM II ID/IQ contract. Continue to provide option for DoD equipment requirements for NextGen compliance.				
Title: Digital Aeronautical Flight Information File (DAFIF) Management Description: Perform periodic audits of the processes and procedures utilized by stakeholder organizations involved in the development and distribution of safety of flight critical electronic databases used by aircrews flying instrument procedures worldwide. Ensure validity of multiple sources of information critical to implementation of international Performance Based Navigation standards. FY 2012 Accomplishments: Joint CNS/ATM Senior Leadership Review validated Joint standards for database accuracy and error reporting. Directed Services to standardize qualifications and criteria for geodetic survey personnel and reporting format. FY 2013 Plans: Work with other Services and National Geospatial Intelligence Agency (NGA) to validate accuracy of data input and investigate improved automation capabilities in order to continue to increase database accuracy. Work with AF Flight Standards Agency Terminal Instrument Approach Procedure Specialists to continue development and publication GPS based instrument procedures. FY 2014 Plans: Work with other services and FAA to develop the Performance Based procedures required to operate unrestricted in the NextGen and international civil aviation environment. Continue the publication of procedures with the required degree of accuracy/performance required for unrestricted aircraft and Remotely Piloted Aircraft (RPA) in the National Airspace System (NAS).		2.114	1.592	2.071
Title: Program Management and Administration Description: All program management support to include, but not limited to, government costs and contracted services. FY 2012 Accomplishments: Continued PMA support FY 2013 Plans: Continue PMA support FY 2014 Plans: Continue PMA support.		0.369	0.540	0.536
Title: Generic Performance Matrix (GPM) Development		1.583	1.270	1.261

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
Description: Drafting and revising the 28+ GPMs used by AF platform program offices to ensure their aircraft comply with civil aviation requirements. Tailoring GPMs for customers, including developing T&E plans, executing and analyzing Performance Assessments, and certifying data chains for 50+ aircraft and RPA programs. FY 2012 Accomplishments: Completed Automatic Dependent Surveillance-Broadcast (ADS-B) GPM. Provided standard for platform program offices to plan to equip to meet Congressionally mandated 1 Jan 2020 mandate. Facilitated short notice Reduced Vertical Separation Minima (RVSM) certification for Battlefield Airborne Command Node (BACN) aircraft thereby expediting deployment supporting Combatant Commander warfighting requirement. FY 2013 Plans: Continue to refine CNS/ATM performance matrices used to identify specific NextGen requirements and provide acquisition and engineering support services to AF and DoD entities as they program and equip to meet NextGen requirements. FY 2014 Plans: Continue development of performance matrices to ensure AF aircraft, manned and unmanned, are certifiable under emerging International Civil Aviation Organization Performance Based requirements.				
Accomplishments/Planned Programs Subtotals		4.604	4.461	4.430
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy AMSD CNS/ATM Acquisition Strategy guides CNS and NAV safety equipment procurements for AF aircraft/UAS single managers. This strategy ensures systems standardization and interoperability and directly supports the airworthiness certification of AF aircraft/UAS that operate in national and international air traffic environments. The AMSD will collaborate to provide technical support and expertise, execute system performance assessments and will interface with product/support centers, battle labs, and DoD research facilities in the execution of the assigned task. Program research and development agreements, cooperative research and development agreements, and Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts will be competitively awarded.				
F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force												DATE: April 2013			
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Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Develop systems to monitor avionics equipage of US military aircraft, participate in US/ international specification and standards-setting, and develop resource material in support of CNS/ATM	C/T&M	MIT/Lincoln Laboratory:Lexington, MA	-	0.539	Apr 2012	0.000	Apr 2013	0.490	Apr 2014	-		0.490	Continuing	Continuing	
Providing various technical support, operational requirements, and assessments for Generic Performance Matrices.	C/T&M	MITRE Corporation:Bedford, MA	-	0.794	Oct 2011	0.658	Oct 2012	0.653	Oct 2013	-		0.653	Continuing	Continuing	
Provide various technical support for execution and compilation of Generic Performance Matrices - A&AS-ETASS	C/CPFF	Jacobs Technology:Lincoln, MA	-	0.520	Jan 2012	0.613	Jan 2013	0.608	Jan 2014	-		0.608	Continuing	Continuing	
Providing various technical support, operational requirements, and assessments for Navigation Data Chain Certification	C/T&M	MITRE Corporation:Bedford, MA	-	1.588	Oct 2011	1.316	Oct 2012	1.306	Oct 2013	-		1.306	Continuing	Continuing	
Provide various technical support for execution and compilation for Navigation Data Chain Certification - A&AS-ETASS	C/CPFF	Jacobs Technology:Lincoln, MA	-	0.173	Dec 2011	0.204	Dec 2012	0.203	Dec 2013	-		0.203	Continuing	Continuing	
Providing various technical support, operational requirements, and assessments for User CNS/ATM support and ID/ IQ Contract Management	C/T&M	MITRE Corporation:Bedford, MA	-	0.124	Oct 2011	0.616	Oct 2012	0.128	Oct 2013	-		0.128	Continuing	Continuing	

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Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Provide various technical support for execution and compilation for User CNS/ATM support and ID/IQ Contract -A&AS-ETASS	C/CPFF	Jacobs Technology:Lincoln, MA	-	0.414	Dec 2011	0.443	Dec 2012	0.434	Dec 2013	-		0.434	Continuing	Continuing	
Provide various technical support for execution for Navigation Data Chain Certification -RCAT	C/FP	ARINC:Annapolis, MD	-	0.083	Aug 2012	0.071	Aug 2013	0.072	Aug 2014	-		0.072	Continuing	Continuing	
Subtotal			0.000	4.235		3.921		3.894		0.000		3.894			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Provide Program office support-A&AS-PASS	C/T&M	Quantech Services:Bedford, MA	-	0.095	Feb 2012	0.216	Feb 2013	0.215	Dec 2013	-		0.215	Continuing	Continuing	
Provide Program office support-A&AS-SCS	C/T&M	Tecolote:Bedford, MA	-	0.055	Nov 2011	0.083	Nov 2012	0.082	Dec 2013	-		0.082	Continuing	Continuing	

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Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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 Office Support	Various	TBD:Bedford, MA	-	0.219	Oct 2011	0.241	Oct 2012	0.239	Oct 2013	-		0.239	Continuing	Continuing	
Subtotal			0.000	0.369		0.540		0.536		0.000		0.536			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.604		4.461		4.430		0.000		4.430			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

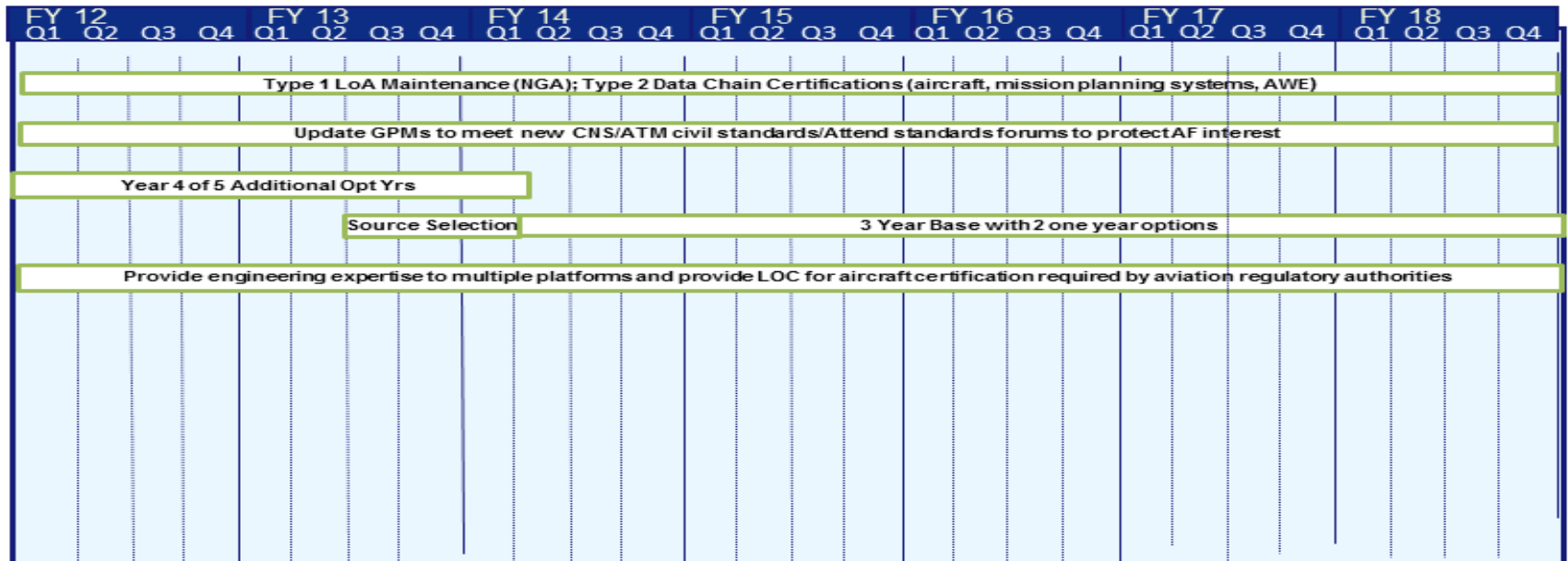
R-1 ITEM NOMENCLATURE

PE 0305099F: Global Air Traffic
Management (GATM)

PROJECT

674689: Global Access Architecture

CNS/ATM



POC: SAF/AQXX DSN 260-0499

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Nav Data: Type 1 LoA Maintenance (NGA); Type 2 Data Chain Cert.	1	2012	4	2018
Update GPMs to meet new CNS/ATM civ standards/Attend industry standards development forums	1	2012	4	2018
ID/IQ Contract CNS/ATM I Year 4 of 5 Additional Opt Yrs	1	2012	2	2014
ID/IQ Contract CNS/ATM II Source Selection	3	2013	2	2014
ID/IQ Contract CNS/ATM II 3 Year Base with 2 one year options	2	2014	4	2018