

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force									DATE: February 2012		
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)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	5.679	4.604	4.461	-	4.461	4.430	4.234	4.381	4.533	Continuing	Continuing
674689: Global Access Architecture	5.679	4.604	4.461	-	4.461	4.430	4.234	4.381	4.533	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM): This Air Force (AF) program centralizes engineering and technical expertise for CNS capability acquisitions and modifications to ensure that all AF aircraft, Unmanned Aerial Systems (UAS) and Remotely Piloted Aircraft (RPA) comply with appropriate CNS/ATM and Navigation Safety performance standards and requirements enabling access to U.S. and international nation/state managed airspace. The Aerospace Management Systems Division (AMSD) supports AF aircraft and UAS CNS/ATM acquisitions as the AF's centralized focal point (Center of Excellence) for identifying, analyzing, and evaluating internationally accepted civil aviation authority operational airspace rules, procedures and requirements worldwide. This group of experts identifies, analyzes, and evaluates the technical performance standards and requirements of the prescribed CNS capabilities and supports platform program offices in the design and integration of the capabilities required to ensure access to civil airspace worldwide. Department of Defense policy states that military platforms conducting peacetime operations will conform to applicable rules to ensure interoperability and transparency within national and international airspace. AMSD verifies that the system's end-to-end performance for each CNS capability integrated into AF platforms complies with these internationally accepted rules and standards. AMSD will develop and maintain CNS/ATM performance matrices used to identify specific CNS/ATM requirements and will provide acquisition and engineering support services through the entire acquisition management system. Furthermore, AMSD will develop and award Indefinite Delivery/Indefinite Quantity contracts for centralized procurement of CNS/ATM and Nav Safety products. AMSD will also participate in the development of Operational Safety, Suitability and Effectiveness assurance and Airworthiness Certification Plans. Dual-use capabilities of avionics to satisfy both civil CNS/ATM and military unique capability requirements will be explored as well as interoperability enhancements to expand net-centric concepts. AMSD will facilitate and participate in development and testing of CNS box-level prototypes. AMSD conducts studies and prototyping efforts to ensure AF aircraft are postured to meet current and evolving civil standards leading to the concept of "free flight." AMSD also provides acquisition and engineering support to the DoD Lead Service Office for the interagency Next Generation Air Transportation System (NextGen) initiative. As the formally designated NextGen Joint Program Office, the AMSD will be responsible for coordinating DoD activities related to the NextGen effort, facilitating technology transfer for those R&D activities with potential NextGen application, and advocate for DoD interests, requirements and capabilities in NextGen. The AMSD will develop and coordinate NextGen architectures and equipage roadmaps with interagency partners and other regulatory agencies to allow aircraft, UAS and RPA unrestricted access into global civil airspace.

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.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force				DATE: February 2012		
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)				
B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		5.708	4.604	4.549	-	4.549
Current President's Budget		5.679	4.604	4.461	-	4.461
Total Adjustments		-0.029	-	-0.088	-	-0.088
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-0.029	-	-0.088	-	-0.088
Change Summary Explanation						
FY11 - Economic Assumption CGR of \$.029M is reflected in the Other Adjustment Row.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: CNS/ATM				5.679	4.604	4.461
Description: Provide engineering, technical and programmatic support to aircraft, UAS and RPA program offices in their efforts to meet the CNS performance standards enabling continued access to the global airspace environment for the execution of mission sets supporting Combatant Commanders exercise and contingency operations. Support activities include identifying technical performance requirements, developing avionics design architectures, awarding ID/IQ contracts for CNS avionics systems and components, developing test & evaluation strategies and plans, and assessing CNS, navigation safety and GPS navigation warfare capability performance compliance with nation/state regulatory guidance to ensure AF platforms remain interoperable within the global airspace environment.						
FY 2011 Accomplishments: Provide engineering, technical and programmatic support to aircraft, UAS and RPA program offices in their efforts to meet the CNS performance standards enabling continued access to the global airspace environment for the execution of mission sets supporting Combatant Commanders exercise and contingency operations. Support activities include identifying technical performance requirements, developing avionics design architectures, awarding ID/IQ contracts for CNS avionics systems and components, developing test & evaluation strategies and plans, and assessing CNS, navigation safety and GPS navigation warfare capability performance compliance with nation/state regulatory guidance to ensure AF platforms remain interoperable within the global airspace environment.						
FY 2012 Plans:						

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force		DATE: February 2012									
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305099F: <i>Global Air Traffic Management (GATM)</i>										
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013							
Provide engineering, technical and programmatic support to aircraft, UAS and RPA program offices in their efforts to meet the CNS performance standards enabling continued access to the global airspace environment for the execution of mission sets supporting Combatant Commanders exercise and contingency operations. Support activities include identifying technical performance requirements, developing avionics design architectures, awarding ID/IQ contracts for CNS avionics systems and components, developing test & evaluation strategies and plans, and assessing CNS, navigation safety and GPS navigation warfare capability performance compliance with nation/state regulatory guidance to ensure AF platforms remain interoperable within the global airspace environment. FY 2013 Plans: Provide engineering, technical and programmatic support to aircraft, UAS and RPA program offices in their efforts to meet the CNS performance standards enabling continued access to the global airspace environment for the execution of mission sets supporting Combatant Commanders exercise and contingency operations. Support activities include identifying technical performance requirements, developing avionics design architectures, awarding ID/IQ contracts for CNS avionics systems and components, developing test & evaluation strategies and plans, and assessing CNS, navigation safety and GPS navigation warfare capability performance compliance with nation/state regulatory guidance to ensure AF platforms remain interoperable within the global airspace environment.											
Accomplishments/Planned Programs Subtotals		5.679	4.604	4.461							
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
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.											

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305099F: <i>Global Air Traffic Management (GATM)</i>	PROJECT 674689: <i>Global Access Architecture</i>

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305099F: <i>Global Air Traffic Management (GATM)</i>	PROJECT 674689: <i>Global Access Architecture</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Continue support for C-17 Block 17/18/19 upgrades	1	2011	4	2017
Continue support for C-130 AMP upgrade	1	2011	4	2013
Continue support to C-130J Block 7/8 upgrades	1	2011	4	2017
Continue support for KC-135 Block 40.5/45 upgrades	1	2011	4	2017
Continue support for B-52 FM/8.33 Radio/BRNAV upgrades	1	2011	4	2012
Continue support for E-3 DRAGON upgrade	1	2011	4	2017
Continue support for F-35 RSVM, RNP/RNAV, ADS-B upgrades	1	2011	4	2017
Continue support for F-16 Mode S ELS upgrade	1	2011	4	2013
Continue support for EC-130 CNS/ATM avionics, requirements, acquisition, and integration	1	2011	4	2017
Continue CNS/ATM requirements development, acquisition, and integration for AFSOC fixed/rotary wing aircraft	1	2011	4	2017
Continue AETC CNS/ATM capability analysis	1	2011	4	2017
Continue UAS ground based sense and avoid capabilities development	1	2011	3	2013
Continue Nav/Safety and GPS/NAVWAR integration and interoperability evaluations	1	2011	4	2017
Continue acquisition of ID/IQ CNS avionics equipment and components	1	2011	2	2014