

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604429F I Airborne Electronic Attack							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	3.987	4.575	30.687	-	30.687	8.413	7.840	7.198	7.335	Continuing	Continuing
655192: Network & Sys -of-Sys Dev	-	3.987	4.575	30.687	-	30.687	8.413	7.840	7.198	7.335	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

This project concentrates on the overall systems engineering, modeling and simulation, architecture and network requirements development, effectiveness assessment and requirements allocation to component systems of the Airborne Electronic Attack (AEA) System of Systems (SoS). It also includes establishment and use of virtual test capabilities for system of systems effectiveness testing/evaluation for AEA, studies and technology risk mitigation demonstrations for potential AEA SoS components and AEA SoS battle management, development planning, and the development and maintenance of the Air Force electronic warfare capability investment strategy. These efforts are crucial in the development of critical electronic attack capabilities in support of Air Force and joint operations to include Global Strike and Persistent Global Attack Concepts of Operations (CONOPS).

The joint AEA SoS includes the Navy EA-6B and EA-18G core components; the Air Force Miniature Air Launched Decoy (MALD) and its stand-in jammer variant, MALD-J; the EC-130H Compass Call Baseline 0 (formerly Block 35) configuration; Active Electronically Scanned Array (AESA) radar equipped aircraft; potentially an unmanned recoverable stand-in jamming platform; potentially a manned low/mid frequency, high power component capable of location and reactive jamming suppression of enemy integrated air defense system (IADS) radars outside the ranges of the associated Surface-to-Air Missiles (SAMs) and non-IADS targets. Recent events have led to an increased focus on developing advanced electronic attack capabilities for use in irregular warfare against non-IADS targets such as communication networks, remote controlled improvised explosive devices and man portable air defenses. In addition, there is an increased focus on examining non-traditional electronic attack alternatives to counter both IADS and non-IADS components such as communication networks, computers, command and control links, etc. in both major combat and irregular warfare scenarios.

This program is included in budget activity 5, System Development and Demonstration, because of the development and/or testing associated with Airborne Electronic Attack.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force				Date: March 2014	
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 0604429F I Airborne Electronic Attack			
B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	4.118	4.575	7.904	-	7.904
Current President's Budget	3.987	4.575	30.687	-	30.687
Total Adjustments	-0.131	-	22.783	-	22.783
• Congressional General Reductions	-0.005	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.126	-			
• Other Adjustments	-	-	22.783	-	22.783
Change Summary Explanation FY15 funds added for Analysis of Alternatives studies.					
C. Accomplishments/Planned Programs (\$ in Millions)			FY 2013	FY 2014	FY 2015
Title: System Engineering Studies & Technology Transition (AEA SoS)			2.018	2.325	2.750
Description: Apply systems engineering rigor to manage Air Force Airborne Electronic Attack (AEA) System of Systems (SoS) program requirements, designs, and operational concepts. Assess operational effectiveness of multiple Electronic Warfare systems in both offensive and defensive roles.					
FY 2013 Accomplishments: Assessed potential contributions of emerging AEA components (including non-kinetic counter electronics capabilities) to both integrated air defense system (IADS) and non-IADS scenarios for both major warfare and irregular warfare, developed Air Force (AF) electronic support systems mitigation measures, updated AF electronic warfare (EW) Roadmap as directed by HQ AF, updated AF EW Capability Investment Strategy with studies in support of AF Core Function Master Plans.					
FY 2014 Plans: Conduct cost and operational effectiveness assessments of contributions of emerging AEA components such as non-kinetic counter electronics capabilities to both IADS and non-IADS scenarios for major and irregular warfare, refine AF electronic support system mitigation alternatives, update AF EW Roadmap as directed by HQ AF, update AF EW Capability Investment Strategy with studies in support of AF Core Function Master Plans.					
FY 2015 Plans:					

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force							Date: March 2014				
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604429F I Airborne Electronic Attack						
C. Accomplishments/Planned Programs (\$ in Millions)							FY 2013	FY 2014	FY 2015		
Conduct cost and operational effectiveness assessments of contributions of emerging AEA components such as non-kinetic counter electronics capabilities to both IADS and non-IADS scenarios for major and irregular warfare, define and recommend implementation strategies to mitigate AF electronic support system risks, update AF EW Roadmap as directed by HQ AF, update AF EW Capability Investment Strategy with studies in support of AF Core Function Master Plans.											
Title: Capability Planning (AEA SoS) Description: Provide capability planning to the Air Force electronic warfare and Airborne Electronic Attack (AEA) System of Systems (SoS) portfolio and constructive modeling and simulation and analysis management. FY 2013 Accomplishments: Conducted additional AEA simulations to assess effectiveness of newly emerging/upgraded systems operating in both stressing integrated air defense system (IADS) and Irregular Warfare/non-IADS environments. FY 2014 Plans: Conduct AEA SoS simulations to assess effectiveness of newly emerging and/or proposed upgraded systems (MALD-J, 4th Gen fighter upgrades, advanced Electronic Support Measures risk mitigation approaches, non-kinetic counter electronics capabilities, etc.) operating together in stressing IADS and Irregular Warfare/non-IADS environments. FY 2015 Plans: Conduct various analysis of alternatives related to electronic attack as well as conduct additional AEA simulations in support of a non-kinetic counter electronics analysis of alternatives and contributions of AEA components to effectiveness and survivability of 4th Generation fighters operating in both stressing IADS and Irregular Warfare/non-IADS environments.							1.969	2.250	27.937		
Accomplishments/Planned Programs Subtotals							3.987	4.575	30.687		
D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• None: N/A	-	-	-	-	-	-	-	-	-	-	-
Remarks											
E. Acquisition Strategy Project 5192, "Network and System of Systems Development" uses existing Air Force Life Cycle Management Center, Air Force Research Lab, and other contracts and instruments to provide engineering, architecture development, and other support for the Airborne Electronic Attack (AEA) System of Systems.											

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604429F / <i>Airborne Electronic Attack</i>	
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 2015 Air Force

Date: March 2014

Appropriation/Budget Activity
3600 / 5

R-1 Program Element (Number/Name)
PE 0604429F / Airborne Electronic Attack

Project (Number/Name)
655192 / Network & Sys -of-Sys Dev

AEA SoS Schedule

