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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604429F: <i>AIRBORNE ELECTRONIC ATTACK</i>							
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	25.051	41.000	4.118	-	4.118	19.142	15.619	11.841	12.019	Continuing	Continuing
655192: <i>Network & Sys -of-Sys Dev</i>	9.335	11.258	4.118	-	4.118	19.142	15.619	11.841	12.019	Continuing	Continuing
655193: <i>Electronic Attack Pod</i>	15.716	29.742	-	-	-	-	-	-	-	Continuing	Continuing

Note

In FY13, Project 655193, Electronic Attack Pod, was terminated.

A. Mission Description and Budget Item Justification

This Program Element (PE) supports the development of the critical electronic attack capabilities, from technology demonstrations through transition to operational capability, for Air Force and joint operations to include the Global Strike and Persistent Global Attack Concepts of Operations (CONOPS). Based on the 2001 Joint Airborne Electronic Attack (AEA) Analysis of Alternatives (AoA) and the follow-on 2002 Joint Suppression of Enemy Air Defenses (Joint SEAD) presentation to OSD (AT&L), the AEA capability will consist of a number of components working together in a joint system of systems. The Joint SEAD presentation identified the Navy AEA components as the EA-6B Improved Capability (ICAP) III and EA-18G modified escort platforms and indicated the Air Force will be responsible for coordinating overall AEA system of systems requirements. AF component capabilities include the Miniature Air Launched Decoy (MALD) and its stand-in jammer variant called MALD-J, the EC-130H Compass Call Baseline 0 (formerly Block 35) configuration and Active Electronically Scanned Array (AESA) radar equipped aircraft, and potentially, recoverable unmanned stand-in and manned long range stand-off jammer platforms. Additionally, this program element supports the planning, development and demonstration of capabilities for use in Irregular Warfare against non-Integrated Air Defense System (IADS) targets. This includes targets such as communications networks, remote controlled improvised explosive devices, and man portable air defenses. It also supports examining alternatives to counter both IADS and non-IADS components such as communications 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.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0604429F: AIRBORNE ELECTRONIC ATTACK			
BA 5: Development & Demonstration (SDD)					
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	25.937	47.100	83.845	-	83.845
Current President's Budget	25.051	41.000	4.118	-	4.118
Total Adjustments	-0.886	-6.100	-79.727	-	-79.727
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.100			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.751	-			
• Other Adjustments	-0.135	-	-79.727	-	-79.727
Change Summary Explanation					
FY2011 adjustments of -\$0.135M for economic assumptions.					
FY2012 Congressional Directed Reductions of \$2.6M against Project 655192, Network and System of System Development; and \$3.5M against Project 655193, Electronic Attack Pod.					
FY2013 adjustments for Electronic Attack Pod termination					

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604429F: AIRBORNE ELECTRONIC ATTACK				PROJECT 655192: Network & Sys -of-Sys Dev			
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
655192: Network & Sys -of-Sys Dev	9.335	11.258	4.118	-	4.118	19.142	15.619	11.841	12.019	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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 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.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: System Engineering Studies & Technology Transition	8.115	10.345	3.368
Description: Apply sustems engineering rigor to manage Air Force AEA program requirements, designs, and operational concepts.			
FY 2011 Accomplishments: Analyze contributions of multiple Airborne Electronic Attack Systems of Systems, components coupled with legacy and new development self-protection systems; update Air Force Electronic Warfare Roadmap and develop Implementation Plan for Air			

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604429F: AIRBORNE ELECTRONIC ATTACK	PROJECT 655192: Network & Sys -of-Sys Dev		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013
Force Electronic Warfare Vision 2030 as directed by Headquarters Air Force; update the Air Force Electronic Warfare Capability Investment Strategy with studies approved by the sponsoring MAJCOMS in support of Air Force Electronic Warfare Roadmap initiatives. \$3.5M realigned from Project 655193, Electronic Attack Pod to support a counter-communications Joint Urgent Operational Need (JUON). FY 2012 Plans: Analyze contributions of multiple Airborne Electronic Attack Systems of Systems components to both Integrated Air Defense System (IADS) and non-IADS scenarios for both major warfare and irregular warfare; examine non-traditional electronic attack alternatives to remotely defeat networks, computers, etc.; assist MAJCOMs in incorporating EV 2030 goals and objectives into AF Core Function Master Plans as directed by HQ AF; update AF EW Capability Investment Strategy with studies approved by sponsoring MAJCOMs in support of AF Core Function Master Plans. FY 2013 Plans: Assess pontential contributions of emerging AEA SoS components to both IADS and non-IADS scenarios for both major warfare and irregular warfare; 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 Description: Provide capability planning to the Air Force electronic Warfare portfolio and constructive modeling and simulation and analysis management. FY 2011 Accomplishments: Conduct additional Airborne Electronic Attack System of System simulations to assess effectiveness of newly emerging/upgraded systems (EA-18G, MALD-J, EC-130H upgrades, Communications Electronic Attack Pod, etc.) operating together in stressing Integrated Air Defense System (IADS) environments and Irregular Warfare/non-IADS environments. FY 2012 Plans: Conduct additional Airborne Electronic Attack System of System simulations to assess effectiveness of newly emerging/upgraded systems (EA-18G, MALD-J, EC-130H upgrades, non-traditional network countermeasures,etc.) operating together in stressing Integrated Air Defense System (IADS) environments and Irregular Warfare/non-IADS environments. FY 2013 Plans: Assess effectiveness and contributions of non kinetic countermeasures to AEA SoS mission operating in both stressing IADS and Irregular Warfare/non-IADS environments.		1.220	0.913	0.750
Accomplishments/Planned Programs Subtotals		9.335	11.258	4.118

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604429F: AIRBORNE ELECTRONIC ATTACK	PROJECT 655192: Network & Sys -of-Sys Dev	

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

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• None: <i>N/A</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

Project 5192, "Network and System of Systems Development" uses existing ASC, AFRL, and other contracts and instruments to provide engineering, architecture development, and other support for the AEA System of Systems.

E. 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-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 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604429F: <i>AIRBORNE ELECTRONIC ATTACK</i>	PROJECT 655192: <i>Network & Sys -of-Sys Dev</i>

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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 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604429F: <i>AIRBORNE ELECTRONIC ATTACK</i>	PROJECT 655192: <i>Network & Sys -of-Sys Dev</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
DoD Planning Scenarios Suppressor updates	1	2011	4	2017
Continuing to Support EW Assessments	2	2011	4	2017
AEA SoS Suppressor Improvements	2	2011	4	2017
AF EW Investment Strategy	4	2011	4	2017
AESA/RWR analysis/test	4	2012	3	2013
Non Kinetic Counter Electronics Analysis	4	2012	1	2015
NKCE Technology Demonstration	3	2014	2	2015
Continuing to Support EW Assessments (1)	2	2011	4	2017
NKCE Technology Demonstration (1)	3	2014	2	2015

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604429F: AIRBORNE ELECTRONIC ATTACK				PROJECT 655193: Electronic Attack Pod			
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
655193: Electronic Attack Pod	15.716	29.742	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note In FY2013, Project 655193, Electronic Attack Pod was terminated.											
A. Mission Description and Budget Item Justification This project is to develop, acquire, and field an advanced electronic attack capability to operate in an Irregular Warfare environment and counter non-Integrated Air Defense targets (e.g., counter communications, counter Remote Controlled Improvised Explosive Devices). Included is the integration needed to interface and test the resulting pod on the threshold aircraft, the MQ-9. This program is included in budget activity 5, System Development and Demonstration, because of the development and/or testing associated with Airborne Electronic Attack. This project is terminated in FY13. The Air Force is completing risk reduction and determining required funding for program termination.											
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2011	FY 2012	FY 2013	
Title: Initial Development Efforts Description: Initiate development of an advanced electronic attack irregular warfare jamming capability. FY 2011 Accomplishments: Finalized detailed requirements via acquisition strategy baseline planning and analysis, modeling and simulation, systems/sustaining engineering strategy and analysis, risk analysis, test and evaluation strategy, life cycle cost estimates, and sustainment/logistics analysis. FY 2012 Plans: Complete planning and analysis for Risk Reduction and conduct any required termination activities.								1.100	3.350	-	
Title: Risk Reduction Description: Electronic Attack Pod risk reduction will focus on jammer technology, concept design, demonstrations and initial integration efforts. FY 2011 Accomplishments:								14.616	26.392	-	

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B. Accomplishments/Planned Programs (\$ in Millions)							FY 2011		FY 2012		FY 2013	
Begin Risk Reduction efforts to include lab demonstrations.												
FY 2012 Plans: Complete Risk Reduction efforts and conduct any required program termination activities.												
Accomplishments/Planned Programs Subtotals							15.716	29.742	-			
C. 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	
• PE 0207442F, APAF: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
D. Acquisition Strategy Program terminated in FY13.												
E. 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-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	PE 0604429F: AIRBORNE ELECTRONIC ATTACK	655193: Electronic Attack Pod

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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Program termination	1	2013	1	2013