

UNCLASSIFIED

PE NUMBER: 0604429F

PE TITLE: AIRBORNE ELECTRONIC ATTACK

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604429F AIRBORNE ELECTRONIC ATTACK

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	0.000	119.262	12.421	12.485	12.492	12.488	12.491	Continuing	TBD
5192 Network & Sys -of-Sys Dev	0.000	12.125	12.421	12.485	12.492	12.488	12.491	Continuing	TBD
5193 B-52 Stand-Off Jammer	0.000	107.137	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

In FY 2006, Project 655192, Network and System-of-Systems Development and Project 655193, B-52 Stand-Off Jammer, efforts were transferred from PE 0604270F, Electronic Warfare Development, Project 658462, Airborne Electronic Attack. Project 655193, B-52 Stand-Off Jammer, is terminated in FY 2007.

(U) **A. Mission Description and Budget Item Justification**

This program element 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 AEA will be responsible for coordinating overall AEA system of systems requirements. AF component capabilities include the Miniature Air Launched Decoy (MALD) stand-in jammer variant called MALD-J, the EC-130H Compass Call Block 35 configuration and Active Electronically Scanned Array (AESA) radar equipped aircraft.

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

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	0.000	120.985	235.450
(U) Current PBR/President's Budget	0.000	119.262	12.421
(U) Total Adjustments	0.000	-1.723	
(U) Congressional Program Reductions			
Congressional Rescissions		-1.723	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			
- FY2006, Airborne Electronic Attack efforts were transferred from PE 0604270F, EW Development, into this PE			
- FY2007, Project 655193, B-52 Stand-Off Jammer terminates			

Exhibit R-2a, RDT&E Project Justification

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05 System Development and Demonstration (SDD)

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0604429F AIRBORNE ELECTRONIC
ATTACK

PROJECT NUMBER AND TITLE

5192 Network & Sys -of-Sys Dev

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5192 Network & Sys -of-Sys Dev	0.000	12.125	12.421	12.485	12.492	12.488	12.491	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY 2006, Project 655192, Network and System-of-Systems Development, efforts were transferred from PE 0604270F, Electronic Warfare Development, Project 658462, Airborne Electronic Attack.

(U) **A. Mission Description and Budget Item Justification**

This project concentrates on the overall systems engineering, architecture and network requirements development, effectiveness assessment and requirements allocation to component systems of the 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, and the development and maintenance of the AF 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 System of Systems include the Navy EA-6B and EA-18G core components; the Air Force Miniature Air Launched Decoy (MALD) stand-in jammer variant, MALD-J; the EC-130H Compass Call Block 35 configuration; Active Electronically Scanned Array (AESA) radar equipped aircraft; a low/mid frequency, high power component capable of location and reactive jamming suppression of enemy integrated air defense system (IADS) radars and non-IADS targets.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) AEA Synchronization Office Support		1.025	1.121
(U) AEA System of Systems engineering/architecture development/requirements refinement		5.700	5.800
(U) AEA virtual test/modeling & simulation/EW capability investment strategy/technology demonstrations		5.400	5.500
(U) Total Cost	0.000	12.125	12.421

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) None									

(U) **D. Acquisition Strategy**

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

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

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PROJECT NUMBER AND TITLE

5192 Network & Sys -of-Sys Dev

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u> AEA system of systems engineering	MIPR & CPFF	Various				4.650		4.750		Continuing	TBD	
Subtotal Product Development			0.000	0.000		4.650		4.750		Continuing	TBD	0.000
Remarks:	Includes system of systems engineering; architecture development; network requirements development; EW assessments; working group support; engineering, test planning, and milestone preparation assistance for AF AEA SoS components											
(U) <u>Support</u> AEA requirements support	MIPR	Various				1.050		1.050		Continuing	TBD	
Subtotal Support			0.000	0.000		1.050		1.050		Continuing	TBD	0.000
Remarks:	Requirements support includes contracted requirements refinement support for ACC and AF/XOR											
(U) <u>Test & Evaluation</u> AEA Virtual test/AFEWICS/Technology Demonstrations	Various	Various				5.400		5.500		Continuing	TBD	
Subtotal Test & Evaluation			0.000	0.000		5.400		5.500		Continuing	TBD	0.000
Remarks:	AEA virtual test element includes modeling and simulation for SoS EW assessments, conducting technology risk mitigation demonstrations, DoD scenario initiation & distribution, SoS test planning/rehearsal, and supports Air Force Electronic Warfare Capability Investment Strategy (AFEWCIS) roadmap development, maintenance, & assessments											
(U) <u>Management</u> ASC/XR (AEA Synch office)	Various	Various				1.025		1.121		Continuing	TBD	
Subtotal Management			0.000	0.000		1.025		1.121		Continuing	TBD	0.000
Remarks:	Element includes miscellaneous administrative costs incurred in the day-to-day operations by program offices. Costs include travel, office equipment, office supplies, printing, contract services, program management administrative and communications expenses.											
(U) Total Cost			0.000	0.000		12.125		12.421		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

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0604429F AIRBORNE ELECTRONIC
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PROJECT NUMBER AND TITLE

5192 Network & Sys -of-Sys Dev

AEA SoS Synchronization Schedule

AEA Synch Team

(e.g., travel, training, computer communications, support, etc)

AEA SoS Eng'rg

EW Systems Eng'rg
(Yearly increments)
Architecture Develop
Ops Views update
Sys Views update

EW Assessments

Working Group Support

DoD Planning Scenarios

MCO-3

AEA EW Invest,

Virtual Test,

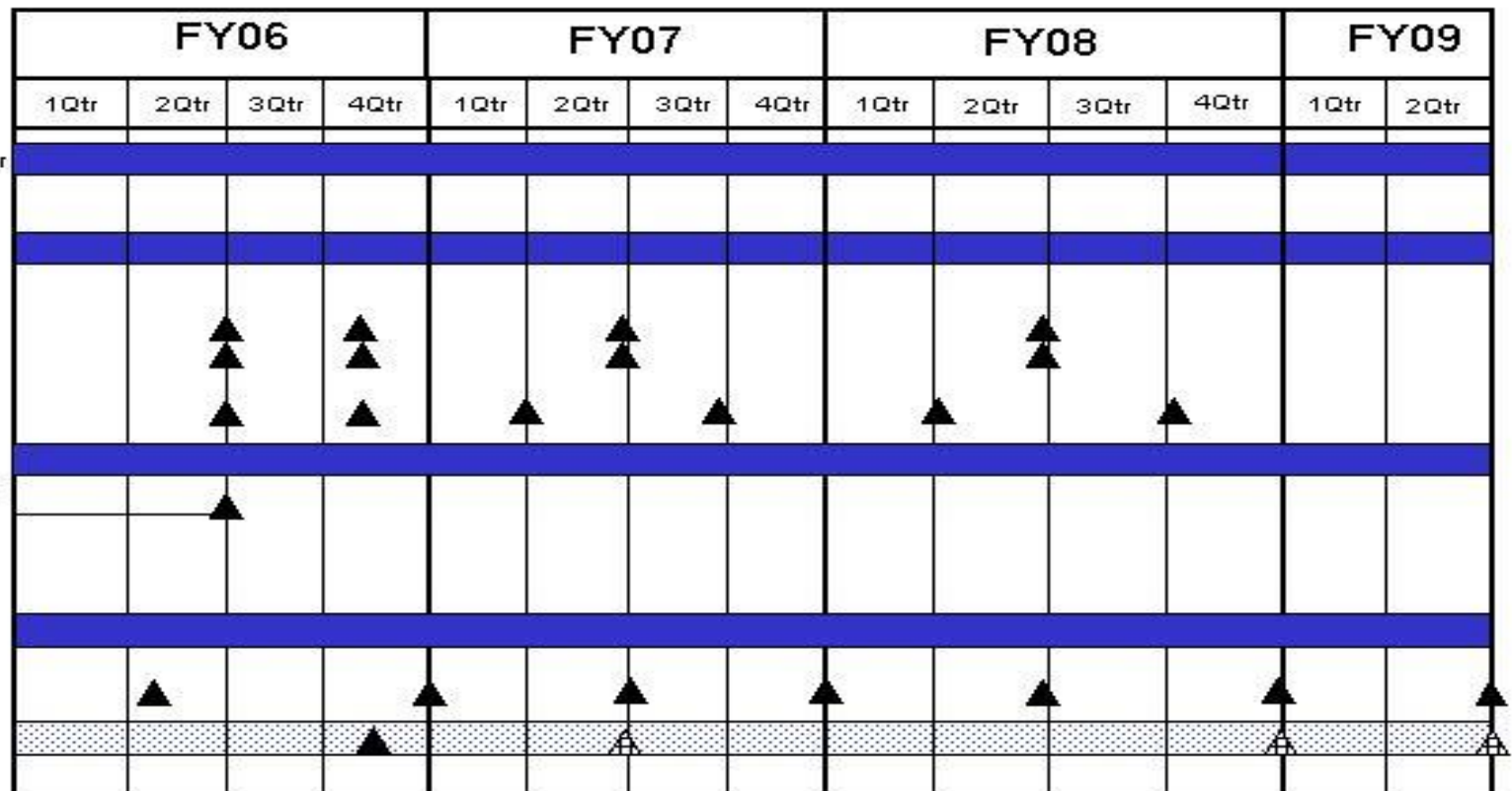
Tech Mat

AF EW Invest Strategy

(Yearly increments)

M&S Dew/Events

Tech Demos



▲ = Deliveries

▲ = Potential Deliveries

UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

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0604429F AIRBORNE ELECTRONIC
ATTACK

PROJECT NUMBER AND TITLE

5192 Network & Sys -of-Sys Dev

(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) AEA SoS Systems Engineering

1-4Q

1-4Q

(U) Update AEA SoS Operational View

2-4Q

2-3Q

(U) EW Assessments

2-4Q

1-3Q

(U) Develop AF EW Investment Strategy

1-4Q

1-4Q

(U) Technology Demonstrations

1-4Q

1-4Q

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604429F AIRBORNE ELECTRONIC
ATTACK

PROJECT NUMBER AND TITLE

5193 B-52 Stand-Off Jammer

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5193 B-52 Stand-Off Jammer	0.000	107.137	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY 2006, Project 655193, B-52 Stand-Off Jammer, efforts were transferred from PE 0604270F, Electronic Warfare Development, Project 658462, Airborne Electronic Attack.

(U) **A. Mission Description and Budget Item Justification**

This program is terminated in FY07. The Air Force is determining required funding for program termination and continuing to perform studies and mature technologies to a level needed to provide an electronic attack capability for reactive jamming suppression of enemy integrated air defense systems (IADS) and IADS component radars from stand-off distances.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) B-52 SOJ Pre-SDD Contract		95.800	0.000
(U) B-52 SOJ SDD Contract			0.000
(U) Tech Demo		7.600	0.000
(U) Mission and Test Support		0.500	0.000
(U) Program Office Support		3.237	0.000
(U) Total Cost	0.000	107.137	0.000

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

	<u>FY 2005</u> <u>Actual</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) PE 27442F (AEA procurement)				0.000	0.000	0.000	0.000	0.000	0.000

(U) **D. Acquisition Strategy**

Maturation of high risk technologies will continue via AFRL contracts with applicable vendors. This effort will mature technologies that are applicable to the AEA System of Systems requirements. The Air Force will not award a prime contract for the B-52 SOJ due to termination of program.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

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5193 B-52 Stand-Off Jammer

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u>												
B-52 SOJ Pre-SDD Contract						95.800		0.000			95.800	
B-52 SOJ SDD Contract								0.000		0.000	0.000	
Low Band Phased Array Tech Development						7.600					7.600	
Subtotal Product Development			0.000	0.000		103.400		0.000		0.000	103.400	0.000
Remarks:												
(U) <u>Support</u>												
SOJ Program Support						3.237		0.000		Continuing	TBD	
Government Furnished Equipment						0.000		0.000		Continuing	TBD	
Subtotal Support			0.000	0.000		3.237		0.000		Continuing	TBD	0.000
Remarks:		Studies and Analysis includes modeling and simulation										
(U) <u>Test & Evaluation</u>												
Test Support						0.000		0.000		Continuing	TBD	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		Continuing	TBD	0.000
Remarks:		Funds for test planning support from various organizations										
(U) <u>Management</u>												
Management Support						0.100					0.100	
Studies and Analysis						0.400		0.000		Continuing	TBD	
Subtotal Management			0.000	0.000		0.500		0.000		Continuing	TBD	0.000
Remarks:		Includes support of Acquisition and Sustainment wings at Wright-Patterson AFB and Tinker AFB, studies, analysis modeling and simulation										
(U) Total Cost			0.000	0.000		107.137		0.000		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

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5193 B-52 Stand-Off Jammer



Schedule


Dominant Air Power: Design For Tomorrow... Deliver Today

FY:

2005

2006

2007

2008

Milestones:

Program Termination

Capabilities

Documents:



ICD

Technology Demonstration Phase

LB Array Tech Demos

Tech Maturation

Requirements Analysis

Program Definition

LEGEND

ICD: Initial Capabilities Document

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Exhibit R-4a, RDT&E Schedule Detail

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February 2006

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0604429F AIRBORNE ELECTRONIC
ATTACK

PROJECT NUMBER AND TITLE

5193 B-52 Stand-Off Jammer

(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) Program termination

1Q

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TERMINATION OF INVESTMENT-RELATED PROGRAMS

FY 2007 President's Budget

(Dollars in Millions)

PE	BPAC	APPN	FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011	
			COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY
0604429F	655193	3600	0.000	0	107.137	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0

Effort Title

B-52 Stand-Off Jammer (SOJ), BPAC 655193

Program Description

The B-52 Stand-Off Jammer program was to design, document, develop, integrate, test, and install an electronic attack capability that provides high power, wide frequency jamming from stand-off distances outside of enemy air defenses. The system incorporates high probability of intercept receivers for target detection and geo-location, and battle management functions for reactive jamming suppression of enemy integrated air defense systems (IADS) and non-IADS threats within the same frequency band. The program was in source selection for the Pre-System Development and Demonstration prime contractor and preparing for a Milestone A decision. Electronic attack technology maturation efforts continue through FY06.

Status to Date

Source selection for prime contractor terminated.

Rationale for Termination

As originally conceived, the SOJ program (BPAC 655193) was deemed unaffordable.