PE NUMBER: 0604270F
PE TITLE: EW Development

Exhibit R-2, RDT&E Budget Item Justification

DATE: February 2006

BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE: 0604270F EW Development

	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	100.865	91.169	87.784	34.838	11.446	0.568	0.825	Continuing	TBD
3891	Advanced IR Counter Measures (AIRCM)	0.663	0.010	0.010	0.000	3.405	0.000	0.000	0.000	85.913
3945	TEWS Upgrade	11.824	8.393	3.847	1.822	2.610	0.568	0.825	Continuing	TBD
4832	Precision Location and Identification (PLAID)	27.652	15.204	5.973	0.000	0.000	0.000	0.000	0.000	92.463
8462	Miniature Air Launched Decoy	60.726	67.562	77.954	33.016	5.431	0.000	0.000	Continuing	TBD

BPAC 653891 (AIRCM) includes Advanced Strategic and Tactical Infrared Expendables (ASTE). Note: Details for B-52 SOJ (AEA) are being reported in PE 0604429F.

(U) A. Mission Description and Budget Item Justification

This program element (PE) consolidates Air Force funding and management of common Electronic Warfare (EW) systems from engineering development through transition to operational capability. EW is an integral part of offensive and defensive Counterair, Counterland, and Countersea operations. EW systems influence, deceive, disrupt, degrade, deny, and destroy threats to air operations throughout the electro-magnetic spectrum. This PE supports Electronic Support Measures (ESM), Electronic Protection (EP), and Electronic Attack (EA). ESM programs support the collection, analysis and dissemination of information related to the detection, geolocation, characterization, and identification of threats to air operations. EP programs provide self-protection through active and passive measures that deceive threats to air operations. EA programs provide kinetic and non-kinetic means to defeat threats that rely on the electro-magnetic spectrum.

This program is in budget activity 5 - System Development and Demonstration (SDD) because of the common development to meet user requirements that provide electronic warfare combat capability.

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

		FY 2005	FY 2006	FY 2007
(U)	Previous President's Budget	113.089	82.587	62.982
(U)	Current PBR/President's Budget	100.865	91.169	87.784
(U)	Total Adjustments	-12.224	8.582	
(U)	Congressional Program Reductions			
	Congressional Rescissions	-0.087	-1.318	
	Congressional Increases		9.900	
	Reprogrammings	-9.375		
	SBIR/STTR Transfer	-2.762		

(U) Significant Program Changes:

- FY2005, realigned $2.3M from Project 653891,Advanced IR Counter Measures (AIRCM) to Project 658462 for continued

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**

development of the Miniature Air Launched Decoy (MALD) Program

- FY2005, Project 654832 received Congressional Plus-Up of $2.3M for Rapid Replacement of Mission Critical Logistics (RRMCLEC), $5.4M for AN/ALQ-172 Airborne Electronic Attack (AEA) Upgrade and $4.0M for PLAID. Funds for RRMCLEC and AN/ALQ-172 AEA Upgrade allocated to Project 654832 for administrative support.
- FY2006, Project 654832 received Congressional Plus-Up of $1.4M for RRMCLEC and $8.5M for PLAID
- FY2007, Project 658462, added $24.2M for continued development of MALD

Exhibit R-2a, RDT&E Project Justification

DATE: February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
05 System Development and Demonstration (SDD)	0604270F EW Development	3891 Advanced IR Counter Measures (AIRCM)

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
3891	Advanced IR Counter Measures (AIRCM)	0.663	0.010	0.010	0.000	3.405	0.000	0.000	0.000	85.913
	Quantity of RDT&E Articles	0	0	0	0	0	0	0		

Advanced Infrared Countermeasures (AIRCM) contains the Advanced Strategic and Tactical IR Expendables (ASTE) project. ASTE procurement was transitioned to OO-ALC under PE 28030F War Rerserve Ammunition (WRM) for procurement/sustainment in FY04/05.

(U) A. Mission Description and Budget Item Justification

The Advanced Infrared Countermeasure (AIRCM) project contains related aircraft self-protection efforts aimed at increasing aircraft survivability against the increasing threat of sophisticated infrared guided surface-to-air and air-to-air missiles. These missiles may employ sophisticated next-generation electro-optics or dual-mode IR and radio frequency seekers. ASTE will provide advanced IR expendable countermeasures and/or IRCM techniques that will be functionally compatible with existing ALE-40, 45, and 47 dispenser systems and will be employed across multiple USAF weapon systems and the Navy's F/A-18 E/F. This also explicitly includes any and all flare and decoy development and testing that may be demanded or needed in current operations supporting the war on terrorism regardless of aircraft platform. These activities may also be paid for under platform specific funding.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2005	FY 2006	FY 2007
(U) Continue ASTE Flare/AIRCM Development, Testing, and Transition	0.663		
(U) AIRCM Modeling & Simulation and flight test analysis		0.010	0.010
(U) Total Cost	0.663	0.010	0.010

(U) C. Other Program Funding Summary ($ 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 Cost
(U) AF RDT&E									
(U) Other APPN									
(U) Procurement of Ammunition, AF, PE 28030F, WSC Flares	11.552	36.419	42.350	97.143	148.400	125.217	133.722	Continuing	TBD

(U) D. Acquisition Strategy

The planned acquisition strategy for ASTE and related AIRCM efforts is competitive cost-plus.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2006**

BUDGET ACTIVITY: **05 System Development and Demonstration (SDD)**

PE NUMBER AND TITLE: **0604270F EW Development**

PROJECT NUMBER AND TITLE: **3891 Advanced IR Counter Measures (AIRCM)**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
ASTE - Development	CP			0.000		0.000		0.000			0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks: ASTE completed development and transitioned to OO-ALC Logistic in FY05												
(U) Support												
AATC/DTZ IRCM modeling & simulation and flight test analysis	Various	Air National Guard Air Force Reserve Test Center, Tucson AZ		0.200		0.010		0.010			0.220	
CESS/TW IRCM technical support for EW roadmap	Various	Combat Electronic Systems Squadron, WPAFB OH		0.063							0.063	
Subtotal Support			0.000	0.263		0.010		0.010		0.000	0.283	0.000
Remarks: AATC/DTZ includes Georgia Tech Research Institute (GTRI) technical support												
(U) Test & Evaluation												
AFRL/SNJW Electro-Optical Countermeasures	Various	Air Force Research Lab, WPAFB OH		0.177							0.177	
Naval Surface Warfare Center	Various	Naval Surface Warfare Ctr., Crane IN		0.223							0.223	
Subtotal Test & Evaluation			0.000	0.400		0.000		0.000		0.000	0.400	0.000
Remarks: USN/Crane is Joint Service Testing of ASTE flares in NATO Trail Embow X												
(U) Management												
A&AS contractor support											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			0.000	0.663		0.010		0.010		0.000	0.683	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **3891 Advanced IR Counter Measures (AIRCM)**

RDT&E Schedule Profile
Milestones

ID	Task Name	2004			2005				2006				2007	
		Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
1	IRCM modeling/simulation and flight test analysis							★						
2	IRCM technical support for EW roadmap							★						
3	USN/Crane ASTE flare testing in NATO test							★						
4	AFRL directed energy IRCM sys development											☆		

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **3891 Advanced IR Counter Measures (AIRCM)**

(U) Schedule Profile	FY 2005	FY 2006	FY 2007
(U) IRCM modeling/simulation and flight test analysis	4Q		
(U) IRDM technical support for EW roadmap	4Q		
(U) USN/Crane ASTE flare testing in NATO test	4Q		
(U) AFRL directed energy IRCM system development		4Q	

Exhibit R-2a, RDT&E Project Justification

DATE: February 2006

BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE: 0604270F EW Development

PROJECT NUMBER AND TITLE: 3945 TEWS Upgrade

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
3945 TEWS Upgrade	11.824	8.393	3.847	1.822	2.610	0.568	0.825	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

This program develops a Fiber Optic Towed Decoy (FOTD) for the joint Integrated Defensive Electronic Countermeasures (IDECM) Navy-led program. The current AF approved program will provide a FOTD that meets F-15 requirements and will include a Reel-In/Reel-Out (RORI) prototype launcher capability.

(U) A. Mission Description and Budget Item Justification

(1) The FOTD improves electronic countermeasure performance against Tier 1 threat systems, and improves electronic warfare system performance against future missile threat systems. The Radio Frequency (RF) towed decoy is a countermeasure that increases survivability against monopulse, semi-active, and active RF missile threats during the terminal portion of an engagement.

(2) This program develops and integrates an Air Force Fiber Optic Towed Decoy (FOTD) system. The FOTD portion of the budget provides Air Force participation in the Navy-led IDECM program that is jointly developing, integrating, flight testing, effectiveness testing, and conducting live fire testing using a FOTD. The Air Force will provide for its unique development, integration and testing requirements that are not covered by the Navy-led joint development effort. The Air Force also participates in a joint FOTD risk reduction effort with the Navy looking at alternate FOTDs and methods of deployment to develop an alternative launcher system (Reel-Out/Reel-In [RORI]), which reduces Life Cycle Cost.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2005	FY 2006	FY 2007
(U) F-15 (F-15 TEWS & Two Tube FOTD & Flight Test)	3.277	6.529	3.547
(U) FOTD Integration and RORI Development	4.799	0.951	
(U) EW Studies	2.000		
(U) Mission and Test Support	1.748	0.913	0.300
(U) Total Cost	11.824	8.393	3.847

(U) C. Other Program Funding Summary ($ 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 Cost
(U) Aircraft Procurement, AF PE 027442F, War Consumable (RF decoys)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(U) Aircraft Procurement, AF PE 027442F, Initial Spares	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(U) Aircraft Procurement, AF PE 027442F, Mods (F-15)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Exhibit R-2a, RDT&E Project Justification		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **3945 TEWS Upgrade**

(U) D. Acquisition Strategy

The acquisition strategy for IDECM RDT&E was competitive, cost-plus incentive fee, cost-plus award fee and cost-plus fixed fee.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2006**

BUDGET ACTIVITY: **05 System Development and Demonstration (SDD)**

PE NUMBER AND TITLE: **0604270F EW Development**

PROJECT NUMBER AND TITLE: **3945 TEWS Upgrade**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
USAF IDECM: Development BAE	CPAF	BAE, Nashua, NH	47.306	1.250		0.150	Dec-05	0.125	Jan-07	0.000	48.831	
Development Raytheon	CPIF	Raytheon, Goleta, CA	17.722	0.000				0.125	Jan-07	0.000	17.847	
F-15 IDECM Integration- Boeing/LMT/Northrop	CPFF	Boeing Company, St Louis, MO	59.293	0.800						0.000	60.093	
USAF IDECM: Development BAE (Navy BOA)	CPFF	BAE, Nashua, NH	3.023	0.356	Nov-04	0.000				0.000	3.379	
Raytheon Development (FO-50 Two Tube)	CPFF	Raytheon, Goleta, CA	5.875	1.250	Mar-05	1.500	Jan-06			0.000	8.625	
IDECM Misc Development Contracts (IMPLC/Alt. Strategy/Flt Test Assets)	Various	Misc	4.077	1.989	Apr-05					0.000	6.066	
RORI Launcher Prototype/Development	CPFF	Raytheon, CA & BAE, NH	0.600	0.000		4.879		3.297		0.000	8.776	
EW Studies	Various	Misc	0.000	2.000	Feb-05						2.000	
Subtotal Product Development			137.896	7.645		6.529		3.547		0.000	155.617	0.000
Remarks:												
(U) Support												
ASC/AA - IDECM	Various	Misc	6.211	1.183	Dec-04	0.913	Jan-06	0.300	Nov-06	0.000	8.607	
Subtotal Support			6.211	1.183		0.913		0.300		0.000	8.607	0.000
Remarks:												
(U) Test & Evaluation												
AFOTEC	Various	Misc	1.600	0.000						0.000	1.600	
F-15 Flight Test			0.000	0.081		0.701	Mar-06				0.782	
Flight Test Support (Effectiveness Testing)	Various	Misc	0.156	0.000						0.000	0.156	
Eglin Flight Test Support	Various	Misc	3.389	1.000						0.000	4.389	
Naval Research Lab (NRL)	Various	Misc	1.078	0.315		0.250	Mar-06			0.000	1.643	
Live Fire Test	Various	Misc	1.232	1.600						0.000	2.832	
Subtotal Test & Evaluation			7.455	2.996		0.951		0.000		0.000	11.402	0.000
Remarks:												
(U) Management												
										0.000	0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			151.562	11.824		8.393		3.847		0.000	175.626	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE: February 2006
BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE: 0604270F EW Development	PROJECT NUMBER AND TITLE: 3945 TEWS Upgrade

RDT&E Schedule Profile Milestones

ID	Task Name
1	DACP FY04 Efforts
2	Live Fire FY04 Efforts
3	FOTD RORI Stability Flt Test Phase 1
4	Reel-In/Reel-Out (RORI) Prototype Launcher Kti
5	DACP FY05 Efforts
6	F-15 Alt Launcher Location Study
7	FOTD RORI Stability Flt Test Phase 2
8	RORI TIM #1 (PDR)
9	FOTD Envelope Expansion Flt Test
10	RORI TIM #2 (CDR)
11	RORI Launcher Prototype Demo Flt Test
12	FOTD Envelope Expansion Final Flt Test
13	Electronic FOTD Fast Deploy Flt Test
14	FOTD Effectiveness Flt Test
15	Program Close out & HW Disposition
16	Program Closed Out

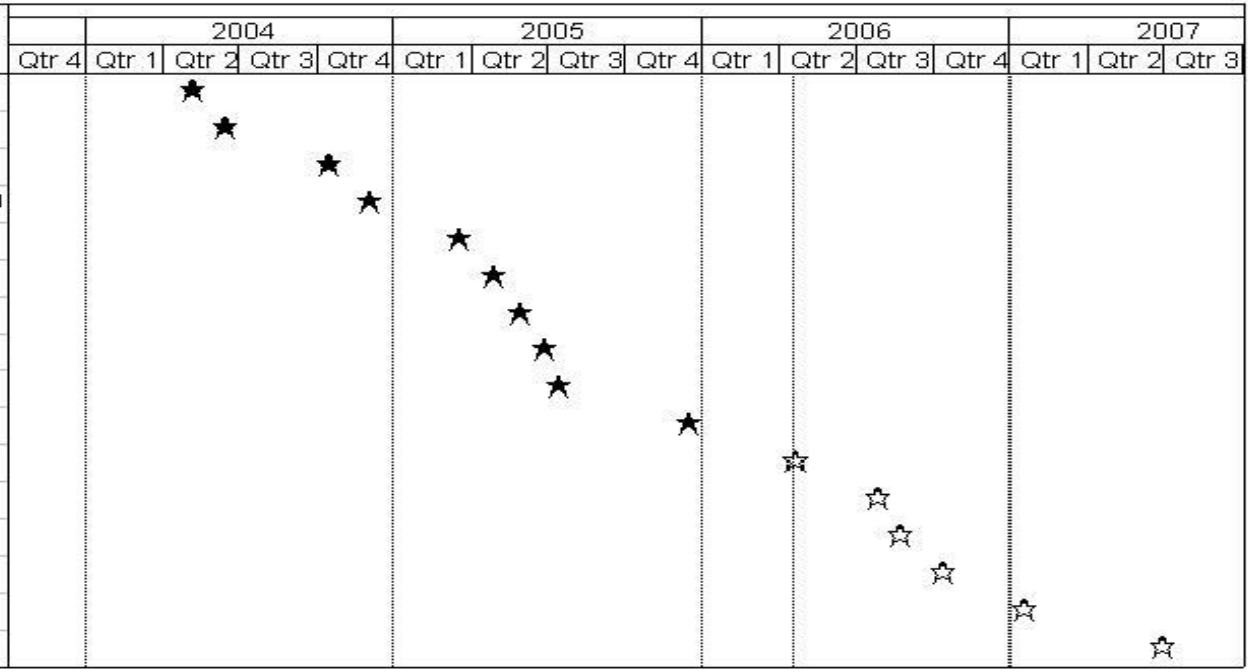

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **3945 TEWS Upgrade**

(U) Schedule Profile	FY 2005	FY 2006	FY 2007
(U) Defense Acquisition Challenge Program FY05 Efforts	1-4Q		
(U) F-15 Alternate Launcher Location Study	2-4Q		
(U) FOTD RORI Stability Flight Test Phase II	2Q		
(U) RORI TIM 1 (PDR)	2Q		
(U) FOTD Envelope Expansion Flight Test	3Q		
(U) RORI TIM 2 (CDR)	4Q		
(U) RORI Launcher Prototype Demo Flight Test		2Q	
(U) FOTD Envelope Expansion Final Flight Test		3-4Q	
(U) Electronic FOTD Fast Deploy Flight Test		3-4Q	
(U) FOTD Effectiveness Flight Test		4Q	
(U) Program Closeout & HW Disposition			1Q
(U) Program Closeout			3Q

Exhibit R-2a, RDT&E Project Justification			DATE: February 2006
BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE: 0604270F EW Development	PROJECT NUMBER AND TITLE: 4832 Precision Location and Identification (PLAID)	

	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
4832	Precision Location and Identification (PLAID)	27.652	15.204	5.973	0.000	0.000	0.000	0.000	0.000	92.463
	Quantity of RDT&E Articles	7	10	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

The ALR-69A radar warning receiver (RWR) will improve aircrew situational awareness by providing accurate ground emitter location and unambiguous identification. Improved threat information from a modernized RWR will assist the aircrews in determining precise threat range/directions and, when integrated with existing mission planning systems, will provide aircrews with real time threat avoidance route information. The ALR-69A RWR will, where feasible, utilize existing aircraft RWR antennas and wiring however some platform modifications will be necessary to optimize geolocation performance and minimize electromagnetic interference. ALR-69A development is currently focused on a replacement RWR for AFSOC and AMC C-130 aircraft but this digital RWR is also installed in two ANG F-16Cs for developmental and operational testing and this RWR is also under consideration by AFSOC, AMC and ACC for installation in other mission design series aircraft.

Multiple platform geolocation capability is being developed under an OSD-ATL and CENTCOM sponsored Advanced Tactical Targeting Technology (AT3) Advanced Concept Technology Demonstration (ACTD). A plan to develop this technology for US Armed Forces airborne platforms has been approved.

In FY05 and FY06, Congress added $2.3M and $1.4M AF RDT&E funds respectively to the EW Development PE 064270F for "Rapid Replacement of Mission Critical Logistics Electronics Components" (RRMCLEC). In FY05, Congress added $5.4M to the EW Development PE for "AN/ALQ-172 Airborne Electronic Attack (AEA) Upgrade." RRMCLEC and ALQ-172 AEA Upgrade work is being performed at Warner Robins Air Logistics Center (ALC) and that ALC will also track those funds. RRMCLEC will rapidly develop prototypes of replacement electronic components and subassemblies to combat obsolescence and vanishing vendor issues in Electronic Warfare systems. ALQ-172 AEA Upgrade will resolve hardware and software deficiencies, increase system reliability and maintainability, reduce system weight and power consumption, and provide growth capability to extend the receiver service life.

	B. Accomplishments/Planned Program ($ in Millions)	FY 2005	FY 2006	FY 2007
(U)	Program Office and Engineering Support	3.305	1.080	1.100
(U)	CORE SDD/Options/Award Fees	11.304	9.280	2.758
(U)	SOF C-130 CORE Platform Integration - SOF C130 CORE/AT3 ACTD	3.544	2.024	1.115
(U)	DT&E/OT&E - SOF C130 CORE/AT3 ACTD	2.058	1.420	1.000
(U)	Rapid Replacement of Mission Critical Logistics Electronic Components	2.223	1.400	
(U)	ALQ-172 Airborne Electronic Attack (AEA) Upgrade	5.218		
(U)	Total Cost	27.652	15.204	5.973

Exhibit R-2a, RDT&E Project Justification		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **4832 Precision Location and Identification (PLAID)**

(U) C. Other Program Funding Summary ($ 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 Cost
(U)	DARPA Funding (AT3 ACTD)									1.300
(U)	OSD Funding (AT3 ACTD)	5.000	4.000							14.000
(U)	PE27442F Common ECM Equipment	0.000	10.930	11.645	10.236	10.543	0.000	0.000	43.354	TBD
(U)	PE41115F ALR-69 (RWR) AMC C-130 Airlift Squadrons. PLAID procurement to commence in FY06	0.000	15.812	38.935	53.081	41.136	20.716	9.030	181.780	TBD

(U) D. Acquisition Strategy

Acquisition was accomplished through full and open competition. The SDD contract was awarded to Raytheon Corporation in August 2001. Program is based on 'Evolutionary Acquisition Strategy'.

- CORE SDD: SOF-130 DT/OT
- Option 1: F-16 DT/OT
- Option 2: Risk Reduction, AT3 Bridge Requirements Definition
- Option 3: F-16 Geo-Location
- Option 4: SOF-130 Geo-Location
- Options 5-10: Production
- Option 11: Advanced Tactical Targeting Technology (AT3)

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2006**

BUDGET ACTIVITY: **05 System Development and Demonstration (SDD)**

PE NUMBER AND TITLE: **0604270F EW Development**

PROJECT NUMBER AND TITLE: **4832 Precision Location and Identification (PLAID)**

(U)	Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U)	Product Development												
	Raytheon CORE SDD + Fee	Full & Open Comp CPAF	Raytheon - Goleta CA		5.000	Feb-05	3.000	Nov-05	0.758		0.000	8.758	23.152
	Raytheon Option 3/4 SDD + Fee	Full & Open Comp CPAF	Raytheon - Goleta CA								0.000	0.000	5.440
	Raytheon Option 11 AT3 + Fee	Sole Source - Raytheon	Raytheon - Goleta CA		6.304	May-05	6.280	Nov-05	2.000		0.000	14.584	8.384
	Subtotal Product Development			0.000	11.304		9.280		2.758		0.000	23.342	36.976
	Remarks:												
(U)	Support												
	AT3 Program Office Support				1.255	Oct-04	0.580	Nov-05			0.000	1.835	1.255
	Program Office	PR	Various Contractors		0.550	Oct-04			0.600			1.150	1.610
	Engineering	Various			1.500	Nov-04	0.500	Nov-05	0.500		0.000	2.500	2.500
	Subtotal Support			0.000	3.305		1.080		1.100		0.000	5.485	5.365
	Remarks:												
(U)	Test & Evaluation												
	AFOTEC Det 1 46 OGS C-130	PO			1.800	Nov-05	1.420	Nov-05	1.000		0.000	4.220	4.455
	AT3 ACTD T&E (Western Test Range)	PO			0.258	Oct-04						0.258	0.739
	Subtotal Test & Evaluation			0.000	2.058		1.420		1.000		0.000	4.478	5.194
	Remarks:												
(U)													
	Platform Integration - C-130, F-16 AT3 ACTD	Various	Various		3.544	Feb-05	2.024	Nov-05	1.115		0.000	6.683	7.027
	Platform Integration Options 3/4	Various	Various						0.000			0.000	0.395
	Subtotal			0.000	3.544		2.024		1.115		0.000	6.683	7.422
	Remarks:												
(U)													
	Rapid Replacement of Mission Critical Logistics Electronic Components	IDIQ Time and Matls	Scientific Research Corp - Atlanta GA		2.223	Apr-05	1.400					3.623	3.900
	ALQ-172 AEA Upgrade	Sole Source, BOA	ITT, Clifton, NJ		5.218	Jul-05						5.218	
	Subtotal			0.000	7.441		1.400		0.000		0.000	8.841	3.900
	Remarks:												
(U)	Total Cost			0.000	27.652		15.204		5.973		0.000	48.829	58.857

Exhibit R-4, RDT&E Schedule Profile		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **4832 Precision Location and Identification (PLAID)**

ALR-69A Radar Warning Receiver Core & AT3 Schedule

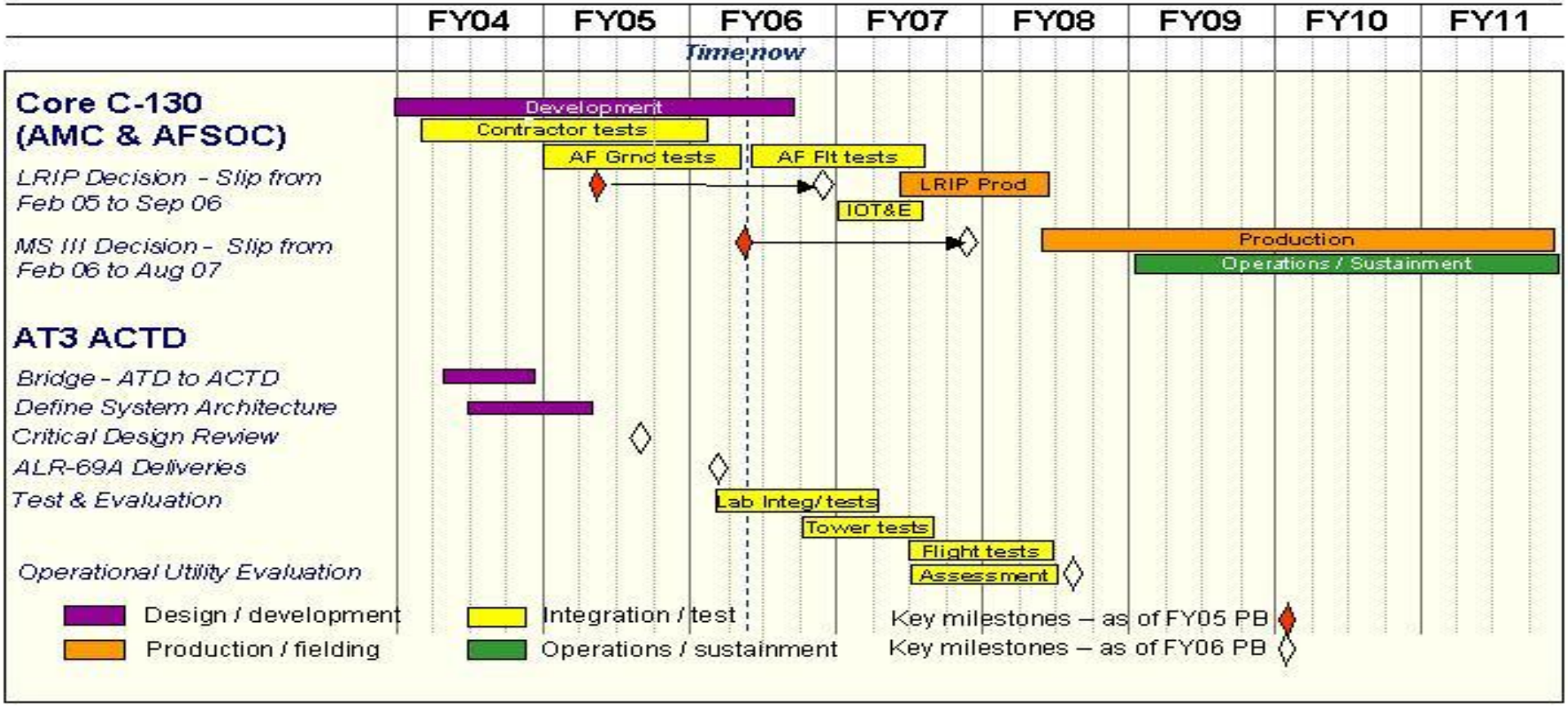

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Exhibit R-4a, RDT&E Schedule Detail		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **4832 Precision Location and Identification (PLAID)**

(U) Schedule Profile	FY 2005	FY 2006	FY 2007
(U) Developmental Testing and Evaluation		2Q	
(U) Initial Operational Test and Evaluation			1Q
(U) LRIP Decision		3Q	
(U) MSIII Decision			3Q

Exhibit R-2a, RDT&E Project Justification			DATE: February 2006
BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE: 0604270F EW Development	PROJECT NUMBER AND TITLE: 8462 Miniature Air Launched Decoy	

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
8462 Miniature Air Launched Decoy	60.726	67.562	77.954	33.016	5.431	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY 2006, Airborne Electronic Attack transferred from Project 658462 (formerly called Airborne Electronic Attack) to PE 0604429F, Airborne Electronic Attack, Project 655192, Network and System-of-Systems Development and Project 655193 B-52 Stand-Off Jammer. Project 658462 continues to develop the Miniature Air Launched Decoy (MALD).

(U) A. Mission Description and Budget Item Justification

This project develops the Miniature Air Launch Decoy (MALD) and MALD Jammer (MALD-J). The decoy and jammer configurations are key enablers supporting the Air Force Global Strike Task Force, Global Response Task Force, Space and C4ISR Task Force, and the Air and Space Expeditionary Force Concepts of Operation. MALD is a low cost, powered, expendable decoy designed to represent the kinematics and radar signature characteristics of various combat aircraft. The MALD will be employed from various aircraft platforms to stimulate, saturate, and deceive an enemy Integrated Air Defense System (IADS) thus increasing the survivability of coalition strike aircraft.

MALD-J will provide stand-in jamming capability for the Airborne Electronic Attack Systems of Systems. MALD-J will be launched against a preplanned target and will jam specific radars in a stand-in role to degrade or deny the IADS detection of friendly aircraft or munitions. MALD-J will be able to operate in both decoy and jammer modes.

Planned efforts for this program are System Development and Demonstration (SDD) of the Decoy configuration. This will include design, development, test, aircraft integration, and seamless verification of the decoy vehicle. A spiral to MALD-J development will begin in FY 06.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2005	FY 2006	FY 2007
(U) MALD and MALD-J SDD Contract	32.152	53.106	58.366
(U) MALD Program Office Support (Government)	2.088	3.020	3.375
(U) MALD / MALD-J B-52 Aircraft Integration	3.775	3.460	2.346
(U) MALD / MALD-J Mission and Test Support	2.071	7.791	13.187
(U) MALD / MALD-J F-16 Aircraft Integration	0.120	0.185	0.680
(U) AEA Synchronization Office Support	0.850		
(U) AEA System of systems engineering / architecture development / refine requirements	3.775		
(U) B-52 SOJ Program Office Support	1.395		
(U) B-52 SOJ Pre-SDD Preparation	2.500		
(U) Low Band Phased Array Tech Development	12.000		
(U) Total Cost	60.726	67.562	77.954

Exhibit R-2a, RDT&E Project Justification		DATE February 2006
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604270F EW Development	PROJECT NUMBER AND TITLE 8462 Miniature Air Launched Decoy

(U) C. Other Program Funding Summary ($ 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 Cost
(U) AF RDT&E									
(U) Other APPN (PE 27442F MALD procurement)	0.000	0.000	0.000	137.639	98.957	87.238	86.948	Continuing	TBD

(U) D. Acquisition Strategy

A full and open competition for MALD was held in FY03 resulting in award of a cost plus award fee contract to Raytheon. Spiral to MALD-J is planned for FY06.

Exhibit R-3, RDT&E Project Cost Analysis

DATE: **February 2006**

BUDGET ACTIVITY: **05 System Development and Demonstration (SDD)**

PE NUMBER AND TITLE: **0604270F EW Development**

PROJECT NUMBER AND TITLE: **8462 Miniature Air Launched Decoy**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2005 Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
MALD SDD ACTD	CPFF	Northrop Grumman - Ryan Aeronautical Center	40.074								40.074	40.074
MALD / MALD-J SDD	CPAF	Raytheon Missile Systems, Tucson AZ	28.945	32.152		53.106		58.366		24.535	197.104	196.632
MALD/MALD-J B-52 Aircraft Integration	MIPR	B-52 SPO	2.665	3.775		3.460		2.346		0.562	12.808	12.808
MALD/MALD-J F-16 Aircraft Integration	MIPR	F-16 SPO	0.269	0.120		0.185		0.680		0.281	1.535	1.535
AEA System of Systems Engineering	MIPR	Various		3.775						Continuing	TBD	TBD
B-52 SOJ Pre-SDD Preparation	TBD	TBD		2.500							2.500	
Low Band Phased Array Tech Development		Various		12.000							12.000	
Subtotal Product Development			71.953	54.322		56.751		61.392		Continuing	TBD	TBD
Remarks:												
(U) Support												
Contractor Support to AAC/AAMSW/SASG/RC	Various	Various	3.967	1.321		2.395		2.462		2.970	13.115	13.115
AEA Synchronization Office Support	MIPR	Various		0.850							0.850	
B-52 SOJ Program Office Support	Various	Various		1.145							1.145	
Subtotal Support			3.967	3.316		2.395		2.462		2.970	15.110	13.115
Remarks:												
(U) Test & Evaluation												
MALD Government Test Planning	Various	Various	7.959	2.071		7.791		13.187		9.433	40.441	40.441
B-52 SOJ Mission and Test Support	Various	Various		0.250							0.250	
Subtotal Test & Evaluation			7.959	2.321		7.791		13.187		9.433	40.691	40.441
Remarks: Element includes detailed planning, support data reduction and reports from such testing.												
(U) Management												
AAC/AAMSW/SASG/RC	Various	AAC, Eglin AFB FL	5.837	0.767		0.625		0.913		0.666	8.808	8.808
Subtotal Management			5.837	0.767		0.625		0.913		0.666	8.808	8.808
Remarks: Element includes miscellaneous administrative costs incurred in the day-to-day operations by the program office. Costs include travel, office equipment, office supplies, printing, contract services, program management administration and communications expenses.												
(U) Total Cost			89.716	60.726		67.562		77.954		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile		DATE: February 2006
BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE: 0604270F EW Development	PROJECT NUMBER AND TITLE: 8462 Miniature Air Launched Decoy

MALD Overview Schedule

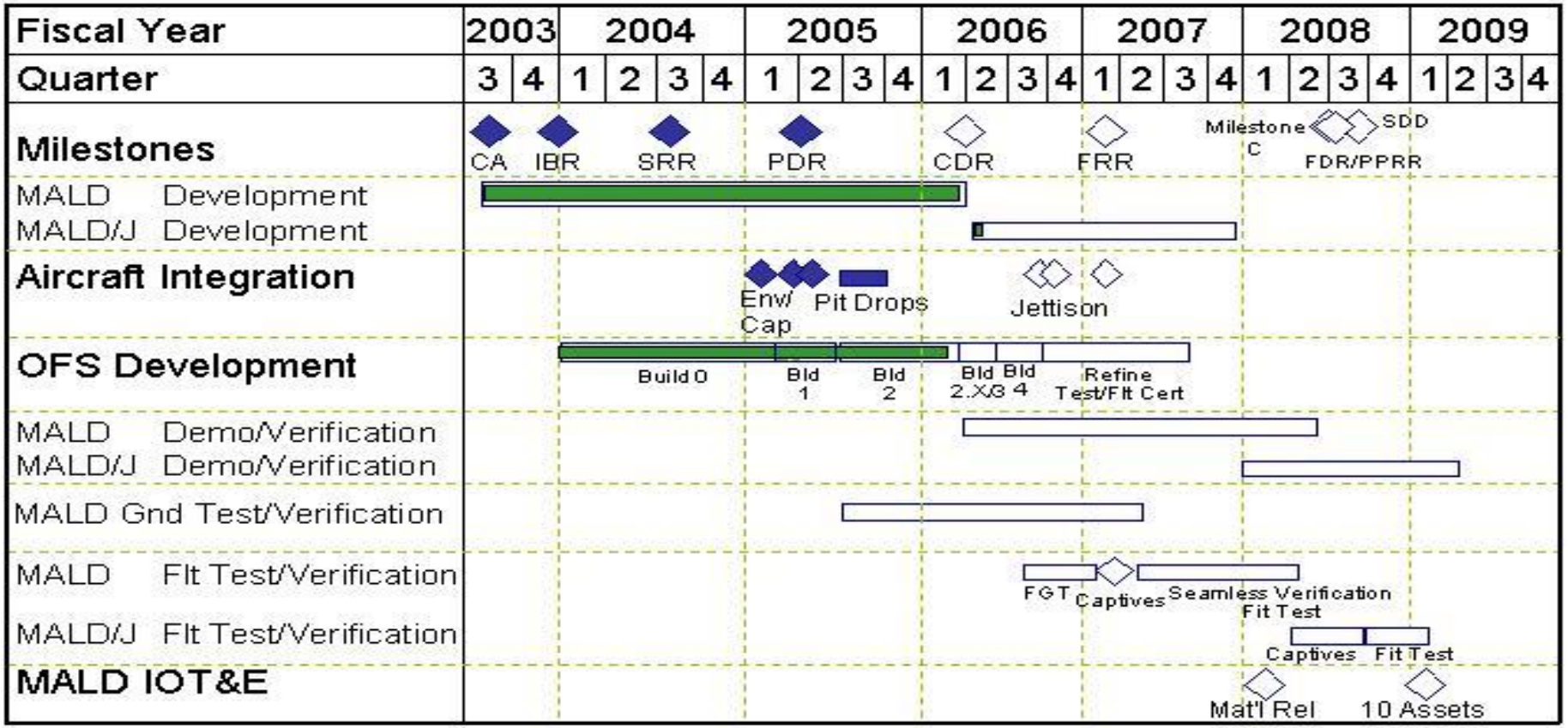

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2006
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0604270F EW Development**	PROJECT NUMBER AND TITLE **8462 Miniature Air Launched Decoy**

(U) Schedule Profile	FY 2005	FY 2006	FY 2007
(U) MALD Preliminary Design Review	2Q		
(U) MALD Critical Design Review		2Q	
(U) MALD-J Spiral Start		2Q	
(U) MALD Flight Readiness Review			1Q