

**UNCLASSIFIED**

PE NUMBER: 0604270F  
PE TITLE: EW Development

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	<b>DATE</b> <b>February 2007</b>
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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>	<b>PE NUMBER AND TITLE</b> <b>0604270F EW Development</b>
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	97.122	92.832	101.649	16.637	0.245	0.508	0.512	0.517	Continuing	TBD
3891 Advanced IR Counter Measures (AIRCM)	0.019	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	85.913
3945 TEWS Upgrade	3.378	3.832	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TBD
4832 Precision Location and Identification (PLAID)	27.593	11.330	5.482	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
8462 Miniature Air Launched Decoy	66.132	77.660	96.167	16.637	0.245	0.508	0.512	0.517	Continuing	TBD

BPAC 653891 (AIRCM) includes Advanced Strategic and Tactical Infrared Expendables (ASTE).

**(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 Counter-air, 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 (ES), Electronic Protection (EP), and Electronic Attack (EA). ES programs support the collection, analysis, and dissemination of information related to the detection, geo-location, 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)**

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	91.169	87.784	34.838	11.446
(U) Current PBR/President's Budget	97.122	92.832	101.649	16.637
(U) Total Adjustments	5.953			
(U) Congressional Program Reductions				
Congressional Rescissions	-0.004	-0.352		
Congressional Increases		1.000		
Reprogrammings	7.904	4.400		
SBIR/STTR Transfer	-1.947			

**(U) Significant Program Changes:**

- FY2007, Project 654832, reprogrammed \$4.4M from APAF and received \$1M Congressional add for Rapid Replacement of Mission Critical Logistics Electronics

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- FY2008, Project 658462, added \$62.9M for continued development of MALD/MALD-J
- FY2008, Project 654832, added \$3.9M for continued development of AT3

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2007**

BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>				PE NUMBER AND TITLE <b>0604270F EW Development</b>			PROJECT NUMBER AND TITLE <b>3891 Advanced IR Counter Measures (AIRCМ)</b>			
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
3891 Advanced IR Counter Measures (AIRCМ)	0.019	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	85.913
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

Advanced Infrared Countermeasures (AIRCМ) will support the continued testing and/or product improvement efforts at OO-ALC under PE 28030F War Reserve Ammunition (WRM) for procurement/sustainment of Advanced Strategic and Tactical IR Expendables (ASTE) expendables.

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

The Advanced Infrared Countermeasure (AIRCМ) 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. AIRCМ will provide advanced IR expendable countermeasures and/or IRCМ 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 or through other testing activities such as joint services or NATO test groups. This program has been transferred to Ogden Air Logistics Center, Hill AFB (OO-ALC) for sustainment and modernization. FY07 funds are being used to close out technical support to complete transition to OO-ALC. There are no funding requirements under this program element after 2007.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) AIRCМ Modeling & Simulation, flight test analysis, and technical support	0.019	0.010	0.000	0.000
(U) Total Cost	0.019	0.010	0.000	0.000

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

	<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>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) AF RDT&E										
(U) Other APPN										
(U) Procurement of Ammunition, AF, PE 0208030F, WSC Flares	38.761	42.350	136.817	163.886	144.961	144.049	144.563	147.743	Continuing	TBD

**(U) D. Acquisition Strategy**

The planned acquisition strategy for AIRCМ efforts is competitive cost-plus.

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Exhibit R-3, RDT&E Project Cost Analysis											DATE <b>February 2007</b>			
BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>					PE NUMBER AND TITLE <b>0604270F EW Development</b>				PROJECT NUMBER AND TITLE <b>3891 Advanced IR Counter Measures (AIRC)</b>					
<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
<u>(U) Product Development</u>														
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	0.000
Remarks:														
<u>(U) Support</u>														
CESS/TW IRCM technical support for EW roadmap	Various	Combat Electronic Systems Squadron, WPAFB OH								0.000			0.000	
542 EWSG/CI support	Various	542 Electronic Warfare Group Warner Robins Air Logistics Center (WR-ALC)		0.019		0.010							0.029	
Subtotal Support			0.000	0.019		0.010		0.000		0.000		0.000	0.029	0.000
Remarks:														
<u>(U) Test &amp; Evaluation</u>														
AFRL/SNJW Electro-Optical Countermeasures	Various	Air Force Research Lab, WPAFB OH											0.000	
Naval Surface Warfare Center	Various	Naval Surface Warfare Ctr., Crane IN											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:		USN/Crane is Joint Service Testing of ASTE flares in NATO Trail Embow X												
<u>(U) Management</u>														
A&AS contractor support													0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
<u>(U) Total Cost</u>			0.000	0.019		0.010		0.000		0.000		0.000	0.029	0.000

**Exhibit R-4, RDT&E Schedule Profile**

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**February 2007**

BUDGET ACTIVITY

**05 System Development and Demonstration (SDD)**

PE NUMBER AND TITLE

**0604270F EW Development**

PROJECT NUMBER AND TITLE

**3891 Advanced IR Counter Measures (AIRCМ)**

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2007</b>
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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604270F EW Development</b>	PROJECT NUMBER AND TITLE <b>3891 Advanced IR Counter Measures (AIRCM)</b>
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <b><u>Schedule Profile</u></b>				
(U) AIRCM modeling, flight test, and support	1-4Q	1-4Q		

**Exhibit R-2a, RDT&E Project Justification**

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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>				PE NUMBER AND TITLE <b>0604270F EW Development</b>				PROJECT NUMBER AND TITLE <b>3945 TEWS Upgrade</b>		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
3945 TEWS Upgrade	3.378	3.832	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

The Tactical Electronic Warfare Suite (TEWS) Upgrade program will develop 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 suitable for future F-15 requirements and will include a Reel-In/Reel-Out (RORI) prototype launcher capability.

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

The FOTD improves electronic countermeasure performance against tier one-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.

This program develops and establishes integration for an Air Force 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, conducting effectiveness testing, and 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. The Air Force completes FOTD testing and development in FY07.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) F-15 ( F-15 TEWS & Two Tube FOTD & Flight Test)	1.400	0.000		
(U) FOTD Integration and RORI Development	0.966	0.000		
(U) Mission and Test Support	1.012	3.832	0.000	0.000
(U) Total Cost	3.378	3.832	0.000	0.000

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

	<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>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) Aircraft Procurement, AF PE 0207442F, War Consumable (RF decoys)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

**(U) D. Acquisition Strategy**

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

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**Exhibit R-3, RDT&E Project Cost Analysis**

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BUDGET ACTIVITY				PE NUMBER AND TITLE						PROJECT NUMBER AND TITLE				
<b>05 System Development and Demonstration (SDD)</b>				<b>0604270F EW Development</b>						<b>3945 TEWS Upgrade</b>				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>														
USAF IDECM: Development BAE	CPAF	BAE, Nashua, NH										0.000	0.000	
Development Raytheon	CPIF	Raytheon, Goleta, CA										0.000	0.000	
Raytheon Development (FO-50 Two Tube)	CPFF	Raytheon, Goleta, CA										0.000	0.000	
IDECM Misc Development Contracts (IMPLC/Alt. Strategy/Flt Test Assets)	Various	Misc		1.398	Dec-05							0.000	1.398	
RORI Launcher Prototype/Development	CPFF	Raytheon, CA & BAE, NH										0.000	0.000	
Subtotal Product Development			0.000	1.398		0.000		0.000		0.000		0.000	1.398	0.000
Remarks:														
(U) <u>Support</u>														
ASC/AA - IDECM	Various	Misc		1.012	Dec-05	1.900	Nov-06		Nov-07		Nov-08	0.000	2.912	0.000
Subtotal Support			0.000	1.012		1.900		0.000		0.000		0.000	2.912	0.000
Remarks:														
(U) <u>Test &amp; Evaluation</u>														
Flight Test Support (Effectiveness Testing)	Various	Misc		0.764	Aug-06	0.560	Apr-07	0.000		0.000		0.000	1.324	
Eglin Flight Test Support	Various	Misc		0.204	Mar-06	0.557	Apr-07					0.000	0.761	
NRL F-15 Effectiveness Flight Test						0.815	Jan-07						0.815	
Subtotal Test & Evaluation			0.000	0.968		1.932		0.000		0.000		0.000	2.900	0.000
Remarks:														
(U) <u>Management</u>														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			0.000	3.378		3.832		0.000		0.000		0.000	7.210	0.000

Exhibit R-4, RDT&E Schedule Profile

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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	2006				2007				2008			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1	RORI Launcher Prototype Demo Flt Test		★										
2	FOTD Envelope Expansion Final Flt Test (ALE-55)				☆								
3	RORI Launcher Protoype Final Demo Flt Test				☆								
4	FOTD Envelope Expansion Final Flt Test (AFOTD)				☆								
5	FOTD Effectiveness Flt Test						☆						
6	Program Close out & HWV Disposition										☆		
7	Program Closed Out										☆		

Exhibit R-4a, RDT&E Schedule Detail

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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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) RORI Launcher Prototype Demo Flight Test	2Q			
(U) FOTD Envelope Expansion Final Flight Test (ALE-55)	3-4Q			
(U) RORI Launcher Prototype Final Demo Flight Test	4Q			
(U) FOTD Envelope Expansion Final Flight Test (AFOTD)	4Q			
(U) FOTD Effectiveness Flight Test		2Q		
(U) Program Closeout & HW Disposition		1-3Q		
(U) Program Closeout		3Q		

**Exhibit R-2a, RDT&E Project Justification**

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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>				PE NUMBER AND TITLE <b>0604270F EW Development</b>				PROJECT NUMBER AND TITLE <b>4832 Precision Location and Identification (PLAID)</b>		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4832 Precision Location and Identification (PLAID)	27.593	11.330	5.482	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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

The AN/ALR-69A radar warning receiver (RWR) is an evolutionary development program consisting of a core digital receiver/processor with growth increments. The core ALR-69A program objectives are to improve identification of threat type, provide substantially more receiver sensitivity compared to the legacy AN/ALR-69, and utilize digital processor technology to operate in a dense signal environment. Effort has begun on evolutionary growth spirals for single and multi-ship geolocation. The underlying technology and algorithms enabling precise threat geolocation and Specific Emitter Identification (SEI) are often collectively known as Precision Location and Identification (PLAID) technology. When integrated with existing mission planning systems, the AN/ALR-69A will improve aircrew situational awareness by providing real time threat avoidance route information. 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. Quantities shown reflect preproduction ALR-69A systems being used in testing. Full rate production for AFSOC and AMC C-130 aircraft begins in FY08.

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 FY06, Congress added \$1.4M AF RDT&E funds to the EW Development PE 064270F for "Rapid Replacement of Mission Critical Logistics Electronics Components" (RRMCLEC). In FY07 Congress added \$1.0M AF RDT&E funds for RRMCLEC. Warner Robins Air Logistics Center (ALC) is performing RRMCLEC work and tracking those funds. RRMCLEC will rapidly develop prototypes of replacement electronic components and subassemblies to combat obsolescence and vanishing vendor issues in Electronic Warfare systems.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Raytheon Core C-130 SDD	6.668	1.870		
(U) Raytheon Option 11 AT3 ACTD	8.139	1.752	3.442	
(U) AT3 ACTD Program Office Support	0.988	1.038	0.850	
(U) Engineering Support	1.444	0.281	0.300	
(U) AFOTEC Det 1 46 OGS Responsible Test Organization (RTO)	2.295	1.020	0.000	
(U) AT3 ACTD Test and Evaluation	1.335	1.566	0.690	
(U) Platform Integration	5.381	2.803	0.200	
(U) Rapid Replacement of Mission Critical Logistics Electronic Components	1.343	1.000	0.000	
(U) Total Cost	27.593	11.330	5.482	0.000

**Exhibit R-2a, RDT&E Project Justification**

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BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>	PE NUMBER AND TITLE <b>0604270F EW Development</b>	PROJECT NUMBER AND TITLE <b>4832 Precision Location and Identification (PLAID)</b>
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**(U) C. Other Program Funding Summary (\$ in Millions)**

	<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>FY 2012</u>	<u>FY 2013</u>	<u>Cost to Complete</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>								
(U) DARPA Funding (AT3 ACTD)										1.300
(U) OSD Funding (AT3 ACTD)	4.000									14.000
(U) PE 0207442F Common ECM Equipment	0.000	6.315	10.378	10.642	1.666	0.000			Continuing	TBD
(U) PE 0401115F ALR-69 (RWR) AMC C-130 Airlift Squadrons. PLAID procurement to commence in FY07	0.000	29.789	54.596	42.184	21.135	9.238	9.421	9.608	Continuing	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)

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Exhibit R-3, RDT&E Project Cost Analysis											DATE			
											February 2007			
BUDGET ACTIVITY						PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)						0604270F EW Development					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 2006 Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) <u>Product Development</u>														
Raytheon CORE SDD + Fee	Full & Open Comp CPAF	Raytheon - Goleta CA		6.668	Nov-05	1.870						0.000	8.538	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		8.139	Nov-05	1.752		3.442				0.000	13.333	8.384
Subtotal Product Development Remarks:			0.000	14.807		3.622		3.442		0.000		0.000	21.871	36.976
(U) <u>Support</u>														
AT3 Program Office Support Program Office	PR	Various Contractors		0.988	Nov-05			0.850				0.000	1.838	1.255
Engineering	Various			1.444	Nov-05	0.281		0.300				0.000	2.025	2.500
Subtotal Support Remarks:			0.000	2.432		1.319		1.150		0.000		0.000	4.901	5.365
(U) <u>Test &amp; Evaluation</u>														
AFOTEC Det 1 46 OGS C-130	PO			2.295	Nov-05	1.020						0.000	3.315	4.455
AT3 ACTD T&E (Western Test Range)	PO			1.335		1.566		0.690					3.591	0.739
Subtotal Test & Evaluation Remarks:			0.000	3.630		2.586		0.690		0.000		0.000	6.906	5.194
(U)														
Platform Integration - C-130, F-16 AT3 ACTD	Various	Various		5.381	Nov-05	2.803		0.200				0.000	8.384	7.027
Platform Integration Options 3/4	Various	Various											0.000	0.395
Subtotal Remarks:			0.000	5.381		2.803		0.200		0.000		0.000	8.384	7.422
(U)														
Rapid Replacement of Mission Critical Logistics Electronic Components	IDIQ Time and Matls	Scientific Research Corp - Atlanta GA		1.343		1.000							2.343	3.900
ALQ-172 AEA Upgrade	Sole	ITT, Clifton,											0.000	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis</b>	DATE <b>February 2007</b>
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<b>BUDGET ACTIVITY</b> <b>05 System Development and Demonstration (SDD)</b>	<b>PE NUMBER AND TITLE</b> <b>0604270F EW Development</b>	<b>PROJECT NUMBER AND TITLE</b> <b>4832 Precision Location and Identification (PLAID)</b>
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	Source, BOA	NJ								
Subtotal			0.000	1.343	1.000	0.000	0.000	0.000	2.343	3.900
Remarks:										
(U) Total Cost			0.000	27.593	11.330	5.482	0.000	0.000	44.405	58.857

Exhibit R-4, RDT&E Schedule Profile

DATE  
February 2007

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 / AT3 ACTD Schedule

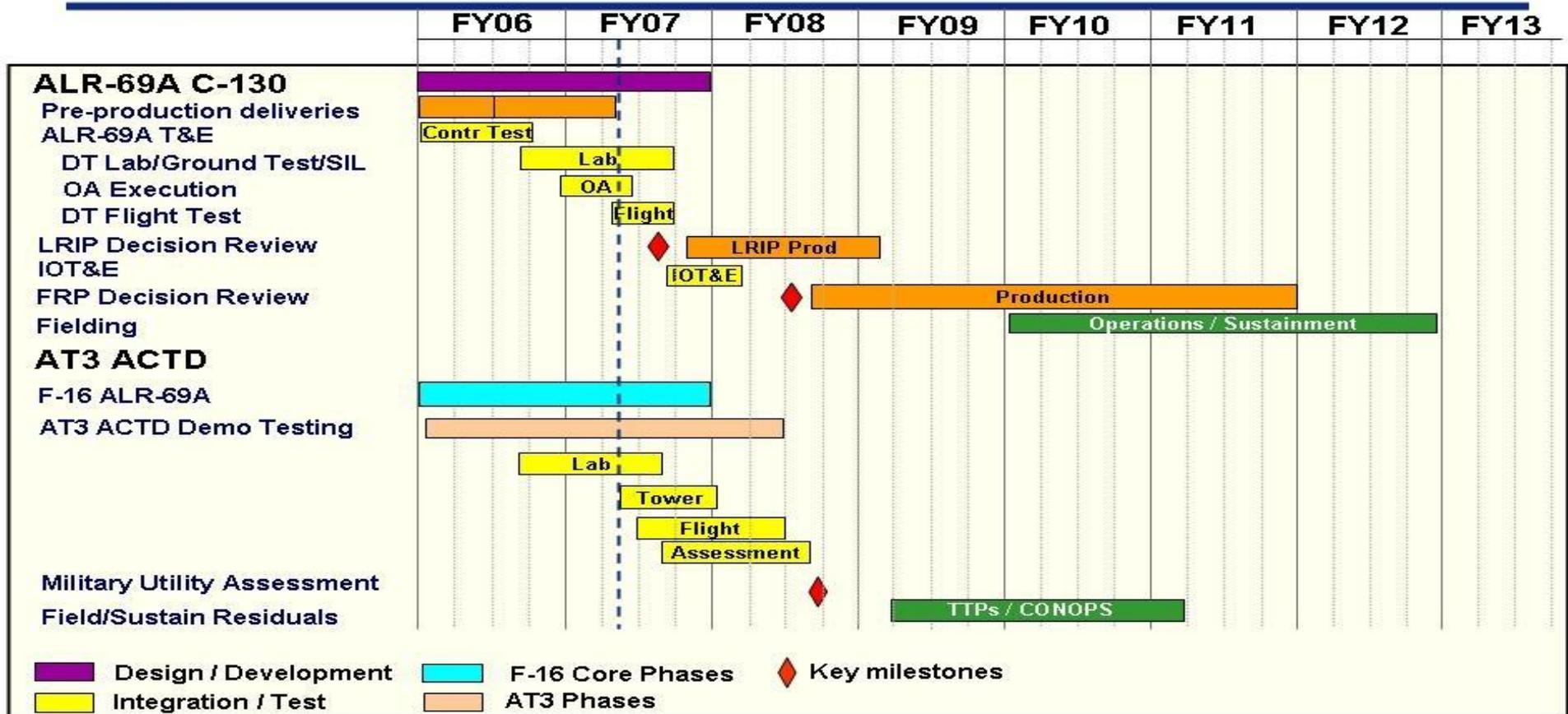


Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2007

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

(U) Developmental Testing and Evaluation

(U) Initial Operational Test and Evaluation

(U) LRIP Decision

(U) MSIII Decision

FY 2006

1-4Q

FY 2007

1-3Q

3-4Q

2Q

FY 2008

1Q

3Q

FY 2009

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2007**

BUDGET ACTIVITY <b>05 System Development and Demonstration (SDD)</b>					PE NUMBER AND TITLE <b>0604270F EW Development</b>			PROJECT NUMBER AND TITLE <b>8462 Miniature Air Launched Decoy</b>		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
8462 Miniature Air Launched Decoy	66.132	77.660	96.167	16.637	0.245	0.508	0.512	0.517	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

**(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, Global Response, Space and C4ISR, and the Air and Space Expeditionary Force Concepts of Operations. 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 risk reduction (to include prototyping) and System Development and Demonstration (SDD) of the decoy and jammer configurations. This will include design, development, test, aircraft integration, and seamless verification.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) MALD and MALD-J RR and SDD Contract	52.997	59.690	76.813	12.178
(U) MALD Program Office Support (Government)	2.629	3.905	3.175	1.192
(U) MALD / MALD-J B-52 Aircraft Integration	3.810	3.210	0.960	0.114
(U) MALD / MALD-J Mission and Test Support	6.391	10.395	14.836	3.096
(U) MALD / MALD-J F-16 Aircraft Integration	0.305	0.460	0.383	0.057
(U) Total Cost	66.132	77.660	96.167	16.637

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

	<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>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) AF RDT&E										
(U) Other APPN (PE 0207442F MALD procurement)	0.000	0.000	63.405	56.988	113.339	138.299	89.542	91.323	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.

UNCLASSIFIED

**Exhibit R-3, RDT&E Project Cost Analysis**

DATE  
**February 2007**

BUDGET ACTIVITY				PE NUMBER AND TITLE						PROJECT NUMBER AND TITLE				
<b>05 System Development and Demonstration (SDD)</b>				<b>0604270F EW Development</b>						<b>8462 Miniature Air Launched Decoy</b>				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> MALD SDD ACTD	CPFF	Northrop Grumman - Ryan Aeronautical Center											0.000	40.074
MALD / MALD-J RR and SDD	CPAF	Raytheon Missile Systems, Tucson AZ	61.387	52.997		59.690		76.813		12.178			263.065	TBD
MALD/MALD-J B-52 Aircraft Integration	MIPR	B-52 SPO	6.440	3.810		3.210		0.960		0.114			14.534	0.000
MALD/MALD-J F-16 Aircraft Integration	MIPR	F-16 SPO	0.389	0.305		0.460		0.383		0.057			1.594	0.000
Subtotal Product Development			68.216	57.112		63.360		78.156		12.349		0.000	279.193	TBD
Remarks:														
(U) <u>Support</u> Contractor Support to AAC/AAMSW/SASG/RC	Various	Various	3.800	2.124		2.875		2.060		0.916			11.775	
Subtotal Support			3.800	2.124		2.875		2.060		0.916		0.000	11.775	0.000
Remarks:														
(U) <u>Test &amp; Evaluation</u> MALD Government Test Planning	Various	Various	5.471	6.391		10.395		14.836		3.096			40.189	
Subtotal Test & Evaluation			5.471	6.391		10.395		14.836		3.096		0.000	40.189	0.000
Remarks:		Element includes detailed planning, support data reduction and reports from such testing.												
(U) <u>Management</u> AAC/AAMSW/SASG/RC	Various	AAC, Eglin AFB FL	1.361	0.505		1.030		1.115		0.276			4.287	
Subtotal Management			1.361	0.505		1.030		1.115		0.276		0.000	4.287	0.000
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 information technology expenses.												
(U) Total Cost			78.848	66.132		77.660		96.167		16.637		0.000	335.444	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE  
February 2007

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 / MALD-J Schedule

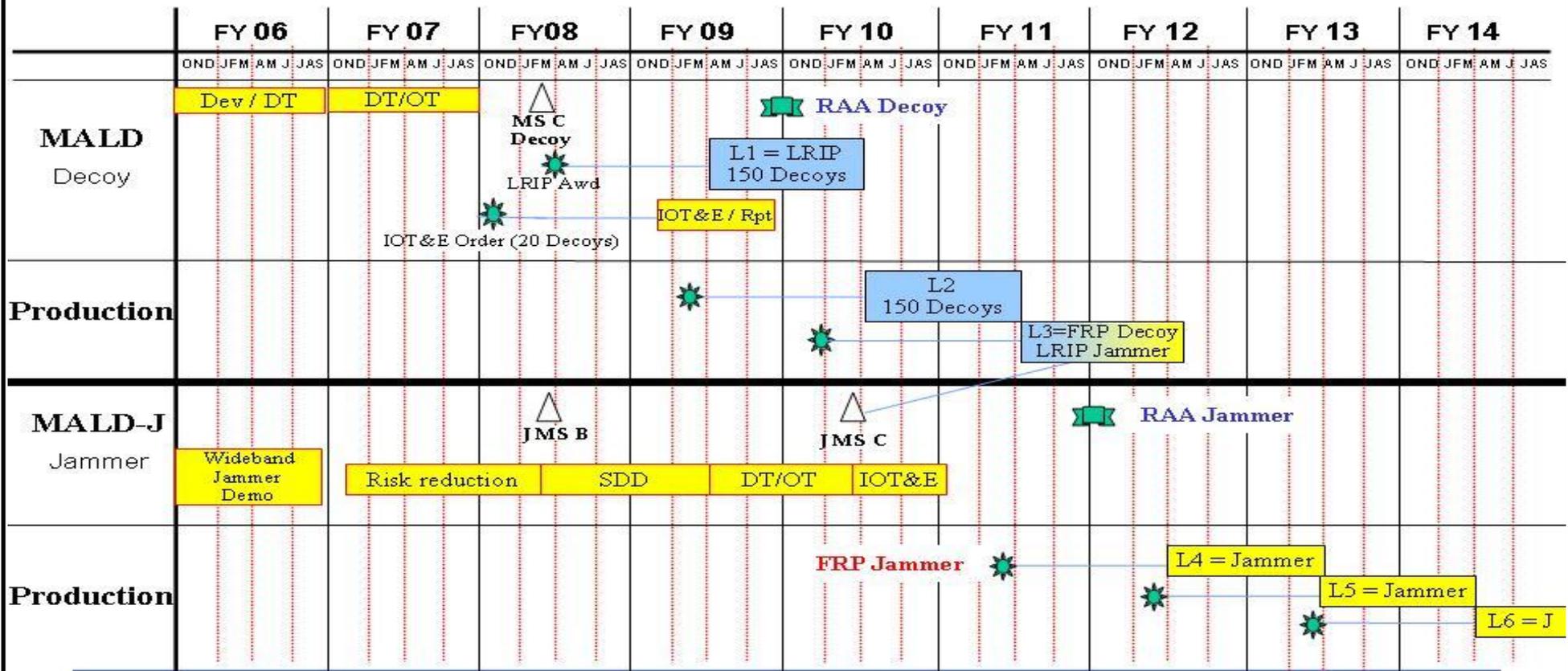


Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2007

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**

(U) MALD Critical Design Review

(U) MALD-J Spiral Start

(U) MALD Flight Readiness Review

(U) MS C

(U) IOT&E

FY 2006

2Q

2Q

FY 2007

1Q

FY 2008

2Q

FY 2009

1-4Q