

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development					
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	52,206	42,546	65,082	57,856	43,209	36,786	37,469	Continuing	TBD
1011 Joint Service Electronic Combat Systems Tester	2,899	2,521	1,696	0	0	0	0	0	47,334
2462 Compass Call (CC)	762	0	0	0	0	0	0	0	66,037
3891 Advanced IR Counter Measures (AIRCМ)	5,066	991	4,422	4,591	2,181	2,237	2,266	Continuing	TBD
3945 RF Towed Decoy Systems	25,968	33,628	43,090	53,265	41,028	34,549	35,203	Continuing	TBD
4832 Precision Location and Identification (PLAID)	12,376	5,406	10,574	0	0	0	0	0	39,358
8462 MALD	5,135	0	5,300	0	0	0	0	0	10,435
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

AIRCМ includes three subprojects: Loitering EW Killer (LEWK) ACTD, Advanced Strategic and Tactical Infrared Expendables (ASTE), and software upgrades to the passive UV missile warner, the AAR-47.

(U) **A. Mission Description**  
 This program element (PE) consolidates engineering development efforts related to Air Force Electronic Warfare (EW) requirements. It centralizes USAF funding and management of common EW systems development. These funds transition EW technologies to an installed operational capability. This PE executes projects to provide capabilities to avoid or degrade enemy acquisition, tracking and attack of DoD operational platforms. These projects include electro-optical (EO), infrared (IR), radio frequency (RF) and laser situational awareness and self protection systems, command and control warfare (C2W) electronic attack systems, and the test equipment needed to support them.

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<p>(U) <b><u>B. Budget Activity Justification</u></b>                  A key criterion for the included projects in this program element is the need for engineering and manufacturing developmental activities, therefore these programs are in Budget Activity 5 - Engineering and Manufacturing Development (EMD).</p> <p>(U) <b><u>C. Program Change Summary (\$ in Thousands)</u></b></p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:55%;"></th> <th style="text-align: right; width: 10%;"><u>FY 2001</u></th> <th style="text-align: right; width: 10%;"><u>FY 2002</u></th> <th style="text-align: right; width: 10%;"><u>FY 2003</u></th> <th style="text-align: right; width: 15%;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: right;">58,198</td> <td style="text-align: right;">53,655</td> <td style="text-align: right;">45,842</td> <td style="text-align: right;">TBD</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: right;">53,098</td> <td style="text-align: right;">41,267</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Congressional/General Reductions</td> <td style="text-align: right;">-372</td> <td style="text-align: right;">-421</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. Small Business Innovative Research</td> <td style="text-align: right;">-1,674</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">d. Below Threshold Reprogram</td> <td style="text-align: right;">1,269</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">e. Rescissions</td> <td style="text-align: right;">-115</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2002 PBR</td> <td></td> <td style="text-align: right;">1,700</td> <td style="text-align: right;">19,240</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2003 PBR</td> <td style="text-align: right;">52,206</td> <td style="text-align: right;">42,546</td> <td style="text-align: right;">65,082</td> <td style="text-align: right;">TBD</td> </tr> </tbody> </table> <p>(U) <b><u>Significant Program Changes:</u></b>                  \$6.7M added by Congress in FY02 for PLAID risk reduction efforts.                  \$5.0M removed by Congress in FY 02 from overall PE for poor execution.                  \$.421M removed for Congressional efficiency rescissions.                  \$1.7M added in FY03 to JSECST to add flight line testing of F-15 ALQ-135 Band 1.5 capability.                  \$2.0M added in FY03 for Loitering EW Killer ACTD.                  \$5.3M added in FY03 for MALD SDD.                  \$10.570M added in FY03 for PLAID SDD due to contract cost growth.</p>					<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>	(U) Previous President's Budget	58,198	53,655	45,842	TBD	(U) Appropriated Value	53,098	41,267			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-372	-421			b. Small Business Innovative Research	-1,674				c. Omnibus or Other Above Threshold Reprogram					d. Below Threshold Reprogram	1,269				e. Rescissions	-115				(U) Adjustments to Budget Years Since FY 2002 PBR		1,700	19,240		(U) Current Budget Submit/FY 2003 PBR	52,206	42,546	65,082	TBD
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002			
BUDGET ACTIVITY <b>05 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604270F EW Development</b>				PROJECT <b>1011</b>			
COST (\$ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost	
1011	Joint Service Electronic Combat Systems Tester	2,899	2,521	1,696	0	0	0	0	0	47,334	
<p>(U) <b><u>A. Mission Description</u></b>                      The Joint Service Electronic Combat Systems Tester (JSECST) fills a combined Air Force and Navy operational requirement for a small, adaptable, and highly mobile tester capable of verifying system level performance of installed electronic countermeasures systems. JSECST provides an organizational-level flight line capability for verifying operational status of aircraft-installed electronic combat (EC) systems including Group A antennas and transmission lines. JSECST will fill a void in current Air Force end-to-end test capability. The JSECST system consists of core test sets (CTS), nomenclature AN/USM-670, test program sets (TPS), and software development stations (SDS). The CTS provides the stimulus, measurement, operator-interface, analysis and control functions common across all applications. The TPSs provide aircraft specific hardware interfaces and software packages to employ the CTS. The SDS provides computer resources for developing and maintaining CTS and TPS software. Initial TPS will support the F-15C. The Follow-on Test Program Set (FOTPS) program will design, develop, assemble, integrate, test, and deliver TPSs for use with the AN/USM-670 for additional aircraft. The follow-on Air Force platforms include the F-15E, F-16 (Blocks 25/30/32/40/42/50/52), and OA/A-10. Navy platforms include the AV-8B, F/A-18 A/B and the F-14 B/D. (Navy platforms will be funded by the Navy.) JSECST is intended to meet the organizational level support equipment requirements of electronic combat systems for service through a 20-year life cycle.</p> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b>                      (U) \$2,280 Continue FOTPS EMD Contract                      (U) \$364 Continue SPO Support                      (U) \$185 Continue Government Test                      (U) \$70 Continue TPS Lab Support                      (U) \$2,899 Total</p> <p>(U) <b><u>FY 2002 (\$ in Thousands)</u></b>                      (U) \$2,071 Continue FOTPS EMD Contract                      (U) \$290 Continue SPO Support                      (U) \$160 Continue Government Test                      (U) \$0 Continue TPS Lab Support                      (U) \$2,521 Total</p>											
Project 1011				Page 3 of 29 Pages				Exhibit R-2A (PE 0604270F)			

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)</b>							DATE <b>February 2002</b>		
<b>BUDGET ACTIVITY</b> <b>05 - Engineering and Manufacturing Development</b>				<b>PE NUMBER AND TITLE</b> <b>0604270F EW Development</b>			<b>PROJECT</b> <b>1011</b>		
<b>(U) <u>A. Mission Description Continued</u></b>									
<b>(U) <u>FY 2003 (\$ in Thousands)</u></b>									
(U)	\$1,041	Complete FOTPS EMD Contract							
(U)	\$390	Continue SPO Support							
(U)	\$195	Complete Government Test							
(U)	\$70	Complete TPS Lab Support							
(U)	\$1,696	Total							
<b>(U) <u>B. Project Change Summary</u></b>									
\$1.7M of FY03 RDT&E money was added to fund the FOTPS for F-15E Band 1.5									
<b>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></b>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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)	AF RDT&E								
(U)	Other APPN								
(U)	17,127	24,269	5,449	0	0	0	0	0	46,845
	27442F (Common ECM Equipment), In Service Direct Ground Support Equipment								
(U)	717	151	823	0	0	0	0	0	1,691
(U)	17,844	24,420	6,272	0	0	0	0	0	48,536
	AF								
<b>(U) <u>D. Acquisition Strategy</u></b>									
The acquisition strategy is competitive, cost-plus contracts for CTS development. FOTPS acquisition strategy is a sole source, cost-plus contract. Production and support contract is sole source.									
<b>(U) <u>E. Schedule Profile</u></b>									
			<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>	

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BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
<b>05 - Engineering and Manufacturing Development</b>					<b>0604270F EW Development</b>					<b>1011</b>		
<b>(U) <u>E. Schedule Profile Continued</u></b>												
		<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Operational User Flight Line Assessment	*											
(U) CTS Milestone III (Apr 01)			*									
(U) CTS Production Lot 1 award (Aug 01)				*								
(U) CTS Production Lot 2 award (Jun 02)						X						
(U) CTS Production Lot 3 award (Jun 03)											X	
(U) Complete FOTPS Development											X	
* - Denotes a completed event												
X - Denotes a planned event												
Project 1011			Page 5 of 29 Pages				Exhibit R-2A (PE 0604270F)					

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development			PROJECT 1011			
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	EMD Contracts					2,280		2,071		1,045
(U)	SPO Support					364		290		386
(U)	Government Test					185		160		195
(U)	FOTPS Lab Support					70				70
(U)	Total					2,899		2,521		1,696
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>										
<b>(U) Performing Organizations:</b>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
AAI	CPAF	Mar 96	28,340	28,340	26,765				0	26,765
FO TPS AAI	CPIF	Jun 00	6,325	6,325	1,253	2,280	2,071	1,045	0	6,649
<u>Support and Management Organizations</u>										
ASC/SMNT, NAVAIR,		Various			10,946	364	290	386	0	11,986
Wright Labs										
<u>Test and Evaluation Organizations</u>										
53 EWG, 46 TW, Eglin AFB					1,254	255	160	265	0	1,934
FL										
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>					<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development					28,018	2,280	2,071	1,045	0	33,414
Subtotal Support and Management					10,946	364	290	386	0	11,986
Subtotal Test and Evaluation					1,254	255	160	265	0	1,934
Total Project					40,218	2,899	2,521	1,696	0	47,334

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)</b>								DATE <b>February 2002</b>	
<b>BUDGET ACTIVITY</b> <b>05 - Engineering and Manufacturing Development</b>				<b>PE NUMBER AND TITLE</b> <b>0604270F EW Development</b>				<b>PROJECT</b> <b>2462</b>	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
2462    Compass Call (CC)	762	0	0	0	0	0	0	0	66,037
<p>(U) <b><u>A. Mission Description</u></b>          COMPASS CALL is the USAF's only non-lethal Suppression of Enemy Air Defense (SEAD) platform and airborne wide area coverage offensive counter information system. It denies, disrupts, degrades and deceives adversary voice and data communications, disrupting the ability to effectively command and control forces in the field. Although a fielded, operational capability, COMPASS CALL continues to evolve and adapt to counter the changing adversary tactical communications systems. The Tactical Radio Acquisition and Countermeasures Subsystem (TRACS) replaces the aging compressive receiver suite responsible for acquiring target systems with a digital, reprogrammable receiver system. TRACS will enable COMPASS CALL to remain viable in countering the next generation of deployed threats. Additionally, new target (class 6) countermeasures capability is under development. This effort funds the non-recurring efforts associated with TRACS development for COMPASS CALL.</p> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b>          (U) \$262            Continue New target class countermeasures development          (U) \$250            Continue New target class countermeasures operational flight test          (U) \$125            Continue Block 30 threat signal update          (U) \$125            Continue Block 30 waveform update          (U) \$762            Total</p> <p>(U) <b><u>FY 2002 (\$ in Thousands)</u></b>          (U) \$0              No Activity (RDT&amp;E funding has been transferred to Compass Call PE27253F)          (U) \$0              Total</p> <p>(U) <b><u>FY 2003 (\$ in Thousands)</u></b>          (U) \$0              No Activity          (U) \$0              Total</p> <p>(U) <b><u>B. Project Change Summary</u></b>          All program funding in this project for FY02 and later has been transferred to Compass Call PE 27253F.</p>									
Project 2462			Page 7 of 29 Pages				Exhibit R-2A (PE 0604270F)		

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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development				PROJECT 2462			
<b>(U) C. Other Program Funding Summary (\$ in Thousands)</b>											
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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) AF RDT&E											
(U) Other APPN											
(U) Compass Call (RDT&E), AF PE27253F	21,681	3,885	3,878	3,870	0	5,000	6,456	Continuing	Continuing		
<b>(U) D. Acquisition Strategy</b>											
Cost Plus Incentive Fee/Award Fee contracting will be employed for all activities.											
<b>(U) E. Schedule Profile</b>											
				<u>FY 2001</u>		<u>FY 2002</u>			<u>FY 2003</u>		
				1	2	3	4	1	2	3	4
(U) New Countermeasures#				*	*	*	*				
(U) New CM Flt Test				*	*	*	*				
(U) Block 30 Signals Update#				*	*	*	*				
(U) Block 30 Waveform Update#				*	*	*	*				
# - New countermeasures development and Block 30 signals/waveform updates are a continuing effort to improve the existing system's ability to effectively counter emerging threats. Due to the dynamic nature of this platform's mission, this effort is a continuous activity.											
* - Denotes a completed event											
X - Denotes a planned event											

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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development				PROJECT 2462			
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>											
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	
(U)	TRACS-Basic					0		0		0	
(U)	New Threat (class 6) CM Development					512		0		0	
(U)	Block 30 Signals Update Development					125		0		0	
(U)	Block 30 Waveform Update Development					125		0		0	
(U)	Total					762		0		0	
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>											
<b>(U) Performing Organizations:</b>											
	<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
	<u>Performing Activity</u>	<u>or Funding Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>											
	Sanders	SS/CPIF	1QFY99		TBD	27,099	512	0	0	0	27,611
	Raytheon Ft Wayne	SS/CPIF	N/A		23,543	23,535	0	0	0	0	23,535
	GTE	SS/CPIF	N/A		8,875	8,875	0	0	0	0	8,875
<u>Support and Management Organizations</u>											
	Misc (SPO, Labs)	Various	N/A			3,172	25	0	0	0	3,197
<u>Test and Evaluation Organizations</u>											
	EPG, Ft. Huachuca NM	MIPR	2QFY99			500	125	0	0	0	625
	WTR	616	2QFY99			500	100	0	0	0	600
<b>(U) Government Furnished Property:</b>											
	<u>Item</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Delivery</u>		<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
	<u>Description</u>	<u>or Funding Vehicle</u>	<u>Date</u>	<u>Date</u>							

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BUDGET ACTIVITY				PROJECT					
05 - Engineering and Manufacturing Development				0604270F EW Development					
				2462					
<b>(U) Government Furnished Property Continued:</b>									
<u>Item</u>	<u>Contract</u>	<u>Award or</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Method/Type</u>	<u>or Funding</u>	<u>Delivery</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>						
<u>Product Development Property</u>									
Misc				1,594	0	0	0	0	1,594
<u>Support and Management Property</u>									
<u>Test and Evaluation Property</u>									
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				61,103	512	0	0	0	61,615
Subtotal Support and Management				3,172	25	0	0	0	3,197
Subtotal Test and Evaluation				1,000	225	0	0	0	1,225
Total Project				65,275	762	0	0	0	66,037

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COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
3891      Advanced IR Counter Measures (AIRCM)	5,066	991	4,422	4,591	2,181	2,237	2,266	Continuing	TBD
<p>*Advanced Infrared Countermeasures (AIRCM) now includes two subprojects: Advanced Strategic and Tactical IR Expendables (ASTE), and software upgrade to AAR-47. The Air Force terminated its participation in Common Missile Warning System (CMWS) in the FY02 budget cycle. The Large Aircraft IRCM/Laser Infrared Flyout Experiment (LAIRCM/LIFE) transferred to PE 0603270F in FY99, FY00 and FY01.</p> <p>(U) <b><u>A. Mission Description</u></b>                      The Advanced IR Countermeasure (AIRCM) project contains related aircraft self-protection efforts aimed at increasing aircraft survivability against the increasing threat of sophisticated surface-to-air and air-to-air missiles, which may employ such features as next-generation electro-optics or dual IR and radio frequency seekers. AIRCM currently consists of two efforts, the USAF/USN Advanced Strategic and Tactical IR Expendables (ASTE) program, and USAF/USN AAR-47 software upgrade. The LAIRCM/LIFE effort and funding was transferred to PE 63270F for FY99, FY00, and FY01 to support ongoing Advanced Technology Demonstration study at Wright Lab. Air Force participation in the CMWS program was terminated in the FY02 budget process. ASTE will provide advanced IR expendable countermeasures. ASTE flares will be functionally compatible with existing ALE-40, 45, and 47 dispenser systems and will be employed across multiple USAF and USN weapon systems. The AAR-47 software upgrade supports two configurations of software intended to decrease the AAR-47 false alarm rate and improve threat detection for all large body aircraft.</p> <p>The BPAC also funds the Loitering Electronic Warfare Killer (LEWK) ACTD to develop and demonstrate a long-endurance UAV for jamming and payload delivery. This ACTD was approved in FY01 and the USAF has been designated the lead service.</p> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b>                      (U) \$3,417                      ASTE Flare Development                      (U) \$700                        Comet Force Development Evaluation Phase I                      (U) \$949                        AAR-47 Software Upgrade                      (U) \$5,066                      Total</p> <p>(U) <b><u>FY 2002 (\$ in Thousands)</u></b>                      (U) \$991                        AAR-47 Software Upgrade                      (U) \$991                        Total</p>									
Project 3891			Page 11 of 29 Pages				Exhibit R-2A (PE 0604270F)		

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
<b>05 - Engineering and Manufacturing Development</b>				<b>0604270F EW Development</b>				<b>3891</b>	
(U) <b><u>A. Mission Description Continued</u></b>									
(U) <u>FY 2003 (\$ in Thousands)</u>									
(U)	\$1,995	LEWK ACTD support							
(U)	\$2,377	ASTE Flare Development							
(U)	\$50	AAR-47 Software Upgrades							
(U)	\$4,422	Total							
(U) <b><u>B. Project Change Summary</u></b>									
LEWK was added as an FY01 approved ACTD. USAF will contribute \$2M in FY03 and \$2.5M in FY04.									
(U) <b><u>C. Other Program Funding Summary (\$ in Thousands)</u></b>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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)	AF RDT&E								
(U)	Other APPN								
(U)	Procurement of Ammunition, AF, PE 28030F, ASTE flares	4,779	4,815	17,536	16,847	16,853	13,099	11,005	Continuing
(U)	LEWK ACTD (OSD PE63750D)	1,000	5,000	1,000	1,000	500	0	0	Continuing
(U)	LEWK ACTD (USN PE0603502N)	0	0	1,000	1,000	0	0	0	Continuing
(U)	LEWK ACTD (US Army PE0603003)	0	0	1,000	1,000	0	0	0	Continuing
(U)	LEWK ACTD (USMC PE63640M)	0	0	0	500	0	0	0	Continuing
(U)	RDT&E, AF, PE 63270F, EO/IR Warning & Countermeasures, BA-3, BPAC 691X, Funds multiple EO/IR Science and	9,357	12,349	9,253	12,692	12,723	12,560	12,806	Continuing
Project 3891									

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)</b>											DATE <b>February 2002</b>		
BUDGET ACTIVITY <b>05 - Engineering and Manufacturing Development</b>						PE NUMBER AND TITLE <b>0604270F EW Development</b>					PROJECT <b>3891</b>		
<b>(U) C. Other Program Funding Summary (\$ in Thousands)</b>													
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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>					
Technology projects													
<b>(U) D. Acquisition Strategy</b>													
The planned acquisition strategy is competitive cost-plus award fee.													
LEWK is an ACTD under OSD. Transition to USAF will be determined upon Military Utility Assessment in FY04.													
<b>(U) E. Schedule Profile</b>													
		<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>			
		1	2	3	4	1	2	3	4	1	2	3	4
(U) ASTE DT&E - Fighter		*											
(U) ASTE OT&E - Fighter							X						
(U) ASTE MS III - Fighter								X					
(U) ASTE PDR - Transport (Completed Apr 99)													
(U) ASTE CDR - Transport				*									
(U) ASTE DT&E-Transport													X
(U) ASTE OT&E -Transport													X
(U) AAR-47 Analyze Data (V21.2)										X			
(U) AAR-47 SW Upgrade Contract (V22)							X						
(U) AAR-47 Collect/Validate Data (V22)										X			
(U) AAR-47 Collect/Validate Data (V22.x)													
(U) AAR-47 Modeling/Simulation											X		
(U) AAR-47 Algorithm Development													
(U) LEWK ACTD Inflatable Wing development										X			
(U) LEWK ACTD Vehicle jammer downselect											X		
* - Denotes a completed event X - Denotes a planned event													
Project 3891				Page 13 of 29 Pages				Exhibit R-2A (PE 0604270F)					

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
<b>05 - Engineering and Manufacturing Development</b>					<b>0604270F EW Development</b>			<b>3891</b>		
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	ASTE Prime Contract Costs					2,480		0		1,408
(U)	ASTE Test & Evaluation					264		0		314
(U)	ASTE Verification & Validation					150		0		100
(U)	ASTE Modeling and Simulation					155		0		155
(U)	ASTE Mission Support					368		0		400
(U)	Comet Pod Force Development Evaluation Phase I					700		0		0
(U)	AAR-47 Modeling & Analysis					332		250		50
(U)	AAR-47 Algorithm Development / live fire testing / data collection					617		455		
(U)	AAR-47 Correction of Deficiencies					0		286		
(U)	LEWK ACTD support					0		0		1,995
(U)	Total					5,066		991		4,422
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>										
<b>(U) Performing Organizations:</b>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
ASTE - BAE	CPAF	Nov 95	8,324	8,324	16,640	2,480	0	1,408	Continuing	TBD
AAR-47 - GTRI (V22)	T&M	Various	0	0	0	949	991	50	Continuing	TBD
Comet Pod FDE Phase I	Fixed Price	Mar 01	700		0	700				700
<u>Support and Management Organizations</u>										
ASTE M&A - SAIC	PR	Various		2,554	1,454	155	0	155	Continuing	TBD
ASTE V&V - Mac B	PR	Various		789	359	150	0	100	Continuing	TBD
ASTE - Misc	Various	Various		Continuing	36,304	368	0	400	Continuing	TBD
LEWK ACTD -	ACTD	Various		Continuing	0	0	0	1,995	Continuing	TBD

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
<b>05 - Engineering and Manufacturing Development</b>				<b>0604270F EW Development</b>				<b>3891</b>		
<b>(U) <u>Performing Organizations Continued:</u></b>										
<u>Support and Management Organizations</u>										
MARSYSCOM										
<u>Test and Evaluation Organizations</u>										
ASTE - 46TW	Various	Various	2,897	897	264	0	314	Continuing	TBD	
ASTE - Misc	Various	Various	Continuing	282	0	0	0	Continuing	TBD	
46TW/AFFTC/ BAE Support	Various	Various	30,114	17,092	0	0	0	Continuing	TBD	
AAR-47 Live Fire Test / Data Collection					0	0	0	Continuing	TBD	
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>					<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development					16,640	4,129	991	1,458	TBD	TBD
Subtotal Support and Management					38,117	673	0	2,650	TBD	TBD
Subtotal Test and Evaluation					18,271	264	0	314	TBD	TBD
Total Project					73,028	5,066	991	4,422	TBD	TBD

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)</b>	DATE <b>February 2002</b>
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<b>BUDGET ACTIVITY</b> <b>05 - Engineering and Manufacturing Development</b>	<b>PE NUMBER AND TITLE</b> <b>0604270F EW Development</b>	<b>PROJECT</b> <b>3945</b>
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COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
3945 RF Towed Decoy Systems	25,968	33,628	43,090	53,265	41,028	34,549	35,203	Continuing	TBD

\* RDT&E funds are used for development, risk reduction, integration, flight test, and procurement of lab and test assets. Hardware is purchased by Group A aircraft upgrade kits with decoys purchased separately.

**(U) A. Mission Description**

This project develops, integrates and tests radio frequency (RF) towed decoy systems. RF towed decoys are low cost RF countermeasures that provide increased survivability against monopulse, semi-active, and active RF missile threats during the terminal portion of an engagement. This project developed, integrated and tested the Joint Air Force/Navy ALE-50 Advanced Airborne Expendable Decoy program and its follow-on variants. The Air Force is currently participating in the Navy-led Integrated Defensive Electronic Countermeasures (IDECM) program to jointly develop a common techniques generator (TG) ALQ-214 for the B-1B and F/A-18E/F, and a Fiber Optic Towed Decoy (FOTD) for the F-15C/E, B-1B and F/A-18E/F. Air Force funding pays for unique Air Force IDECM development costs, integration and test of an FOTD subsystem on the F-15 (this includes an upgrade to the ALQ-135 techniques generator), IDECM RF Countermeasures (RFCM) field and test support for host platform integration activities, and alternative FOTD activities for risk reduction and competition. The Defensive Systems Upgrade Program (DSUP) program funds integration and test of IDECM hardware on the B-1B.

**(U) FY 2001 (\$ in Thousands)**

- (U) \$8,538 IDECM Common**
- (U) \$14,150 IDECM F-15**
- (U) \$3,280 Mission and Test Support**
- (U) \$25,968 Total**

**(U) FY 2002 (\$ in Thousands)**

- (U) \$3,505 IDECM Common**
- (U) \$24,876 IDECM F-15**
- (U) \$5,247 Mission and Test Support**
- (U) \$33,628 Total**

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)</b>							DATE <b>February 2002</b>		
<b>BUDGET ACTIVITY</b> <b>05 - Engineering and Manufacturing Development</b>				<b>PE NUMBER AND TITLE</b> <b>0604270F EW Development</b>			<b>PROJECT</b> <b>3945</b>		
<b>(U) <u>A. Mission Description Continued</u></b>									
<b>(U) <u>FY 2003 (\$ in Thousands)</u></b>									
<b>(U) \$12,866 IDECM Common</b>									
<b>(U) \$25,386 IDECM F-15</b>									
<b>(U) \$4,838 Mission and Test Support</b>									
<b>(U) \$43,090 Total</b>									
<b>(U) <u>B. Project Change Summary</u></b>									
The US Navy restructured a third time in Oct 01 due to internal budget actions, cost overruns and hardware maturity. This delays ALE-55 decoy testing resulting in production decision/contract award in FY05. Furthermore, this places B-1B as the lead platform for test and integration of the ALE-55 and may drive cost increases due to delay in EMD schedule. The B-1B DSUP program procurement money was zeroed out during the FY02 POM. B-1B DSUP procurement funding is being restored in the FY03 ABES/APOM due to consolidation efforts. Funding changed in FY03 due to ALE-50 transferring to PE27040F.									
<b>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></b>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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>	
<b>(U) AF RDT&amp;E</b>									
<b>(U) Other APPN</b>									
<b>(U) Aircraft Procurement, AF PE</b>	46,832	22,851	0	0	0	30,035	30,421	Continuing	Continuing
<b>27442F, War Consumable (RF towed decoys)</b>									
<b>(U) Aircraft Procurement, AF PE</b>	0	0	0	30,428	22,604	22,181	22,817	Continuing	Continuing
<b>27442F, Mods (B-1B)</b>									
<b>(U) Aircraft Procurement, AF PE</b>	0	0	0	0	0	22,350	22,776	Continuing	Continuing
<b>27442F, Mods (F-15)</b>									
<b>(U) <u>D. Acquisition Strategy</u></b>									
The acquisition strategy for IDECM RDT&E was competitive, cost-plus incentive fee /award fee. The production contract will be sole source for first two lots with full and open competition in lots three and beyond.									
Project 3945			Page 17 of 29 Pages			Exhibit R-2A (PE 0604270F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)										DATE February 2002		
BUDGET ACTIVITY <b>05 - Engineering and Manufacturing Development</b>					PE NUMBER AND TITLE <b>0604270F EW Development</b>					PROJECT <b>3945</b>		
<b>(U) <u>E. Schedule Profile</u></b>												
		<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
(U)	B-1B Defensive Systems Upgrade Program (DSUP) Flight Test Ready Review			*								
(U)	B-1B DSUP Developmental T&E				*							
(U)	B-1B DSUP Operational T&E										X	
(U)	F-15 ALQ-135 Techniques Generator Critical Design Review (CDR)				*							
(U)	F-15 FOTD PDR (Software)				*							
(U)	F-15 FOTD CDR (Software)						X					
(U)	F-15 Risk Reduction flight test, Phase I, II, & III				*				X			X
(U)	F-15/FOTD DT/OT&E										X	
(U)	1x4 DCL SCA functional configuration audit						X					
	Note: See Change Summary											
	* - Denotes a completed event											
	X - Denotes a planned event											
Project 3945				Page 18 of 29 Pages				Exhibit R-2A (PE 0604270F)				

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development				PROJECT 3945		
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	Integrated Defensive Electronic Countermeasures (IDECM) Common						8,599		3,505	12,866
(U)	IDECM F-15						14,150		24,876	25,386
(U)	Mission and Test Support						3,219		5,247	4,838
(U)	Total						25,968		33,628	43,090
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>										
<b>(U) Performing Organizations:</b>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
USAF IDECM: Development CPAF		Nov 95	47,733	47,733	39,355	5,612	1,500	9,200	Continuing	TBD
BAE										
Development E-Systems, Goleta (now Raytheon)		CPIF Jan 96	19,674	19,674	12,901	1,497	566	650	Continuing	TBD
F-15 IDECM Integration- Boeing/LMT/Northrop		CPFF Aug 97	177,516	177,516	22,736	14,150	24,876	25,386	Continuing	TBD
IDECM Misc Development		Misc	6,509	6,509	3,191	1,429	1,939	3,016	Continuing	TBD
Contracts										
<u>Support and Management Organizations</u>										
ASC/AA - IDECM		Misc As required	N/A		3,102	2,004	2,797	2,938	Continuing	TBD
<u>Test and Evaluation Organizations</u>										
AFOTEC			N/A		1,600	0	0	0	Continuing	TBD
Flight Test Support			N/A		156	846	1,700	1,000	Continuing	TBD
Eglin			N/A		845	0	250	900	Continuing	TBD
NRL			N/A		0	430	0	0	Continuing	TBD
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
<b>05 - Engineering and Manufacturing Development</b>		<b>0604270F EW Development</b>			<b>3945</b>	
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
						<u>Total</u>
						<u>Program</u>
<u>Subtotals</u>						
Subtotal Product Development		78,183	22,688	28,881	38,252	TBD
Subtotal Support and Management		3,102	2,004	2,797	2,938	TBD
Subtotal Test and Evaluation		2,601	1,276	1,950	1,900	TBD
Total Project		83,886	25,968	33,628	43,090	TBD

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY <b>05 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604270F EW Development</b>				PROJECT <b>4832</b>	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4832 Precision Location and Identification (PLAID)	12,376	5,406	10,574	0	0	0	0	0	39,358
<p>(U) <b><u>A. Mission Description</u></b>            Precision Location and Identification (PLAID) will improve aircrew situational awareness by providing accurate ground emitter location and unambiguous identification. Threat systems can disrupt or negate operational missions, even without firing, by requiring aircrew reactions that affect mission objectives. Improved threat information from a modernized Radar Warning Receiver (RWR) will assist the aircrews in determining precise threat range/directions and provide option responses short of mission abort or violent aircraft maneuvering. Knowing threat location will help an aircrew respond 'real-time' to threats by providing accurate information to allow the aircrews to reroute around hostile areas. PLAID will utilize existing aircraft RWR antennas and wiring (Group A hardware). PLAID development is currently focused on the ALR-69 RWR but PLAID technology can also be applied to other RWRs. This project also contains funding for aircraft survivability enhancements not related to the PLAID program.</p> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b>            (U) \$9,491 Engineering and Manufacturing Development (EMD), Hardware/Software design/development/test            (U) \$385 Program Office Support            (U) \$0 System Engineering Support            (U) \$2,500 ALR-56C RWR processor upgrade            (U) \$12,376 Total</p> <p>(U) <b><u>FY 2002 (\$ in Thousands)</u></b>            (U) \$1,128 Program Office Support            (U) \$204 System Engineering Support            (U) \$366 SOF C-130 SPD Support            (U) \$3,708 Initiation of Options 2&amp; 4            (U) \$5,406 Total</p>									
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002		
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT		
<b>05 - Engineering and Manufacturing Development</b>				<b>0604270F EW Development</b>			<b>4832</b>		
<b>(U) <u>A. Mission Description Continued</u></b>									
<b>(U) <u>FY 2003 (\$ in Thousands)</u></b>									
(U)	\$7,220	EMD, hardware/software design/development/test (including \$1,166.5K Award Fee)							
(U)	\$1,775	Program Office Support							
(U)	\$580	SOF C-130 SPD Support							
(U)	\$235	System Engineering Support							
(U)	\$764	SOF C-130 DT&E/OT&E							
(U)	\$10,574	Total							
<b>(U) <u>B. Project Change Summary</u></b>									
Congress added \$10.0M in FY01 for PLAID EMD and \$3.5M in FY01 for other survivability enhancements (ALR-56C processor upgrade, Comet Pod, and contractor support). To make the PLAID program executable, the Air Force transferred \$10.057M of FY03 PLAID production funds from PE 27442F, Common Electronic Countermeasures Equipment, to PE 44011, Special Operations Forces, RDT&E AF, SOF Support, and \$568K in FY03 from PE 44011F aircraft procurement to PE 44011F RDT&E, AF, for a total of \$10.625M PLAID EMD funding in FY03. PBD 161 transferred these funds to PE 64270F for better program alignment. Congress added \$6.7M to exercise PLAID EMD options and to accelerate PLAID EMD. Congress also assessed a \$5M penalty against the EW Development PE for poor execution. The AF spread that assessment against JSECST (-\$1M), IDECM (-1.3M) and PLAID (-\$2.7M) so that PLAID ended up with a net plus-up of \$4.0M, which will be applied towards the risk reduction of the azimuth ranging option.									
<b>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></b>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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)	AF RDT&E	0	0	0	0	0	0		0
(U)	PE44011F Special Operations Forces	1,109	0	0	0	0	0	0	1,109
(U)	PE27442F Common ECM Equipment		91	10,254	10,867	11,441	11,772	Continuing	
<b>(U) <u>D. Acquisition Strategy</u></b>									
Acquisition was accomplished through full and open competition. The EMD contract was awarded to Raytheon Corporation in August 2001.									
Project 4832			Page 22 of 29 Pages			Exhibit R-2A (PE 0604270F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002					
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT				
<b>05 - Engineering and Manufacturing Development</b>				<b>0604270F EW Development</b>				<b>4832</b>				
<b>(U) <u>E. Schedule Profile</u></b>												
		<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Program Management Directive Approval			*									
(U) Milestone II Decision												
(U) Acquisition Strategy Approved												
(U) Request for Proposal Release	*											
(U) Source Selection Process Complete				*								
(U) Contract Award				*								
(U) Design Review						X						
(U) Integrated Defensive Avionics Lab												X
(U) Test Readiness Review												X
(U) C-130 Combined Development/Operational Test and Evaluation Start												X
* - Denotes a completed event												
X - Denotes a planned event												
Project 4832				Page 23 of 29 Pages				Exhibit R-2A (PE 0604270F)				

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
<b>05 - Engineering and Manufacturing Development</b>					<b>0604270F EW Development</b>			<b>4832</b>		
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>										
					<u>FY 2001</u>		<u>FY 2002</u>			<u>FY 2003</u>
(U)	Program Office Support				250		1,128			1,775
(U)	SOF C-130 Testing				0		0			764
(U)	SOF C-130 SPD Support				0		366			580
(U)	System Engineering Support				200		204			235
(U)	'Core' Engineering and Manufacturing Development, Hardware/Software design/development/test				9,426		0			7,220
(U)	EMD 'Options', hardware/software design/development/test						3,708			
(U)	Other Survivability Enhancements (ALR-56C processor upgrade, Comet Pod, and contractor support)				2,500					0
(U)	Total				12,376		5,406			10,574
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>										
<b>(U) Performing Organizations:</b>										
<u>Contractor or Government</u>	<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Performing Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>										
WR-ALC/LNRC/Raytheon	Full and open competition/CPAF	August 01	TBD	TBD	10,087	8,824	0	6,054	0	24,965
WR-ALC/LN/Raytheon	Award Fee			TBD	307	667		1,166		2,140
WR-ALC/LN/Raytheon	EMD Options			TBD			3,708			3,708
Survivability Enhancement Organizations	WR-ALC/LN for ALR-56C processor upgrade;	May 01	TBD	TBD	0	2,500	0	0	0	2,500
Project 4832					Page 24 of 29 Pages			Exhibit R-3 (PE 0604270F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
BUDGET ACTIVITY										PROJECT
05 - Engineering and Manufacturing Development										4832
PE NUMBER AND TITLE										
0604270F EW Development										
<b>(U) Performing Organizations Continued:</b>										
<u>Product Development Organizations</u>										
ASC/AAN for Comet Pod										
<u>Support and Management Organizations</u>										
Engineering/McCauley	616	Mar 01	TBD	TBD	225	0	225	510	0	960
Brown										
Program Office Support/LN-1	TBD	Sep 01	TBD	TBD	313	385	750	1,265	0	2,713
SOF C-130 SPD	616	Feb 02	TBD	TBD	0	0	363	580	0	943
<u>Test and Evaluation Organizations</u>										
Western Test Range	TBD	TBD	TBD	TBD	0	0	125	235	0	360
Eglin Test Range	PO	01 MAY 02	TBD	TBD	70	0	235	764	0	1,069
<b>(U) Government Furnished Property:</b>										
<u>Contract</u>										
<u>Method/Type</u>										
<u>Award or</u>										
<u>Item</u>										
<u>or Funding</u>										
<u>Obligation</u>										
<u>Delivery</u>										
<u>Description</u>										
<u>Vehicle</u>										
<u>Date</u>										
<u>Date</u>										
<u>Total Prior</u>										
<u>Budget</u>										
<u>Budget</u>										
<u>Budget</u>										
<u>Budget to</u>										
<u>Total</u>										
<u>Product Development Property</u>										
<u>Support and Management Property</u>										
<u>Test and Evaluation Property</u>										
<u>Subtotals</u>					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
					<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development					10,394	11,991	3,708	7,220	0	33,313
Subtotal Support and Management					538	385	1,338	2,355	0	4,616
Subtotal Test and Evaluation					70	0	360	999	0	1,429
Total Project					11,002	12,376	5,406	10,574	0	39,358

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002		
BUDGET ACTIVITY <b>05 - Engineering and Manufacturing Development</b>				PE NUMBER AND TITLE <b>0604270F EW Development</b>				PROJECT <b>8462</b>		
COST (\$ in Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
8462	MALD	5,135	0	5,300	0	0	0	0	0	10,435
<p>(U) <b><u>A. Mission Description</u></b>                      The Miniature Air Launched Decoy (MALD) is a low-cost decoy to stimulate enemy integrated air defenses (IADS) for detection, location, and both lethal and non-lethal suppression activities. MALD transitioned from a DARPA ACTD to USAF program management in December 2000. The program element funds final corrective actions to the ACTD configuration to support ACC's 'Silver Bullet' production.</p> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b>                      (U) \$5,135 ACTD variant test and analysis                      (U) \$5,135 Total</p> <p>(U) <b><u>FY 2002 (\$ in Thousands)</u></b>                      (U) \$0 No Activity                      (U) \$0 Total</p> <p>(U) <b><u>FY 2003 (\$ in Thousands)</u></b>                      (U) \$5,300 Continue MALD SDD efforts to further mature the system.                      (U) \$5,300 Total</p> <p>(U) <b><u>B. Project Change Summary</u></b>                      MALD transitioned from an ACTD to AF program management in Dec 00. Transition activities included improving engine R&amp;M, quality assurance, and EMI. Following recent flight test failures, MALD experienced significant cost growth and technical difficulties, warranting a full System Design Development (SDD) to meet the need for a low-cost decoy to stimulate and deceive enemy IADS. MALD and a jammer variant played a significant role in the Airborne Electronic Attack AOA and has been identified by the Air Combat Command (ACC) as a critical Global Strike Task Force enabler. Congress designated MALD a special interest item.</p>										
Project 8462			Page 26 of 29 Pages				Exhibit R-2A (PE 0604270F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development				PROJECT 8462	
<b>(U) C. Other Program Funding Summary (\$ in Thousands)</b>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</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) AF RDT&E									
(U) Other APPN (PE 27442F)		5,000		10,000					
(U) USAF S&T (PE 63270F)									
(U) OSD (PE 63750D) RDT&E	3,000								
(U) DARPA (PE 62702E) RDT&E									
(U) Congressional Add (PE 27442F)		4,000							
Congress designated MALD FY02 President's budget request and its plus-up as a special interest item									
<b>(U) D. Acquisition Strategy</b>									
Due to technical difficulties and cost growth, the AF restructured the program for full SDD in FY03. MALD will also include the MALD-Jammer variant as a spiral development program. Output from the AEA AOA highlighted MALD and a MALD-Jammer as a significant capability against a modern IADS system. ACC has designated MALD as a critical Global Strike Task Force enabler. Beginning an SDD will incorporate lessons learned from the ACTD/transition period, and will allow spiral development to meet stand-in jamming needs for the combat air forces.									
<b>(U) E. Schedule Profile</b>									
			<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>	
			1	2	3	4	1	2	3
(U) SDD contract award									
Risk reduction activities from the ACTD will continue through FY02									
								X	4

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002				
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604270F EW Development				PROJECT 8462			
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>											
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	
(U)	ACTD variant test and analysis					5,135		0		0	
(U)	MALD SDD Award									5,300	
(U)	Total					5,135		0		5,300	
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>											
<b>(U) Performing Organizations:</b>											
	<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Organizations</u>											
	Northrop Grumman - Ryan Aeronautical Center	CPFF	1 Nov 96	TBD	TBD	0	2,890	0	0	0	2,890
	SDD contract award (TBD)	TBD	2Q03	TBD	TBD	0	0	0	5,000		5,000
<u>Support and Management Organizations</u>											
	AAC/WMG					0	669	0	300	0	969
<u>Test and Evaluation Organizations</u>											
	Eglin AFB					0	1,576	0	0	0	1,576
<b>(U) Government Furnished Property:</b>											
	<u>Item Description</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Delivery Date</u>		<u>Total Prior to FY 2001</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget FY 2003</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Property</u>											
<u>Support and Management Property</u>											
<u>Test and Evaluation Property</u>											

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
<b>05 - Engineering and Manufacturing Development</b>		<b>0604270F EW Development</b>			<b>8462</b>	
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
						<u>Total</u>
	<u>Subtotals</u>					
	Subtotal Product Development	0	2,890	0	5,000	0
	Subtotal Support and Management	0	669	0	300	0
	Subtotal Test and Evaluation	0	1,576	0	0	0
	Total Project	0	5,135	0	5,300	0
						10,435