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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	89.939	89.966	26.880	-	26.880	56.744	76.374	90.059	32.099	Continuing	Continuing
653891: <i>Advanced IR Counter Measures (AIRCM)</i>	-	-	1.963	-	1.963	1.971	1.971	1.990	1.989	Continuing	Continuing
654832: <i>Precision Location and Identification (PLAID)</i>	2.448	0.099	-	-	-	-	-	-	-	Continuing	Continuing
655305: <i>MALD-J</i>	87.491	89.867	-	-	-	-	-	-	-	Continuing	Continuing
657004: <i>MALD-J Increment II</i>	-	-	24.917	-	24.917	54.773	74.403	88.069	30.110	Continuing	Continuing

Note

In FY 2012, Project 653891, Advanced IR Counter Measures (AIRCM), includes new start efforts.

A. Mission Description and Budget Item Justification

This program element (PE) consolidates Air Force funding and management of common electronic warfare (EW) systems from materiel solutions analysis through engineering and manufacturing development and transition to operational capability. EW is an integral warfighting effect supporting AF Global Strike, Global Persistent Attack and Global Mobility operations as well as Joint-Coalition operations. EW systems influence, deceive, disrupt, degrade, deny, and destroy threats to air operations throughout the electromagnetic 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 preserve the electromagnetic spectrum for use by friendly forces. EA programs provide self-protection through active and passive measures that deceive threats to air operations using kinetic and non-kinetic means to defeat threats that rely on the electromagnetic spectrum (Radio Frequency (RF), Electro-Optical (EO), Infrared (IR)).

This program is in budget activity 5 - System Development and Demonstration of common EW systems to meet user requirements.

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>
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B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	80.275	89.966	25.016	-	25.016
Current President's Budget	89.939	89.966	26.880	-	26.880
Total Adjustments	9.664	-	1.864	-	1.864
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	9.999	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.335	-	1.864	-	1.864

Change Summary Explanation

FY10: \$9.999M added for MALD-J (Project 655305)

FY12: Funding for infrared flares testing added as a new start under Advanced IR Counter Measures (AIRCМ) Project 653891.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 653891: Advanced IR Counter Measures (AIRCM)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
653891: Advanced IR Counter Measures (AIRCM)	-	-	1.963	-	1.963	1.971	1.971	1.990	1.989	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note In FY 2012, Project 653891, Advanced IR Counter Measures (AIRCM), includes new start RDT&E funding to test IR flares on aircraft.											
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. AIRCM will provide advance IR expendable countermeasures and/or IRCM techniques that will be functionally compatible with existing dispenser systems and employed across multiple USAF weapons systems. 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. Similar activities that are supplementary to this effort may be accomplished ad hoc using platform specific funding or through other testing activities such as joint services or NATO test groups. This program is in budget activity 5 - System Development and Demonstration of common EW systems to meet user requirements.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: IR Flare Testing NEW START Description: IR flare testing and qualification on aircraft FY 2010 Accomplishments: NA FY 2011 Plans: NA FY 2012 Base Plans: New start FY12. Activities include qualification of IR flare cocktails on F-16 and A-10 aircraft. Flight testing on other platforms TBD. FY 2012 OCO Plans:							-	-	1.963	-	1.963
Accomplishments/Planned Programs Subtotals							-	-	1.963	-	1.963

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 653891: <i>Advanced IR Counter Measures (AIRCM)</i>	

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: <i>War Reserve Munitions - Flares</i>	135.775	57.154	29.244	0.000	29.244	30.932	34.931	64.624	74.853	Continuing	Continuing

D. Acquisition Strategy

Contracts will be awarded through full and open competition.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 653891: Advanced IR Counter Measures (AIRCM)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aircraft/Unit Support	MIPR	TBD:TBD,	-	-		0.859		-		0.859	Continuing	Continuing	0.000
Mission Planning	MIPR	TBD:TBD,	-	-		0.170		-		0.170	Continuing	Continuing	0.000
Subtotal			-	-		1.029		-		1.029			0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Range Test, Modeling and Sim	MIPR	TBD:TBD,	-	-		0.934		-		0.934	Continuing	Continuing	0.000
Subtotal			-	-		0.934		-		0.934			0.000
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		1.963		-		1.963			0.000
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 653891: <i>Advanced IR Counter Measures (AIRCM)</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 653891: <i>Advanced IR Counter Measures (AIRCM)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Schedule under development	2	2011	4	2011

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 654832: Precision Location and Identification (PLAID)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
654832: Precision Location and Identification (PLAID)	2.448	0.099	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
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, detect threat signals while outside of the threat envelope, and operate in a dense signal environment. Evolutionary growth spirals include single and multi-ship precision geolocation (PG) as well as specific emitter identification (SEI). The underlying technologies and algorithms enabling PG and SEI are often collectively referred to as precision location and identification (PLAID).											
ALR-69A development is currently focused on a replacement RWR for AFSOC and AMC C-130 aircraft. The ALR-69A is also under consideration by AFSOC, AMC and ACC for integration and installation in other mission design series aircraft.											
This program is in budget activity 5 - System Development and Demonstration of common EW systems to meet user requirements.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: AN/ALR-69A							2.448	0.099	-	-	-
Description: Develop a common digital radar warning receiver for USAF platforms											
FY 2010 Accomplishments: Continued to conduct hardware-in-the-loop testing of upgraded software; continued developmental flight testing											
FY 2011 Plans: Complete developmental testing, operational testing certification requirements, and initial operational test and evaluation (IOT&E)											
FY 2012 Base Plans: NA											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals							2.448	0.099	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 654832: <i>Precision Location and Identification (PLAID)</i>	

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N/A: <i>None</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

Acquisition was accomplished through full and open competition. The System Development and Demonstration (SDD) contract was awarded to Raytheon Corporation in August 2001.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 654832: Precision Location and Identification (PLAID)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CORE SDD	C/CPAF	Raytheon:Goleta, CA	95.891	-		-		-		-	0.000	95.891	0.000
Subtotal			95.891	-		-		-		-	0.000	95.891	0.000
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office	WR	BAH:Robins, GA	9.919	0.099	Dec 2010	-		-		-	0.000	10.018	0.000
Engineering	Various	Various:Robins, GA	2.933	-		-		-		-	0.000	2.933	0.000
Group A Support	SS/CPFF	Boeing:Ft Walton Beach, FL	17.570	-		-		-		-	0.000	17.570	0.000
Rapid Replacement of Mission Critical Logistics Electronics Components (RRMCLEC)	SS/TBD	SRC:Atlanta, GA	11.696	-		-		-		-	0.000	11.696	0.000
Subtotal			42.118	0.099		-		-		-	0.000	42.217	0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test and Evaluation	WR	46 Ops Grp Eglin:Eglin, FL	16.902	-		-		-		-	0.000	16.902	0.000
Initial Operational Test and Evaluation	PO	AFOTEC Det 2:Eglin, FL	-	-		-		-		-	0.000	0.000	0.000
Subtotal			16.902	-		-		-		-	0.000	16.902	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>				PROJECT 654832: <i>Precision Location and Identification (PLAID)</i>					

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	154.911	0.099		-		-		-	0.000	155.010	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 654832: <i>Precision Location and Identification (PLAID)</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 654832: <i>Precision Location and Identification (PLAID)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Developmental Testing and Evaluation	1	2010	4	2011
Initial Operational Test and Evaluation	4	2011	3	2012
Milestone C Decision	3	2012	4	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
655305: <i>MALD-J</i>	87.491	89.867	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This project develops the Miniature Air Launched Decoy Jammer (MALD-J). The jammer is a variant of the MALD decoy and will be able to operate in both decoy and jammer modes. 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-J will provide stand-in jamming capability for the Airborne Electronic Attack Systems of Systems. It will be launched against a preplanned target and jam specific radars in a stand-in role to degrade or deny the IADS detection of friendly aircraft or munitions.

Planned efforts for this program are risk reduction (to include prototyping) and Engineering Manufacturing and Development (EMD) of the jammer configuration and any other direct increment or variant. This will include design, development, test, aircraft integration, and seamless verification.

This program is in budget activity 5 - System Development and Demonstration of common EW systems to meet user requirements.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Title: Risk Reduction</p> <p>Description: MALD-J Risk Reduction focused on integrating jammer module and payload into the MALD vehicle, requirements & activities, and initial system level hardware and software.</p> <p>FY 2010 Accomplishments: Manufacture and deliver production representative MALD-J payloads with selectivity enhancements incorporated in support of the EMD phase. Implemented design, build, and/or modification of jammer payload Automated Test Equipment and further the Sparta fuselage development and demonstration. Acquired the necessary tooling and fixtures to support Low Rate Initial Production, continued process definition, work instructions, production plans, First Article Inspection, initial system testing and associated reviews.</p> <p>FY 2011 Plans: Not applicable</p> <p>FY 2012 Base Plans:</p>	23.144	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
NA						
FY 2012 OCO Plans:						
<p>Title: Development</p> <p>Description: MALD-J Engineering and Manufacturing Development will demonstrate the ability of the MALD-J system to operate within the approved Key Performance Parameters, and that system production can be supported by demonstrated manufacturing processes.</p> <p>FY 2010 Accomplishments: EMD started captive carry and free flight testing, environmental qualification testing, reliability growth testing, second source fuselage qualification, and electromagnetic interference testing.</p> <p>FY 2011 Plans: Completion of MALD-J EMD to include final Development Test & Evaluation and manufacturing readiness. Prepare and accomplish Milestone C to enter the Production and Deployment phase and begin Initial Operational Test & Evaluation.</p> <p>FY 2012 Base Plans: NA</p> <p>FY 2012 OCO Plans:</p>		50.348	69.867	-	-	-
<p>Title: Feasibility Studies</p> <p>Description: Future MALD-J concept refinement to characterize the technological feasibility and capability of a future variant utilizing Gallium Nitride (GaN) technology.</p> <p>FY 2010 Accomplishments: Continued payload development and modeling and simulation support. Conducted payload performance and interoperability testing and technical interchange meetings.</p> <p>FY 2011 Plans: Continue payload development and modeling and simulation support. Conduct payload performance and interoperability testing and technical interchange meetings.</p> <p>FY 2012 Base Plans:</p>		13.999	20.000	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
NA, funding separated into Project 657004.					
<i>FY 2012 OCO Plans:</i>					
Accomplishments/Planned Programs Subtotals	87.491	89.867	-	-	-

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE0207442F: <i>MALD/MALD-J/Inc</i>	109.216	87.628	83.022	0.000	83.022	86.472	88.466	90.173	91.371	Continuing	Continuing
<i>II APAF, procurement</i>											

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.

In 2010, the program completed MS B and an Engineering and Manufacturing Development (EMD) contract was awarded to Raytheon.

EMD and Milestone C completion expected Summer 2011 with follow-on MALD-J cut-in to production.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 655305: <i>MALD-J</i>
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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Manufacturing Development	SS/TBD	Raytheon Missile Systems:Tucson, AZ	26.651	53.465	Jun 2011	-		-		-	0.000	80.116	80.116
Risk Recduction	SS/CPFF	Raytheon Missile Systems:Tucson, AZ	23.144	-		-		-		-	0.000	23.144	23.144
Incentive Fee	SS/TBD	Raytheon Missile Systems:Tucson, AZ	5.379	-		-		-		-	0.000	5.379	5.379
Operational Test Assets and Support	SS/FFP	Raytheon Missile Systems:Tucson, AZ	4.350	1.257	Jun 2011	-		-		-	0.000	5.607	5.607
Range Safety System	SS/FFP	Raytheon Missile Systems:Tucson, AZ	2.343	6.367	Dec 2010	-		-		-	0.000	8.710	8.710
Increment II Studies	SS/CPFF	Raytheon Missile Systems:Tucson, AZ	13.999	20.000	Oct 2010	-		-		-	0.000	33.999	33.999
Mission Planning	Various	Northrup Grumman:Bethpage, NY	3.276	1.869	Jan 2011	-		-		-	0.000	5.145	5.145
B-52 Aircraft Integration	MIPR	B-52 Program Office:Various,	1.642	0.850	Mar 2011	-		-		-	0.000	2.492	2.492
F-16 Aircraft Integration	MIPR	F-16 Program Office:Various,	0.314	0.100	Mar 2011	-		-		-	0.000	0.414	0.414
Subtotal			81.098	83.908		-		-		-	0.000	165.006	165.006

Remarks

FY10 MALD-J Contract Type is FPIF.

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 655305: MALD-J						
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Government Test Planning	Various	Various:Various,	4.770	3.155	Feb 2011	-		-		-	0.000	7.925	7.925	
Subtotal			4.770	3.155		-		-		-	0.000	7.925	7.925	
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Contractor Support to AAC/EBJ AAC/EBJM	Various	Various:Various,	1.143	2.131	Feb 2011	-		-		-	0.000	3.274	3.274	
Program Office Support for AAC/EBJ AAC/EBJM	Various	Various:Various,	0.480	0.673		-		-		-	0.000	1.153	1.153	
Subtotal			1.623	2.804		-		-		-	0.000	4.427	4.427	
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			87.491	89.867		-		-		-	0.000	177.358	177.358	
Remarks														

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 655305: <i>MALD-J</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 655305: <i>MALD-J</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MALD-J Engineering and Manufacturing Development	3	2010	4	2011
MALD-J Milestone C	4	2011	4	2011
MALD-J Initial Operational Test and Evaluation	4	2011	4	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 657004: MALD-J Increment II			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
657004: MALD-J Increment II	-	-	24.917	-	24.917	54.773	74.403	88.069	30.110	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note This project is broken out from BPAC 655305 and is not an FY12 new start.											
A. Mission Description and Budget Item Justification This project develops the Miniature Air Launched Decoy Jammer (MALD-J) Increment II. Increment II will have increased effective radiated power and sensitivity, and improved techniques to counter emerging threats and will be able to operate in both decoy and improved jammer modes. Increment II will be a key enabler for the Airborne Electronic Attack Systems of Systems supporting the Air Force Global Strike, Global Response, Space and C4ISR, and the Air and Space Expeditionary Force Concepts of Operations. It will be launched against a preplanned target and jam specific radars in a stand-in role to degrade or deny integrated air defense system detection of friendly aircraft or munitions. Planned efforts for this program include Risk Reduction (with prototyping), Technology Demonstration, and Engineering Manufacturing and Development. This program is in budget activity 5 - System Development and Demonstration of common EW systems to meet user requirements.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Development & Demonstration Description: Development to include detailed design and test planning. FY 2010 Accomplishments: FY 2011 Plans: FY 2012 Base Plans: Increment II payload development to include detailed design and test planning. A prototype will be built and an System Requirements Review (SRR) conducted with a requirements flow down and system integration focus. FY 2012 OCO Plans:							-	-	15.000	-	15.000
Title: System Test & Eval/Aircraft Integration Description: Conduct payload performance and interoperability testing.							-	-	9.917	-	9.917

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>		PROJECT 657004: <i>MALD-J Increment II</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<i>FY 2010 Accomplishments:</i> <i>FY 2011 Plans:</i> <i>FY 2012 Base Plans:</i> Will include design, development, test, aircraft integration and seamless verification. <i>FY 2012 OCO Plans:</i>					
Accomplishments/Planned Programs Subtotals	-	-	24.917	-	24.917

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PE 0207442F: <i>MALD/MALD-J/Inc II, APAF procurement</i>	109.216	87.628	83.022	0.000	83.022	86.472	88.466	90.173	91.371	Continuing	Continuing

D. Acquisition Strategy Technology Development contract is CPFF. Acquisition strategy approval for Engineering and Manufacturing Development is forecasted for Sep 11.
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E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270F: EW Development				PROJECT 657004: MALD-J Increment II					
Product Development (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Technology Development and Demonstration	SS/CPFF	Raytheon Missile Systems:Tucson, AZ	-	-		17.360	Nov 2011	-		17.360	0.000	17.360	0.000	
Subtotal			-	-		17.360		-		17.360	0.000	17.360	0.000	
Remarks Includes such things as Air Vehicle, Systems Engineering and Containers														
Support (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Aircraft Integration	MIPR	B-52 and F-16 Program Offices:Various,	-	-		0.858	Dec 2011	-		0.858	0.000	0.858	0.000	
Mission Planning	Various	Various:Various,	-	-		2.057	Jan 2012	-		2.057	0.000	2.057	0.000	
Subtotal			-	-		2.915		-		2.915	0.000	2.915	0.000	
Test and Evaluation (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Developmental and Operational Test Support/ Modeling & Simulation	Various	Various:,	-	-		1.338		-		1.338	0.000	1.338	0.000	
Subtotal			-	-		1.338		-		1.338	0.000	1.338	0.000	
Management Services (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Program Office/Government Support	Various	Not specified.:	-	-		3.304		-		3.304	0.000	3.304	0.000	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>					R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>					PROJECT 657004: <i>MALD-J Increment II</i>			

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		3.304		-		3.304	0.000	3.304	0.000

Remarks
 Program Office/Government Support includes miscellaneous administrative costs, travel, supplies and equipment, program management administration, information technology support, and AAC/EB Directorate Support.

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	24.917	-	24.917	0.000	24.917	0.000

Remarks
 FY10 and FY11 funding in Project 655305

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 657004: <i>MALD-J Increment II</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270F: <i>EW Development</i>	PROJECT 657004: <i>MALD-J Increment II</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Tech Development	1	2012	2	2014
Engineering Manufacturing Development	3	2014	4	2015
Operational Test & Evaluation	1	2016	4	2016