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

APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0305219A: <i>MQ-1 Sky Warrior - Army UAV (MIP)</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	-	123.156	137.038	-	137.038	66.124	9.847	0.306	19.530	Continuing	Continuing
MQ1: <i>MQ-1 SKY WARRIOR - ARMY UAV (MIP)</i>	-	123.156	137.038	-	137.038	66.124	9.847	0.306	19.530	Continuing	Continuing

Note

Change Summary Explanation: Funding - FY 11 program was transferred to its own stand alone PE. Prior to FY 2011, ERMP RDT&E funding was in PE 0305204A, Project D09.

A. Mission Description and Budget Item Justification

The production Extended Range Multi-Purpose (ERMP) Unmanned Aircraft system (UAS) will consist of 12 Unmanned Aircraft Systems (UAS), each equipped with multi-mission payloads and a Standard Equipment Package (SEP). The threshold payload is an EO/IR/LD sensor. The SEP includes a communications relay package, Identify Friend or Foe (IFF) equipment and Air Traffic Control radios. Associated Ground Support Equipment (GSE) will have One System Ground Control Stations (OSGCS-V2 & V3), Tactical Common Data Links (TCDL) Ground Data Terminals (GDT), Portable GCS, (PGCS), Portable GDT's (PGDT), and a ground Satellite Communication (SATCOM) system. Each system will also have the Automatic Take off and Landing System (ATLS), Tactical Automatic Landing System-Tracking Subsystems (TALS-TS). Each UA will have the connectivity, plus space, weight and power to support SATCOM and payloads; each UA will be weaponized.

RDT&E funds continue to resource the Engineering Manufacturing and Development (EMD) phase for ERMP, as well as continuing improvements after EMD. The FY12 funding will provide for continued system development and integration, developmental test, Limited User Testing (LUT), and Initial Operational Test and Evaluation (IOT&E).

Prior to FY11, ERMP RDT&E funding was in PE 0305204A, Project D09.

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<u>B. Program Change Summary (\$ in Millions)</u>	<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	-	123.156	60.725	-	60.725
Current President's Budget	-	123.156	137.038	-	137.038
Total Adjustments	-	-	76.313	-	76.313
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-	-	76.313	-	76.313

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305219A: MQ-1 Sky Warrior - Army UAV (MIP)				PROJECT MQ1: MQ-1 SKY WARRIOR - ARMY UAV (MIP)			
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
MQ1: MQ-1 SKY WARRIOR - ARMY UAV (MIP)	-	123.156	137.038	-	137.038	66.124	9.847	0.306	19.530	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
The production Extended Range Multi-Purpose (ERMP) Unmanned Aircraft system (UAS) will consist of 12 Unmanned Aircraft Systems, each equipped with multi-mission payloads and a Standard Equipment Package (SEP). The threshold payload is an EO/IR/LD sensor. The SEP includes a communications relay package, Identify Friend or Foe (IFF) equipment and Air Traffic Control radios. Associated Ground Support Equipment (GSE) will have One System Ground Control Stations (OSGCS-V2 & V3), Tactical Common Data Links (TCDL) Ground Data Terminals (GDT), Portable GCS(PGCS), Portable GDT (PGDT), and Satellite Communication (SATCOM) Ground Data Terminal. Each system will also have the Automatic Take off and Landing System (ATLS), Tactical Automatic Landing System-Tracking Subsystems (TALS-TS). Each aircraft will have the connectivity, plus space, weight and power to support SATCOM and payloads; each aircraft will be weaponized.											
RDT&E funds continue to resource the Engineering Manufacturing and Development (EMD) phase for ERMP, as well as continuing improvements after EMD. The FY12 funding will provide for continued system development and integration, developmental test, Limited User Testing (LUT), and Initial Operational Test and Evaluation (IOT&E).											
Prior to FY11, ERMP RDT&E funding was in PE 0305204A, Project D09.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: ERMP EMD System including Electro-Optical / Infrared, synthetic Aperture Radar, and communications Relay Payloads Articles:								-	61.656 0	94.231	
Description: ERMP EMD System including Electro-Optical / Infrared, synthetic Aperture Radar, and communications Relay Payloads FY 2011 Plans: ERMP EMD System including Electro-Optical / Infrared, synthetic Aperture Radar, and communications Relay Payloads FY 2012 Plans: ERMP EMD System including Electro-Optical / Infrared, synthetic Aperture Radar, and communications Relay Payloads											
Title: Government Test support including IOT&E, LUT, Logistics Demonstration Operational Tempo (OPTEMPO) Articles:								-	20.500 0	18.165	
Description: Government Test support including IOT&E, LUT, Logistics Demonstration Operational Tempo (OPTEMPO)											

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2010	FY 2011	FY 2012
FY 2011 Plans: Government Test support including IOT&E, LUT, Logistics Demonstration Operational Tempo (OPTEMPO)											
FY 2012 Plans: Government Test support including IOT&E, LUT, Logistics Demonstration Operational Tempo (OPTEMPO)											
Title: ERMP System Training and Training Equipment Development				Articles:				-	18.900 0	20.764	
Description: ERMP System Training and Training Equipment Development											
FY 2011 Plans: ERMP System Training and Training Equipment Development											
FY 2012 Plans: ERMP System Training and Training Equipment Development											
Title: ERMP Support including Engineering and Program Management				Articles:				-	22.100 0	3.878	
Description: ERMP Support including Engineering and Program Management											
FY 2011 Plans: ERMP Support including Engineering and Program Management											
FY 2012 Plans: ERMP Support including Engineering and Program Management											
Accomplishments/Planned Programs Subtotals									-	123.156	137.038
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
• MQ-1 UAV - APA (A00005):	439.650	506.310	658.798		658.798		500.334	0.054		0.000	2,781.903
MQ-1 UAV - APA (A00005) - Base and OCO	3.786	14.729								0.000	18.515

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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
• MQ-1 UAV - APA (A00025): MQ-1 UAV - APA (A00025)											
D. Acquisition Strategy											
<p>The ERMP Operational Requirement Document (ORD) was approved by the Joint Requirement Oversight Council (JROC) 6 Apr 2005, Milestone B occurred 20 Apr 2005, and the System Development and Demonstration contract was awarded 8 Aug 2005, as a result of a competitive solicitation which included a vendor system capabilities demonstration. Capabilities Production Document was approved 14 Mar 09. To meet the required capability, evolutionary acquisition has been employed to implement the incremental approach outlined in the CPD. The ERMP UAS is being matured during the System Development and Demonstration (SDD) phase, which includes the development and integration of key components such as the Tactical Common Data Link (TCDL), Link-16, and integration of Government Furnished Equipment (GFE), payloads, appropriate Common Aviation Ground Support Equipment and the One System GCS. PM JAMS is developing the P+ model of the HELLFIRE missile and participating in the integration and test activities for the entire ERMP system. PM JAMS is budgeting for the procurement of missiles for the fielded systems. PM Night Vision/Reconnaissance, Surveillance, and Target Acquisition (RSTA) under PEO Intelligence and Electronic Warfare Systems (IEWS) develops, manages, and competes in the POM and is responsible for meeting all ERMP costs associated for payloads, payload integration, and payload sustainment. The US Army's Acquisition Objective for ERMP is 35 systems. The Army procurement Objective for ERMP is 13 systems. Field Tests at the Electronic Proving Grounds in Ft Huachuca, AZ, and integration tests at the Central Technical Support Facility in Ft Hood, TX, are examples of the tests planned to reduce risk in the SDD phase. The LRIP will:</p> <p>a. Establish an effective and efficient production base for the system required to provide a solid foundation on which to build FRP systems.</p> <p>b. Permit an orderly increase in production rate to mitigate risk.</p> <p>c. Procure production representative equipment to support test & evaluation.</p> <p>d. Support Doctrine, Training, Leadership Development, Organization, Materiel, Personnel and Facilities (DTLOMPF) and Tactics, Techniques and Procedures (TTP) development.</p> <p>e. Provide an opportunity to incorporate lessons learned from the comprehensive test and evaluation program into the production baseline.</p>											
E. Performance Metrics											
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army										DATE: February 2011			
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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 Management Personnel	RO	PM UAS:PM UAS	-	6.158		0.843		-		0.843	Continuing	Continuing	Continuing
Subtotal			-	6.158		0.843		-		0.843			
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
Development Engineering & Prototype Manufacturing	Various	General Atomics/ ASI:General Atomics/ ASI	-	88.775		56.426		-		56.426	Continuing	Continuing	Continuing
Ground Support Equipment	Various	Various:Various	-	-		0.189		-		0.189	0.000	0.189	0.000
Subtotal			-	88.775		56.615		-		56.615			
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
Contractor Engineering Support	Various	Various Contractors:Various Contractors	-	-		37.617		-		37.617	Continuing	Continuing	Continuing
Government Engineering Support	MIPR	AMRDEC and IMMC:AMRDEC and IMMC	-	-		3.034		-		3.034	Continuing	Continuing	Continuing
ERMP System Training and Training Equipment Development	MIPR	Ft. Huachuca:Ft. Huachuca	-	18.186		20.764		-		20.764	Continuing	Continuing	Continuing
Subtotal			-	18.186		61.415		-		61.415			

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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
System Test and Evaluation	MIPR	Various Government Agencies:Various Government Agencies	-	10.037		18.165		-		18.165	Continuing	Continuing	Continuing
Subtotal			-	10.037		18.165		-		18.165			

	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	-	123.156		137.038		-		137.038			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army			DATE: February 2011		
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Milestone C	■																											
Low Rate Initial Production Contract Award	■																											
Limited User Testing		■																										
First Unit Equipped						■																						
Initial Operational Test and Evaluation (IOT&E)								■																				
Full Rate Production Contract Award										■																		
Initial Operating Capability									■																			
FOT&E I										■																		

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army			DATE: February 2011
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone C	1	2010	1	2010
Low Rate Initial Production Contract Award	1	2010	1	2010
Limited User Testing	2	2010	2	2010
First Unit Equipped	2	2011	2	2011
Initial Operational Test and Evaluation (IOT&E)	4	2011	4	2011
Full Rate Production Contract Award	2	2012	2	2012
Initial Operating Capability	1	2012	1	2012
FOT&E I	2	2012	2	2012

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