

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE			
7 - Operational system development		0203801A - Missile/Air Defense Product Improvement Program			
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	29186	37747	39728	Continuing	Continuing
036 PATRIOT PROD IMP PGM	10526	11127	11291	Continuing	Continuing
DF8 DF8	4172	11765	8579	Continuing	Continuing
DF9 DF9	14488	14855	19858	Continuing	Continuing

A. Mission Description and Budget Item Justification: PATRIOT is an advanced Surface-to-Air guided missile system with a high probability of kill capable of operation in the presence of Electronic Countermeasures (ECM) and able to conduct multiple simultaneous engagements against high performance air breathing targets and ballistic missiles likely to be encountered by US Forces. The Patriot Product Improvement Program provides for the upgrade of the Patriot System through individual materiel changes. Program Development efforts address Mode V/S Identification Friend or Foe (IFF), launcher and design improvements.

DF8 The PATRIOT advanced missile system plays a critical part in the integrated battlefield. DF8 funding was provided by OSD to support expanding ongoing current Joint efforts to advance integrated battlefield capabilities.

DF9 funding was provided to the Army by OSD as part of an ongoing Joint OSD-managed effort.

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<u>B. Program Change Summary</u>	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	30026	37871	40577
Current BES/President's Budget (FY 2010)	29186	37747	39728
Total Adjustments	-840	-124	-849
Congressional Program Reductions		-124	
Congressional Rescissions			
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer	-840		
Adjustments to Budget Years			-1304

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0203801A - Missile/Air Defense Product Improvement Program			PROJECT 036
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
036 PATRIOT PROD IMP PGM	10526	11127	11291	Continuing	Continuing

A. Mission Description and Budget Item Justification: PATRIOT is an advanced Surface-to-Air guided missile system with a high probability of kill capable of operation in the presence of Electronic Countermeasures (ECM) and able to conduct multiple simultaneous engagements against high performance air breathing targets and ballistic missiles likely to be encountered by US Forces. The Patriot Product Improvement Program provides for the upgrade of the Patriot System through individual materiel changes.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Software Improvement for Threat Evolution	10526	10816	11291
Small Business Innovative Research/Small Business Technology Transfer Programs		311	
Total	10526	11127	11291

B. Other Program Funding Summary Not applicable for this item.

C. Acquisition Strategy The design objective of the Patriot system was to provide a baseline system capable of modification to cope with the evolving threat. This alternative minimizes technological risks and provides a means of enhancing system capability through planned upgrades of deployed systems. The Patriot Product Improvement program upgrades the Patriot system to address operational lessons learned, enhancements to joint force interoperability, and other system performance improvements to provide overmatch capability with the emerging threat. Upgrades are implemented through individual hardware and software materiel changes and fielded incrementally.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
7 - Operational system development			0203801A - Missile/Air Defense Product Improvement Program							036		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Software Improvement for Threat Evolution	SS-CPIF	Multiple	36246	8632	2Q	8958	2Q	9001	2Q		62837	
Recapitalization	SS-CPIF	Multiple	97601								97601	
SIAP	SS-FP	Raytheon, MA	14852								14852	
Advanced Composite Radome	SS-CPIF	Multiple	3100								3100	
Subtotal:			151799	8632		8958		9001			178390	
Remarks: Sole Source-Cost Plus Incentive Fee (SS-CPIF); Sole Source-Fixed Price (SS-FP)												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
U.S. Contracts	C-FFP	CAS, Huntsville, AL				340	2Q	357	2Q		1072	
Subtotal:						340		357			1072	
Remarks: Remarks: Competitive-Firm Fixed Price (C-FFP)												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Missile Command	MIPR	RSA, AL	18951	375	2-3Q	400	2-3Q	425	2-3Q	Cont.	Cont.	
White Sands Missile Range	MIPR	WSMR, NM	14547	250	2-3Q	270	2-3Q	287	2-3Q	Cont.	Cont.	
RDEC and Other Govt Agent	MIPR	RSA, AL	101392	615	2-3Q	684	2-3Q	715	2-3Q	Cont.	Cont.	
Subtotal:			134890	1240		1354		1427		Cont.	Cont.	
Remarks: Military Interdepartmental Purchase Request (MIPR); Redstone Arsenal (RSA); White Sands Missile Range (WSMR)												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract

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	Type				Date		Date		Date		Contract	
In-House Support	N/A	RSA, AL	18141	402	1-4Q	125	1-4Q	131	1-4Q	Cont.	Cont.	
Matrix Support	N/A	RSA, AL	5917	252	1-2Q	350	1-2Q	375	1-2Q	Cont.	Cont.	
Subtotal:			24058	654		475		506		Cont.	Cont.	
Remarks: Non-Applicable (N/A); Redstone Arsenal (RSA)												
Project Total Cost:			310747	10526		11127		11291		Cont.	Cont.	

Schedule Detail (R4a Exhibit)

May 2009

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<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
Software Build	1Q - 4Q	1Q - 4Q	1Q - 4Q					
PDB 6.5 Fielding		3Q						

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