

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2007

BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0203801A - Missile/Air Defense Product Improvement Program								
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	15516	10651	30219	38115	40867	25974	11000	11000		183342
036 PATRIOT PROD IMP PGM	15516	10651	10899	11235	12227	12734				73262
DF8 DF8			4320	11880	8640	3240				28080
DF9 DF9			15000	15000	20000	10000	11000	11000		82000

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. This project will be merged in FY09 with project 036, PATRIOT Product Improvement Program.

DF9 DF9 funding was provided to the Army by OSD as part of an ongoing Joint OSD-managed effort. This project will be merged in FY09 with project 036, PATRIOT Product Improvement Program.

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<u>B. Program Change Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	15957	10770	11051	11297
Current BES/President's Budget (FY 2008/2009)	15516	10651	30219	38115
Total Adjustments	-441	-119	19168	26818
Congressional Program Reductions		-41		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-441	-78		
SBIR/STTR Transfer				
Adjustments to Budget Years			19168	26818

The FY07 President's Budget listed above does not reflect the SBIR/STTR reductions. Those reductions are listed in the FY07 Accomplishments/Planned Program section.

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BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0203801A - Missile/Air Defense Product Improvement Program						PROJECT 036	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
036 PATRIOT PROD IMP PGM	15516	10651	10899	11235	12227	12734				73262

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.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Post Deployment Software Development	7204	10351	10899	11235
Recapitalization	8312			
Small Business Innovative Research/Small Business Technology Transfer Programs		300		
Total	15516	10651	10899	11235

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)

February 2007

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 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Post Deployment Software Development	SS-CPIF	Multiple	11979	4879	2Q	8631	2Q	8899	2Q	9056	2Q		43444	
Recapitalization	SS-CPIF	Multiple	80977	8312	2Q								89289	
SIAP	SS-FP	Raytheon, MA	14852										14852	
Advanced Composite Radome	SS-CPIF	Multiple	3100										3100	
Subtotal:			110908	13191		8631		8899		9056			150685	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:														
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Missile Command	MIPR	RSA, AL	17821	400		330	2-3Q	375	2-3Q	400	2-3Q	Cont.	Cont.	
White Sands Missile Range	MIPR	WSMR, NM	13767	275		230	2-3Q	250	2-3Q	270	2-3Q	Cont.	Cont.	
RDEC and Other Govt Agent	MIPR	RSA, AL	99192	800		600	2-3Q	625	2-3Q	684	2-3Q	Cont.	Cont.	
Subtotal:			130780	1475		1160		1250		1354		Cont.	Cont.	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract

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In-House Support	N/A	RSA, AL	16761	450	1-4Q	480	1-4Q	450	1-4Q	475	1-4Q	Cont.	Cont.
Matrix Support	N/A	RSA, AL	4737	400	1-2Q	380	1-2Q	300	1-2Q	350	1-2Q	Cont.	Cont.
Subtotal:			21498	850		860		750		825		Cont.	Cont.
Project Total Cost:			263186	15516		10651		10899		11235		Cont.	Cont.

Schedule Detail (R4a Exhibit)

February 2007

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<u>Schedule Detail</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
RECAPITALIZATION	1Q - 4Q	1Q - 4Q						
Mode V IFF	1Q - 4Q	1Q						
Launcher Electronics	1Q - 4Q	1Q						
Surveillance/Detection	1Q							
Post Deployment Software Build	1Q - 4Q							
PBD 6 Event Start: 5416 vposition: 3135		1Q						
PBD 6.5 Event Start: 7800 vposition: 3630				1Q				
PBD 7 Event Start: 10400 vposition: 4125						1Q		
MSE Development (Transferred to CAP)	1Q							
BLOCK 2002 PRODUCTION DELIV	1Q - 3Q							
BLOCK 2004 PRODUCTION DELIV	3Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 3Q				