

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							February 2006		
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0203735A - Combat Vehicle Improvement Programs						
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	17162	31080	12741	27830	6031	0	0	0	185533
330 ABRAMS TANK IMPROVE PROG	15246	15309	12741	27830	6031	0	0	0	178447
359 INTER VEH INF SYS-IVIS	0	13800	0	0	0	0	0	0	0
718 GRND COMBAT VEHICLE HTI	1916	1971	0	0	0	0	0	0	7086
<p>A. Mission Description and Budget Item Justification: This Program Element (PE) corrects vehicle deficiencies identified in Army operations; continues technical system upgrades to include the spin out of future combat systems technologies on ground systems; addresses needed evolutionary enhancements to tracked combat vehicles; and, develops technology improvements which have application to or insertion opportunities across multiple Ground Combat Systems vehicles, and develops the Tactical Wheeled Vehicle Product Improvement Program. This PE provides combat effectiveness and Operating and Support (O&S) cost reduction enhancements for the Abrams tanks through a series of product improvements.</p>									

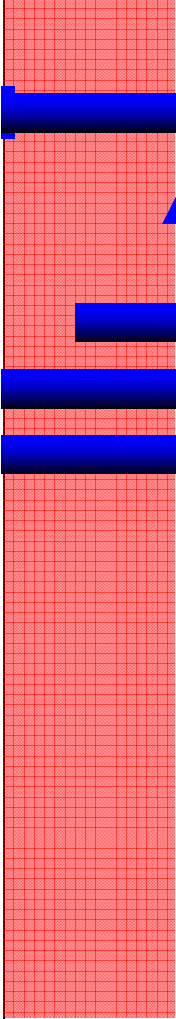






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	FY 2005	FY 2006	FY 2007
<u>B. Program Change Summary</u>			
Previous President's Budget (FY 2006)	17174	12030	12547
Current BES/President's Budget (FY 2007)	17162	31080	12741
Total Adjustments	-12	19050	194
Congressional Program Reductions			
Congressional Rescissions		-450	
Congressional Increases		19500	
Reprogrammings	-12		
SBIR/STTR Transfer			
Adjustments to Budget Years			
FY2006 Congressional add for \$14,000,000 was temporarily placed in the PE,project 359, pending the opening of the new PE.			

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)								February 2006		
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0203735A - Combat Vehicle Improvement Programs					PROJECT 330		
COST (In Thousands)		FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
330	ABRAMS TANK IMPROVE PROG	15246	15309	12741	27830	6031	0	0	0	178447
A. Mission Description and Budget Item Justification: This project funds improvements to the Abrams Main Battle Tank (M1 series) and the Abrams Family of Vehicles (FOV). The Abrams mission is to close with and destroy enemy forces on the integrated battlefield using firepower, maneuver, and shock effect. The M1A2 was the Army's first fully digital ground combat system developed under this project. It was succeeded by the M1A2 SEP, which is the current production model. SEP refers to a System Enhancement Package, which upgraded the M1A2's computer systems and its night vision capabilities. Post SEP development efforts are focusing on improvements yielding significant life cycle cost reductions, survivability enhancements and spiral technologies. Spiral Development will leverage experience in an urban environment and Future Combat Systems (FCS) technologies to integrate them into current systems. This could include items such as Survivability Enhancements, Power Management, Interoperability/networking capabilities and lethality. The objective is to maintain Survivability, Combat Overmatch and reduce Operational and Support (O&S) costs.										
<u>Accomplishments/Planned Program</u>							<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
M1A1 FLIR							497	0	200	
Power Train Improvement & Integration Optimization Program (i.e., Total Integrated Engine Revitalization (TIGER), Transmission, Common Controller, Auxiliary Power Unit (APU)							0	1000	1000	
Abrams Suspension Improvement Program (i.e.,Track, Roadwheels, Roadarms)							0	1000	0	
Improved Situational Awareness/Supportability/Survivability (i.e. Driver's Rear Facing Camera, Tank Commanders 360 Camera, Improved Drivers Site (IDS), Active Protection System (APS), Abrams Tank Urban Survivability Kit (TUSK). Environmental Systems (TMS/NBC), Improved diagnostics and Embedded Training).							9677	1000	3694	
Improved Lethality (Profile Verification Program (PVP), Advanced Munitions)							630	200	200	
Advanced Technology Assessments and Insertion							0	4345	3383	
Testing							3166	3000	3000	
Engineering support and requisitions							1276	1264	1264	
Abrams M1A1 Vehicle Prognostics Development							0	3500	0	
Total							15246	15309	12741	
<u>B. Other Program Funding Summary</u>		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Abrams Upgrade Program (GA0750)		0	0	0	0	204159	203043	180718	0	587920
Abrams Vehicle Modification (GA0700)		128720	440919	364899	593569	387642	178771	43518	1993900	4131938
System Enhancement Pgm (GA0730)		573634	0	171097	172144	255784	11484	0	0	1184143

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BUDGET ACTIVITY			PE NUMBER AND TITLE					PROJECT	
7 - Operational system development			0203735A - Combat Vehicle Improvement Programs					330	
M1A2 Tank Training Devices (GB1302)	6992	7162	899	1117	1120	0	0	0	17290
Training Device Mod (GA5208)	3626	3704	899	1117	1120	0	0	0	10466
Initial Spares (GE0161)	3342	3295	0	0	0	0	0	0	6637
<p>C. Acquisition Strategy Honeywell is the prime contractor for the Abrams TIGER Program. General Dynamics Land Systems Division (GDLS) is the prime contractor for the vehicle integration effort.</p>									

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0203735A - Combat Vehicle Improvement Programs						PROJECT 330		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Power Train Improvement & Integration Optimization Program (TIGER)	C-CPAF	Honeywell International Phoenix, AZ	23427	0	2Q	1000	2Q	1000	2Q	0	25427	191659
Integration of improved engine into vehicle	SSCE	General Dynamics, Sterling Heights, MI	11459	0		0		0		0	11458	84786
Abrams Suspension Improvement Program (Track)	TBD	United Defense Limited Partnership, Anniston, AL	933	0		1000	2Q	0		0	1933	0
Improved Situational Awareness/Supportability/Survivability	CPFF	General Dynamics, Sterling Heights, MI	0	9100	2Q	1000	2Q	3694	2Q	0	0	0
Improved Lethality	MIPR	PM, MAS	0	630		200	2Q	200	2Q	0	1030	0
Advance Technology Insertion	TBD	TBD	0	0		4345	2Q	3383	2Q	0	7728	0
FLIR	FFP	Raytheon Company, Mc Kinney, TX	7024	497	3Q	0		200	2Q	0	7721	0
FLIR integration into tank	SS-CPFF	General Dynamics Sterling Heights, MI	7000	0		0		0		0	7000	0
DRS-Test & Energy Management	FP	Huntsville, AL	0	542	3Q	0		0		0	542	0
DRS - Tactical Systems		Palm Bay, FA	0	35		0		0		0	35	0
Abrams M1A1 Vehicle Prognostics Development			0	0	3Q	3500		0		0	3500	0
Subtotal:			49843	10804		11045		8477		0	66374	276445
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	MIPR	Various	1264	1276	1-3Q	1264	1-3Q	1264		0	5068	0
Subtotal:			1264	1276		1264		1264		0	5068	0

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III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
M1A1-FLIR	MIPR	Aberdeen Proving Ground, MD	0	1300	2Q	0		0		0	1300	0
Track testing	MIPR	Yuma Proving Ground, AZ	25	1700	2Q	0		0		0	1725	0
Improved Situational Awareness/Supportability/Survivability	MIPR	Aberdeen Proving Ground, MD	0	166	2Q	0		0		0	166	0
Various sites	MIPR	Aberdeen Proving Ground, MD; Yuma Proving Ground, AZ; White Sands Missile Range, NM	0	0	2-4Q	3000	2-4Q	3000	2-4Q	0	6000	0
Subtotal:			25	3166		3000		3000		0	9191	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0									
Project Total Cost:			51132	15246		15309		12741		0	80633	276445

Schedule Profile (R4 Exhibit)																		February 2006														
BUDGET ACTIVITY					PE NUMBER AND TITLE																		PROJECT									
7 - Operational system development					0203735A - Combat Vehicle Improvement Programs																		330									
Event Name					FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
					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
Total Integrated Engine Revitalization (TIGER) Program																																
TIGER Development (Honeywell) and Integration (GDLS)																																
(1) TIGER Phase I Production Contract Award, (2) TIGER Phase II Production Contract Award					 																											
AAPU Production																																
Improved Situational Awareness/Spin-out																																
Improved Lethaliv																																

Schedule Detail (R4a Exhibit)					February 2006		
BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0203735A - Combat Vehicle Improvement Programs					PROJECT 330
<u>Schedule Detail</u>	<u>FY 2005</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>
TIGER Development and Integration	1-4Q	1Q					
TIGER Phase I Production Contract Award		1Q					
TIGER Phase II Production Contract Award		2Q					
Abrams Auxiliary Power Unit Production	2-4Q	1-4Q	1-4Q				
Improved Situational Awareness and Spin Out	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Improved Lethality	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	