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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)							DATE February 2000																																														
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604645A Armored Systems Modernization (ASM) - Engineering Development																																																	
COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost																																												
Total Program Element (PE) Cost	4259	2877	2200	0	0	15378	24755	Continuing	Continuing																																												
D175 Multi-Option Fuze Advanced Field Artillery System	4259	2877	2200	0	0	0	0	0	48034																																												
D426 Advanced Colt System	0	0	0	0	0	15378	24755	Continuing	Continuing																																												
<p>A. Mission Description and Budget Item Justification: This program element supports the Engineering and Manufacturing Development efforts for the Multi-Option Fuze for Artillery (MOFA). MOFA will provide proximity, time, delay, and point detonation functions for 105mm and 155mm bursting projectiles. Funds the development of the replacement system for the Striker fire support vehicle, leveraging developments in the mobile armored system and future combat vehicle. System will be compatible with the maneuver scouts for Brigade reconnaissance teams in heavy, medium and light divisions. Performs fire support planning, direction, controlling, target designation, night observation and while retaining equivalent mobility of supported units .</p>																																																					
<table border="1"> <thead> <tr> <th>B. Program Change Summary</th> <th><u>FY 1999</u></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget (FY 2000/2001 PB)</td> <td align="right">4470</td> <td align="right">2899</td> <td align="right">6064</td> </tr> <tr> <td>Appropriated Value</td> <td align="right">4500</td> <td align="right">2899</td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> </tr> <tr> <td>a. Congressional General Reductions</td> <td align="right">-30</td> <td></td> <td></td> </tr> <tr> <td>b. SBIR/STTR</td> <td align="right">-119</td> <td></td> <td></td> </tr> <tr> <td>c. Omnibus or Other Above Threshold Reductions</td> <td></td> <td align="right">-12</td> <td></td> </tr> <tr> <td>d. Below Threshold Reprogramming</td> <td align="right">-74</td> <td></td> <td></td> </tr> <tr> <td>e. Rescissions</td> <td align="right">-18</td> <td align="right">-10</td> <td></td> </tr> <tr> <td>Adjustments to Budget Years Since FY 2000/2001 PB</td> <td></td> <td></td> <td align="right">-3864</td> </tr> <tr> <td>Current Budget Submit (FY 2001 PB)</td> <td align="right">4259</td> <td align="right">2877</td> <td align="right">2200</td> </tr> </tbody> </table>										B. Program Change Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	Previous President's Budget (FY 2000/2001 PB)	4470	2899	6064	Appropriated Value	4500	2899		Adjustments to Appropriated Value				a. Congressional General Reductions	-30			b. SBIR/STTR	-119			c. Omnibus or Other Above Threshold Reductions		-12		d. Below Threshold Reprogramming	-74			e. Rescissions	-18	-10		Adjustments to Budget Years Since FY 2000/2001 PB			-3864	Current Budget Submit (FY 2001 PB)	4259	2877	2200
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<p>Change Summary Explanation: Funding - FY 2001: Project D022 funds realigned (-3850) to PE 0603005A/project D440 in support of the Future Scout Cavalry System.</p>																																																					

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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604645A Armored Systems Modernization (ASM) - Engineering Development				PROJECT D175	
COST (<i>In Thousands</i>)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D175 Multi-Option Fuze Advanced Field Artillery System	4259	2877	2200	0	0	0	0	0	48034
<p>A. <u>Mission Description and Justification</u> This project finances the Engineering and Manufacturing Development phase of the Multi Option Fuze Artillery (MOFA). MOFA will provide proximity, delay, time and point detonation functions for 105mm and 155mm bursting projectiles. MOFA will be inductively set. This induction set feature is critical to the automated ammunition handling capability of the Crusader 155mm self-propelled howitzer, allowing Crusader to meet rate of fire (10 rounds/min) requirements. The Portable Inductive Artillery Fuze Setter (PIAFS) is being developed to allow non-Crusader equipped artillery units to inductively set the MOFA. A Low Cost Advanced Target Sensor (LCATS) is being developed for enhanced electronic countermeasures effects.</p> <p>FY 1999 Accomplishments:</p> <ul style="list-style-type: none"> • 1424 Performed Design Enhancements and Qualification Builds, XM782 (Contract Task VI), this included the cost for 500 XM782 fuzes for testing. • 280 Began Low Cost Advanced Target Sensor (LCATS) developmental efforts. • 1550 Portable Inductive Artillery Fuze Setter (PIAFS) advanced development and testing. • 305 Program management and management engineering services. • 700 Conducted XM782 MOFA Pre-Production Qualification Testing (PPQT). <p>Total 4259</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 894 Low Cost Advanced Target Sensor (LCATS) development and technology insertion. • 320 Program management & management engineering. • 1336 Portable Inductive Artillery Fuze Setter (PIAFS) development effort. • 250 Conduct PIAFS testing. • 77 Small business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Programs. <p>Total 2877</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 1361 Low Cost Advanced Target Sensor (LCATS) development and technology insertion • 239 Program management and management engineering • 600 Complete LCATS testing 									
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BUDGET ACTIVITY 5 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604645A Armored Systems Modernization (ASM) - Engineering Development	PROJECT D175
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Total 2200

B. Other Program Funding Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Comp</u>	<u>Total Cost</u>
Procurement, Ammo, Army, ER 8017	1502	13951	45633	52839	53449	53487	53437	Cont	Cont
OPA-2, Army, AD3260		4118			4057	6918	7303	Cont	Cont
RDTE, BA4, Army, PE 0603854, D505	300429	266158	355309	446674	245250			0	2140620
RDTE, BA5, Army, PE 0604854, D503			28	39273	227991	452583	425058	Cont	Cont
Procurement, WTCV, Army, G83500						24679	94237	Cont	Cont
Procurement, WTCV, Army, G83600						19096	76408	Cont	Cont

C. Acquisition Strategy: Intent is to award a competitive best value (restricted to North America) contract for FY1999, FY2000 and FY2001 buys. We will have a follow-on, competitive multi-year contract beginning with the FY2002 buy. We anticipate that the Low Cost Advanced Target Sensor (LCATS) will be incorporated into the XM782 design during follow-on, competitive buy in FY2002. A sole source award will be made on the Portable Inductive Artillery Fuze Setter (PIAFS) using a FFP contract in FY2000.

D. Schedule Profile	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
XM782 MOFA							
TC testing	3Q*						
MS III XM782		1Q					
EMD Contract Complete	2Q*						
Portable Inductive Artillery Fuze Setter (PIAFS)							
PIAFS in-house Development Complete	2Q*						
PIAFS Contract Award	3Q*						
PIAFS TC testing		3Q					
PIAFS MS III		4Q					
Low Cost Advanced Target Sensor (LCATS)							
LCATS Task VII Award		3Q					
LCATS Task VII Complete			4Q				
LCATS Insertion to Technical Data Package				1Q			

*Milestone Completed

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ARMY RDT&E COST ANALYSIS (R-3)										DATE February 2000		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604645A Armored Systems Modernization (ASM) - Engineering Development						PROJECT D175		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Primary Hardware Development	CPIF	Alliant Techsystems Hopkins, MN	21197	389	May-99	0	-	0	-	0	21586	
b. Producibility Spt.	SS-CPFF	Raytheon/TI Joint Ventures, Tewksbury, MA	1788	0	-	0	-	0	-	0	1788	
c. PIAFS Development Contract	CPIF	Alliant Techsystems Hopkins, MN	0	714	Apr-99	630	Jan-00	0	-	0	1344	
d. Engineering development		TACOM, ARDEC, Picatinny, NJ; Adelphi, MD	9232	2101	Oct-98	996	Oct-99	771	Oct-00	0	13100	
e. Low Cost Advanced Target Sensor Contracts	SS-FFP	ICS, CA University of Florida, FL	385	50	Oct-98	604	Dec-99	590	Dec-00	0	1629	
Subtotal Product Development:			32602	3254		2230		1361			39447	
II. Support Costs: Not applicable												
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Program testing	PO	TECOM, Yuma, AZ; APG; ARL, MD; ARDEC, NJ; HAFB	2556	700	Oct-98	250	Oct-99	600	Oct-00	0	4106	
Subtotal Test and Evaluation:			2556	700		250		600			4106	
Project D175												

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ARMY RDT&E COST ANALYSIS (R-3)	DATE February 2000
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BUDGET ACTIVITY 5 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604645A Armored Systems Modernization (ASM) - Engineering Development	PROJECT D175
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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Management and Management oversight	PO	TACOM, ARDEC, Picatinny, NJ; Adelphi, MD	3540	305	Oct-98	320	Oct-99	239	Oct-00	0	4404	
b. SBIR/STTR	N/A	N/A	0	0	-	77	-	0	-	0	77	
Subtotal Management Services:			3540	305		397		239			4481	

Project Total Cost:			38698	4259		2877		2200			48034	
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