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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 0604329A Modernized Hellfire				PROJECT D013		
COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost	
D013 Modernized HELLFIRE	0	0	4969	6951	15914	53531	74751	Continuing	Continuing	
<p>A. Mission Description and Budget Item Justification: Expanding regional power threats require evolutionary improvements to maintain effectiveness of the Hellfire missile system. The Modernized Hellfire missile will provide the Apache Attack Helicopter (AH-64) and the Comanche Reconnaissance Helicopter (RAH-66) with an enhanced fire-and-forget capability, greatly increasing weapon system effectiveness and aircraft survivability. The Modernized Hellfire will effectively engage and destroy advanced armor on the digital battlefield well into the future. The funding in FY 2001 and FY 2002 will be utilized for risk reduction and risk mitigation efforts. Risk mitigation and risk reduction will be accomplished using the latest simulation based acquisition tools and techniques. This simulation based acquisition technique will be concentrated on seekers, propulsion, warhead group and platform integration. Modernized Hellfire will enter Engineering Manufacturing Development (EMD) in FY 2003. Modernized Hellfire missile will be designed and tested to achieve the following: an enhanced fire-and-forget capability, increased range, increased survivability (both missile and platform), decreased timeline, decreased weight, decreased size, and modularity for future enhancements. Modernized Hellfire will be compatible with existing launch platforms and the RAH-66.</p> <p>FY 1999 Accomplishments: Project not funded in FY 1999.</p> <p>FY 2000 Planned Program: Project not funded in FY 2000.</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 3553 Risk Reduction • 664 Support Costs • 214 Test and Evaluation Support • 538 Management Services Support <p>Total 4969</p>										
Project D013			Page 1 of 4 Pages			Exhibit R-2 (PE 0604329A)				

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B. Program Change Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (FY 2000/2001 PB)	0	0	0
Appropriated Value			
Adjustments to Appropriated Value			
a. Congressional General Reductions			
b. SBIR / STTR			
c. Omnibus or Other Above Threshold Reductions			
d. Below Threshold Reprogramming			
e. Rescissions			
Adjustments to Budget Years Since FY 2000/2001 PB			+4969
Current Budget Submit (FY 2001 PB)	0	0	4969

Change Summary Explanation: Funding for FY 2001: Increase to fund the risk reduction and risk mitigation efforts necessary to ensure the effective transition of science and technology concepts to the Engineering Manufacturing Development (EMD) phase.

C. 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</u> <u>Compl</u>	<u>Total</u> <u>Cost</u>
Missile Procurement Army								Continuing	Continuing
C70300 Longbow Hellfire/LBHF	343294	292851	285363	222722	184037	26117	22178		

D. Acquisition Strategy: The Modernized Hellfire risk reduction effort will use full and open competition. U.S. Army Aviation and Missile Command (AMCOM) labs will provide assistance and technical expertise during the risk reduction effort.

E. 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>
Risk Reduction			1st Qtr				
Contract Award Initial Designs			1st Qtr				
Complete Performance Modeling				3rd Qtr			
Complete Virtual Prototypes				3rd Qtr			
Complete Initial Design CAD/CAE				3rd Qtr			
Complete Simulation of System in Battlefield				4th Qtr			
EMD Modernized Hellfire					2nd Qtr		
Integration and Testing Modernized Hellfire						3rd Qtr	
Design/Test/Qual Modernized Hellfire							1st Qtr
Qualification Modernized Hellfire							3rd Qtr
Rail Flights							2nd Qtr

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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 0604329A Modernized Hellfire	PROJECT D013
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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. Risk Reduction	LC/CPFF	TBD						2715	Nov	3948	6663	
b. RDEC Spt Contracts	TBD	TBD						838	Dec	1088	1926	
Modernized HF EMD												
c. Longbow Limited Liability Company (LLC)	LC/CPFF	TBD								260270	260270	
d. RDEC Spt Contracts	TBD	TBD								3975	3975	
Subtotal Product Development:			0	0				3553		269281	272834	

Remark: Includes requirements/threat definition, preliminary/detailed design, and testing in hardware-in-the-loop and missile firings.

II. Support Costs	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. Risk Reduction IH Gov't Support								316	Qtrly	395	711	
b. RDEC Support								348	Qtrly	418	766	
Modernized HF EMD												
c. In-House Gov't Spt										3092	3092	
d. RDEC Support										6542	6542	
Subtotal Support Costs:			0	0				664		10447	11111	

Remark: Includes salaries and travel for other government agencies in support of Modernized Hellfire.

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. Risk Reduction Redstone Technical Test Center (RTTC) Support								214	Qtrly	457	671	
Modernized HF EMD												
b. RTTC Gov't Spt										26412	26412	
Subtotal Test and Evaluation:			0	0				214		26869	27083	

Remark: Includes RDEC and RTTC support for system reviews and testing, as well as support for RTTC and ARL for test assets and range support.

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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. Risk Reduction IH Gov't Support								538	Qtrly	694	1232	
Modernized HF EMD												
b. In-House Support										15486	15486	
Subtotal Management Services:			0	0		0		538		16180	16718	

Remark: Includes salaries and travel for collocated and core personnel.

Project Total Cost:			0	0		0		4969		322777	327746	
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