

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604646A - Non Line of Sight Launch System

PROJECT
F□2

COST (In Thousands)		FY 2004 Actual	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
F72	NON LINE OF SIGHT LAUNCH SYSTEM	0	55794	231554	329412	280225	261362	90950	18100	0	1267397

A. Mission Description and Budget Item Justification: This project funds the System Development and Demonstration (SDD) for the Non Line of Sight-Launch System (NLOS-LS), which is a core system of the Army's Future Combat System (FCS).

This project focuses on the development of a materiel solution to meet the NLOS-LS operational need as delineated in the FCS Operational Requirements Document (ORD). NLOS-LS provides enabling lethality for the FCS Unit of Action (UA). NLOS-LS consists of a family of missiles and a highly deployable, platform-independent Container Launch Unit (CLU) with self-contained technical fire control, electronics, and software for remote, unmanned operations. The NLOS-LS configuration will consist of Precision Attack Missiles (PAMs) focused on defeating hard targets and Loitering Attack Missiles (LAMs) focused on defeating fleeting, high-value targets as well as supporting both targeting information and Battle Damage Assessment. Each of the missiles will be vertically launched directly from the CLU based on fire missions received via the FCS UA network and are capable of being updated in-flight via on-board radios by the network. The vertical launch capability permits a system that is highly deployable as well as the ability to engage a wide spectrum of targets in diverse environments and terrain. Both missiles will have limited Automatic Target Recognition (ATR) capability which can be upgraded in future versions.

The FY 06-07 funding supports the NLOS-LS SDD program. Efforts will focus on allocation of requirements, design activities, component build and test, and conduct of both a Preliminary Design Review (PDR) and Critical Design Review (CDR). Beginning in FY05, the NLOS-LS (CLU and PAM) is realigned to meet the FCS Spiral 1 requirements and to be evaluated in the Evaluation Brigade Combat Team (EBCT) for insertion in current forces.

FY04 and prior funding displayed in 0604645A, Project F51/70.

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
PAM detailed system design, software engineering, radio integration, IV0 and IVI simulations, prototype manufacturing	0	18322	126368	186985
LAM detailed system design, software engineering, prototype manufacturing	0	7100	0	0
CLU detailed system design, software engineering, radio and network integration, IVI emulator, prototype manufacturing	0	8661	74855	96935
NLOS-LS System Integration, SOSCOE integration, system level engineering and test and evaluation	0	21711	30331	45492
Totals	0	55794	231554	329412

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B. Program Change Summary

	FY 2005	FY 2006	FY 2007
Previous President's Budget	0	0	0
Current Budget (FY 2006/2007 PB)	55794	231554	329412
Total Adjustments	55794	231554	329412
Net of Program/Database Changes			
Congressional program reductions	-803		
Congressional rescissions			
Congressional increases			
Reprogrammings	58200		
SBIR/STTR Transfer	-1603		
Adjustments to Budget Years		231554	329412

Change Summary Explanation: FY 05 funds were moved from Program Element 0604645A, Armored Systems Modernization, (FCS) as per Congressional direction with FY 06/07 funding continuing in this Program Element, 0604646A.

C. Other Program Funding Summary

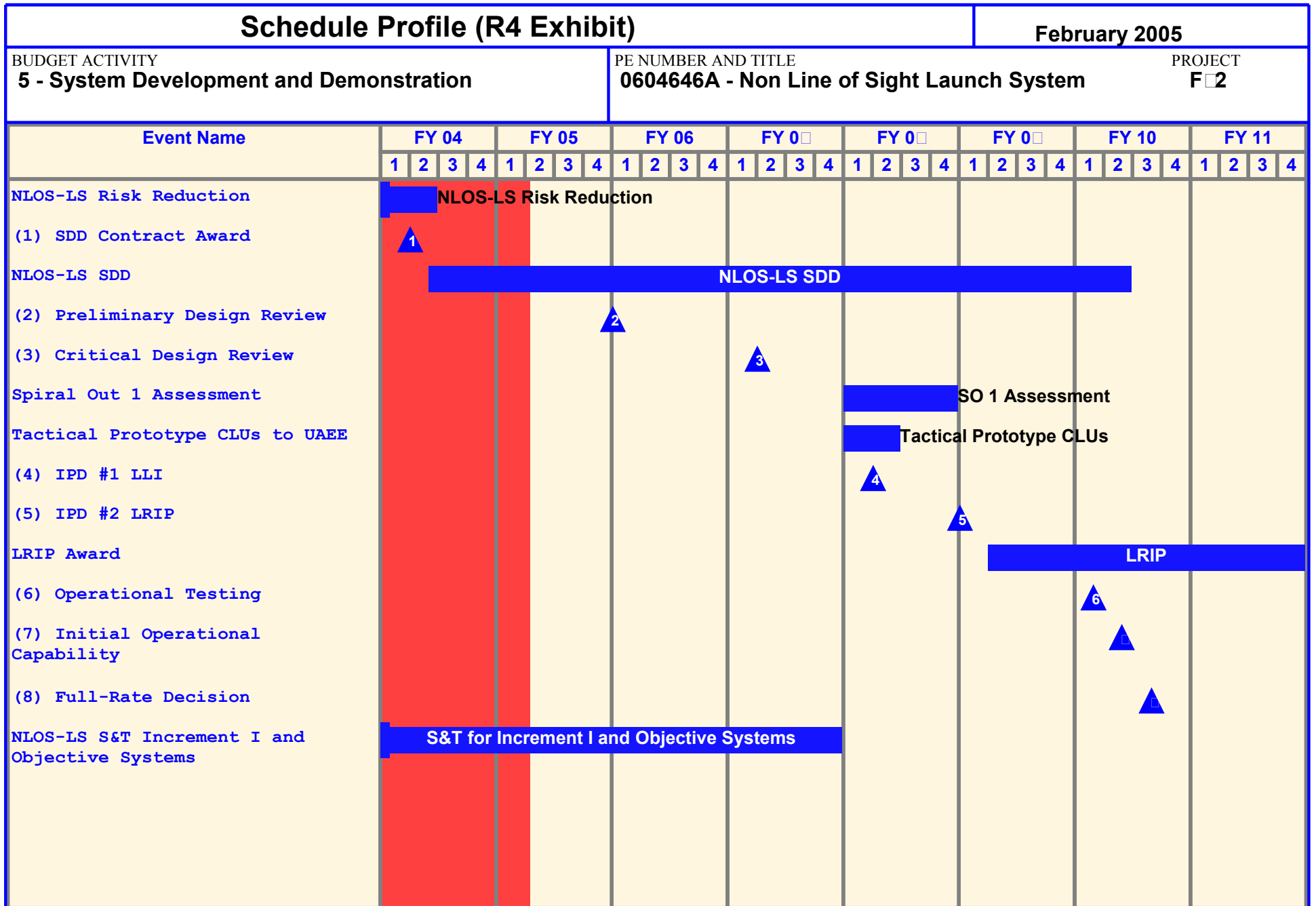
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
PE 0604645 F51/F70	49502	0	0	0	0	0	0	0	0	49502
PE 0604646 F72	6000	0	0	0	0	0	0	0	0	6000
PE 0603581N Navy	1096	5350	0	0	0	0	0	0	0	6446
PE 0603313 A263 Msl & Rocket Adv Tech	0	29956	39635	14277	0	0	0	0	0	83868

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<p><u>D. Acquisition Strategy:</u> During the FY06-11 POM process, the Army restructure the PM UA Acquisition Program. The Army announced this restructured plan which strengthens the FCS Program and improves the Current Force through early delivery of selected FCS capabilities. The adjustments maintain the Army focus on FCS-equipped UA development and substantially reduce program risk. The Army awarded the NLOS-LS SDD contract, on 19 March 2004, to Netfires Limited Liability Company (LLC), consisting of Lockheed Martin Corporation, doing business through its Missiles and Fire control and operating entity in Grand Prairie, TX, and the Raytheon Corporation, doing business through its Missile Systems Business Unit in Tuscon, Arizona. The NLOS-LS SDD contract was definitized 20 Aug 04. Due to the removal of funding for the LAM Statement of Work (SOW) requirements, LAM activities will continue in the Army's Science and Technology (S&T) program to make improvements through technology development and insertion. More robust experimentation and evaluation are included in the program to prove revolutionary concepts, mature the architecture and components, and assist in spiral development. A series of four Spiral Out packages will begin in 2008 and continue every two years through 2014 to insert NLOS-LS capability into Current Force Modular Brigade Combat Teams (M-BCTs) to include Stryker, Heavy, and Infantry.</p>		

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604646A - Non Line of Sight Launch System					PROJECT F□2		
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
a . PAM	CPIF	Netfires, LLC - Grand Prairie, Texas	0	18322	1-3Q	126368		186985		136269	467944	0
b . LAM	CPIF	Netfires, LLC - Grand Prairie ,Texas	0	7100	1-3Q	0		0		0	7100	0
c . CLU	CPIF	Netfires, LLC - Grand Prairie ,Texas	0	8661	1-3Q	74855		96935		167392	347843	0
d . NLOS-LS System Integration	MULTI	Netfires, LLC - Grand Prairie, Texas and Various Support	0	8618	1-3Q	11391		24234		241142	285385	0
Subtotal:			0	42701		212614		308154		544803	1108272	0

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II. Support Cost	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
a . Various	Various	Various	0	3141		3081		3173		13674	23069	0
Subtotal:			0	3141		3081		3173		13674	23069	0
Remarks: .												
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
a . Various	Various	Various	0	1275		3131		4921		36794	46121	0
Subtotal:			0	1275		3131		4921		36794	46121	0
Remarks: .												

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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
a . Various	Various	Various	0	8677		12728		13164		55366	89935	0
Subtotal:			0	8677		12728		13164		55366	89935	0
Remarks: .												
Project Total Cost:				0	55794	231554		329412		650637	1267397	0



Schedule Detail (R4a Exhibit)

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<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
NLOS-LS Risk Reduction	1-2Q							
SDD Contract Award	2Q							
NLOS-LS SDD	3-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-2Q	
Preliminary Design Review			1Q					
Critical Design Review				2Q				
Spiral Out 1 Assessment					1-4Q			
Tactical Prototype CLUs to UAEE					1-2Q			
IPD #1 LLI					2Q			
IPD #2 LRIP						1Q		
LRIP Award						2-4Q	1-4Q	1-4Q
Operational Testing							2Q	
Initial Operational Capability							3Q	
Full-Rate Decision							4Q	
NLOS-LS S&T Increment 1 and Objective System	1-4Q	1-4Q	1-4Q	1-4Q				