

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604819A - LOSAT					PROJECT 046		
COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
046	LINE-OF-SIGHT ANTI-TANK (LOSAT) MISSILE	24773	13597	30809	22610	0	0	0	0	0	117153
<p><u>A. Mission Description and Budget Item Justification:</u> Line-of-Sight Anti-Tank (LOSAT) and the Kinetic Energy Missile (KEM) technology provides the foundation for the Objective Force Kinetic Energy Missile Requirement. This program focuses on the integration of the LOSAT weapon system into a light, early deployable configuration in order to help remedy the urgent need for the early entry force lethality shortfall against heavy armor in support of the Army Transformation. The LOSAT weapon system consists of a kinetic energy (KE) missile launcher mounted on a heavy High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) chassis. LOSAT offers a highly mobile, near-term, advanced capability for overwhelming armor destruction with a high rate of fire, increased range, and increased force survivability. LOSAT, deployed in the early entry force, will provide the decisive edge to win swiftly with minimum casualties and with an assault support weapon capability. LOSAT is strategically and tactically deployable, giving commanders and decision makers greater flexibility. Once in theater, LOSAT is extremely mobile, to include air droppable and sling loading under CH-47 and UH-60L aircraft. The performance of the hypervelocity (velocity of a mile per second) kinetic energy missile is not affected by the proliferation of emerging threat active protective systems and enhanced reactive armors which are rapidly becoming available on the global marketplace. In FY98, LOSAT was initiated as a DOD-approved Advanced Concept Technology Demonstration (ACTD) program to position it for future acquisition decisions, demonstration of subsystem capabilities in flight tests and dirty battlefield environments, evaluation of its utility for early entry forces, demonstration of an integrated HMMWV-based LOSAT system in-flight tests and advanced warfighting experiments, and evaluation of affordability issues. In December 1999, the Army and DOD funded the LOSAT accelerated advanced development and procurement as part of the Army Transformation, adding additional design activities, test hardware, and qualification and operational tests concurrent with the ACTD, which will assure design maturity to support entry into Low Rate Initial Production (LRIP) in FY04. The System Development Demonstration (SDD) effort is funded in this Program Element (PE) and is concurrent with the ACTD contract. The ACTD is funded in PE 0603654A. This system supports the Legacy to Objective Force transition path of the Transformation Campaign Plan (TCP).</p>											
<u>Accomplishments/Planned Program</u>							FY 2002	FY 2003	FY 2004	FY 2005	
Completed Fire Unit Detail Designs incorporating new performance specification requirements.							4857	0	0	0	
Completed Missile Detail Designs incorporating new performance specification requirements.							2145	0	0	0	
Completed design and fabricated Resupply Trailers and Resupply HMMWV Modifications.							1001	0	0	0	
Finalize Fire Unit Software Enhancements, Fire Unit BIT/BITE software, and perform System Level Certification.							2181	742	0	0	
Fabrication of Missiles with Enhanced Design and perform developmental/operational, tests and evaluations.							3682	1135	0	0	

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Accomplishments/Planned Program (continued)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Fabrication of Enhanced Design Prototype Fire Units/Live Fire Unit, and refurbishment of Fire Units.	5316	1474	6950	0
Perform full, Developmental/Operational Tests and Evaluations.	2425	4126	8645	12815
Continue Supportability Analysis, finalize Logistics Management Information, and perform Supportability Demonstration.	3166	1936	5706	250
Deliver Enhanced Training Simulators and conduct Soldier Training for operational tests.	0	1391	3892	2920
Perform Live Fire Test and Evaluation (LFTE).	0	2793	5616	6625
Totals	24773	13597	30809	22610

B. Program Change Summary

	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	21416	14463	15183	16160
Current Budget (FY 2004/2005 PB)	24773	13597	30809	22610
Total Adjustments	3357	-866	15626	6450
Congressional program reductions				
Congressional rescissions		-467		
Congressional increases				
Reprogrammings	3889	-78		
SBIR/STTR Transfer	-532	-321		
Adjustments to Budget Years			15626	6450

FY 2002 funds reprogrammed for support of Missile and Fire Unit development effort.

FY 2004 and FY 2005 funds increased to support Initial Operational Test and Evaluation (IOTE), Vulnerability/Lethality Test, LFTE equipment and support.

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<u>C. Other Program Funding Summary</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>
H09100 LOSAT	0	0	43232	86585	111465	108646	138767	104030	284499	877224
0603654A Line-of-Sight Technology Demo	72530	26955	8847	0	0	0	0	0	0	108332

C. Other Program Funding Summary: FY02 MIPA funds rescinded by Congress. FY03 MIPA funds zeroed by Congress.

D. Acquisition Strategy: The Line-of-Sight Anti-Tank additional development and qualification effort to support the Army Transformation is being conducted in conjunction with the on-going ACTD effort. The ACTD contract awarded in April 1998 was modified in December 2000 to include the System Development and Demonstration (SDD) effort. A Milestone Decision Review will be conducted in FY04 to assess design maturity and authorize entry into LRIP.

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604819A - LOSAT					PROJECT 046		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . SDD Contract	CPIF	LMMFC, Dallas, TX	34157	1474	2Q	9820	2Q	2000	1Q	0	47451	0
b . Live Fire Hardware	CPFF	Alliant Tech	1629	0		0		0		0	1629	0
c . RDEC Support	TBD	Huntsville, AL	5837	3150	2-4Q	3921	1-4Q	2804	1-4Q	0	15712	0
Subtotal:			41623	4624		13741		4804		0	64792	0
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . In-House Support		Huntsville, AL	1162	583	2-4Q	1712	1-4Q	1086	1-4Q	0	4543	0
b . Funct Govt Spt		Huntsville, AL	2768	896	2-4Q	877	1-4Q	795	1-4Q	0	5336	0
c . MISC		Various	58	0		0		0		0	58	0
d . OGA		Various	188	180	2-4Q	473	1-4Q	229	1-4Q	0	1070	0
Subtotal:			4176	1659		3062		2110		0	11007	0

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Range Support		Various Sites	788	3617	1-4Q	6783	1-4Q	10456	1-4Q	0	21644	0
b . Other Test		Various Sites	1556	3074	1-4Q	6505	1-4Q	4462	1-4Q	0	15597	0
c . GFE		Smith Industries, Grand Rapid, Minnesota	366	0		0		0		0	366	0
Subtotal:			2710	6691		13288		14918		0	37607	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Engineering Tech Asst	T&M	Huntsville, AL	1628	623	1-4Q	718	1-4Q	778	1-4Q	0	3747	0
Subtotal:			1628	623		718		778		0	3747	0
Project Total Cost:			50137	13597		30809		22610		0	117153	0

Schedule Profile Detail (R-4a Exhibit)							February 2003	
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<u>Schedule Detail</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Critical Design Review	1Q							
Begin Missile and Fire Unit Assembly	3Q							
Complete Component Level Qualifications		2Q						
Begin System Qualification and Flight Tests		2Q						
Begin User Experimentation		4Q						
Limited User Testing			2Q					
Complete System Qualification and Flight Tests			2Q					
Milestone C			3Q					
Award LRIP Contract			3Q					
ACTD Hand Receipt (Fire Units)			4Q					
IOTE				4Q				
Begin Fielding					4Q			
First Unit Equiped (FUE)					4Q			