

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

**February 2005**

<b>BUDGET ACTIVITY</b> <b>7 - Operational system development</b>				<b>PE NUMBER AND TITLE</b> <b>0102419A - Joint Land Attack Cruise Missiles Defense (JLENS)</b>				<b>PROJECT</b> <b>E55</b>		
COST (In Thousands)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to Complete	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate		
E55 JNT LAND ATK MSL DEF ELEVATED NETTED SENSOR-JLENS	56855	79316	106420	256893	471997	332428	0	0	Continuing	0

**A. Mission Description and Budget Item Justification:** The Under Secretary of Defense (Acquisition and Technology) and the Army Acquisition Executive (AAE) directed the establishment of the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) Project Office (PO), for Land Attack Cruise Missile Defense (LACMD). This is a multiservice effort with the Army as the lead service. The JLENS Project Office merged with the Short Range Air Defense (SHORAD) Project Office on January 11, 2005, to become the JLENS Product Office within the Cruise Missile Defense Systems (CMDS) Project Office. On January 13, 2005, the Program Executive Office for Air, Space and Missile Defense (PEO ASMD), which JLENS was assigned to merged with the Program Executive Office for Tactical Missiles (PEO TM) to become the Program Executive Office for Missiles and Space (PEO MS). JLENS is a Future Force theater level System of Systems element that meets the requirements of the Army Campaign Plan. JLENS uses advanced sensor and networking technologies to provide precision tracking and 360-degree wide-area over-the-horizon surveillance of land attack cruise missiles. A joint program, JLENS performs as a multi-role platform to enable extended range command and control linkages. A key element of the Army transformation Single Integrated Air Picture (SIAP), JLENS provides correlated fire control and surveillance data from multiple sensors to various battle command nodes. JLENS is the key long range surveillance and integrated fire control sensor in the Army Missiles and Space System of Systems architecture.

<b>Accomplishments/Planned Program</b>	FY 2004	FY 2005	FY 2006	FY 2007
Contract work is continuing to design and to develop the system and to mitigate risk.	41771	66189	70323	221846
Continue work on Lightweight X-Band Radar Micro Electro Mechanical (MEMS) Antenna Technology.	1500	0	0	0
Other contracts and OGAs.	6569	7547	16467	14845
Project Management	7015	5580	6850	7500
Government Furnished Equipment	0	0	12780	12702
<b>Totals</b>	<b>56855</b>	<b>79316</b>	<b>106420</b>	<b>256893</b>

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

**BUDGET ACTIVITY**  
**7 - Operational system development**

**PE NUMBER AND TITLE**  
**0102419A - Joint Land Attack Cruise Missiles**  
**Defense (JLENS)**

**PROJECT**  
**E55**

<b>B. Program Change Summary</b>	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2005)	81514	110561	260253
Current Budget (FY 2006/2007 PB)	79316	106420	256893
Total Adjustments	-2198	-4141	-3360
Net of Program/Database Changes			
Congressional Program Reductions	-1463		
Congressional Rescissions			
Congressional Increases	1500		
Reprogrammings			
SBIR/STTR Transfer	-2235		
Adjustments to Budget Years		-4141	-3360

<b>C. Other Program Funding Summary</b>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
BZ0525 - JLENS	0	0	0	0	0	29153	549707	397776	0	976636
PE 643869, MEADS	236823	251414	0	0	0	0	0	0	0	488237
PE 643869M06, PATRIOT/MEADS CAP	0	0	288785	326352	454511	510672	510389	490441	0	2581150
PE 273801, PATRIOT PIP	45587	32082	16188	10607	10884	11119	12029	12520	0	151016
PE 654865, PAC-3	151318	61482	0	0	0	0	0	0	0	212800
PE C49100, PATRIOT	616942	487364	489700	494754	466004	471770	0	0	0	3026534
PE C50001, PATRIOT/MEADS CAP	0	0	0	0	88425	64338	423209	663557	0	1239529
PE 654802, SLAMRAAM	36103	63111	36102	29200	0	0	0	0	0	164516
PE C81001, SLAMRAAM Production	7397	2440	19315	21970	59273	13124	0	0	0	123519

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY  
**7 - Operational system development**

PE NUMBER AND TITLE  
**0102419A - Joint Land Attack Cruise Missiles  
 Defense (JLENS)**

PROJECT  
**E55**

<b>C. Other Program Funding Summary (continued)</b>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	ToCompl	TotalCost
PE 654820, SENTINEL	0	5851	5080	2547	2647	0	0	0	0	16125
PE WK5057, SENTINEL Production	20646	7337	8393	15373	25074	31572	34473	32552	0	175420
PE 643327, Integrated Fire Control, AMD	40275	0	24961	42736	48894	50930	0	0	0	207796

**C. Other Program Funding Summary:** This PE is an integral part of the Missiles and Space System of Systems (SOS) including Integrated Fire Control, JLENS, Patriot/MEADS Combined Aggregate Program (CAP), SLAMRAAM, JTAGS, SENTINEL, and on-going initiatives to achieve Single Integrated Air Picture (SIAP).

**D. Acquisition Strategy:** An initial cruise missile defense capability is being developed (Spiral 1) that consists of a 38-meter aerostat with a SENTINEL-based Enhanced Tracking Range and Classification (ETRAC) sensor system employing a 36-degree fire control and surveillance capability that will be available by 4QFY05. JLENS will design, develop, fabricate, integrate and test System Development and Demonstration (SDD) systems by 4QFY10. The JLENS system (Spiral 2) consists of a Precision Track Illumination Radar (PTIR), and a Surveillance Radar (SR), each with its own aerostat platform, mobile mooring station, mobile processing station, and associated ground support equipment. This SDD system can provide operational capability as early as FY08, should it be required. Developmental Test and Evaluation (DT&E) and Initial Operational Test and Evaluation (IOT&E) will be conducted in FY09-FY10 culminating in a First Unit Equipped (FUE) by 4QFY10.

# ARMY RDT&E COST ANALYSIS(R3)

**February 2005**

**BUDGET ACTIVITY**  
**7 - Operational system development**

**PE NUMBER AND TITLE**  
**0102419A - Joint Land Attack Cruise Missiles**  
**Defense (JLENS)**

**PROJECT**  
**E55**

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 . Concept Definition	CPFF	H&R/MA & CA	2007	0		0		0		0	2007	0
b . Concept Definition	CPFF	Lockheed Martin/N.Y./OH/AL	2000	0		0		0		0	2000	0
c . Concept Definition	CPFF	Northrop Grumman/MD	1981	0		0		0		0	1981	0
d . OGAs	MIPR	Multiple	16083	2300		3149		7414		Continue	28946	Continue
e . Risk Mitigation, Design, Development	CR/CPFF	Raytheon System Co. MA/CA/FL	151241	66189		70323		221846		Continue	509599	Continue
f . GFE	MIPR	Multiple	1201	0		12780		12702		0	26683	0
g . CEC/ SM-2 CEC	MIPR	Navy/Multiple	4219	0		0		0		0	4219	0
h . Design/Dev/Demo Support	CPFF	CAS/AL	14789	2261		2351		2445		Continue	21846	Continue
i . Misc. Contracts	SS/CPFF	Multiple	7730	2258		10167		4086		Continue	24241	Continue
j . ADaM			1800	0		0		0		0	1800	0
k . ORD/AOA/TEMP/MS B Preparation			4885	300		100		100		0	5385	0
l . Lightweight x-band radar antenna			4311	0		0		0		0	4311	0

# ARMY RDT&E COST ANALYSIS(R3)

**February 2005**

**BUDGET ACTIVITY**  
**7 - Operational system development**

**PE NUMBER AND TITLE**  
**0102419A - Joint Land Attack Cruise Missiles**  
**Defense (JLENS)**

**PROJECT**  
**E55**

I. Product Development (continued)	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
m . In-House JLENS		PEO AMD, HSV, AL	27803	5580		6850		7500		0	47733	0
Subtotal:			240050	78888		105720		256093		Continue	680751	Continue

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 . Misc Support			2084	0		0		0		0	2084	0
Subtotal:			2084	0		0		0		0	2084	0

# ARMY RDT&E COST ANALYSIS(R3)

**February 2005**

**BUDGET ACTIVITY**  
**7 - Operational system development**

**PE NUMBER AND TITLE**  
**0102419A - Joint Land Attack Cruise Missiles**  
**Defense (JLENS)**

**PROJECT**  
**E55**

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 . Maintain Test Bed/Government Furnished Equipment	SS/CPFF	CAS-TX, NM	2927	428		700		800		0	4855	0
b . Misc. OGA&Contracts	Mul/MPR	AL/TX/NM	1656	0		0		0		0	1656	0
Subtotal:			4583	428		700		800		0	6511	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	0		0		0		0	0	0

Remarks: Not Applicable

Project Total Cost:			246717	79316		106420		256893		Continue	689346	Continue
---------------------	--	--	--------	-------	--	--------	--	--------	--	----------	--------	----------

# Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY  
7 - Operational system development

PE NUMBER AND TITLE  
0102419A - Joint Land Attack Cruise Missiles  
Defense (JLENS)

PROJECT  
E55

Event Name	FY 04				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	1	2	3	4
(1) ORD JROC	1				2																											
(2) MS B																																
(3) MS C					3																											
(4) First Unit Equipped (FUE)																													4			
Spiral 1: 3M Aerostat w/Sentinel ETRAC Based Radar System	DR				GRD Elev. Test																											
Government Training and Testing																																
Spiral 2:																																
1M PTIR System					Development								Testing FY08-10																			
1M Surveillance System					Development								Elev. Test																			
(5) System Critical Design Review													5																			
Government Testing																	DT&E				IOT&E											

## Schedule Detail (R4a Exhibit)

**February 2005**

**BUDGET ACTIVITY**  
**7 - Operational system development**

**PE NUMBER AND TITLE**  
**0102419A - Joint Land Attack Cruise Missiles**  
**Defense (JLENS)**

**PROJECT**  
**E55**

<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ORD JROC	2Q							
MS B		3Q						
MS C						4Q		
First Unit Equipped (FUE)							4Q	
Spiral 2 Critical Design Review					1Q			