

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0102419A - Joint Land Attack Cruise Missiles Defense (JLENS)						PROJECT E55		
COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost	
E55 JNT LAND ATK MSL DEF ELEVATED NETTED SENSOR-JLENS	25981	32130	29081	56520	57399	68089	67907	0	373825	

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 PO is assigned to the Program Executive Office for Air and Missile Defense. The JLENS mission is to develop, build, test, field and manage a low cost, Elevated Netted Sensor System that improves battlefield information superiority and airspace dominance for US and Allied Warfighters. JLENS is a theater based system employing advanced technologies with specific focus on LACMD. JLENS sensors provide the over-the-horizon (OTH) surveillance/precision tracking for the Air Directed Surface to Air Missile (ADSAM) concept. The role of the JLENS is to expand the battlefield commander's surveillance and engagement capability against cruise missiles and other targets via the extension of the battle space for systems such as Patriot, Medium Extended Air Defense System (MEADS), and the Navy's Standard Missile and Advanced Medium Range Air-to-Air Missile (AMRAAM).

The cruise missile threat continues to grow and evolve. The relatively low operating cost and high demonstrated accuracy of cruise missiles makes them a viable alternative to manned aircraft or Theatre Ballistic Missiles (TBM). Their long range and low altitude profile allow them to attack potentially undetected from any direction. The Land-Attack Cruise Missile (LACM) threat is expected to grow as producers export complete systems globally. Complicating the issue are the additional problems presented when this threat is considered in the larger context of the overall theater air campaign. Large numbers of aircraft, cruise missiles, unmanned aerial vehicles (UAVs), and large caliber rockets will characterize the operational airspace in 2010. An enemy cruise missile attack in this tactical environment, particularly if part of an integrated attack involving artillery, air and missile forces, complicates timely target identification and increases the chance of asset damage or fratricide. As a response to this threat, JLENS provides the Theater Commander-in-Chief (CINC) with a cost effective, long endurance (up to 30 days), extended range detection and tracking capability required to defeat the proliferating land attack cruise missile threat. JLENS complements existing fixed wing surveillance assets by providing long-endurance aerial platforms for long-range wide-area surveillance, precision tracking of airborne and surface targets, combat identification, and communication relays. The presence of JLENS allows the theater CINC to re-allocate costly, manned aircraft to support other critical missions. This system supports the objective transformation path of the Transformation Campaign Plan (TCP).

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)**February 2002**

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

7 - Operational system development**0102419A - Joint Land Attack Cruise Missiles
Defense (JLENS)****E55****FY 2001 Accomplishments:**

- 17005 Continued contract design and demonstration program.
- 6027 Other contracts and Other Government Agencies (OGA)
- 2949 JLENS In-House

Total 25981

FY 2002 Planned Program

- 22027 Complete fire control radar hardware and software design, communication payload design, and processing station design.
- 6830 Other contracts and OGA
- 3273 JLENS In-House

Total 32130

FY 2003 Planned Program

- 20703 Continue contract design and demonstration program
- 5007 Other contracts and OGA
- 3371 JLENS In-House

Total 29081

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
E55

<u>B. Program Change Summary</u>	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	26743	30408	30356
Appropriated Value	26996	32408	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-278	0
b. SBIR / STTR	-767	0	0
c. Omnibus or Other Above Threshold Reduction	0	0	0
d. Below Threshold Reprogramming	0	0	0
e. Rescissions	-248	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	-1275
Current Budget Submit (FY 2003 PB)	25981	32130	29081

C. Other Program Funding Summary: Not applicable for this item.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY
7 - Operational system development

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

PROJECT
E55

D. Acquisition Strategy: JLENS is designed to provide the joint war fighter with a Land Attack Cruise Missile Defense (LACMD) Over-the-Horizon (OTH) capability to engage cruise missiles masked to surface based sensors and contribute to the development of a Single Integrated Air Picture (SIAP). JLENS has a requirement to develop, test, and provide a contingency deployable prototype Fire Control with Sector Surveillance radar demonstration system. This system consists of a 71-meter aerostat platform, fire control with sector surveillance radar, mobile mooring station, communications payloads, associated ground support equipment and government furnished equipment. The JLENS System Development and Demonstration (SDD) program provides for the design and development of a JLENS Operational Requirements Document (ORD) threshold system. This system consists of both the Fire Control and Surveillance Radar, each with its 71-meter aerostat platform, mobile processing station, mobile mooring station, communications payloads, associated ground support equipment and government furnished equipment. The JLENS program will produce 18 systems. The JLENS Operations and Sustainment (O&S) program has the requirement to support JLENS fielded systems.

<u>E. Schedule Profile</u>	<u>FY 2001</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>
PTIR Critical Design Review (CDR)	4Q						
Continuation of PTIR CTD		1-4Q					
JROC			4Q				
MILESTONE B System Development and Demonstration				4Q			
System Development and Demonstration Contract Award					4Q		
ASARC IPR						4Q	

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 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	13256	575		487		500		Continue	14818	Continue
e . Risk Mitigation, Design, Development	CR/CPIF	Raytheon System Co. MA/CA/FL	47033	17005		22027		20703		Continue	106768	Continue
f . SBIR / STTR			642	0		0		0		0	642	0
g . GFE			1201	0		0		0		0	1201	0
h . CEC/ SM -2 CEC	MIPR	Navy/Multiple	4219	0		0		0		0	4219	0
i . Design/Dev/Demo Support	CPIF	CAS/AL	5974	1667		2206		2206		Continue	12053	Continue
j . Misc. Contracts	SS/CPFF	Multiple	3151	775		791		701		Continue	5418	Continue
k . ADaM			0	1800		0		0		0	1800	0
l . AoA/ORD/TEMP			0	1125		1624		1600		0	4349	0

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
m . Lightweight x-band radar antenna			0	0		1722		0		0	1722	0
Subtotal:			81464	22947		28857		25710		Continue	158978	Continue

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Misc Support			2084	0		0		0		0	2084	0
b . In-House, JLENS		PEO AMD, HSV, AL	10733	2949		3273		3371		Continue	20326	Continue
c . OGA Salaries		PEO AMD, HSV, AL	593	0		0		0		Continue	Continue	Continue
Subtotal:			13410	2949		3273		3371		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Maintain Test Bed	SS/CPFF	CAS-TX, NM	2297	85		0		0		0	2382	0
b . Misc. OGA&Contracts	Mul/MPR	AL/TX/NM	1656	0		0		0		0	1656	0
Subtotal:			3953	85		0		0		0	4038	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 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:			98827	25981		32130		29081		Continue	Continue	Continue
---------------------	--	--	-------	-------	--	-------	--	-------	--	----------	----------	----------