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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - OPERATIONAL SYSTEMS DEV	**0102419A - Joint Aero Stat Program**	**E55**

COST (In Thousands)		FY 2000 Actual	FY 2001 Estimate	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	24080	26743	30408	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification:

PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

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 AAE with operational control assigned to the U. S. Army Space and Missile Defense Command. The program 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 Legacy to Objective transformation path of the Transformation Campaign Plan (TCP).

FY 2000 Accomplishments

FY 2000 Accomplishments (Continued)

- 17237 Continued contract design and demonstration.
- 4088 Other contracts, OGA, and test bed maintenance
- 2755 JLENS In-House

Total 24080

FY 2001 Planned Program

- 17000 Continue contract design and demonstration program.
- 6022 Other contracts and OGA
- 2954 JLENS In-House
- 767 SBIR/STTR

Total 26743

FY 2002 Planned Program

- 22000 Complete fire control radar hardware and software design, Block 1, communication payload design, and processing station design.
- 5449 Other contracts and OGA
- 2959 JLENS In-House

Total 30408

B. Program Change Summary	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	24722	24996	29303	0
Appropriated Value	24903	26996	0	0
Adjustments to Appropriated Value	0	0	0	0
a. Congressional General Reductions	0	0	0	0
b. SBIR / STTR	-642	0	0	0
c. Omnibus or Other Above Threshold Reduction	-98	0	0	0
d. Below Threshold Reprogramming	0	0	0	0
e. Rescissions	-83	-248	0	0
Adjustments to Budget Years Since FY2001 PB	0	-5	1105	0
Current Budget Submit (FY 2002/2003 PB)	24080	26743	30408	0

FY02/03 funds increased to accommodate critical Army priorities.

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

D. Acquisition Strategy: JLENS is being developed, demonstrated, and procured in blocks. Each block is constructed to provide an evolutionary capability to the warfighter for Air Defense Surface-to-Air Missile (ADSAM) engagements, Single Integrated Air Picture (SIAP) support, and combat identification capabilities. Block 1 designs and develops an elevated fire control sensor with sector surveillance integrated on a $71M aerostat platform with the processing station and ancillary equipment to conduct Land Attack Cruise Missile Defense (LACMD) and increase battlefield awareness for the theater commander. It develops, integrates, and tests the necessary software updates for secondary missions (such as surface moving targets and the detection and tracking of Theatre Ballistic Missiles (TBM) in their boost phase); integrates Cooperative Engagement Capabilities (CEC), the Joint Tactical Information Distribution System (JTIDS), and the Enhanced Position Location and Reporting System (EPLRS) communications into the Program Definition and Risk Reduction (PDRR) demonstration system; and designs and develops the mobile mooring system. Block 2 designs, fabricates, tests, and produces the surveillance radar integrated into a $71M aerostat with processing station and ancillary equipment.

E. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
ASARC IPR	4Q			0	0	0	0	0
Preliminary Design Review (PDR) Firecontrol Radar	4Q			0	0	0	0	0
Critical Design Review (CDR)		4Q		0	0	0	0	0
Milestone II (Block I)				0	0	0	0	0
Forward Pass Demo	2Q			0	0	0	0	0
PDRR (1 Prototype Unit)				0	0	0	0	0
EMD Contract Award				0	0	0	0	0
PDRR (1 Prototype Unit) FY07				0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

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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	0	0	0
b . Concept Definition	CPFF	Lockheed Martin/N.Y./OH/AL	2000	0		0		0	0	0	0	0
c . Concept Definition	CPFF	Northrop Grumman/MD	1981	0		0		0	0	0	0	0
d . OGAs	MIPR	Multiple	13256	564		500		0	0	0	0	0
e . Risk Mitigation, Design, Development	CR/CPIF	Raytheon System Co. MA/CA/FL	47033	17000		22027		0	0	0	0	0
f . SBIR / STTR			642	767		0		0	0	0	0	0
g . GFE			1201	0		0		0	0	0	0	0
h . CEC/ SM-2 CEC	MIPR	Navy/Multiple	4219	0		0		0	0	0	0	0
i . Design/Dev/Demo Support	CPIF	CAS/AL	5974	1642		1800		0	0	0	0	0
j . Misc. Contracts	SS/CPFF	Multiple	3151	775		1847		0	0	0	0	0
k . ADaM			0	1800		0		0	0	0	0	0
l . AoA/ORD/TEMP			0	1126		1275		0	0	0	0	0

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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
Subtotal:			81464	23674		27449		0		0	0	0

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	0	0	0
b . In-House, JLENS		Space & Missile Defense Cmd	10733	2954		2959		0	0	0	0	0
c . OGA Salaries		Space & Missile Defense Cmd	593	0		0		0	0	0	0	0
Subtotal:			13410	2954		2959		0		0	0	0

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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	115		0		0	0	0	0	0
b . Misc. OGA&Contracts	Mul/MPR	AL/TX/NM	1656	0		0		0	0	0	0	0
Subtotal:			3953	115		0		0		0	0	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	26743		30408		0		0	0	0