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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0102419A Joint Land Attack Cruise Missile Defense (JLENS)				PROJECT DE55		
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DE55 Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS)	29910	14572	24903	25141	29533	29520	29476	29430	Continuing	Continuing
<p>A. <u>Mission Description and Budget Item Justification:</u> 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), formerly Aerostat, 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 maximize the battlespace of land, sea and air based missile systems by providing Over-the-Horizon (OTH) surveillance and precision track for broad area defense against land attack cruise missiles. JLENS is a theater based system employing advanced technologies with specific focus on LACMD. JLENS sensors provide the 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 by extending the battle space for systems such as Patriot, Medium Extended Air Defense System(MEADS)/Corps SAM, Aegis and Advanced Medium Range Air-to-Air Missile (AMRAAM). This project supports upgrades to surveillance and tracking systems.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 19241 Awarded Risk Mitigation & Design Contract and support contracts. • 2399 Maintained Test Bed Facility; Conducted Joint demonstrations and exercises using Cooperative Engagement Capability (CEC), Joint Tactical Information Distribution System (JTIDS), and continued vulnerability and survivability analysis/experiments. • 2579 CEC Development/Integration • 1640 SM-2 Development/Integration • 2850 JLENS Project Office. • 1201 Government Furnished Equipment (GFE) – COMSEC & MIDS <p>Total 29910</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 9972 Continue Contract Design and Demonstration Options with emphasis on prototype processing station; other support contracts. • 1374 Maintain Test Bed Facilities, OGA and Misc. Contracts, continue vulnerability and survivability analysis/experiments. • 1764 JLENS In House • 1462 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 14572</p>										
Project DE55				Page 1 of 5 Pages				Exhibit R-2 (PE 0102419A)		

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FY 2000 Planned Program:

- 23004 Continue Contract Design and Demonstration Program, includes PATRIOT ADSAM Demonstration. Other Support Contracts
 - 200 Maintain Test Bed Facility
 - 300 Program Management Support
 - 1399 JLENS In-House
- Total 24903

FY 2001 Planned Program:

- 23096 Continue Demonstration Program includes joint demos/exercises. Other Support Contracts
 - 300 Maintain Test Bed Facility
 - 300 Program Management Support
 - 1445 JLENS In-House
- Total 25141

B. Program Change Summary	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (<u>FY 1999</u> PB)	33011	103937	129095	123044
Appropriated Value	35000	15000		
Adjustments to Appropriated Value				
a. Congressional General Reductions	-1989	-428		
b. SBIR / STTR	-828			
c. Omnibus or Other Above Threshold Reduction	-2273			
d. Below Threshold Reprogramming				
e. Rescissions				
Adjustments to Budget Years Since <u>FY 1999</u> PB			-104192	-97903
Current Budget Submit (<u>FY 2000/2001</u> BES)	29910	14572	24903	25141

Change Summary Explanation: FY 2000/2001 – Funds realigned to higher priority requirements.

C. Other Program Funding Summary: Not applicable

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D. Acquisition Strategy: The JLENS PO executed a successful Concept Studies Phase by soliciting Cruise Missile Defense (CMD) architecture concepts that employ elevated sensors. The JLENS PO through a formal selection process selected Hughes & Raytheon (H&R), a joint venture of Hughes Aircraft Company and the Raytheon Company (now Raytheon Systems Co.), as the prime contractor for the JLENS Demonstration Program. The JLENS program was required to restructure from a Design/Development/Demo/Test program to an upfront demonstration program and to slow/delay development of the surveillance radar. The new strategy requires more demonstrations leveraged on proven technologies. Restructuring of the program is in process.

E. Schedule Profile	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2004</u>	<u>FY 2005</u>
Risk Mitigation/Design		2-4Qtr	1-3Qtr	1-3Qtr	1-4Qtr					
Preliminary Design Review (PDR)		4Qtr		4Qtr						
System Requirements Review (SRR)		2Qtr								
System Functional Review (SFR)		1Qtr								
Critical Design Review (CDR)				4Qtr	4Qtr					
Development/Test/Demo			1-4Qtr							
Risk Mitigation/Test Bed	1-4Qtr									

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ARMY RDT&E COST ANALYSIS (R-3)										DATE February 1999		
BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0102419A Joint Land Attack Cruise Missile Defense (JLENS)						PROJECT DE55		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Concept Definition	CPFF	H&R/MA & CA	2007							0	2007	2007
b. Concept Definition	CPFF	Lockheed Martin/N.Y./OH/AL	2000							0	2000	2000
c. Concept Definition	CPFF	Northrop Grumman/MD	1981							0	1981	1981
d. OGAs	MIPR	Multiple	11148							0	11148	
e. Risk Mitigation, Design, Development	CR/CPIF/CPAF	H&R (Raytheon Sys) MA/CA/FL	19362	10434		22304		22396		CONT	CONT	292185
f. CEC/SM-2 CEC	MIPR MIPR	Navy/Multiple Navy/Multiple	4219							0	4219	
g. OGA'S	MIPR	Multiple/Multiple	905							0	905	
h. GFE	TBD	TBD	1201							0	1201	
i. Design/Dev/Demo Support	SS/CPFF	CAS/AL	3446	1000		700		700		0	5846	
j. Misc. Contracts	Multiple	Multiple/AL	1954							0	1954	
Subtotal Product Development:			48223	11434		23004		23096		CONT	CONT	
II. Support Costs & Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Miscellaneous Contracts	Multiple		1834	250		300		300		CONT	2684	
b. In-House, JLENS			6579	1764		1299		1345		CONT	10987	
c. OGA Salaries				228		100		100		CONT	428	
Subtotal Support Costs:			8413	2242		1699		1745		CONT	14099	

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Maintain Test Bed	SS/CPFF	CAS-TX, NM	2137	60		200		300			2697	
b. Misc. OGA&Contracts	Mul/MPR	AL/TX/NM	820	836							1656	
Subtotal Test and Evaluation:			2957	896		200		300			4353	

Project Total Cost:			59593	14572		24903		25141		CONT	CONT	
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