

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0102419A - Aerostat Joint Project Office			
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
E55 Jnt Land Atk Msl Def Elevated Netted Sensor-JLENS	464877	355257	360076	Continuing	Continuing

A. Mission Description and Budget Item Justification: U The mission of the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) is to provide elevated, persistent, Over-The-Horizon (OTH) surveillance and fire control quality data on Army and Joint networks enabling protection of the United States, Allied and Coalition forces, as well as critical geo-political assets from Cruise Missiles, Aircraft, Unmanned Aerial Vehicles (UAVs), Tactical Ballistic Missiles (TBMs), Large Caliber Rockets (LCRs), and Surface Moving Targets (SMTs). JLENS is a critical part of the Army's future Integrated Air and Missile Defense (IAMD) architecture and is a Joint Service interest program. A JLENS orbit consists of two systems: a fire control radar system and a wide-area surveillance radar system. Each radar system employs a separate 74-meter tethered aerostat, mobile mooring station, radar and communications payload, processing station, and associated ground equipment. JLENS uses advanced sensor and networking technologies to provide 360-degree, wide-area surveillance and precision tracking of land-attack cruise missiles. This JLENS information is distributed via joint service networks and contributes to the single integrated air picture. JLENS has the capability of detecting and tracking surface moving targets, detecting Tactical Ballistic Missiles at boost phase and Large Caliber Rockets during the ascent phase. JLENS also performs as a multi-role platform to enable extended range command and control linkages, communications relay, and battlefield situational awareness.

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<u>B. Program Change Summary</u>	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	478204	356434	335071
Current BES/President's Budget (FY 2010)	464877	355257	360076
Total Adjustments	-13327	-1177	25005
Congressional Program Reductions		-1177	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	-12		
SBIR/STTR Transfer	-13315		
Adjustments to Budget Years			25005

Change Summary Explanation: Adjustments to Budget Year FY 2010 - The FY2010 President's Budget reflects the decision to extend the SDD program and redirect JLENS FY11 Production funding.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

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BUDGET ACTIVITY 7 - Operational system development		PE NUMBER AND TITLE 0102419A - Aerostat Joint Project Office			PROJECT E55	
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost	
E55 Jnt Land Atk Msl Def Elevated Netted Sensor-JLENS	464877	355257	360076	Continuing	Continuing	

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<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Continue System Development and Demonstration (SDD) phase contract activity.	399795	289134	287539
Government System Test and Evaluation	10272	13747	28723
Other contracts and Other Government Agencies (OGAs).	26123	28816	30374
Government Project Management	3242	4056	4054
Government Furnished Equipment(GFE)	25445	9621	9386
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)		9883	
Total	464877	355257	360076

<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
PE 0604869A, Proj M06, Patriot/MEADS Combined Aggregate Program (CAP)	401565	429846	569182	Continuing	Continuing
SSN C50001, Patriot/MEADS CAP		30957	16406	Continuing	Continuing
PE 0604802A, ProjS23, SLAMRAAM	33570	33662	11736	Continuing	Continuing
SSN C81001, SLAMRAAM Production		40349	72920	Continuing	Continuing

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BUDGET ACTIVITY	PE NUMBER AND TITLE			PROJECT
7 - Operational system development	0102419A - Aerostat Joint Project Office			E55
PE 0604820A, Proj E10, SENTINEL	6828			Continuing
PE 060327S34, Proj S34, AMD System of System Engineering and Integration	123712	114673	209531	Continuing

Comment: This program is an integral part of the PEO, Missiles and Space Integrated Air and Missile Defense (IAMD) architecture.

C. Acquisition Strategy The JLENS Operational Requirements Document (ORD) calls for initial fielding to Block I requirements (tethered aerostat platforms for Fire Control and Surveillance radars); followed by fielding of Block II (untethered platforms for Fire Control and Surveillance radars); and Block III (both radars on a single untethered platform). There is currently no funding beyond Block I.

On 28 Jun 05, the Defense Acquisition Board (DAB) approved the JLENS program for entry into System Development and Demonstration (SDD) as recommended by the Army Acquisition Executive. The DAB elected to maintain oversight of JLENS as an ACAT 1D program as stated in the Acquisition Decision Memorandum signed on 5 Aug 05.

The FY2010 President's Budget reflects the Army's POM 10-15 decision to extend the SDD program and redirect JLENS FY11 Production funding. The SDD schedule extension and associated cost growth, as reflected in this submission, result in an Acquisition Program Baseline (APB) breach for both cost and schedule. These impacts will be presented in the next JLENS Selected Acquisition Report (SAR) submitted after the Presidents Budget and a revised APB which will be submitted for approval in FY2009.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
7 - Operational system development			0102419A - Aerostat Joint Project Office							E55		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Technology Development (TD) Phase Contracts and Government	Sole Source/Cost Plus Incentive Fee (SS/CPIF)	Raytheon Systems Co. (MA/CA/FL/TX)	301083								301083	301083
Lightweight X-band Radar Antenna	Not Applicable (N/A)	Multiple	7811								7811	
Contractor System Development and Demonstration (SDD) Hardware/Software	SS/CPIF	Raytheon Systems Co. (MA/CA/FL/TX)	242444	373569	1Q	271713	1Q	258816	1Q	Cont.	Cont.	Cont.
SDD OGA System Engineering	N/A	Multiple	7037	4575	1Q	6130	1Q	5558	1Q	Cont.	Cont.	
SDD System Engineering Contracts	N/A	Multiple	23455	20488	1-2Q	21266	1-2Q	23340	1-2Q	Cont.	Cont.	
SDD GFE Various	N/A	Multiple	4105	13986	1Q	2769	1-2Q	1386	1-2Q	Cont.	Cont.	
SDD GFE - Cooperative Engagement Transmission Processing Set (CETPS)	N/A	Multiple	3930	11459	1Q	6852	1Q	8000	1Q	Cont.	Cont.	
Subtotal:			589865	424077		308730		297100		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TD Phase Misc Support	N/A	Multiple	2084								2084	
SDD Govt Intergrated Logistics Support	N/A	Multiple	1440	1060	1Q	1420	1Q	1476	1Q	Cont.	Cont.	
SDD Organizational Support Equipment	N/A	Multiple								Cont.	Cont.	
Subtotal:			3524	1060		1420		1476		Cont.	Cont.	

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May 2009

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III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TD Phase Maintain Test Bed	Sole Source/Cost Plus Fixed Fee (SS/CPFF)	CAS-TX, NM	3056								3056	
SDD Contractor System Test and Evaluation	SS/CPIF	Raytheon Systems Co. (MA/CA/FL/TX)	3787	3838	1Q	2604	1Q	11560	1Q	Cont.	Cont.	Cont.
SDD Government System Test and Evaluation	N/A	Multiple	10117	10272	1Q	13747	1Q	28723	1Q	Cont.	Cont.	
Subtotal:			16960	14110		16351		40283		Cont.	Cont.	Cont.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
SDD Contractor Program Management	SS/CPIF	Raytheon Systems Co. (MA/CA/FL/TX)	33030	22388	1Q	14817	1Q	17163	1Q	Cont.	Cont.	Cont.
SDD Government Program Management	N/A	PEO Missiles and Space, HSV, AL	6301	3242	1-4Q	4056	1-4Q	4054	1Q	Cont.	Cont.	
SBIR/STTR						9883					9883	
Subtotal:			39331	25630		28756		21217		Cont.	Cont.	Cont.

Project Total Cost:	649680	464877		355257		360076		Cont.	Cont.	Cont.
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Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0102419A - Aerostat Joint Project Office

PROJECT
E55

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
Program Milestones:																																
(1) Orbit PDR, (2) Orbit CDR	PDR ▲ 1				CDR ▲ 2																											
Platform Development	Platform Fabrication, Integration and Test																															
Fire Control Radar (FCR) Development	FCR Fabrication, Integration and Test																															
Surveillance Radar (SuR) Development	SuR Fabrication, Integration and Test																															
Communication and Processing Group (CPG) Development	CPG Fabrication, Integration and Test																															
Software Development, Integration and Test	Software Development, Integration and Test																															
Subsystem/System Level Integration									Ss/Sys Level Integration																							

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT
7 - Operational system development		0102419A - Aerostat Joint Project Office						E55
<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
Program Milestones:								
Orbit SRR (4Q FY06)								
Orbit SFR								
Orbit PDR	2Q							
IBR								
Orbit CDR		1Q						
Platform Development	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Fire Control Radar (FCR) Development	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Surveillance Radar (SuR) Development	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Communication and Processing Group (CPG) Development	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Software Development, Integration and Test	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Subsystem/System Level Integration			3Q - 4Q					

Termination Liability Funding For Major Defense Acquisition Programs, RDT&E Funding (R5)		May 2009	
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT	
7 - Operational system development	0102419A - Aerostat Joint Project Office	E55	
Funding in \$000			
Program	FY 2008	FY 2009	FY 2010
Total Termination Liability Funding:			
<p>Remarks: The JLENS Prime Contract Incorporates The "Limitation Of Funds" Clause (DFARS 52.232-22) To Limit The Government's Liability.</p> <p>For The JLENS Program, The "Limitation Of Funds" Clause Limits The Government's Financial Liability Per The Contract To Those Funds Placed On Contract Plus Any Outstanding Commitments Plus Costs Associated With The Orderly Termination Of Contractual Actions.</p>			