Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army

Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 4: Advanced

PE 0305205A I Endurance UAVs

Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	21.957	-	-	-	-	-	-	-	0.100	Continuing	Continuing
LE4: Long Endurance Multi- Intelligence Vehicle	-	21.957	-	-	-	-	-	-	-	0.100	Continuing	Continuing

<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

#### Note

The Army stated, due to technical and performance challenges, and the limitations imposed by constrained resources, the Army has determined to discontinue the LEMV development effort. Awaiting final invoices and will close contract once these are received.

### A. Mission Description and Budget Item Justification

This program element (PE) evaluates unmanned aerial vehicle (UAV) prototype systems that provide increased flight and/or mission duration for Intelligence, Surveillance, and Reconnaissance (ISR) and communications capabilities. These systems include the aerial platform integrated with existing and/or developmental payloads. Project LE4 is developing the Long Endurance Multi-intelligence Vehicle (LEMV), which is a hybrid airship prototype integrated with existing and developmental ISR and communications payloads to improve persistent surveillance and assured communications capabilities. Hybrid airship platform endurance is dependent on weather conditions and payload weight, but the LEMV prototype system is expected to increase endurance to 21 days on average assuming 20 knot winds.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	26.196	28.991	27.759	-	27.759
Current President's Budget	21.957	-	-	-	-
Total Adjustments	-4.239	-28.991	-27.759	-	-27.759
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-	-	-27.759	-	-27.759
Other Adjustments 1	-4.239	-28.991	-	-	-

PE 0305205A: Endurance UAVs

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Exhibit R-2A, RDT&E Project Ju	ustification	: PB 2015 A	rmy							Date: Marc	ch 2014	
Appropriation/Budget Activity 2040 / 4	_	<b>am Elemen</b> 05A <i>l Endur</i>	•	Number/Name) g Endurance Multi-Intelligence								
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	<u>"</u>   "					FY 2019	Cost To Complete	Total Cost
LE4: Long Endurance Multi- Intelligence Vehicle	-	21.957	-	-	-	-	-	-	-	0.100	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

#### Note

The Army stated, due to technical and performance challenges, and the limitations imposed by constrained resources, the Army has determined to discontinue the LEMV development effort. Awaiting final invoices and will close contract once these are received.

### A. Mission Description and Budget Item Justification

The Long Endurance Multi-Intelligence Vehicle (LEMV) is a technology demonstration effort to improve persistent surveillance and assured communications using a platform with significantly improved endurance over existing systems. The LEMV platform is a hybrid airship that achieves vertical lift from helium contained within its hull making it lighter-than-air and from traditional engine propulsion that produces thrust to provide lift. The LEMV prototype requirements are to achieve 21 day endurance in 20 knot continuous winds, carry 2500 pounds of multiple surveillance and communication payloads, operate at a maximum altitude of 20,000 feet Mean Sea Level, and provide 16 kilowatts (kW) of power to the payload. The LEMV system is recoverable and reusable. The LEMV system prototype and associated technologies will be evaluated during a Joint Military Utility Assessment (JMUA) in an operational environment upon completion of developmental testing.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
B. Accomplishments/ritamica riograms (\$\psi\) in minions, Article Quantities in Each	F1 2013	F1 2014	F1 2013
Title: Developmental Testing and Certification	15.957	-	_
Articles:	-	-	-
<b>Description:</b> This effort conducted developmental testing, information assurance accreditation, and airworthiness certifications.			
FY 2013 Accomplishments:			
Completed developmental testing, to include flight tests and endurance demonstration.			
Title: Joint Military Utility Assessment (JMUA)	5.999	-	-
Articles:	-	-	-
Description: This effort prepared and conducted the JMUA, to include training and transportation to the JMUA location.			
FY 2013 Accomplishments:			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
· · · · · · · · · · · · · · · · · · ·	R-1 Program Element (Number/Name) PE 0305205A I Endurance UAVs	- , (	umber/Name) Endurance Multi-Intelligence

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Transported LEMV system to JMUA location; completed training for JMUA personnel; began phased JMUA activities; provided initial JMUA report and recommended Tactics, Techniques, and Procedures.			
Title: Contract Closeout	0.001	-	-
Articles:	-	-	-
<b>Description:</b> This effort performs an orderly disassembly and disposal of the airship and associated items.			
FY 2013 Accomplishments:			
This effort performs an orderly disassembly and disposal of the airship and associated items.			
Accomplishments/Planned Programs Subtotals	21.957	-	-

### C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

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### D. Acquisition Strategy

Army received approval to acquire the LEMV under an Other Transaction Authority (OTA). Extensive market research determined that this hybrid airship has never been manufactured as a full-scale functioning system and critical hybrid airship technology at the system and subsystem level is mainly available from non-traditional Department of Defense contractors. An OTA agreement was preferred in order to gain access to critical technology within the Non-Traditional industrial community in this area and to promote competition. The OTA Agreement was competitively awarded using a competitive Request for Proposal process. A Joint Military Utility Assessment (JMUA) was to be conducted in theatre following the system development and transport. A Material Development Decision (MDD) is expected 90-180 days after completion of the JMUA Phase 1 (the first 2 months of the overall JMUA time period).

#### E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army

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R-1 Program Element (Number/Name)

Project (Number/Name)

2040 / 4

Appropriation/Budget Activity

PE 0305205A I Endurance UAVs

LE4 I Long Endurance Multi-Intelligence

Date: March 2014

Vehicle

Management Service	es (\$ in M	illions)		FY 2	2013	FY 2	2014		2015 ise	FY 2	2015 CO	FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	Various : various	3.971	1.400		-		-		-		-	Continuing	Continuing	-
		Subtotal	3.971	1.400		_		-		-		-	-	-	-

Product Developmen	nt (\$ in Mi	illions)		FY 2	2013	FY 2	2014		2015 ase	FY 2015 OCO				FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract		
Design, development, and sub-system integration	C/CPFF	Various : Various	200.418	-		-		-		-		-	-	200.418	-		
Sub-system risk reduction, trade studies & competitive agreement award	C/CPFF	Various : Various	15.000	-		-		-		-		-	-	15.000	-		
Developmental/ Operational testing	C/CPFF	Various : Various	30.063	14.557		-		-		-		-	-	44.620	-		
Military Utility Assessment	C/CPFF	Various : Various	0.000	6.000		-		-		-		-	-	6.000	-		
Contract Closeout	C/CPFF	Various : Various	0.001	-		-		-		-		-	-	0.001	-		
		Subtotal	245.482	20.557		-		-		-		-	-	266.039	-		

#### Remarks

Awarded Other Transactional Agreement (OTA) to Northrop Grumman on 14 June 2010. Executed option to build first airship.

Support (\$ in Million	ıs)			FY 2	2013	FY 2	2014		2015 ise	FY 2	2015 CO	FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government and SETA Support	Various	Various : various	35.790	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	35.790	-		-		-		-		-	-	-	-

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Target Value of Contract
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Target Value of Contract

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 201	5 Army	,																				Da	ate: N	/larc	h 2	014		
Appropriation/Budget Activity 2040 / 4								R-1 Program Element (Number/Name) PE 0305205A I Endurance UAVs											Project (Number/Name) LE4 I Long Endurance Multi-Intelligence Vehicle								ence	
		FY 2013 FY 2014 FY 2015 FY 2016 F					FY 2	017		FY 2018 F					FY	Y 2019												
	1	2	3	4	1	2	3	4	1	2	3	4	1	1 2	3	4	1	2	3	4	1	1	2 3	4	1	l 2	3	4
Developmental Testing and Certification					,		,	,			,	,	•	,				,	,		,		·			·		
Joint Military Utility Assessment																												
Contract Closeout																												

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
' ' '	,	• •	umber/Name) g Endurance Multi-Intelligence

# Schedule Details

	Start		End	
Events	Quarter	Year	Quarter	Year
Developmental Testing and Certification	3	2012	3	2013
Joint Military Utility Assessment	3	2013	3	2013
Contract Closeout	3	2013	4	2014