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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604270A / Electronic Warfare Development							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	114.812	144.543	6.002	-	6.002	9.442	17.346	31.510	50.845	Continuing	Continuing
665: A/C Surv Equip Dev	-	21.976	10.420	-	-	-	-	-	-	-	Continuing	Continuing
DX5: Electronic Warfare And Management Tool	-	-	0.013	1.967	-	1.967	-	3.945	19.733	24.700	Continuing	Continuing
VS6: Integrated Electronic Warfare Systems	-	44.448	20.311	4.035	-	4.035	9.442	13.401	11.777	26.145	Continuing	Continuing
VU7: Common Missile Warning System	-	8.840	2.908	-	-	-	-	-	-	-	-	11.748
VU8: Common Infrared Counter Measure	-	39.548	110.891	-	-	-	-	-	-	-	-	150.439
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
FY 2015 budget request funds Electronic Warfare Development. This program element (PE) encompasses engineering and manufacturing development for tactical electronic warfare (EW). The Integrated Electronic Warfare System (IEWS) is a system of systems capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army BCT and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios. The IEWS capability set is structured along three program lines of effort: 1) Multi-Function EW (MFEW), 2) Electronic Warfare Planning and Management Tools (EWPMT), and 3) Defensive Electronic Attack (DEA). Project VS6 - Defensive Electronic Attack (DEA) will provide force protection to vehicles, dismounted troops and fixed site locations against radio controlled improvised explosive device (RCIED) and electronic support measures for situational awareness. Project DX5 - EWPMT will provide the Electronic Warfare Officer (EWO) planning capabilities to coordinate, manage, and deconflict the use of the Electromagnetic Spectrum and synchronize spectrum operations within the Cyber Electromagnetic Activities (CEMA) cell. EWPMT will integrate data elements from Mission Command, Intelligence, and Fires to achieve a Common Operating Picture (COP) of the Electromagnetic Operational Environment. Project DX6 - MFEW will provide offensive and defensive electronic attack and electronic support capabilities in a system of systems construct to include ground and airborne variants organic to the Brigade Combat Team. The MFEW Air variant is the highest priority, followed by ground, dismounted and fixed site variants.												

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)		PE 0604270A / Electronic Warfare Development			
B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	181.347	154.621	238.309	-	238.309
Current President's Budget	114.812	144.543	6.002	-	6.002
Total Adjustments	-66.535	-10.078	-232.307	-	-232.307
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-66.535	-10.078	-232.307	-	-232.307

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) 665 / <i>A/C Surv Equip Dev</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
665: <i>A/C Surv Equip Dev</i>	-	21.976	10.420	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note Transitions to Project EE3, PE 605035A Aircraft Survivability Development												
A. Mission Description and Budget Item Justification The objective of the Aircraft Survivability Equipment (ASE) Development project is to improve Radio Frequency (RF) ASE for Army aviation. The APR-39 Radar Warning Receiver (RWR) detects, categorizes, and prioritizes Radio Frequency (RF) emitters and provides a visual / aural alert to aircrew members warning them of targeting by RF-guided weapons. The Milestone Decision Authority (MDA) approved Phases 1 and 2 of a 3-phased path forward.  Phase 1 serves as an obsolescence / sustainment upgrade to the Processor Line Replaceable Unit (LRU) of the AN/APR-39A(V) Radar Warning Receiver (RWR) implemented to ensure that the currently fielded system remains viable until affordable improved RF ASE capability can be pursued in Phases 2 and 3. Phase 2, RWR Modernization, adopts the ongoing United States Navy Class I RWR Engineering Change Proposal (ECP), commonly referred to as the APR-39D(V)2 system. APR-39D(V)2 will significantly improve the near-spherical RF threat coverage, automatic detection and identification of threat types, bearing, and lethality. Under Phase 2, the Army will develop enhancements to the APR-39D(V)2, including integrated suite control functionality, threat correlation and off-boarding capability, and hardware modifications required to maintain planned integrated jamming growth capability. Phase 3 adds active Electronic Countermeasures (ECM) jamming capability for selected aircraft; Materiel Development Decision (MDD) for this ECM jamming capability phase is not expected until later in the Future Years Defense Program (FYDP).  Justification: There is no Fiscal Year (FY) 2015 Base RDT&E dollar funding requirement for 665. FY15 justification is reported under EE3.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Phase 2 Radio Frequency Countermeasures  Articles:  Description: Phase 2 Product Development (Digital RWR)  FY 2013 Accomplishments: Funded Phase 2 system prototypes  FY 2014 Plans:									21.976	10.420	-	
									-	-	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) 665 / <i>A/C Surv Equip Dev</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
Will fund platform integration and lab updates.												
Accomplishments/Planned Programs Subtotals										21.976	10.420	-
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• AZ3511: APA AZ3511	-	-	33.554	-	33.554	103.916	147.039	23.752	41.228	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
<p>Army Radio Frequency (RF) Aircraft Survivability Equipment (ASE) is managed by Project Manager ASE (PM ASE) for development, testing, procurement, integration and installation on Army rotary wing and small fixed wing aviation platforms. PM ASE proposed a three-phased path forward commensurate with user priorities and affordability considerations. Phase 1, approved by the Milestone Decision Authority (MDA), addresses obsolescence/Diminishing Manufacturing Sources (DMS) issues associated with the currently fielded AN/APR-39A(V) Radar Warning Receiver (RWR) via sole source Engineering Change Proposal (ECP) awarded to the APR-39A manufacturer. Phase 2 adopts the on-going United States Navy (USN) RWR Class I Correction of Deficiencies ECP commonly referred to as the APR-39D(V)2 system, limiting service-unique design, test, and integration expenses. Full Army participation throughout the remaining development, testing, procurement, fielding, and sustainment of the APR-39D(V)2 Digital RWR will address the significant Army RF capability gap while avoiding as much as \$1 billion in additional costs associated with a single-Service solution. This multi-Service approach also fields an effective and suitable Materiel Solution 3 years sooner to support the re-balance of the National Defense Strategy to the RF threat-heavy Asia-Pacific Region. Phase 3 will develop and integrate active Electronic Countermeasures jamming capability for select aircraft.</p>												
E. Performance Metrics												
N/A												

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2015 Army</b>												<b>Date: March 2014</b>			
<b>Appropriation/Budget Activity</b> 2040 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>						<b>Project (Number/Name)</b> 665 / <i>A/C Surv Equip Dev</i>			
<b>Management Services (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Other Development	Various	Various : -	7.985	2.638		-		-		-		-	Continuing	Continuing	Continuing
Project Management	Various	Various : -	0.182	-		0.146		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			8.167	2.638		0.146		-		-		-	-	-	-
<b>Product Development (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Digital Radar Warning Receiver (RWR)	Various	Lab Demo / Studies : Various-	10.634	8.391		3.560		-		-		-	Continuing	Continuing	Continuing
S/W Development	MIPR	ARAT : Aberdeen Proving Ground, MD	0.000	2.104		1.060		-		-		-	Continuing	Continuing	Continuing
Depot Standup	MIPR	Tobyhanna : Tobyhanna, PA	0.000	1.052		-		-		-		-	Continuing	Continuing	Continuing
Platform Integration	TBD	Multiple : -	0.000	-		2.724		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			10.634	11.547		7.344		-		-		-	-	-	-
<b>Support (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Contractor Support	Various	Various : -	2.359	0.945		0.500		-		-		-	Continuing	Continuing	Continuing
Matrix Support	Various	Various : -	6.236	1.587		0.390		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			8.595	2.532		0.890		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2015 Army												<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>				<b>Project (Number/Name)</b> 665 / <i>A/C Surv Equip Dev</i>				

  

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Multi-service DT/OT Testing	TBD	Various : -	0.025	5.259		2.040		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.025	5.259		2.040		-		-		-	-	-	-

  

	<b>Prior Years</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	27.421	21.976	10.420	-		-		-	-	-	-

  

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) 665 / <i>A/C Surv Equip Dev</i>	

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Phase 1 Qual and Flight Test																												
Phase 1 Fielding Decision																												
Phase 1 FUE																												
Phase 2 AAE Shaping Brief																												
Phase 2 Army Design Requirements Insertion																												
Phase 2 Prototype Fabrication & Qualification																												
Phase 2 DT/OT																												
Phase 2 Platform Integration																												
Phase 2 Production Decision																												
Phase 2 Production / Deployment																												
Phase 2 FUE																												
Technology Insertion																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>	<b>Project (Number/Name)</b> 665 / <i>A/C Surv Equip Dev</i>	

## Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Phase 1 Qual and Flight Test	3	2012	3	2013
Phase 1 Fielding Decision	2	2014	2	2014
Phase 1 FUE	3	2014	3	2014
Phase 2 AAE Shaping Brief	3	2013	3	2013
Phase 2 Army Design Requirements Insertion	3	2013	2	2014
Phase 2 Prototype Fabrication & Qualification	4	2013	2	2015
Phase 2 DT/OT	3	2015	4	2015
Phase 2 Platform Integration	1	2014	1	2016
Phase 2 Production Decision	1	2016	1	2016
Phase 2 Production / Deployment	1	2016	4	2019
Phase 2 FUE	4	2017	4	2017
Technology Insertion	1	2016	4	2019



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) DX5 / <i>Electronic Warfare And Management Tool</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DX5: <i>Electronic Warfare And Management Tool</i>	-	-	0.013	1.967	-	1.967	-	3.945	19.733	24.700	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
This effort is not a new start. EWPMT was funded in FY12, FY13, and FY14 under PE 0604270A, Project VS6, Integrated Electronic Warfare Systems.												
A. Mission Description and Budget Item Justification												
The Integrated Electronic Warfare System (IEWS) is a system of systems capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army BCT and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios. The IEWS capability set is structured along three program lines of effort: 1) Multi-Function EW (MFEW), 2) Electronic Warfare Planning and Management Tools (EWPMT), and 3) Defensive Electronic Attack (DEA). EWPMT will provide the Electronic Warfare Officer (EWO) planning capabilities to coordinate, manage, and deconflict the use of the Electromagnetic Spectrum and synchronize spectrum operations within the Cyber Electromagnetic Activities (CEMA) cell. EWPMT will integrate data elements from Mission Command, Intelligence, and Fires to achieve a Common Operating Picture (COP) of the Electromagnetic Operational Environment.												
Justification: FY2015 funds in the amount of \$1.967 million will provide for test and support activites for the EWPMT program.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: EWPMT  <div>Articles:</div>  <b>Description:</b> EWPMT is a suite of software tools and applications that will allow the Commander and staff a mission command capability to plan, coordinate, manage, and de-conflict unit EW activities.  <b>FY 2014 Plans:</b> Funds provide for Product Management office operations for the EWPMT program  <b>FY 2015 Plans:</b> Funds provide for test support activities and Product Management office operations for the EWPMT program									-	0.013	1.967	
									-	-	-	
									Accomplishments/Planned Programs Subtotals			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Army										<b>Date:</b> March 2014	
<b>Appropriation/Budget Activity</b> 2040 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>				<b>Project (Number/Name)</b> DX5 / <i>Electronic Warfare And Management Tool</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPA: K00002 - <i>EW Planning &amp; Management Tools (EWPMT)</i>	-	0.013	-	-	-	-	-	-	-	-	0.013
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
EWPMT will follow an evolutionary acquisition strategy using an Information Technology (IT) acquisition process for rapid development and continuous product improvements. The overall strategy is to deploy annual software Capability Drops (CDs) to allow an incremental merger of the Electronic Warfare and Spectrum Management software tools that would not be possible following a traditional acquisition approach.											
<b>E. Performance Metrics</b>											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604270A / Electronic Warfare Development				Project (Number/Name) DX5 / Electronic Warfare And Management Tool							
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
PMO Staff/Travel	Allot	PM EW : Aberdeen Proving Ground, MD	0.000	-		0.013		0.300	Oct 2014	-		0.300	Continuing	Continuing	-
Subtotal			0.000	-		0.013		0.300		-		0.300	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
EWPMT Test support	MIPR	Various : TBD	0.000	-		-		1.667	Mar 2015	-		1.667	Continuing	Continuing	-
Subtotal			0.000	-		-		1.667		-		1.667	-	-	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		0.013		1.967		-		1.967	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>	Project (Number/Name) DX5 / <i>Electronic Warfare And Management Tool</i>	

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Establish Product Management Office																												
EWPMT Milestone B Decision																												
EWPMT Contract																												
Development and Test of CD 1																												
Test CD 1 (GCD)																												
Development of Additional CDs																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>	<b>Project (Number/Name)</b> DX5 / <i>Electronic Warfare And Management Tool</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Establish Product Management Office	2	2012	2	2013
EWPMT Milestone B Decision	3	2013	3	2013
EWPMT Contract	3	2013	4	2019
Development and Test of CD 1	3	2013	4	2015
Test CD 1 (GCD)	3	2015	4	2015
Development of Additional CDs	3	2017	4	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VS6: <i>Integrated Electronic Warfare Systems</i>	-	44.448	20.311	4.035	-	4.035	9.442	13.401	11.777	26.145	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
In FY2015, VS6 funding is broken out and transferred to distinct projects. Project DX5 provides funding for the Electronic Warfare Planning and Management tools (EWPMT) program. Project DX6 provides funding for the Multi-Function Electronic Warfare (MFEW) system. Project VS6 provides for alignment of Joint Counter Radio Controlled Improvised Explosive Devices Electronic Warfare (Joint CREW) requirements to material solutions for the Integrated Electronic Warfare System (IEWS) System of Systems (SoS).												
A. Mission Description and Budget Item Justification												
The Integrated Electronic Warfare System (IEWS) is a system of systems capability set that integrates electronic attack, protect and support functions to dramatically improve the ability to seize, retain, and exploit an advantage within the electromagnetic spectrum (EMS). It is based on a modular, scalable and open architecture to allow Army BCT and Joint Force Commander's to tailor capability responses against a variety of EW threats/scenarios. The IEWS capability set is structured along three program lines of effort: 1) Multi-Function EW (MFEW), 2) Electronic Warfare Planning and Management Tools (EWPMT), and 3) Defensive Electronic Attack (DEA). Defensive Electronic Attack (DEA) will provide force protection to vehicles, dismounted troops and fixed site locations against radio controlled improvised explosive device (RCIED) and electronic support measures for situational awareness. Prior Years DTI/Duke Enhanced is renamed to DV4.												
Justification: FY2015 funds in the amount of \$4.035 million continues the development of Hardware/Software solutions to ensure systems remain relevant against Global Threats.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: IEWS									44.448	20.311	4.035	
Articles:									-	-	-	
Description: The IEW System (IEWS) Systems of Systems (SoS) will consist of Electronic Warfare Planning and Management Tool (EWPMT), Multi-Function EW (MFEW), and Defensive Electronic Attack (DEA).												
FY 2013 Accomplishments:												
EWPMT: Conduct Milestone B Decision Review. Complete Aquisition Requirements Package (ARP) development, initiate a competitive procurement, conduct source selection, and award an Engineering Manufacturing Development (EMD) contract.												

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Army							<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>			<b>Project (Number/Name)</b> VS6 / <i>Integrated Electronic Warfare Systems</i>		

  

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
<p>Award competitive prototyping efforts as architecture, networking, and technology risk reduction activities to support the MFEW effort.</p> <p><b><i>FY 2014 Plans:</i></b>            EWPMT: Continue development of EWPMT software development and test. CREW-2 Duke Tech Insertion (DTI)/Duke Enhanced (DV4): Begin developing Hardware/Software solutions to address parts obsolescence and ensure systems remain relevant against Global Threats.</p> <p><b><i>FY 2015 Plans:</i></b>            CREW-2 Duke Tech Insertions (DTI)/Duke Enhanced (DV4): Continue developing Hardware/Software solutions to ensure systems remain relevant against Global Threats.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	44.448	20.311	4.035

  

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• CREW: VA8000 CREW	15.426	-	-	-	-	-	-	-	-	-	15.426
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
<p>Duke Technology Insertion development will provide for the continued growth and conduct of research development and testing against emerging RCIED threats. Continuing research development and testing will allow the technology to remain relevant to all requirements and remain responsive to all approved user requirements.</p> <p>A competitive contract is planned for award in the 1QFY2015. A five (5) year Indefinite Delivery Indefinite Quantity (IDIQ) contract will be awarded on a competitive basis. This will enable maximum flexibility as the technology matures. It is further anticipated that task orders could be awarded for production and fielding of systems in response to urgent requirements.</p>											
<b>E. Performance Metrics</b>											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
PMO Staff/Travel for EWPMT	Allot	PM Electronic Warfare : Aberdeen Proving Ground, MD	0.744	3.291	Dec 2012	0.921	Jan 2014	-		-		-	Continuing	Continuing	-
Program and Technical Assistance support	C/TBD	TBD : Aberdeen Proving Ground, MD	0.489	2.622	May 2013	0.678	Feb 2014	-		-		-	Continuing	Continuing	-
PMO Staff/Travel for CREW-2 Duke	Allot	PM EW : Aberdeen Proving Ground, MD	0.000	-		0.498	Oct 2013	0.328	Oct 2014	-		0.328	-	0.826	-
Subtotal			1.233	5.913		2.097		0.328		-		0.328	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
EMD Contract - EWPMT	C/CPIF	SOTERA Defense Solutions Herndon, VA : RAYTHEON Fort Wayne, IN	0.000	23.713	Jun 2013	15.280	Aug 2014	-		-		-	Continuing	Continuing	-
IEWS Engineering and Development	MIPR	I2WD : Aberdeen MD	3.757	1.800	Feb 2014	-		-		-		-	Continuing	Continuing	Continuing
Risk Reduction Studies for MFEW	MIPR	Various : Various	0.000	7.969	Jun 2013	-		-		-		-	Continuing	Continuing	-
Develop DV4 HW/SW solutions	C/TBD	TBD : TBD	0.000	-		-		2.645	Nov 2014	-		2.645	-	2.645	-
Subtotal			3.757	33.482		15.280		2.645		-		2.645	-	-	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
MFEW Technical/ Engineering Support - Contractor	C/TBD	GTRI : Atlanta, GA	0.000	2.046	Jun 2013	-		-		-		-	Continuing	Continuing	Continuing



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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VS6 / <i>Integrated Electronic Warfare Systems</i>					
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
Government Engineering Support	MIPR	USACECOM : Aberdeen Proving Ground, MD	2.165	0.917	Dec 2012	0.232	Mar 2014	-		-		-	-	3.314	Continuing
EWPMT Architecture Study	MIPR	Various : Various	0.000	1.194	Jan 2013	-		-		-		-	-	1.194	-
DV4 Engineering support	C/CPFF	Various : Various	0.000	-		0.125	Jan 2014	0.280	Oct 2014	-		0.280	-	0.405	-
DV4 Government Engineering	MIPR	Various : Various	0.000	-		0.427	Oct 2013	0.428	Oct 2014	-		0.428	-	0.855	-
Subtotal			2.165	4.157		0.784		0.708		-		0.708	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
EWPMT Test support	MIPR	Various : TBD	0.000	0.896	Jun 2013	0.200	Mar 2014	-		-		-	Continuing	Continuing	-
Operational Assessment (OA) of DV4 systems	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		1.950	Feb 2014	-		-		-	-	1.950	-
Continuous evaluation of CREW-2 Duke technologies	MIPR	Yuma Proving Ground Yuma, AZ : YPG, AZ	0.000	-		-		0.354	Mar 2015	-		0.354	-	0.354	-
Subtotal			0.000	0.896		2.150		0.354		-		0.354	-	-	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			7.155	44.448		20.311		4.035		-		4.035	-	-	-
Remarks															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2015 Army			<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>			<b>Project (Number/Name)</b> VS6 / <i>Integrated Electronic Warfare Systems</i>

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
EWPMT Milestone B Decision																												
EWPMT Contract																												
MFEW Risk Reduction Studies																												
Delivery of CREW-2 Duke (DV4) Systems for Development																												
Operational Assessment and Engineering test of Duke (DV4) systems																												
CREW-2 Duke Development Contract Award																												
Develop H/W and S/W solutions for CREW-2 Duke																												
Continuous evaluation of CREW-2 Duke solutions																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>	<b>Project (Number/Name)</b> VS6 / <i>Integrated Electronic Warfare Systems</i>	

**Schedule Details**

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
EWPMT Milestone B Decision	3	2013	3	2013
EWPMT Contract	3	2013	3	2015
MFEW Risk Reduction Studies	3	2013	4	2014
Delivery of CREW-2 Duke (DV4) Systems for Development	1	2014	1	2014
Operational Assessment and Engineering test of Duke (DV4) systems	2	2014	4	2014
CREW-2 Duke Development Contract Award	1	2015	1	2015
Develop H/W and S/W solutions for CREW-2 Duke	1	2015	4	2020
Continuous evaluation of CREW-2 Duke solutions	3	2015	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VU7 / <i>Common Missile Warning System</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VU7: <i>Common Missile Warning System</i>	-	8.840	2.908	-	-	-	-	-	-	-	-	11.748
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note Transitions to Project EE4, PE 605035A Aircraft Survivability Development												
A. Mission Description and Budget Item Justification The US Army operational requirements concept for Aviation Infrared (IR) countermeasure systems is known as the Suite of Integrated Infrared Countermeasures (SIIRCM). SIIRCM is an integrated warning and countermeasure system to enhance aircraft survivability against IR-guided threat missile systems. The Common Missile Warning System (CMWS) is a core element of the SIIRCM concept. CMWS is an integrated ultraviolet (UV) missile warning system, with an Improved Countermeasure Dispenser (ICMD) serving as a subsystem to a host aircraft.  The CMWS program is a UV missile warning system that cues both flare and laser-based countermeasures to defeat incoming IR-seeking missiles and will alert aircrews to the presence of certain incoming unguided munitions. The B-Kit consists of the components which perform the missile detection and aircrew notification, unguided munitions detection and aircrew notification, false alarm rejection, and countermeasure employment/cueing functions of the system. The CMWS Electronic Control Unit (ECU) receives UV missile detection data from Electro-Optic Missile Sensors (EOMS) and sends a missile alert signal to warn aircrews via on-board avionics. Tier 1 threat missiles detected and tracked by the CMWS are subsequently defeated by a combination of missile seeker countermeasures, including decoy flares and IR Laser Jamming (currently ATIRCM-equipped CH-47 platform only). In addition, the CMWS ECU receives from the EOMS unguided munitions detection data which it also passes to the aircrew through aural and visual alerts. The aircrew then applies the appropriate Tactics, Techniques and Procedures (TTPs) to break contact or engage the enemy with own-ship ordnance. The CMWS Generation 3 (Gen 3) ECU in conjunction with ongoing software development efforts will address outstanding material release conditions to achieve a Full Material Release (FMR) for CMWS and ensure protection against emerging IR-guided missile threats.  The A-Kit for CMWS includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-Kit ensures the mission kit is functionally and physically operational with a specific host aircraft type.  Justification: There is no Fiscal Year (FY) 2015 Base RDT&E dollar funding requirement for VU7. FY15 justification is reported under EE4.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Development Effort									8.840	2.908	-	
									Articles: -	-	-	

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Army							<b>Date:</b> March 2014				
<b>Appropriation/Budget Activity</b> 2040 / 5			<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>			<b>Project (Number/Name)</b> VU7 / <i>Common Missile Warning System</i>					
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>							<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>		
<b>Description: -</b>  <b>FY 2013 Accomplishments:</b> RDT&E funding supports the design and development of the CMWS Tier 2/3 enhancement, the CMWS Enhanced Sensors studies.  <b>FY 2014 Plans:</b> RDT&E funding supports development engineering of the Threat Analysis Database (TAD), and salaries.											
<b>Accomplishments/Planned Programs Subtotals</b>							8.840	2.908	-		
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APA Funding: APA, BA 4 AZ3517	125.200	103.021	107.364	-	107.364	131.641	53.736	38.678	33.654	Continuing	Continuing
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
The acquisition strategy includes buying CMWS B-Kits to support the Army Force Generation (ARFORGEN) model and installation of A-Kits on all modernized aircraft. The previous CMWS production contract was a firm fixed-priced (FFP), Indefinite Delivery, Indefinite Quantity (IDIQ) contract. A FFP bridge contract was awarded March 2013 for CMWS hardware. The follow-on CMWS production FFP/CPFF IDIQ contract will be a 3 year firm fixed price contract to procure the remaining Generation 3 (Gen 3) Electronic Control Units (ECUs) and A-Kits and will be awarded in late FY2013 / early FY2014. The Gen 3 ECU, which provides increased processing capacity and enables unguided munitions detection, became a part of the system in FY 2010; First Unit Equipped (FUE) for the Gen 3 ECU was achieved in Operation Enduring Freedom (OEF) on 18 September 2013. All aircraft deployed to OEF have received the new processor with hostile fire detection capability. Gen 3 ECU's will gradually replace all Gen 2 ECU's across the Aviation fleet between now and 2017.											
<b>E. Performance Metrics</b>											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VU7 / <i>Common Missile Warning System</i>					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
CMWS System Engineering Program Management	Various	PM ASE, HSV, AL : -	2.670	0.896		0.279		-		-		-	Continuing	Continuing	Continuing
Subtotal			2.670	0.896		0.279		-		-		-	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
CMWS Tier 2/3 Upgrades	Various	Various : -	2.000	0.815		-		-		-		-	Continuing	Continuing	Continuing
CMWS Threat Analysis Database Design	Various	Various : -	0.455	1.200		-		-		-		-	Continuing	Continuing	Continuing
Threat Analysis Database (TAD)	TBD	BAE : TBD	0.000	2.466	Apr 2013	2.629	Apr 2014	-		-		-	Continuing	Continuing	Continuing
CMWS Enhanced Sensor Study & Evaluation	Various	TBD : -	11.466	3.463		-		-		-		-	Continuing	Continuing	Continuing
CMWS Gen 3 Providence Additional Phases	Various	TBD : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			13.921	7.944		2.629		-		-		-	-	-	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
CMWS Contractor Support	SS/FP	Various : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
CMWS Matrix Support	Various	Various : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			0.000	-		-		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2015 Army												<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>				<b>Project (Number/Name)</b> VU7 / <i>Common Missile Warning System</i>				

  

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Government System Test and Evaluation	C/TBD	AMCOM RTC : Redstone	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	-		-		-		-		-	-	-	-

  

	<b>Prior Years</b>	<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	16.591	8.840		2.908		-		-		-	-	-	-

  

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2015 Army			<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>			<b>Project (Number/Name)</b> VU7 / <i>Common Missile Warning System</i>

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
CMWS System Dev/Tier 2 and 3 Upgrades (TAD Updates)																												
CMWS Enhanced Sensor Study & Evaluation																												
Start of CMWS Gen 3 ECU Fielding to support CMWS Assets																												
Start of HF QRC Fielding to support CMWS Assets																												



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>	<b>Project (Number/Name)</b> VU7 / <i>Common Missile Warning System</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CMWS System Dev/Tier 2 and 3 Upgrades (TAD Updates)	2	2011	4	2019
CMWS Enhanced Sensor Study & Evaluation	3	2012	1	2014
Start of CMWS Gen 3 ECU Fielding to support CMWS Assets	4	2013	4	2013
Start of HF QRC Fielding to support CMWS Assets	4	2013	4	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VU8 / <i>Common Infrared Counter Measure</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
VU8: <i>Common Infrared Counter Measure</i>	-	39.548	110.891	-	-	-	-	-	-	-	-	150.439
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Transitions to Project EB4, PE 605035A Aircraft Survivability Development												
A. Mission Description and Budget Item Justification												
The Common Infrared Countermeasure (CIRCM) is an infrared (IR) countermeasure system that interfaces with a Missile Warning System (MWS) to provide near spherical coverage of the host platform in order to defeat IR threat missiles. The CIRCM will provide the sole acquisition of future laser-based IR countermeasure systems for all rotary-wing, tilt-rotor, and small fixed-wing aircraft across the Department of Defense. The US Army's concept of CIRCM is part of the Suite of Integrated Infrared Countermeasures (SIIRCM). The core components of the SIIRCM concept are: a Missile Warning System (MWS), IR expendables countermeasures (flares) and a laser-based IRCM. The SIIRCM detects, declares and initiates IRCM against IR-guided Surface-to-Air Missiles (SAM) or Air-to-Air Missiles (AAM). The CIRCM is the next generation of the laser-based IRCM component and will interface with both the Army's Common Missile Warning System (CMWS) and the Navy's Joint and Allied Threat Awareness System (JATAS). CIRCM was approved to be funded to the Director, Cost Assessment and Program Evaluation Independent Cost Estimate (CAPE ICE) through Milestone B (MS B) per Defense Acquisition Executive Acquisition Decision Memorandum (DAE) (ADM), December 28, 2011.												
The A-Kit for CIRCM includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-Kit ensures the mission kit is functionally and physically operational with a specific host aircraft type. The CIRCM B-Kit is the mission kit (laser, pointer tracker, and controller) required to achieve near spherical coverage for an aircraft.												
Justification: There is no Fiscal Year (FY) 2015 Base RDT&E dollar funding requirement for VU8. FY15 justification is reported under EB4.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Development Efforts									39.548	110.891	-	
									Articles: -	-	-	
Description: RDT&E dollars begin the design and development of the CIRCM system.												
FY 2013 Accomplishments:												

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Army								<b>Date:</b> March 2014			
<b>Appropriation/Budget Activity</b> 2040 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>				<b>Project (Number/Name)</b> VU8 / <i>Common Infrared Counter Measure</i>			
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>								<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	
<p>RDT&amp;E dollars support the CIRCM Technology Development (TD) phase and begin preparation for the EMD phase.</p> <p><b><i>FY 2014 Plans:</i></b>  RDT&amp;E dollars support completion of the TD phase and bridge activity, initiation of the EMD phase, prototype manufacturing for seven prototypes, development testing, and platform integration in FY 2015.</p> <p>FY14 funding of \$17.8M completes PM's investment in the I2WD SCEPTRE Lab. SCEPTRE consolidates capabilities of the LITE Lab and GWEF into one streamlined testing capability. SCEPTRE reduces program schedule risk and out year test support costs, per Cost Benefit Analysis.</p> <p>"Other Testing" includes funds to acquire test threat assets.</p>											
<b>Accomplishments/Planned Programs Subtotals</b>								39.548	110.891	-	
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015 Base</b>	<b>FY 2015 OCO</b>	<b>FY 2015 Total</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• : APA Funding: APA, BA 4, AZ3537 (CIRCM)	-	-	-	-	-	-	51.417	100.409	157.627	Continuing	Continuing
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
<p>The December 28, 2011 DAE ADM authorized entry into the Technology Development (TD) phase, designated the program a pre-Major Defense Acquisition Program (MDAP), and approved the updated exit criteria. After a full and open competition beginning in the second quarter of Fiscal Year 2011 (FY11), two contractors were selected and awarded Technology Development contracts on January 31, 2012 for the CIRCM. The CIRCM contract awards were followed by a contractor protest which resulted in a work stoppage of 100 days. Government Accountability Office (GAO) ruled in favor of the Government on all counts and the effort was re-initiated on May 23, 2012. CIRCM will continue pre-MS B activities and initiate a competitive procurement for EMD in the third quarter of FY14. MS B approval is anticipated in first quarter of FY15, followed by award of the EMD contract in the second quarter of FY15 to one vendor. The EMD contract will include priced options for Low Rate Initial Production (LRIP) 1 and 2, Engineering Support, A-Kit development for other aircraft, a Technical Data Package (TDP) (which will enable competition for Full Rate Production (FRP)), and Defense Exportability Features (DEF). Upon CIRCM MS C approval in the second quarter of FY17, the LRIP and Engineering Support options may be exercised and the program may immediately enter the Production &amp; Deployment phase. Currently, the Product Manager (PdM) Countermeasures intends to pursue competition for the award of a fixed price contract for CIRCM FRP if the option is exercised to procure the TDP.</p>											
<b>E. Performance Metrics</b>											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604270A / <i>Electronic Warfare Development</i>				Project (Number/Name) VU8 / <i>Common Infrared Counter Measure</i>					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
System Engineering Program Management (SEPM)	Various	PM ASE, HSV, AL : -	0.171	3.856		10.605		-		-		-	Continuing	Continuing	Continuing
Data	TBD	Various : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			0.171	3.856		10.605		-		-		-	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
Non-Recurring Engineering (NRE)	C/CPFF	Various : -	0.000	-		6.798	Jan 2015	-		-		-	Continuing	Continuing	Continuing
TD Bridge Activity	C/CPFF	Various : -	0.000	-		11.615	Mar 2014	-		-		-	Continuing	Continuing	Continuing
Prototype Manufacturing	C/FFP	Various : -	0.000	-		19.453	Jan 2015	-		-		-	Continuing	Continuing	Continuing
Development Facilities	Various	Various : -	0.000	-		17.800		-		-		-	Continuing	Continuing	Continuing
Other R&D	Various	Various : -	0.000	8.015		7.770		-		-		-	Continuing	Continuing	Continuing
Subtotal			0.000	8.015		63.436		-		-		-	-	-	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		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 Complete	Total Cost	Target Value of Contract
Support Equipment	Various	Various : -	0.000	-		0.100		-		-		-	Continuing	Continuing	Continuing
Subtotal			0.000	-		0.100		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2015 Army												<b>Date:</b> March 2014			
<b>Appropriation/Budget Activity</b> 2040 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>				<b>Project (Number/Name)</b> VU8 / <i>Common Infrared Counter Measure</i>					
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Government System Testing & Evaluation	Various	CECOM - I2WD APG MD : -	0.000	9.254		8.131		-		-		-	Continuing	Continuing	Continuing
Other Testing	Various	CECOM - I2WD APG MD : -	0.000	18.423		28.619		-		-		-	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	27.677		36.750		-		-		-	-	-	-
			<b>Prior Years</b>	<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			0.171	39.548		110.891		-		-		-	-	-	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2015 Army			<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>			<b>Project (Number/Name)</b> VU8 / <i>Common Infrared Counter Measure</i>

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
TD PHASE	██████████																											
Bridge Activity								██████████																				
Lab Preparation / Support																												
EMD PHASE																												
MS B																												
EMD CONTRACT AWARD																												
CDR																												
Developmental Test Activity																												
Reliability Demonstration Test (EMD)																												
Limited User Test																												
IOT&E																												
LRIP																												
MS C																												
FUE																												
FRPDR																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604270A / <i>Electronic Warfare Development</i>	<b>Project (Number/Name)</b> VU8 / <i>Common Infrared Counter Measure</i>	

**Schedule Details**

Events	Start		End	
	Quarter	Year	Quarter	Year
TD PHASE	3	2012	2	2014
Bridge Activity	3	2014	2	2015
Lab Preparation / Support	2	2015	1	2019
EMD PHASE	2	2015	2	2017
MS B	1	2015	1	2015
EMD CONTRACT AWARD	2	2015	2	2015
CDR	4	2015	4	2015
Developmental Test Activity	3	2016	2	2017
Reliability Demonstration Test (EMD)	4	2016	1	2017
Limited User Test	4	2016	1	2017
IOT&E	3	2018	3	2018
LRIP	2	2017	2	2019
MS C	2	2017	2	2017
FUE	1	2019	1	2019
FRPDR	2	2019	2	2019