Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army											Date: February 2015	
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 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	-	134.260	5.999	18.843	-	18.843	16.413	31.087	32.862	33.191	Continuing	Continuing
665: *A/C Surv Equip Dev*	-	11.874	-	-	-	-	-	-	-	-	Continuing	Continuing
DX5: *Electronic Warfare And Management Tool*	-	0.013	1.966	8.641	-	8.641	6.064	20.623	20.840	21.046	Continuing	Continuing
VS6: *Integrated Electronic Warfare Systems*	-	19.636	4.033	10.202	-	10.202	10.349	10.464	12.022	12.145	Continuing	Continuing
VU7: *Common Missile Warning System*	-	2.811	-	-	-	-	-	-	-	-	-	2.811
VU8: *Common Infrared Counter Measure*	-	99.926	-	-	-	-	-	-	-	-	-	99.926

Note

Projects 665, VU7, and VU8 were realigned to PE 0605035A Aircraft Survivability Development in FY15 and beyond for more efficient, effective program management.

A. Mission Description and Budget Item Justification

FY 2016 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 Brigade Combat Team (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) Project VS6 IEWS is also known as Defensive Electronic Attack (DEA), 2) Project DX5 is Electronic Warfare Planning and Management Tools (EWPMT), and 3) in a future year Project DX6 will be Multi-Function EW (MFEW). Project VS6 - 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. In a future year, 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 (BCT). The MFEW Air variant is the highest priority, followed by ground, dismounted and fixed site variants.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army					Date: February 2015
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*		
B. Program Change Summary ($ in Millions)	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**
Previous President's Budget	144.543	6.002	9.442	-	9.442
Current President's Budget	134.260	5.999	18.843	-	18.843
Total Adjustments	-10.283	-0.003	9.401	-	9.401
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-10.283	-0.003	9.401	-	9.401

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) 665 / *A/C Surv Equip Dev*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
665: *A/C Surv Equip Dev*	-	11.874	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Transitioned to Project EE3, PE 605035A Aircraft Survivability Development in FY 2015.

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 upgrades needed to keep the APR-39D(V)2 technically relevant and address emerging Low Probability Intercept (LPI) and frequency agile threats.

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) 2016 Base RDT&E dollar funding requirement for Project 665, PE 654270A. FY16 justification is reported under Project ER7, PE 655051.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Phase 2 Radio Frequency Countermeasures	11.874	-	-
Description: Phase 2 Product Development (Digital RWR) ***FY 2014 Accomplishments:*** Funded platform integration and lab updates.			
Accomplishments/Planned Programs Subtotals	11.874	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• AZ3511: *APA AZ3511*	-	33.554	144.051	-	144.051	147.039	23.752	41.498	146.010	Continuing	Continuing

Remarks

D. Acquisition Strategy

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 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 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).

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Development	Various	Various : -	10.623	1.448		-		-		-		-	Continuing	Continuing	Continuing
Project Management	Various	Various : -	0.182	0.030		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	10.805	1.478		-		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Radar Warning Receiver (RWR)	Various	Lab Demo / Studies : Various-	19.025	3.561		-		-		-		-	Continuing	Continuing	Continuing
S/W Development	MIPR	ARAT : Aberdeen Proving Ground, MD	2.104	1.796		-		-		-		-	Continuing	Continuing	Continuing
Depot Standup	MIPR	Tobyhanna : Tobyhanna, PA	1.052	-		-		-		-		-	Continuing	Continuing	Continuing
Platform Integration	TBD	Multiple : -	0.000	2.667		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	22.181	8.024		-		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support	Various	Various : -	3.304	0.415		-		-		-		-	Continuing	Continuing	Continuing
Matrix Support	Various	Various : -	7.823	0.197		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	11.127	0.612		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Multi-service DT/OT Testing	TBD	Various : -	5.284	1.760		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	5.284	1.760		-		-		-		-	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	49.397	11.874		-		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

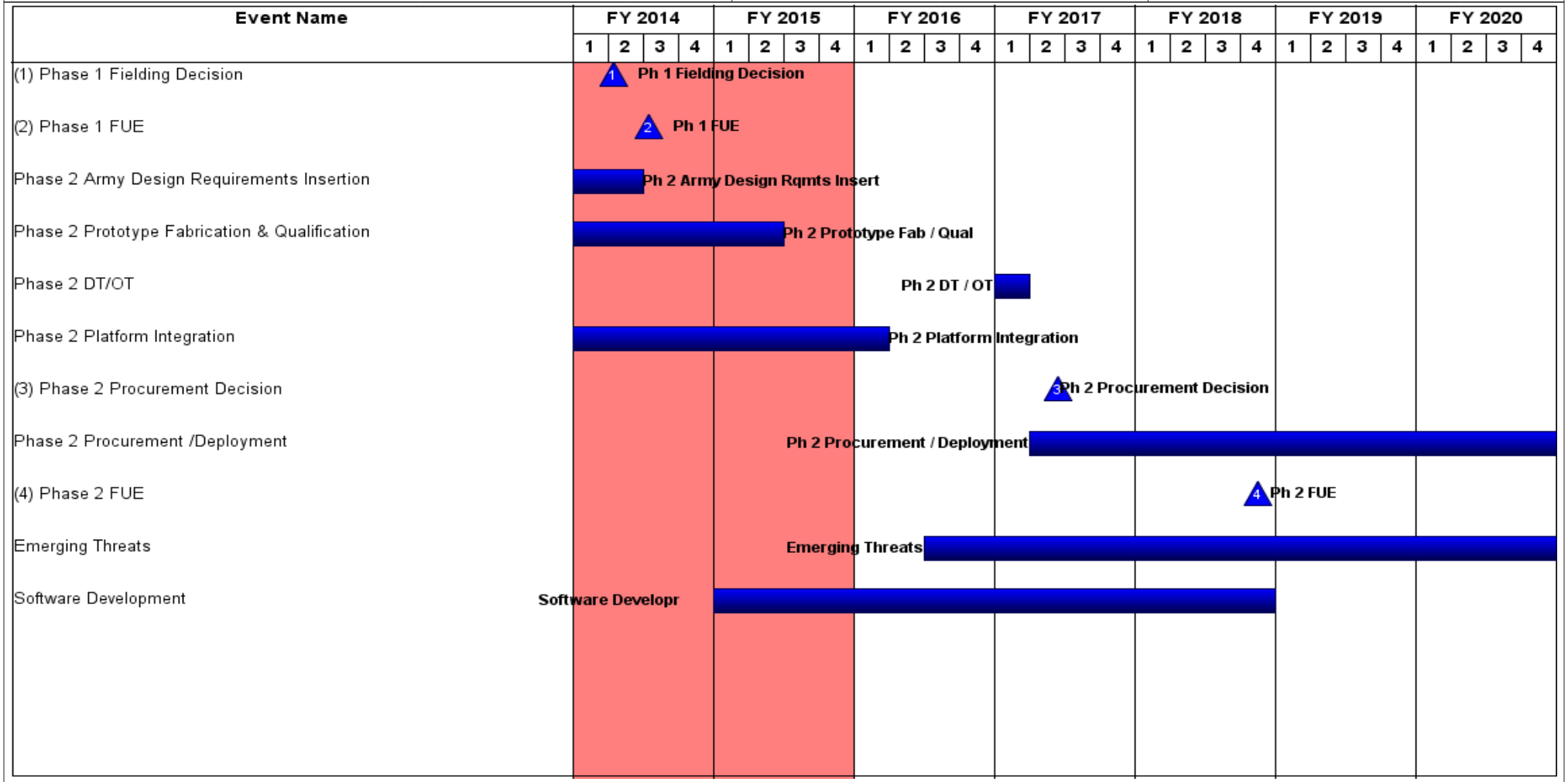

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** 665 / *A/C Surv Equip Dev*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Phase 1 Fielding Decision	2	2014	2	2014
Phase 1 FUE	3	2014	3	2014
Phase 2 Army Design Requirements Insertion	3	2013	2	2014
Phase 2 Prototype Fabrication & Qualification	4	2013	2	2015
Phase 2 DT/OT	1	2017	1	2017
Phase 2 Platform Integration	1	2014	1	2016
Phase 2 Procurement Decision	2	2017	4	2020
Phase 2 Procurement /Deployment	2	2017	4	2020
Phase 2 FUE	4	2018	4	2018
Emerging Threats	3	2016	4	2020
Software Development	1	2015	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015
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*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
DX5: *Electronic Warfare And Management Tool*	-	0.013	1.966	8.641	-	8.641	6.064	20.623	20.840	21.046	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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.

FY2016 funds in the amount of $8.641 million will provide for development, test and support activites for the EWPMT program.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: EWPMT	0.013	1.966	8.641
Description: 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. ***FY 2014 Accomplishments:*** Funds provide for Product Management office operations for the EWPMT program ***FY 2015 Plans:*** Funds provide for test support activities and Product Management office operations for the EWPMT program ***FY 2016 Plans:*** Funds provide for software Capability Drop (CD) development, test support activities and Product Management office operations for the EWPMT program.			
Accomplishments/Planned Programs Subtotals	0.013	1.966	8.641

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
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*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPA: *K00002 - EW Planning & Management Tools (EWPMT)*	0.013	-	2.556	-	2.556	-	-	-	-	-	2.569

Remarks

D. Acquisition Strategy

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.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO Staff/Travel	Allot	PM EW : Aberdeen Proving Ground, MD	0.000	0.013	Jul 2014	0.300	Mar 2015	0.804	Oct 15	-		0.804	Continuing	Continuing	-
		Subtotal	0.000	0.013		0.300		0.804		-		0.804	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EMD Contract - EWPMT	C/IDIQ	Raytheon : Fort Wayne, IN	0.000	-		-		6.000	Feb 2016	-		6.000	-	6.000	-
		Subtotal	0.000	-		-		6.000		-		6.000	-	6.000	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EWPMT Test support	MIPR	Various : TBD	0.000	-		1.666	Mar 2015	1.837	Nov 2015	-		1.837	Continuing	Continuing	-
		Subtotal	0.000	-		1.666		1.837		-		1.837	-	-	-

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.013		1.966		8.641		-		8.641	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
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*

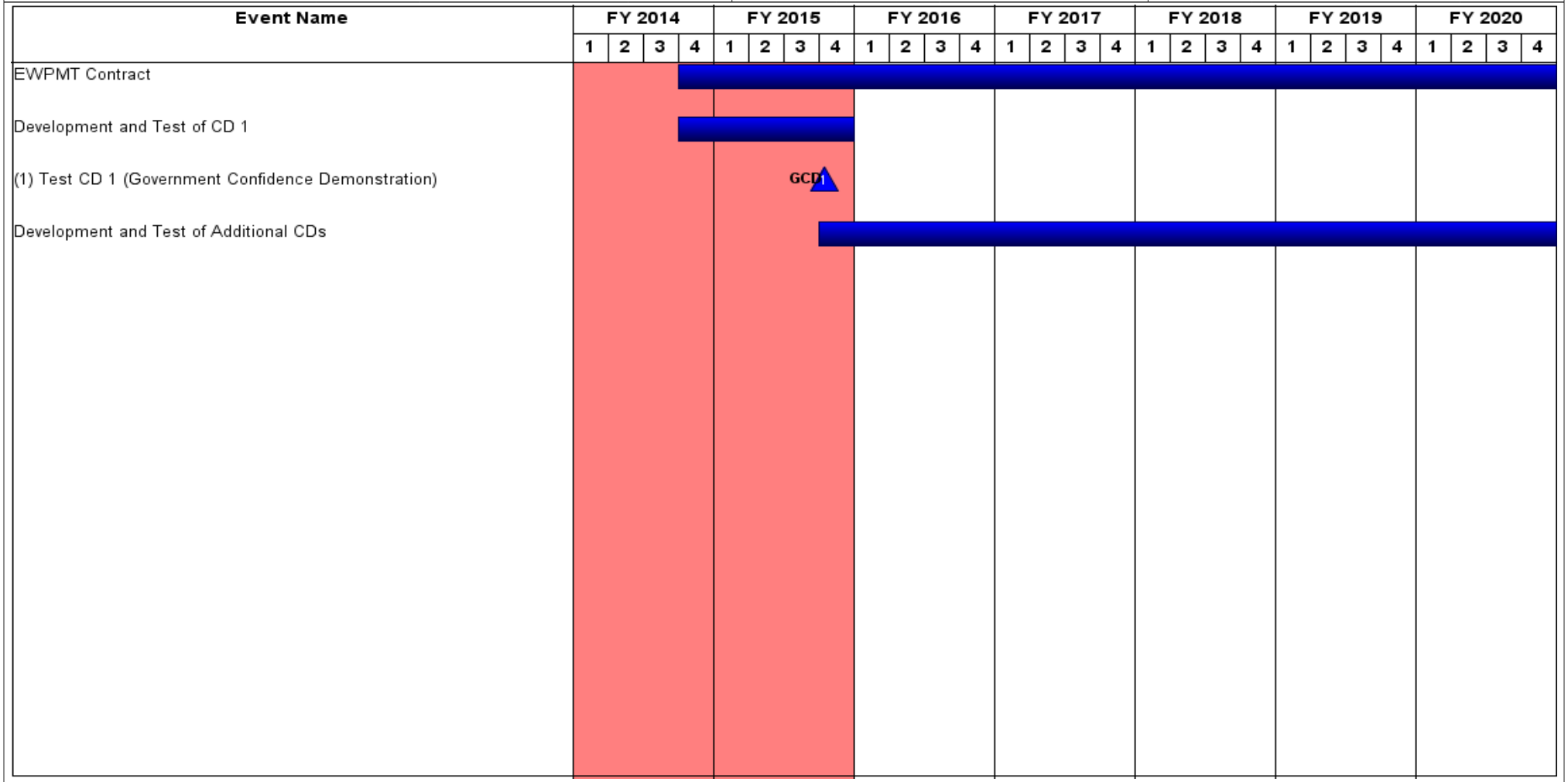

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** DX5 / *Electronic Warfare And Management Tool*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
EWPMT Contract	4	2014	4	2020
Development and Test of CD 1	4	2014	4	2015
Test CD 1 (Government Confidence Demonstration)	4	2015	4	2015
Development and Test of Additional CDs	4	2015	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VS6 / *Integrated Electronic Warfare Systems*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
VS6: *Integrated Electronic Warfare Systems*	-	19.636	4.033	10.202	-	10.202	10.349	10.464	12.022	12.145	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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 Brigade Combat Team (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.

Project VS6 provides funding for defensive electronic attack, such as CREW-2 Duke Technology Insertions (DTI) to keep technology relevant against Global threats.

FY2016 Base dollars in the amount of $10.202 million provides funding to support the development of CREW-2 Duke Technology Insertions (DTI), hardware/software, including incorporation of advanced techniques development against emerging and global threats, enhance networking capability, addresses military Positioning, Navigation and Timing (PNT) requirements, and resource program management office operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: IEWS	19.636	4.033	10.202
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 2014 Accomplishments: EWPMT: Continue development of EWPMT software development and test. CREW-2 Duke Technical Insertion (DTI)/Duke Enhanced (DV4): Begin developing Hardware/Software solutions to address parts obsolesence and ensure systems remain relevant against Global Threats.			
FY 2015 Plans: Continue CREW-2 Duke Tech Insertions (DTI)/Duke Enhanced (DV4): Continue developing Hardware/Software solutions to ensure systems remain relevant against Global Threats.			
FY 2016 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VS6 / *Integrated Electronic Warfare Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Continue CREW-2 Duke Technology Insertions (DTI): Continue developing hardware/software solutions to remain relevant against Global Threats.			
Accomplishments/Planned Programs Subtotals	19.636	4.033	10.202

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• CREW: *VA8000 CREW*	-	-	2.960	-	2.960	-	-	-	-	-	2.960

Remarks

D. Acquisition Strategy

CREW-2 Duke Technology Insertion (DTI) 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 and responsive to all approved user requirements.

A competitive contract is planned for award 4QFY2015. A five year indefinite delivery indefinite quantity contract will be awarded on a competitive basis. This will enable maximum flexibility as the technology matures and as the threat changes.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VS6 / *Integrated Electronic Warfare Systems*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO Staff/Travel for EWPMT	Allot	PM Electronic Warfare : Aberdeen Proving Ground, MD	4.035	0.921	Jan 2014	-		-		-		-	-	4.956	-
Program and Technical Assistance support	C/CPFF	TBD : Aberdeen Proving Ground, MD	3.111	0.678	Feb 2014	-		-		-		-	-	3.789	-
PMO Staff/Travel for CREW-2 Program Office	Allot	PM EW : Aberdeen Proving Ground, MD	0.000	0.498	Oct 2013	0.361	Oct 2014	0.822	Oct 2014	-		0.822	-	1.681	-
		Subtotal	7.146	2.097		0.361		0.822		-		0.822	-	10.426	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EMD Contract - EWPMT	C/CPIF	SOTERA Defense Solutions Herndon, VA : RAYTHEON Fort Wayne, IN	23.713	14.605	Aug 2014	-		-		-		-	-	38.318	-
IEWS Engineering and Development	MIPR	I2WD : Aberdeen MD	5.557	-		-		-		-		-	-	5.557	-
Risk Reduction Studies for MFEW	MIPR	Various : Various	7.969	-		-		-		-		-	-	7.969	-
Develop CREW-2 Duke Technical Insertion (DTI) H/W and S/W solutions	C/CPFF	TBD : TBD	0.000	-		0.600	Aug 2015	6.710	Nov 2015	-		6.710	-	7.310	-
		Subtotal	37.239	14.605		0.600		6.710		-		6.710	-	59.154	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VS6 / *Integrated Electronic Warfare Systems*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MFEW Technical/ Engineering Support - Contractor	C/CPFF	GTRI : Atlanta, GA	2.046	-		-		-		-		-	-	2.046	-
Government Engineering Support	MIPR	CERDEC : Aberdeen Proving Ground, MD	3.082	0.232	Mar 2014	1.006	Dec 2014	-		-		-	-	4.320	-
EWPMT Architecture Study	MIPR	Various : Various	1.194	-		-		-		-		-	-	1.194	-
CREW-2 Engineering support	C/CPFF	Various : Various	0.000	0.125	Jan 2014	0.992	Dec 2014	0.822	Nov 2015	-		0.822	-	1.939	-
CREW-2 Government Engineering	MIPR	Various : Various	0.000	0.427	Oct 2013	0.559	Feb 2015	0.923	Nov 2015	-		0.923	-	1.909	-
		Subtotal	6.322	0.784		2.557		1.745		-		1.745	-	11.408	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EWPMT Test support	MIPR	Various : TBD	0.896	0.200	Mar 2014	-		-		-		-	-	1.096	-
Operational Assessment (OA) of DV4 systems	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	1.950	Feb 2014	-		-		-		-	-	1.950	-
Continous evaluation of CREW-2 technologies	MIPR	Yuma Proving Ground Yuma, AZ : YPG, AZ	0.000	-		0.515	Apr 2015	0.925	Nov 2015	-		0.925	-	1.440	-
		Subtotal	0.896	2.150		0.515		0.925		-		0.925	-	4.486	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	51.603	19.636		4.033		10.202		-		10.202	-	85.474	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VS6 / *Integrated Electronic Warfare Systems*

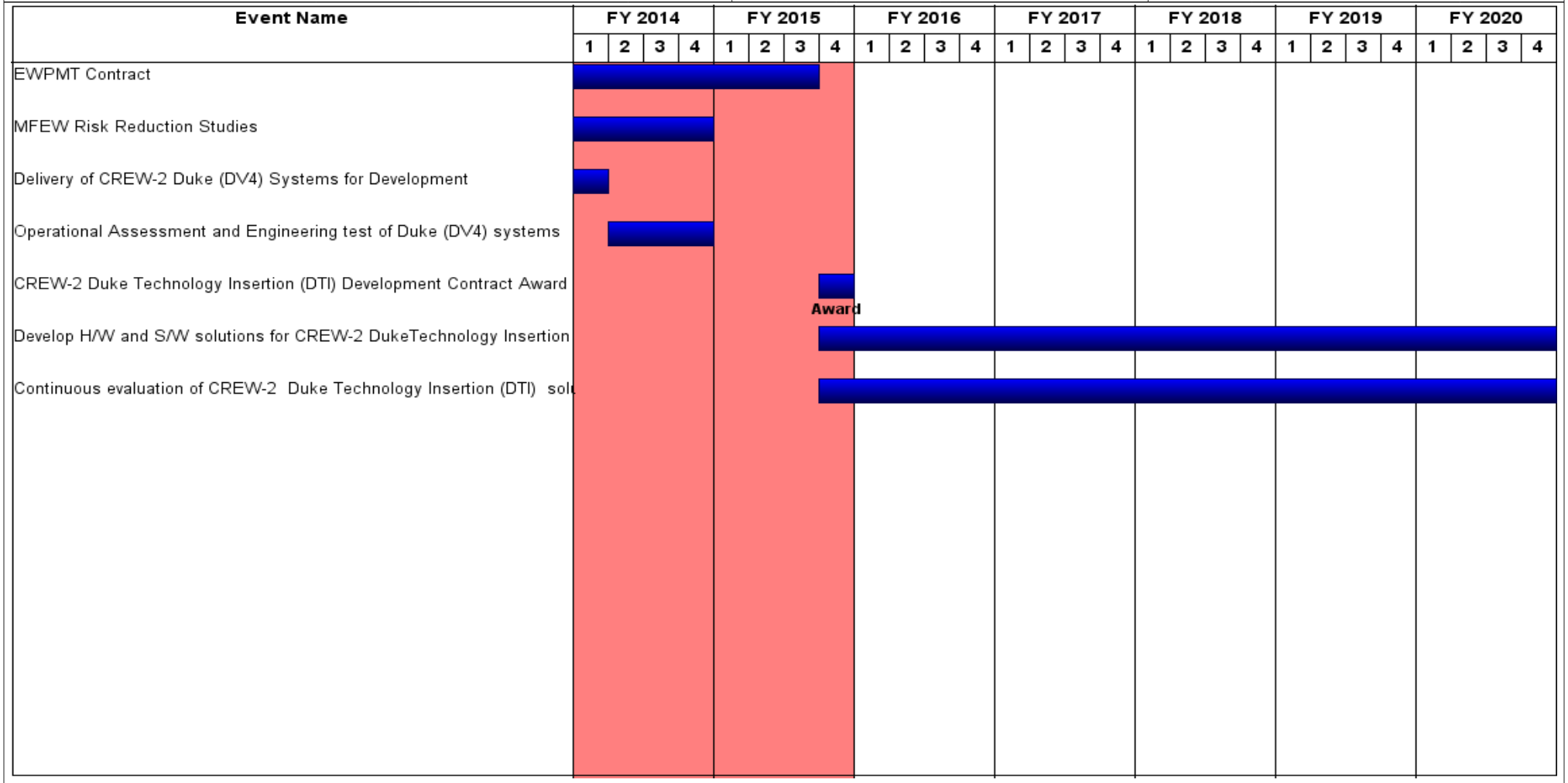

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VS6 / *Integrated Electronic Warfare Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
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 Technology Insertion (DTI) Development Contract Award	4	2015	4	2015
Develop H/W and S/W solutions for CREW-2 DukeTechnology Insertion (DTI)	4	2015	4	2020
Continuous evaluation of CREW-2 Duke Technology Insertion (DTI) solutions	4	2015	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU7 / *Common Missile Warning System*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
VU7: *Common Missile Warning System*	-	2.811	-	-	-	-	-	-	-	-	-	2.811
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Transitioned to Project EE4, PE 605035A Aircraft Survivability Development in FY 2015.

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) 2016 Base RDT&E dollar funding requirement for Project VU7, PE 654270A. FY16 justification is reported under Project ER8, PE 655051A

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Development Effort	2.811	-	-
Description: -			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU7 / *Common Missile Warning System*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
FY 2014 Accomplishments: RDT&E funding supports development engineering of the Threat Analysis Database (TAD), and salaries.			
Accomplishments/Planned Programs Subtotals	2.811	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APA Funding: *APA, BA 4 AZ3517*	103.021	107.364	78.953	-	78.953	42.371	38.678	33.654	19.280	Continuing	Continuing

Remarks

D. Acquisition Strategy

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 on 18 September 2013. All aircraft deployed in Theater 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.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU7 / *Common Missile Warning System*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CMWS System Engineering Program Management	Various	PM ASE, HSV, AL : -	3.566	0.148		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	3.566	0.148		-		-		-		-	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CMWS Tier 2/3 Upgrades	Various	Various : -	2.815	-		-		-		-		-	Continuing	Continuing	Continuing
CMWS Threat Analysis Database Design	Various	Various : -	1.655	-		-		-		-		-	Continuing	Continuing	Continuing
Threat Analysis Database (TAD)	TBD	BAE : TBD	2.466	2.468	May 2014	-		-		-		-	Continuing	Continuing	Continuing
CMWS Enhanced Sensor Study & Evaluation	Various	TBD : -	14.929	0.095		-		-		-		-	Continuing	Continuing	Continuing
CMWS Gen 3 Providence Additional Phases	Various	TBD : -	0.000	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	21.865	2.563		-		-		-		-	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total 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	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU7 / *Common Missile Warning System*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government System Test and Evaluation	C/CPFF	AMCOM RTC : Redstone	0.000	0.100		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	0.000	0.100		-		-		-		-	-	-	-

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.431	2.811		-		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU7 / *Common Missile Warning System*

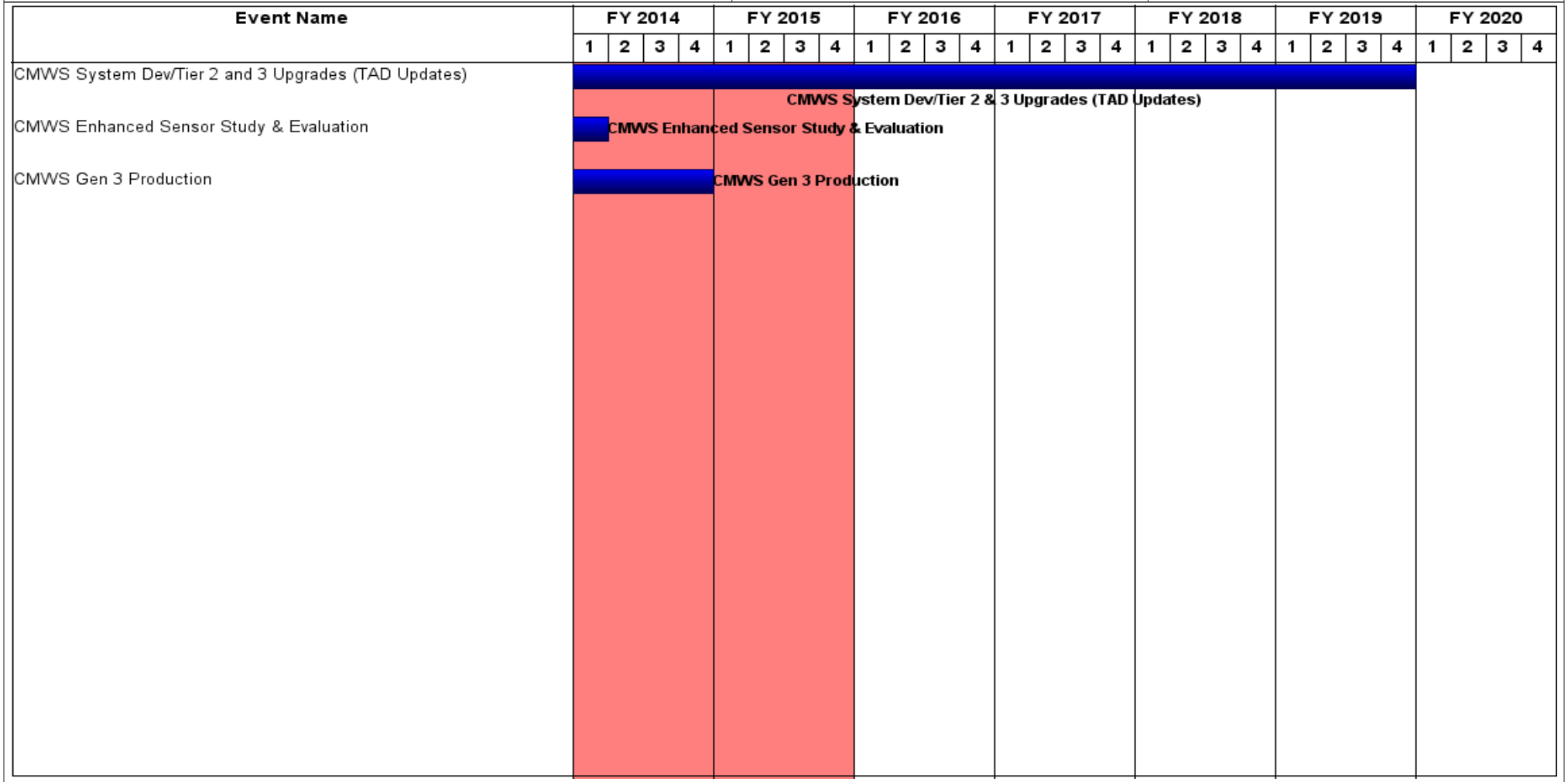

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU7 / *Common Missile Warning System*

Schedule Details

	Start		End	
Events	**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
CMWS Gen 3 Production	3	2012	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU8 / *Common Infrared Counter Measure*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
VU8: *Common Infrared Counter Measure*	-	99.926	-	-	-	-	-	-	-	-	-	99.926
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Transitioned to Project EB4, PE 605035A Aircraft Survivability Development in FY 2015.

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 protection 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 future missile warning system. 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, 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 are no Fiscal Year (FY) 2016 Base RDT&E dollar funding requirements for VU8. FY16 justification is reported under EB4 PE 655035A.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Development Efforts	99.926	-	-
Description: RDT&E dollars begin the design and development of the CIRCM system.			
FY 2014 Accomplishments: RDT&E dollars supported 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.			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
FY14 funding completed investment in I2WD Phase I SCEPTRE Lab. SCEPTRE reduces program schedule risk and out year test support costs by providing a systems engineering tool and a Modeling and Simulation (M&S) environment to analyze system performance prior to actual flight and missile testing. "Other Testing" included funds to acquire test threat assets.			
Accomplishments/Planned Programs Subtotals	99.926	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• .: *APA Funding: APA, BA 4, AZ3537 (CIRCM)*	-	-	-	-	-	64.942	104.858	166.201	216.127	Continuing	Continuing

Remarks

None

D. Acquisition Strategy

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. CIRCM will continue pre-MS B activities until MS B approval. Contract award to a single vendor is anticipated in the third quarter of FY15. The EMD contract will include priced options for Other Platform A-Kit Development, A-Kit Engineering Support, Low Rate Initial Production (LRIP) 1 and 2 Prototypes (Hardware and Installs), LRIP 1 and 2 Engineering and Test Support, Software Technical Data Package (TDP), Navy funded requirements, and Defense Exportability Features (DEF). Upon CIRCM MS C approval planned for the fourth quarter of FY17, the LRIP and Engineering Support options may be exercised and the program may immediately enter the Production & Deployment phase with First Unit Equipped (FUE) planned for third quarter of FY19, and a Full Rate Production Decision Review (FRPDR) planned for the third quarter of FY19.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU8 / *Common Infrared Counter Measure*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering Program Management (SEPM)	Various	PM ASE, HSV, AL : -	4.027	7.247		-		-		-		-	-	11.274	11.274
		Subtotal	4.027	7.247		-		-		-		-	-	11.274	11.274

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Non-Recurring Engineering (NRE)	C/CPFF	Various : -	0.000	20.920	Sep 2014	-		-		-		-	-	20.920	20.920
Development Facilities	Various	Various : -	0.000	17.800		-		-		-		-	-	17.800	17.800
Other R&D	Various	Various : -	8.015	8.534		-		-		-		-	-	16.549	16.549
Reprogram to Other Programs	Various	Various : -	0.000	5.956		-		-		-		-	-	5.956	5.956
		Subtotal	8.015	53.210		-		-		-		-	-	61.225	61.225

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government System Testing & Evaluation	Various	CECOM - I2WD APG MD : -	9.254	8.027		-		-		-		-	-	17.281	17.281
Other Testing	Various	CECOM - I2WD APG MD : -	18.423	31.442		-		-		-		-	-	49.865	49.865
		Subtotal	27.677	39.469		-		-		-		-	-	67.146	67.146

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	39.719	99.926		-		-		-		-	-	139.645	139.645

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604270A / *Electronic Warfare Development*	Project (Number/Name) VU8 / *Common Infrared Counter Measure*	

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

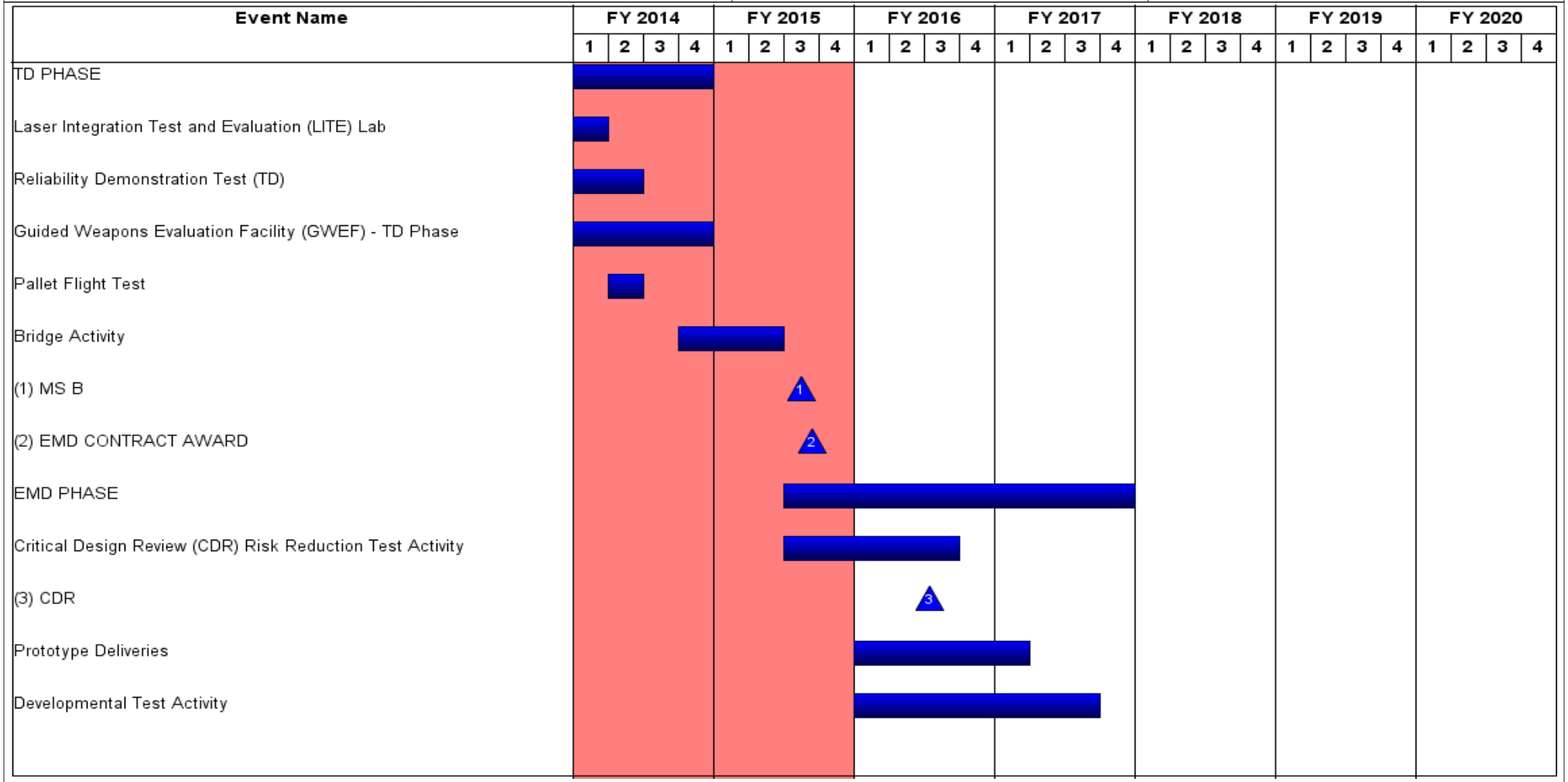

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

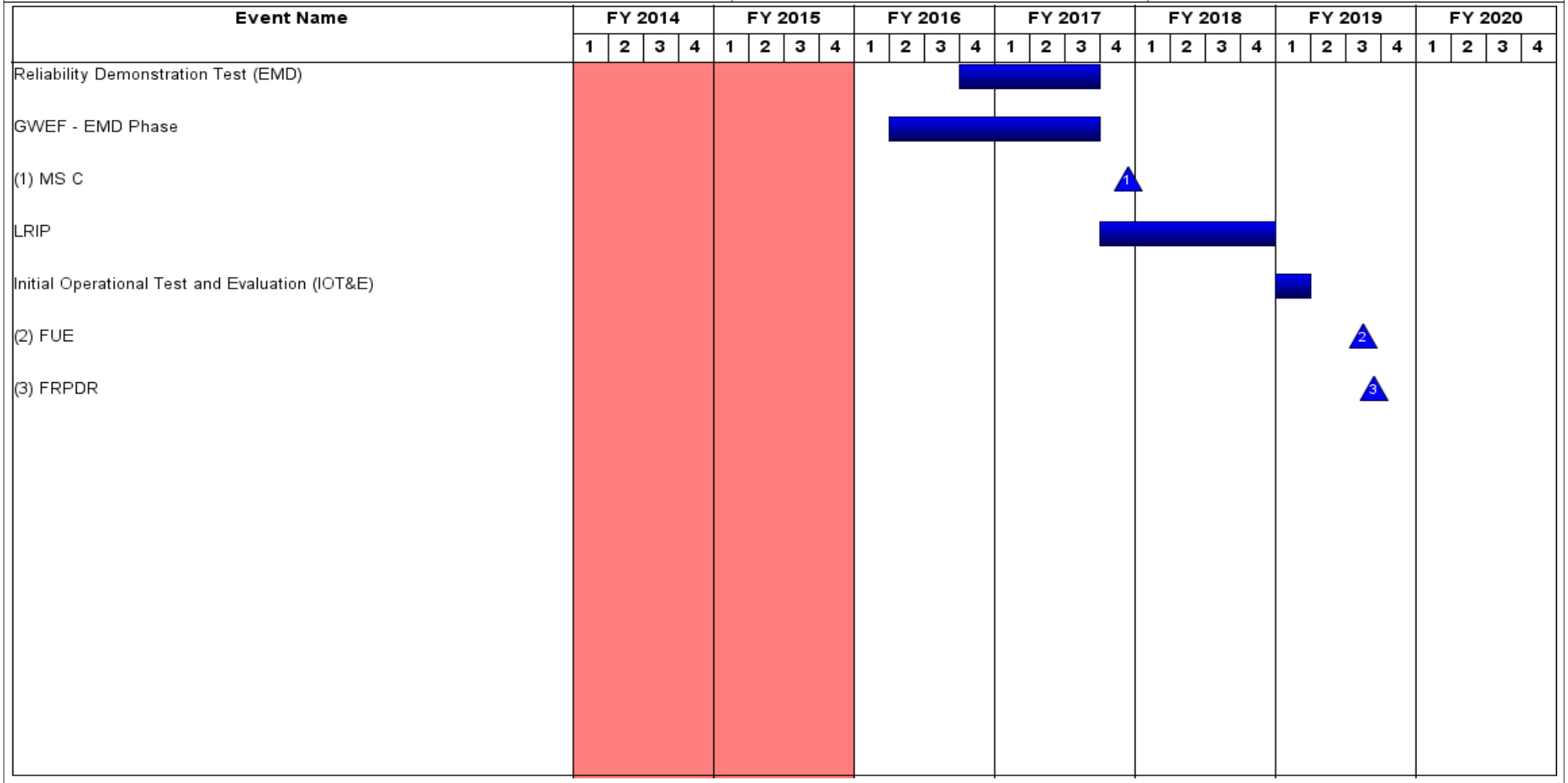

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604270A / *Electronic Warfare Development*	**Project (Number/Name)** VU8 / *Common Infrared Counter Measure*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
TD PHASE	3	2012	4	2014
Laser Integration Test and Evaluation (LITE) Lab	1	2014	1	2014
Reliability Demonstration Test (TD)	1	2014	2	2014
Guided Weapons Evaluation Facility (GWEF) - TD Phase	2	2013	4	2014
Pallet Flight Test	2	2014	2	2014
Bridge Activity	4	2014	2	2015
MS B	3	2015	3	2015
EMD CONTRACT AWARD	3	2015	3	2015
EMD PHASE	3	2015	4	2017
Critical Design Review (CDR) Risk Reduction Test Activity	3	2015	3	2016
CDR	3	2016	3	2016
Prototype Deliveries	1	2016	1	2017
Developmental Test Activity	1	2016	3	2017
Reliability Demonstration Test (EMD)	4	2016	3	2017
GWEF - EMD Phase	2	2016	3	2017
MS C	4	2017	4	2017
LRIP	4	2017	4	2018
Initial Operational Test and Evaluation (IOT&E)	1	2019	1	2019
FUE	3	2019	3	2019
FRPDR	3	2019	3	2019