Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army										Date: February 2015	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0203740A *I Maneuver Control 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
Total Program Element	-	35.337	45.065	15.445	-	15.445	7.179	6.627	6.402	5.266	Continuing	Continuing
484: *Maneuver Control System*	-	35.337	45.065	15.445	-	15.445	7.179	6.627	6.402	5.266	Continuing	Continuing

Note

FY 2016 funding will support core TMC missions.

The decrease in FY2016-2020 funding reflects the realignment of Common Operating Environment (COE) Infrastructure development and application migration onto a new common core foundation to a separate funding line, Command Post Computing Environment (CPCE) PE/Project 0604818/EJ4.

A. Mission Description and Budget Item Justification

Tactical Mission Command (TMC) is a suite of products and services that provide commanders and their staff executive decision making capability in a collaborative environment. The suite of products currently in development consist of Command Web (CW), Tactical Applications (TacApps), and an Army Voice Communication System (WAVE). TMC satisfies requirements and capabilities identified in the MCS 6.4 Capability Production Document and the Battle Command Sustainment Support System (BCS3) Capability Production Document. The overarching capability includes a user-defined Common Operating Picture (COP) with integrated Command and Control (C2) and Situational Awareness (SA), map-centric collaboration, Army Mission Command Systems (and others) enabling system interoperability, data management, and enterprise services. TMC contributes to Mission Command (MC) Convergence/COE development for commanders and staff to effectively conduct collaborative mission planning and execution across a range of operations and spectrum of conflict. Legacy products supported by this Budget Item include Command Post of the Future (CPOF), Battle Command Common Services (BCCS), Logistics Widgets, and Common Tactical Vision (CTV).

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	36.475	45.092	66.754	-	66.754
Current President's Budget	35.337	45.065	15.445	-	15.445
Total Adjustments	-1.138	-0.027	-51.309	-	-51.309
• Congressional General Reductions	-	-0.027			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-1.138	-	-51.309	-	-51.309

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

Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0203740A / Maneuver Control System				Project (Number/Name) 484 / Maneuver Control 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
484: *Maneuver Control System*	-	35.337	45.065	15.445	-	15.445	7.179	6.627	6.402	5.266	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The decrease in FY 16 - FY20 reflects realignment of COE Infrastructure development and application migration onto a new common core foundation to a separate funding line - Command Post Computing Environment (CPCE) Proj/PE 604818.EJ4.

A. Mission Description and Budget Item Justification

Tactical Mission Command (TMC) is a suite of products and services that provide commanders and their staff executive decision making capability in a collaborative environment. The suite of products currently in development consist of Command Web (CW), Tactical Applications (TacApps), and WAVE. TMC satisfies requirements and capabilities identified in the MCS 6.4 Capability Production Document and the Battle Command Sustainment Support System (BCS3) Capability Production Document. The overarching capability includes a user-defined COP with integrated Command and Control (C2) and Situational Awareness (SA), map-centric collaboration, Army Mission Command Systems (and others) enabling system interoperability, data management, and enterprise services. TMC contributes to MC Convergence/Common Operating Environment (COE) development for commanders and staff to effectively conduct collaborative mission planning and execution across a range of operations and spectrum of conflict. Legacy products supported by this Budget Item include Command Post of the Future (CPOF), Battle Command Common Services (BCCS), Logistics Widgets, and Common Tactical Vision (CTV).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Tactical Applications (TacApps) *Description:* COE v3 CPCE compliant solution set encompassing the capabiltiies of CW, CTV, CPOF, & Logistic Widgets with in a seamless suite. Enhance ease of use and admin simplification *FY 2015 Plans:* Developing detailed requirements, architecture and design in support of COE v3 CPCE contributions *FY 2016 Base Plans:* Development & Integration of TacApps	-	26.277	9.518	-	9.518
Title: Battle Command Common Services Development *Description:* Battle Command Common Services Development *FY 2014 Accomplishments:*	7.255	8.736	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203740A / Maneuver Control System	Project (Number/Name) 484 / Maneuver Control System

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Battle Command Common Services Development **FY 2015 Plans:** Battle Command Common Services Development					
Title: Mission Command Convergence **Description:** Mission Command Convergence Development and Integration **FY 2014 Accomplishments:** Mission Command Convergence Software Development and Integration for TAIS, BCS3, & Common Software (CS) **FY 2015 Plans:** Mission Command Convergence - Software Development and Integration for BCS3 and Common Software (CS)	7.814	10.052	-	-	-
Title: CPOF Development **Description:** CPOF Development **FY 2014 Accomplishments:** CPOF Development	19.259	-	-	-	-
Title: Command Web Development **Description:** Command Web provides information sharing of strategic and tactical operational and intelligence data through applications and services and provides the product platform for transition to the CP CE. **FY 2014 Accomplishments:** Development and Integration of COE v1/COE v2 CPCE contributions **FY 2016 Base Plans:** Final development of COE v2 CPCE contributions and standards/application interface integration of COE v1 CPCE contributions	1.009	-	0.441	-	0.441
Title: Test and Evaluation **Description:** Encompasses formal test (operational assessment/test, joint certification, interoperability, and information assurance) and informal testing such as acceptance testing and risk reduction testing. **FY 2016 Base Plans:**	-	-	3.152	-	3.152

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015	
Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0203740A I Maneuver Control System	Project (Number/Name) 484 I Maneuver Control System	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Formal test (Joint certification, interoperability, and information assurance) and informal testing such as acceptance testing and risk reduction testing.					
Title: Program Management Office *Description:* Codification of program operational requirements into discrete technical packages for development, testing, deployment, and support over the systems lifecycle. *FY 2016 Base Plans:* Codification of program operational requirements into discrete technical packages for development, testing, deployment, and support over the systems lifecycle	-	-	2.334	-	2.334
Accomplishments/Planned Programs Subtotals	35.337	45.065	15.445	-	15.445

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
• Funding: *BA9320 Maneuver Control System (MCS)*	18.179	95.455	145.405	0.252	145.657	172.458	172.943	104.706	75.546	Continuing	Continuing
• SPARES: *BS9710 MCS Spares Procurement*	0.655	0.637	0.626	-	0.626	0.599	4.907	4.911	-	Continuing	Continuing

Remarks

TMC also executes funding from the CPCE budget line (0604818A EJ4) for CPCE specific activities.

D. Acquisition Strategy

In accordance with the Training and Doctrine Command (TRADOC) requirements document approved in 2008, Maneuver Control System Capabilities Production Document, software capability will be developed in 3-year increments as capability sets designed to deploy specified Mission Command Essential Capabilities to operating force commanders and their integrated battle staffs.

This strategy accounts for subsequent Army directives and migration to the Army Common Operating Environment (COE); designed to optimize opportunities for improved interoperability. The products developed under this funding line are an integral part of the Army Mission Command System of Systems.

E. Performance Metrics

N/A

PE 0203740A: *Maneuver Control System*
Army

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army											Date: February 2015		
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203740A / Maneuver Control System					Project (Number/Name) 484 / Maneuver Control System		

Management Services ($ in Millions)

				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Mgmt	Various	PM Mission Command : Aberdeen Proving Grounds, MD	13.758	1.922	Jan 2014	2.112	Jan 2015	2.334	Jan 2016	-		2.334	Continuing	Continuing	Continuing
		Subtotal	13.758	1.922		2.112		2.334		-		2.334	-	-	-

Product Development ($ in Millions)

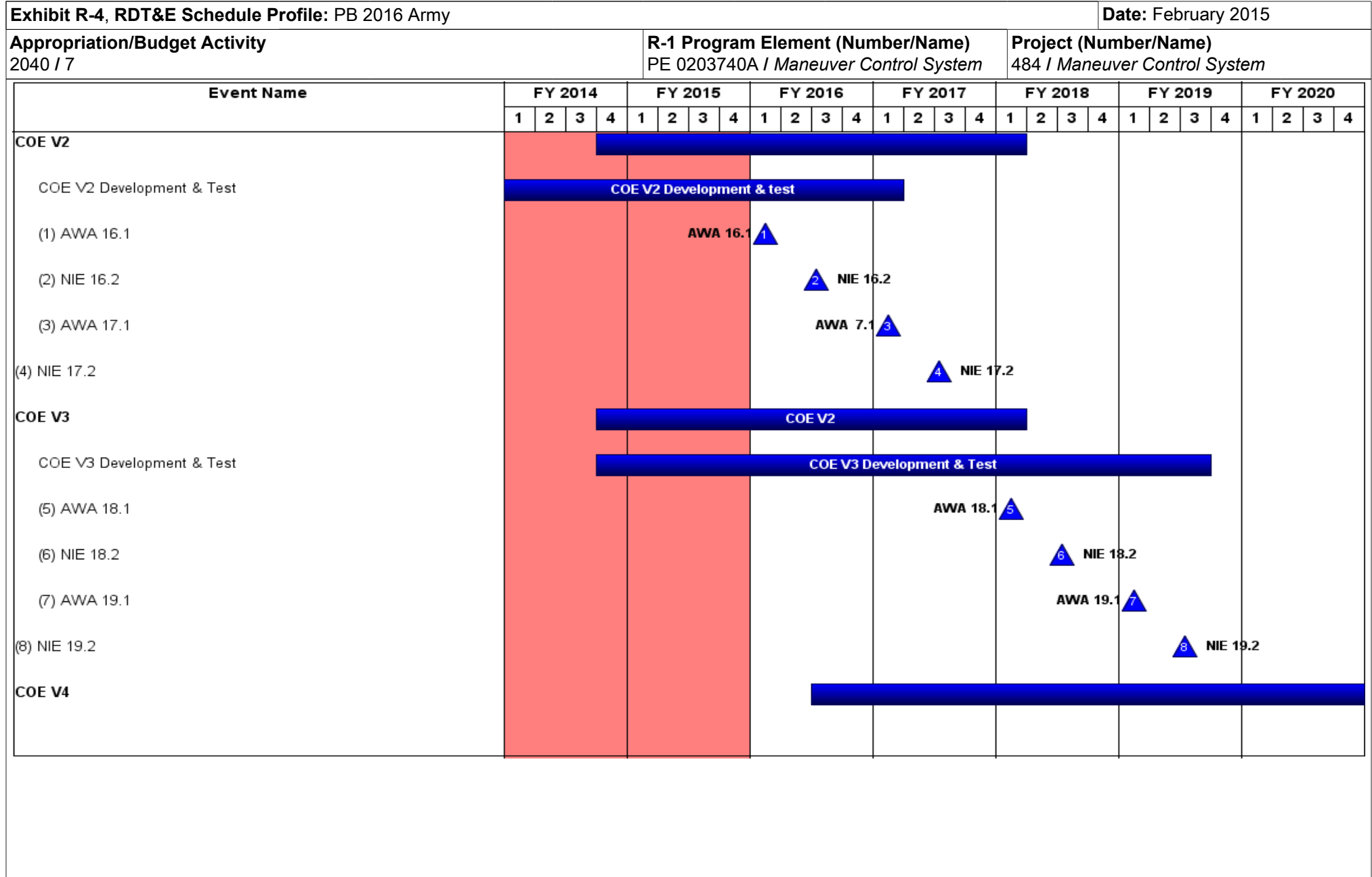|				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Applications (TacApps)	IA	Software Development WSEC : Picatinny Arsenal, NJ	0.000	-		9.898	Mar 2015	9.518	Mar 2016	-		9.518	-	19.416	-
Command Web Development	Various	CECOM SEC : APG, MD	0.000	1.009	Nov 2013	-		0.441	Oct 2015	-		0.441	-	1.450	-
Mission Command Convergence - CP CE Software Development & Integration (Log Widgets)	Various	Log Widgets IBM : Bethesda, MD	0.000	2.011	Apr 2014	1.654	Apr 2015	-		-		-	Continuing	Continuing	-
Misc Contracts	Various	Various : Various	24.931	-		-		-		-		-	Continuing	Continuing	Continuing
ABCS SoS Contract (Joint Convergence Development)	Various	Lockheed Martin : Tinton Falls, NJ	6.404	-		-		-		-		-	Continuing	Continuing	Continuing
Technical Support	Various	PM Mission Command/SEC : Various	26.320	0.931	Nov 2013	-		-		-		-	Continuing	Continuing	Continuing
CPOF Development	Various	General Dynamics : Scottsdale, AZ	117.996	19.259	Feb 2014	-		-		-		-	Continuing	Continuing	Continuing
ABCS SoS Contract (Joint Convergence Development) Follow-on	Various	General Dynamics : Scottsdale, AZ	1.025	-		-		-		-		-	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015		
Appropriation/Budget Activity 2040 / 7							**R-1 Program Element (Number/Name)** PE 0203740A / Maneuver Control System					**Project (Number/Name)** 484 / Maneuver Control System		

Product Development ($ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Mission Command Convergence Development & Integration	Various	Various : Various	42.698	-		-		-		-		-	Continuing	Continuing	Continuing
Mission Command Convergence - CP CE Software Development & Integration (Common Software)	Various	software development Future Skies : APG, MD	0.000	3.462	Jan 2014	8.399	Jan 2015	-		-		-	-	11.861	-
Mission Command Convergence Development & Integration (TAIS)	Various	software development SED : Redstone Arsenal, AL	0.000	2.103	Feb 2014	-		-		-		-	-	2.103	-
Software Development & Technical Support for BCCS	Various	CECOM Software Engineering Center : APG, MD	58.655	2.321	Nov 2013	8.736	Nov 2014	-		-		-	Continuing	Continuing	Continuing
PAL Integration	IA	SRI : AZ	11.000	-		-		-		-		-	Continuing	Continuing	-
		Subtotal	289.029	31.096		28.687		9.959		-		9.959	-	-	-

Support ($ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Misc Engineering Support	Various	PM Mission Command/SEC : Aberdeen Proving Ground, MD	8.935	0.255	Feb 2014	1.150	Feb 2015	-		-		-	Continuing	Continuing	Continuing
Misc Contracts	Various	PM Mission Command : Aberdeen Proving Ground	5.539	0.204	Feb 2014	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	14.474	0.459		1.150		-		-		-	-	-	-

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2016 Army												**Date:** February 2015			
Appropriation/Budget Activity 2040 *I* 7						**R-1 Program Element (Number/Name)** PE 0203740A *I Maneuver Control System*						**Project (Number/Name)** 484 *I Maneuver Control System*			

Test and Evaluation ($ in Millions)				**FY 2014**		**FY 2015**		**FY 2016 Base**		**FY 2016 OCO**		**FY 2016 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**
Developmental tests	Various	Various : APG, MD	6.257	0.370	Dec 2013	1.166	Dec 2014	1.902	Dec 2015	-		1.902	Continuing	Continuing	Continuing
AIC/NIE Testing	TBD	VARIOUS : APG, MD	7.348	0.430	Dec 2013	1.100	Dec 2014	1.250	Dec 2015	-		1.250	-	10.128	-
Operational Assessment/ testing	Various	Various : APG, MD	24.894	1.060	Mar 2014	10.850	Jan 2015	-		-		-	Continuing	Continuing	Continuing
		Subtotal	38.499	1.860		13.116		3.152		-		3.152	-	-	-

			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	355.760	35.337		45.065		15.445		-		15.445	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0203740A I Maneuver Control System	Project (Number/Name) 484 I Maneuver Control System

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		**Date:** February 2015
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203740A / Maneuver Control System	**Project (Number/Name)** 484 / Maneuver Control System

Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
COE V4 Development and Test																												

COE V4 Development and Test

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203740A / Maneuver Control System	Project (Number/Name) 484 / Maneuver Control System

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
COE V2	4	2014	1	2018
COE V2 Development & Test	4	2013	1	2017
AWA 16.1	1	2016	1	2016
NIE 16.2	3	2016	3	2016
AWA 17.1	1	2017	1	2017
NIE 17.2	3	2017	3	2017
COE V3	4	2014	1	2018
COE V3 Development & Test	4	2014	3	2019
AWA 18.1	1	2018	1	2018
NIE 18.2	3	2018	3	2018
AWA 19.1	1	2019	1	2019
NIE 19.2	3	2019	3	2019
COE V4	3	2016	1	2022
COE V4 Development and Test	2	2017	4	2021