Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army										Date: February 2018	

Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*						

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	29.412	33.520	30.954	-	30.954	32.807	18.299	5.261	7.839	0.000	158.092
EF6: *JADOCS*	-	2.717	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.717
EF7: *Pocket-Sized Forward Entry Device (PFED) Inc 2*	-	2.891	4.537	3.884	-	3.884	3.118	1.508	0.000	2.648	0.000	18.586
EF8: *AFATDS Increment 1*	-	23.804	28.983	27.070	-	27.070	29.689	16.791	5.261	5.191	0.000	136.789

A. Mission Description and Budget Item Justification

This program element provides development for fire support command and control systems used by all Services from platoon to echelons above Corps. There are two developmental efforts that are being executed concurrently FY 2018 and beyond: Pocket-sized Forward Entry Device (Increment II) (project code EF7) and Advanced Field Artillery Tactical Data System (AFATDS) (Increment I) (project code EF8). The development on the Joint Automated Deep Operations Coordination System (JADOCS) (project code EF6) was completed in FY 2017.

Joint Automated Deep Operations Coordination System (JADOCS) is a Joint and Coalition targeting, coordination mission management software application. It links Command and Control (C2), Intelligence, and Air operations information with execution systems using real time collaborative targeting managers, customized for each service or specific functional area. JADOCS is used to significantly enhance the Joint Force and Component Command's capability to simultaneously develop, coordinate and execute Dynamic and Time Sensitive targets and fire missions, as well as battle space coordination worldwide. JADOCS provides coordination and de-confliction of targeting information at all levels of command structure for the military. JADOCS is used by Air, Ground, Maritime, and Special Operations forces. It provides horizontal (across Services) as well as vertical (within Services) coordination of missions to ensure a common picture of targeting operational status across the entire joint force. As a software application, JADOCS can be configured and customized for each user and location.

Pocket-sized Forward Entry Device (PFED) Increment II is a software application that operates on the Nett Warrior End User Device (EUD). It will provide the dismounted Forward Observer (FO) and Fire Support Teams (FISTs) the capability and functionality to accurately and rapidly locate ground targets and digitally process a Call For Fire. PFED Increment II answers the Mobile Handheld Computing Environment requirement that all handheld applications reside on the Nett Warrior EUD.

AFATDS 7.0 modernizes the existing AFATDS program currently in the field. AFATDS 7.0 enhances the existing AFATDS baseline by: (1) Providing a modernized web service based backend that will simplify long-term maintenance of the software, (2) Bringing AFATDS into full compliance with the Army's Common Operating Environment (COE) Command Post Computing Environment (CPCE) initiative and (3) Enhancing overall usability of the system through the implementation of a role-based capability architecture with embedded training that allows the AFATDS operator to receive on-the-spot training for any aspect of AFATDS via interactive instruction.

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army				Date: February 2018	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I BA 7: Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*		
B. Program Change Summary ($ in Millions)	**FY 2017**	**FY 2018**	**FY 2019 Base**	**FY 2019 OCO**	**FY 2019 Total**
Previous President's Budget	30.455	33.520	29.558	-	29.558
Current President's Budget	29.412	33.520	30.954	-	30.954
Total Adjustments	-1.043	0.000	1.396	-	1.396
• Congressional General Reductions	-0.013	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-1.030	-	1.396	-	1.396

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army											Date: February 2018	
Appropriation/Budget Activity 2040 *I* 7				**R-1 Program Element (Number/Name)** PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*							**Project (Number/Name)** EF6 *I JADOCS*	

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
EF6: *JADOCS*	-	2.717	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	2.717
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Automated Deep Operations Coordination System (JADOCS) is a Joint and Coalition targeting, coordination mission management software application. It links Command and Control (C2), Intelligence, and Air operations information with execution systems using real time collaborative targeting managers, customized for each service or specific functional area. JADOCS is used to significantly enhance the Joint Force and Component Command's capability to simultaneously develop, coordinate and execute Dynamic and Time Sensitive targets and fire missions, as well as battle space coordination worldwide. JADOCS provides coordination and de-confliction of targeting information at all levels of command structure for the military.

JADOCS is used by Air, Ground, Maritime, and Special Operations forces. It provides horizontal (across Services) as well as vertical (within Services) coordination of missions to ensure a common picture of targeting operational status across the entire joint force. As a software application, JADOCS can be configured and customized for each user and location.

JADOCS fires and targeting capabilities will migrate to AFATDS v 7.1. JADOCS v2.0 will be sustained throughout the force until AFATDS 7.1 is fielded and satisfies the requirement for JADOCS fires and targeting functionality. JADOCS v 2.0 software is being developed by CECOM Life Cycle Management Command, Software Engineering Center (SEC).

There is no FY 2019 RDTE funding request.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2017	FY 2018	FY 2019
Title: JADOCS Software Development Efforts	1.222	-	-
Description: Software development of JADOCS v2.0 software.			
Title: Program Management Support Costs for JADOCS	0.596	-	-
Description: Program support for JADOCS v2.0 software development efforts.			
Title: Army and Joint Testing Activities	0.791	-	-
Description: Conduct and support Army and Joint Testing Activities.			
Title: FFRDC	0.001	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF6 *I JADOCS*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Description: FFRDC			
Title: SBIR/STTR	0.107	-	-
Accomplishments/Planned Programs Subtotals	2.717	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• B28504: *JOINT AUTOMATED DEEP OPNS COORDINATION SYSTEM*	1.969	1.722	1.679	-	1.679	0.494	-	-	-	0.000	5.864

Remarks

D. Acquisition Strategy

JADOCS v2.0 is the last version of JADOCS software. JADOCS v2.0 will interoperate with AFATDS. JADOCS v 2.0 will be maintained and sustained until the Joint Users requirements are met by AFATDS and other systems. JADOCS 2.0 is developed under agreement with the LCMC SEC.

E. Performance Metrics

N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2019 Army												**Date:** February 2018		

Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203728A / *Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF6 / *JADOCS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	IA	CECOM LCMC SEC FD : Ft. Sill, OK	21.525	1.221		-		-		-		-	0.000	22.746	-
		Subtotal	21.525	1.221		-		-		-		-	0.000	22.746	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	PM Mission Command (MC) : APG, MD	1.400	0.596		-		-		-		-	0.000	1.996	-
		Subtotal	1.400	0.596		-		-		-		-	0.000	1.996	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Army and Joint Test Support	Various	Joint Service Testing : Various	0.700	0.900		-		-		-		-	0.000	1.600	-
		Subtotal	0.700	0.900		-		-		-		-	0.000	1.600	N/A

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	23.625	2.717	0.000	-	-	-	0.000	26.342	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | **Date:** February 2018

Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203728A / *Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF6 / *JADOCS*

Event Name	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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

Software Development v2.0

Independent Validation & Verification (IV&V) v2.0

Govt Confidence Demo (OT) - v2.0

Air Force Developmental Test - v2.0

Air Force Operational Test - v2.0

Deployment Decision - v2.0

Initial Operational Capability (IOC) - v2.0

Fielding - v2.0

Full Operational Capability (FOC) - v2.0

Exhibit R-4A, **RDT&E Schedule Details:** PB 2019 Army		**Date:** February 2018
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF6 *I JADOCS*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Software Development v2.0	3	2014	1	2017
Independent Validation & Verification (IV&V) v2.0	3	2015	1	2017
Govt Confidence Demo (OT) - v2.0	2	2017	2	2017
Air Force Developmental Test - v2.0	1	2017	2	2017
Air Force Operational Test - v2.0	4	2017	4	2017
Deployment Decision - v2.0	1	2018	1	2018
Initial Operational Capability (IOC) - v2.0	2	2018	2	2018
Fielding - v2.0	2	2018	3	2020
Full Operational Capability (FOC) - v2.0	2	2020	2	2020

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018	

| Appropriation/Budget Activity
2040 I 7 | | | | R-1 Program Element (Number/Name)
PE 0203728A I Joint Automated Deep
Operation Coordination System (JADOCS) | | | | Project (Number/Name)
EF7 I Pocket-Sized Forward Entry Device
(PFED) Inc 2 | | | |

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
EF7: Pocket-Sized Forward Entry Device (PFED) Inc 2	-	2.891	4.537	3.884	-	3.884	3.118	1.508	0.000	2.648	0.000	18.586
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Pocket-sized Forward Entry Device (PFED) Increment II is a software application that operates on the Nett Warrior End User Device (EUD). It will provide the dismounted Forward Observer (FO) and Fire Support Teams (FISTs) the capability and functionality to accurately and rapidly locate ground targets and digitally process a Call For Fire. PFED Increment II answers the Mobile Handheld Computing Environment requirement that all handheld applications reside on the Nett Warrior EUD.

FY 2019 funding of $3.884 million supports the evolutionary software development and testing of PFED Increment II and transition to the mounted computing environment.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Title: Program Management Support Costs for PFED Increment II	0.267	0.662	0.390
Description: Program support for PFED INC II software development efforts. **FY 2018 Plans:** Provide Program Management Office (PMO) support (Core, Matrix, and SETA) for all aspects of the PFED Inc II program including requirements development, software development efforts, logistics, and business management support. **FY 2019 Plans:** Provide Program Management Office (PMO) support (Core, Matrix, and SETA) for all aspects of the PFED Inc II program including requirements development, software development efforts, logistics, and business management support. **FY 2018 to FY 2019 Increase/Decrease Statement:** RDTE management requirements decreasing as development moves to fielding			
Title: PFED INC II Software Development	2.453	3.525	3.244
Description: PFED INC II Software Development **FY 2018 Plans:** Development and testing of Block 2 capabilities. Complete hardware/software integration with Nett Warrior EUD and MFOCS. Complete software Information Assurance certification. **FY 2019 Plans:**			

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 I 7	**R-1 Program Element (Number/Name)** PE 0203728A I *Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF7 I *Pocket-Sized Forward Entry Device (PFED) Inc 2*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Development and testing of Block 2 capabilities. Complete hardware/software integration with Nett Warrior EUD and MFOCS. Complete software Information Assurance certification. ***FY 2018 to FY 2019 Increase/Decrease Statement:*** RDTE development requirements decreasing as development moves to fielding			
Title: Testing ***Description:*** Conduct and Support Army Testing Activities ***FY 2018 Plans:*** Prepare and execute Engineering Release Evaluation/Testing. ***FY 2019 Plans:*** Prepare and execute Engineering Release Evaluation/Testing. ***FY 2018 to FY 2019 Increase/Decrease Statement:*** RDTE test requirements decreasing as development moves to fielding	0.171	0.350	0.250
Accomplishments/Planned Programs Subtotals	2.891	4.537	3.884

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• BZ9851: *BZ9851 POCKET FORWARD ENTRY DEVICE (PFED) - OPA*	4.340	4.213	10.644	-	10.644	3.726	3.802	5.850	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

On 18 May 2015, the Milestone Decision Authority (PEO C3T) signed the Acquisition Decision Memorandum (ADM) approving the PFED Increment II Milestone B. The Acquisition Decision Memorandum (ADM) officially approved entry into the Development phase as an Acquisition Category (ACAT) III program. The system received a limited deployment decision in Dec 2016 to enter into operational test and subsequently expects to receive full material release in Jan 2018

PFED Increment II leverages an Army Science and Technology investment by transitioning a software application that has been developed and used in proponent experimentation events (e.g. Army Expeditionary Warrior Experiment (AEWE) and Bold Quest). Upon a successful Milestone B decision in FY2015, this software application transitioned to PM Mission Command to conduct all Army developmental and operational test and evaluation requirements. PFED Increment II will be

Exhibit R-2A, **RDT&E Project Justification:** PB 2019 Army		**Date:** February 2018
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF7 *I Pocket-Sized Forward Entry Device (PFED) Inc 2*

integrated onto the Nett Warrior End User Devices (EUDs) and will be fielded by PM Soldier Warrior (PM SWAR). Training on the PFED Increment II software will be conducted by PM Mission Command as units are fielded the capability.

PM Mission Command will continue to manage future capability blocks of software development. PM Mission Command will continue to coordinate with PM Soldier Warrior to field and train future versions of the software, as described above.

E. Performance Metrics
N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army													Date: February 2018		

Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0203728A I Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF7 I Pocket-Sized Forward Entry Device (PFED) Inc 2

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support for PFED Inc2 (CORE)	Sub Allot	PM Mission Command (MC) : APG, MD	-	-		0.100		0.100		-		0.100	0.000	0.200	-
Program Management Support for PFED Inc2 (Matrix)	IA	Various Mix Orgs (Govt) : APG, MD	-	0.075		0.226		0.196		-		0.196	0.000	0.497	-
Program Management Support for PFED Inc2 (SETA)	C/FFP	CRSA : APG, MD	-	-		0.450		0.390		-		0.390	0.000	0.840	-
Subtotal			-	0.075		0.776		0.686		-		0.686	0.000	1.537	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PFED Increment II Software Development efforts	IA	AMRDEC : Redstone, AL	5.163	2.419	Oct 2017	3.048		2.384		-		2.384	Continuing	Continuing	Continuing
Subtotal			5.163	2.419		3.048		2.384		-		2.384	Continuing	Continuing	N/A

Remarks
SW development contract awarded 6 October 2017

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	Various	PM Mission Command (MC) : APG, MD	1.003	0.151		0.363		0.314		-		0.314	Continuing	Continuing	Continuing
Subtotal			1.003	0.151		0.363		0.314		-		0.314	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army													Date: February 2018		

Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0203728A I Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF7 I Pocket-Sized Forward Entry Device (PFED) Inc 2

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Support (Engineering Release)	Various	Testing : Various	0.560	0.246		0.350		0.500		-		0.500	Continuing	Continuing	Continuing
		Subtotal	0.560	0.246		0.350		0.500		-		0.500	Continuing	Continuing	N/A

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.726	2.891	4.537	3.884	-	3.884	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | | **Date:** February 2018
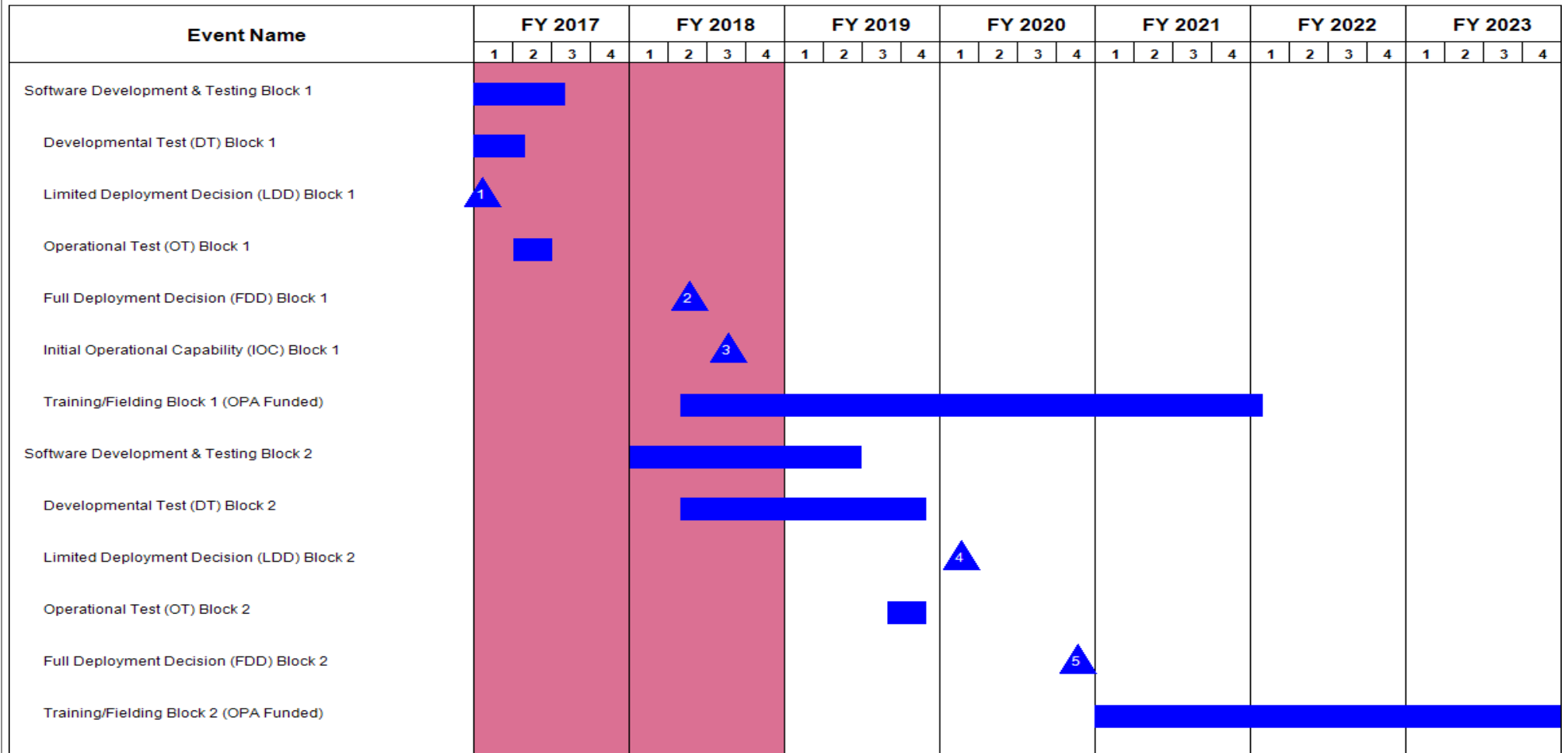
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF7 / Pocket-Sized Forward Entry Device (PFED) Inc 2

Event Name	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
	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
Software Development & Testing Block 1							
Developmental Test (DT) Block 1							
Limited Deployment Decision (LDD) Block 1	1						
Operational Test (OT) Block 1							
Full Deployment Decision (FDD) Block 1		2					
Initial Operational Capability (IOC) Block 1		3					
Training/Fielding Block 1 (OPA Funded)							
Software Development & Testing Block 2							
Developmental Test (DT) Block 2							
Limited Deployment Decision (LDD) Block 2				4			
Operational Test (OT) Block 2							
Full Deployment Decision (FDD) Block 2					5		
Training/Fielding Block 2 (OPA Funded)							

Exhibit R-4A, **RDT&E Schedule Details:** PB 2019 Army		**Date:** February 2018
Appropriation/Budget Activity 2040 I 7	**R-1 Program Element (Number/Name)** PE 0203728A I Joint Automated Deep Operation Coordination System (JADOCS)	**Project (Number/Name)** EF7 I Pocket-Sized Forward Entry Device (PFED) Inc 2

Schedule Details

Events	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Software Development & Testing Block 1	3	2015	3	2017
Developmental Test (DT) Block 1	1	2017	1	2017
Limited Deployment Decision (LDD) Block 1	1	2017	1	2017
Operational Test (OT) Block 1	2	2017	2	2017
Full Deployment Decision (FDD) Block 1	2	2018	2	2018
Initial Operational Capability (IOC) Block 1	3	2018	3	2018
Training/Fielding Block 1 (OPA Funded)	2	2018	1	2022
Software Development & Testing Block 2	1	2018	2	2019
Developmental Test (DT) Block 2	2	2018	4	2019
Limited Deployment Decision (LDD) Block 2	1	2020	1	2020
Operational Test (OT) Block 2	3	2019	4	2019
Full Deployment Decision (FDD) Block 2	4	2020	4	2020
Training/Fielding Block 2 (OPA Funded)	1	2021	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018	

Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0203728A I *Joint Automated Deep Operation Coordination System (JADOCS)*	Project (Number/Name) EF8 I *AFATDS Increment 1*

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
EF8: *AFATDS Increment 1*	-	23.804	28.983	27.070	-	27.070	29.689	16.791	5.261	5.191	0.000	136.789
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Advanced Field Artillery Tactical Data System (AFATDS) 7.0 modernizes the existing AFATDS software currently in the field. AFATDS 7.0 enhances the existing AFATDS baseline by: (1) Providing a modernized web service based backend that will simplify long-term maintenance of the software, (2) Bringing AFATDS into full compliance with the Army's Common Operating Environment (COE) Command Post Computing Environment (CPCE) initiative and (3) Enhancing overall usability of the system through the implementation of a role-based capability architecture with embedded training that allows the AFATDS operator to receive on-the-spot training for any aspect of AFATDS via interactive instruction.

FY 2019 funding in the amount of $27.070 million will be used to continue development efforts on AFATDS version 7.0.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Title: Program Management Costs for AFATDS software development *Description:* Provide program support for AFATDS software development efforts. *FY 2018 Plans:* Provide Program Management Office (PMO) support (Core, Matrix, and SETA) for all aspect of the AFATDS program including requirements analysis, software development efforts, logistics, and business management support. *FY 2019 Plans:* Provide Program Management Office (PMO) support (Core, Matrix, and SETA) for all aspect of the AFATDS program including requirements analysis, software development efforts, logistics, and business management support. *FY 2018 to FY 2019 Increase/Decrease Statement:* Economic adjustment.	2.350	2.560	2.416
Title: AFATDS software development efforts *Description:* Development of AFATDS software - including V6.8.1.1 and V7.0 *FY 2018 Plans:* FY 2018 Development will focus on the AFATDS v7.0 effort to include building fire support, fire control and fire direction role based capabilities, integrating available CP CE v3 common components, and updating the user interface for the application. *FY 2019 Plans:*	19.931	26.423	24.654

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 I 7	R-1 Program Element (Number/Name) PE 0203728A I Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF8 I AFATDS Increment 1

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
FY 2019 Development will continue to focus on the AFATDS v7.0 effort to include building fire support, fire control and fire direction role based capabilities, integrating available CP CE v3 common components, and updating the user interface for the application. **FY 2018 to FY 2019 Increase/Decrease Statement:** Software development continuing at a steady rate.			
Title: Defensive Cyber Tools *Description:* Integration of Tactical Public Key Infrastructure (T-PKI) defensive cyber tools into AFATDS v7.0	1.100	-	-
Title: Operational and Developmental Testing *Description:* Conduct and support test activities for AFATDS development.	0.423	-	-
Accomplishments/Planned Programs Subtotals	23.804	28.983	27.070

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• B28620: *MOD OF IN-* *SVC EQUIP, AFATDS*	2.598	2.765	6.830	-	6.830	6.063	6.006	0.878	4.575	0.000	29.715

Remarks

D. Acquisition Strategy

On 13 May 2015, the Army Acquisition Executive (AAE) determined that a modernization of the existing AFATDS software code is required to comply with Army Common Operating Environment (COE) standards to be executed as AFATDS 7.0. In V7.0, the PM will re-design AFATDS to provide the operator role/duty-based interaction, a dynamic embedded training capability, integration of COE compliant architectures and allowance for more efficient insertion of future capabilities.

Development of future AFATDS capabilities will be considered based on requirements approved through the Fires Center of Excellence (FCoE) Tactical Software Requirements Governance Board.

E. Performance Metrics

N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2019 Army		**Date:** February 2018
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0203728A *I* Joint Automated Deep Operation Coordination System (JADOCS)	**Project (Number/Name)** EF8 *I* AFATDS Increment 1

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support for AFATDS (Core)	Sub Allot	PM Mission Command (MC) : APG, MD	2.491	0.707		0.810		0.837		-		0.837	0.000	4.845	-
Program Management Support for AFATDS (Matrix)	IA	Various Matrix Orgs (Govt) : Aberdeen PG, MD	0.890	0.900		1.010		0.968		-		0.968	0.000	3.768	-
Program Management Support for AFATDS (SETA Contr)	C/FFP	CRSA : Aberdeen PG, MD	0.500	0.743	Feb 2017	0.540		0.627		-		0.627	0.000	2.410	-
Program Management Support for AFATDS (FFRDC)	FFRDC	MITRE : APG, MD	-	-		0.200		0.183		-		0.183	0.000	0.383	-
Subtotal			3.881	2.350		2.560		2.615		-		2.615	0.000	11.406	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017 Cost	FY 2017 Award Date	FY 2018 Cost	FY 2018 Award Date	FY 2019 Base Cost	FY 2019 Base Award Date	FY 2019 OCO Cost	FY 2019 OCO Award Date	FY 2019 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development of AFATDS Version 6.8.1.1	C/CPFF	Raytheon Systems Corp. : Ft. Wayne, IN	21.636	-		-		-		-		-	0.000	21.636	33.188
Software Development of AFATDS Version 7.0	C/CPFF	TBD : TBD	3.000	18.931	Jun 2017	26.423		24.455		-		24.455	0.000	72.809	-
Subtotal			24.636	18.931		26.423		24.455		-		24.455	0.000	94.445	N/A

Remarks
AFATDS 7.0 contract awarded 8 June 2017

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army			Date: February 2018

Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF8 / AFATDS Increment 1

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Information Assurance and Engineering Support for AFATDS requirements	C/CPFF	CSC : Various Locations	1.060	-		-		-		-		-	0.000	1.060	-
Defensive Cyber Tools (T-PKI)	TBD	TBD : TBD	-	1.100		-		-		-		-	0.000	1.100	-
Risk Reduction Analysis, Solution Refinement, Requirements Development, RFP Development.	IA	US Army Operational Test Command : Ft Hood, Tx	1.506	-		-		-		-		-	0.000	1.506	-
Subtotal			2.566	1.100		-		-		-		-	0.000	3.666	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Government Confidence Demo for AFATDS V6.8.x requirements.	IA	Army Test & Evaluation Command (ATEC)/Fires Test Directorate (FTD) : Various Locations	0.626	-		-		-		-		-	0.000	0.626	-
Independent Verification and Validation of AFATDS V7.0 requirements	C/CPFF	Engility : Various Locations	0.515	1.023		-		-		-		-	0.000	1.538	-
Developmental Testing for AFATDS v7.0	IA	Multiple Govt Test Agencies (ATEC, ATC, EPG) : Multiple	0.350	0.400		-		-		-		-	0.000	0.750	-
Subtotal			1.491	1.423		-		-		-		-	0.000	2.914	N/A

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	32.574	23.804	28.983	27.070	-	27.070	0.000	112.431	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army									Date: February 2018

Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)		Project (Number/Name) EF8 / AFATDS Increment 1	

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army | **Date:** February 2018

Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF8 / AFATDS Increment 1

Event Name	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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

Events (bars on schedule):
- V6.8.1.1 P1 Fielding (OPA Funding)
- V6.8.1.1 P2 Development
- V6.8.1.1 P2 Customer Test
- V6.8.1.1 P2 Fielding
- V7.0 Request For Proposal
- V7.0 Development (Primary) Contract Award
- V7.0 Development (Base Period)
- V7.0 Test for Record (Developmental Test/Operational Test)
- V7.0 Fielding Decision
- V7.0 Fielding & New Equipment Training (OPA Funded)
- V7.0.X Development (Option) Contract Option
- V7.0.X Development (Option Period)

Exhibit R-4A, **RDT&E Schedule Details:** PB 2019 Army		**Date:** February 2018
Appropriation/Budget Activity 2040 *I* 7	**R-1 Program Element (Number/Name)** PE 0203728A *I Joint Automated Deep Operation Coordination System (JADOCS)*	**Project (Number/Name)** EF8 *I AFATDS Increment 1*

Schedule Details

Events	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
V6.8.1.1 P1 Fielding (OPA Funding)	4	2018	1	2019
V6.8.1.1 P2 Development	1	2019	1	2019
V6.8.1.1 P2 Customer Test	2	2019	2	2019
V6.8.1.1 P2 Fielding	1	2020	1	2021
V7.0 Request For Proposal	4	2016	2	2017
V7.0 Development (Primary) Contract Award	3	2017	3	2017
V7.0 Development (Base Period)	3	2017	3	2020
V7.0 Test for Record (Developmental Test/Operational Test)	1	2020	1	2021
V7.0 Fielding Decision	2	2021	2	2021
V7.0 Fielding & New Equipment Training (OPA Funded)	4	2021	2	2023
V7.0.X Development (Option) Contract Option	3	2020	3	2020
V7.0.X Development (Option Period)	3	2020	3	2022