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**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCs)
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	43.060	25.489	19.329	-	19.329	4.931	4.180	4.181	4.223	0.000	105.393
EF7: Precision Fires Warrior Dismounted & Mounted	-	3.199	3.024	3.384	-	3.384	3.395	2.762	2.763	2.791	0.000	21.318
EF8: AFATDS Increment 1	-	39.861	22.465	15.945	-	15.945	1.536	1.418	1.418	1.432	0.000	84.075

**A. Mission Description and Budget Item Justification**

This program element captures the funding for Fire Support Command and Control (FSC2) programs (Advanced Field Artillery Tactical Data System (AFATDS) and Precision Fires-Dismounted/Mounted (PF-D/M)), and their support to the Long Range Precision Fires (LRPF) and Network Cross Functional Teams (CFT). LRPF is the #1 priority and the network is the #4 priority in the Army Modernization Strategy, Efforts support the Common Operating Environment and align to the Network CFT's capability set approach.

FSC2 systems automate the planning and execution of fire support operations so suitable weapons or a group of weapons adequately cover targets. Fire support is the effect of lethal and non-lethal weapons (fires) that directly support land, maritime, amphibious and special operations forces to engage enemy forces, combat formations and facilities in pursuit of tactical and operational objectives.

AFATDS supports LRPF munitions, Extended Range Canon Artillery (ERCA), Extended Range Guided Multiple Launch Rocket System (ER-GMLRS), Precision Strike Missile System (PRSM), Joint Targeting support to multi-domain operations, and emerging sensor to shooter initiatives. To support these initiatives, AFATDS will serve as the key sensor to shooter link for the Army and Marine Corps, providing fully automated support for planning, coordinating, controlling and executing fires and effects. AFATDS began supporting Long Range Hypersonic Weapons in FY20.

AFATDS provides the Army and Marine Corps automated fire support command, control and communications. AFATDS is used to plan, execute, and deliver lethal and non-lethal effects and provides Joint/Coalition Situational Awareness for fires execution and mission management. The system interoperates and integrates with over 80 different battlefield systems, including Navy and Air Force command and control weapons systems. As a member of the Artillery System Cooperation Agreement (ASCA), AFATDS is interoperable with coalition partner fire support systems. Currently fielding AFATDS 6.8 baseline, which automates the planning, coordination, and control of all fire support assets (field artillery, mortars, close air support, naval gunfire, attack helicopters, offensive electronic warfare, fire support meteorological systems, forward observers, and fire support radars). AFATDS 7 modernizes the software currently in the field and enhances the existing legacy baseline by: (1) Providing a modernized web service backend that will simplify long-term maintenance of the software, (2) Bringing AFATDS into full compliance with the Army's 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.

PF-D/M provides the dismounted and mounted Forward Observer (FO) and Fire Support Teams (FISTs) the ability to execute fire missions. PF-D is a software application that operates on the Nett Warrior End User Device (EUD). It provides the dismounted FO and FISTs the capability and functionality to accurately and rapidly

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Army	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / <i>Joint Automated Deep Operation Coordination System (JADOCs)</i>
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locate ground targets and digitally process a Call for Fire. PF-D answers the Mobile Handheld Computing Environment requirement that all handheld applications reside on the Nett Warrior EUD. PF-M replaces the Lightweight Forward Entry Device's (LFED) Forward Observer Software (FOS) at the maneuver company FIST. PF-M answers the Mounted Computing Environment requirement and will reside on the Mounted Family of Computing Systems (MFOCS) computer.

FY23 funding of \$15.945 million will be used for continued development and testing of AFATDS 7.0 capabilities, specifically, code conversion from Ada to Java, cyber enhancements, some User Interface improvements, Link 16 implementation and required testing.

FY23 funding of \$3.384 million will be utilized for development of PF-D/M Block 3 capabilities onto target computing environments, including Net-enabled weapons capability with joint services. Funding also supports alignment with Nett Warrior architecture changes for PF-D and adapting the PF-D software to integrate with Mounted Mission Command-Software (MMC-S) and operate on the MFOCS within the Mounted Computing Environment.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	43.060	25.547	0.000	-	0.000
Current President's Budget	43.060	25.489	19.329	-	19.329
Total Adjustments	0.000	-0.058	19.329	-	19.329
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	19.329	-	19.329
• FFRDC Transfer	-	-0.058	-	-	-

**Change Summary Explanation**

FY 2023 funding decrease reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 2040 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)				<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
EF7: Precision Fires Warrior Dismounted & Mounted	-	3.199	3.024	3.384	-	3.384	3.395	2.762	2.763	2.791	0.000	21.318
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Precision Fires Dismounted/Mounted (PF-D/M) provides the dismounted and mounted Forward Observer (FO) and Fire Support Teams (FISTs) the ability to execute fire missions. PF-D, is a software application that operates on the Nett Warrior End User Device (EUD). It provides the dismounted FO and FISTs the capability and functionality to accurately and rapidly locate ground targets and digitally process a Call for Fire. PF-D answers the Mobile Handheld Computing Environment requirement that all handheld applications reside on the Nett Warrior EUD. PF-M replaces the Lightweight Forward Entry Device's (LFED) Forward Observer Software (FOS) at the maneuver company FIST. PF-M answers the Mounted Computing Environment requirement and will reside on the Mounted Family of Computing Systems (MFOCS) computer.

FY23 funding of \$3.384 million will be utilized for development of Block 3 capabilities onto target computing environments, including net-enabled weapons capability with joint services. Funding also supports alignment with Nett Warrior architecture changes for PF-D and adapting the PF-D software to integrate with Mounted Mission Command-Software (MMC-S) and operate on the MFOCS within the Mounted Computing Environment.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Program Management Support Costs for PF-D/M	0.410	0.409	0.418
<b>Description:</b> Program support for Precision Fires Dismounted/Mounted (PF-D/M) software development efforts. This includes contractor and matrix support.			
<b>FY 2022 Plans:</b> Will provide PMO support for all aspects of the PF-D/M program including requirements development, software development efforts, logistics and business management support.			
<b>FY 2023 Plans:</b> Will provide Matrix and Contractor/SETA support to PMO for all aspects of the PF-D/M program including requirements development, software development efforts, logistics and business management support.			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding remains relatively constant from FY2022 to FY2023.			
<b>Title:</b> PF-D/M Software Development	2.291	2.006	2.668

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Description:</b> PF-D/M Software Development</p> <p><b>FY 2022 Plans:</b> PF-M Block 3 development.</p> <p><b>FY 2023 Plans:</b> Development of PF-D/M Block 3 capabilities onto target Computing Environments. Alignment with Nett Warrior architecture changes for Dismounted efforts and adapting PF-D software to integrate with MMC-S and operate within the Mounted Computing Environment.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding increase to support larger scope of development of Block 3 capabilities and begin integration of PF-D software with MMC-S to operate within the Mounted Computing Environment.</p>				
<p><b>Title:</b> Testing for PF-D/M</p> <p><b>Description:</b> Conduct and Support Army Testing Activities for PF-D/M</p> <p><b>FY 2022 Plans:</b> DT/OT testing of Block 3.</p> <p><b>FY 2023 Plans:</b> Will perform internal verification and validation testing of software releases.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease due to reduced test activities.</p>		0.498	0.498	0.298
<p><b>Title:</b> SBIR/STTR</p> <p><b>Description:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2022 Plans:</b> Funding transferred in accordance with Title 15 USC ?638</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding transferred in accordance with Title 15 USC ?638</p>		-	0.111	-
<b>Accomplishments/Planned Programs Subtotals</b>		3.199	3.024	3.384

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• BZ9851: <i>POCKET FORWARD ENTRY DEVICE (PFED)</i>	3.896	2.648	2.140	-	2.140	2.233	2.333	2.341	2.339	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

PF-D/M is an Acquisition Category III program established to satisfy requirements captured in the Pocket-sized Forward Entry Device (PFED) Inc 2 Capability Production Document (CPD), which was approved as an IT Box requirement. A blocking approach was approved at Milestone B in 2015 to provide structure for incremental capability development over time.

PF-D/M is developed in partnership with a government integrator using a blocking approach where capability is incrementally added to the overall baseline.

PF-D/M Block 1 leveraged an Army Science and Technology (S&T) investment by transitioning a software application that was being developed and used in proponent experimentation events (e.g. Army Expeditionary Warrior Experiment (AEWE) and Bold Quest). Upon a successful Milestone B decision in FY15, this software application transitioned to PM Mission Command (PMMC) to conduct all Army developmental and operational test and evaluation requirements. With both the Mobile Handheld and Mounted Computing environments migrating towards a technical foundation that operates on an ATAK software baseline, the PF-D software was further adapted to coalesce to a new common operating environment. Reusable components and services were taken from the S&T baseline to help satisfy operational requirements and enhance the end user experience provided with the ATAK infrastructure.

PF-D Block 2 focused on transitioning from a standalone Android application to a plugin on the Android Tactical Assault Kit (ATAK) architecture. Capabilities include Sensor Interoperability, and Digitally Aided Close Air Support over the Link 16 network. A Full Deployment Decision for Block 2 was approved and Acquisition Decision Memorandum signed in Feb 22.

PF-D/M Block 3 encompasses the continuation of PF-D software with additional capabilities for the handheld environment, and begins the development of PF-M by transitioning PF-D software to the mounted environment. PF-M replaces the FOS at the maneuver company FIST and is different from PF-D in that it resides on the mounted platforms and leverages the vehicle's interfaces. The first generation of PF-M (Block 3) will reside on the Mounted Family of Computer Systems (MFOCS) computer to meet the Mounted Computing Environment (MCE) directive. Like NW, PdM Joint Battle Command - Platform (JBC-P) will provide an ATAK-based infrastructure called Mounted Mission Command - Software (MMC-S) to run the PF-M capabilities as a plugin. The PF-M will continue to be developed in partnership with a government integrator and will reuse previously developed components available under the ATAK architecture to serve as the baseline in order to satisfy mission requirements. A Block 3 Build Decision was achieved in Nov 21.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted
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<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support for PF-D/M (CORE)	Sub Allot	PM Mission Command (MC) : APG, MD	0.100	-		-		-		-		-	0.000	0.100	-
Program Management Support for PF-D/M (Matrix)	IA	Various Mix Orgs (Govt) : APG, MD	0.491	0.119		0.205		0.200	Feb 2023	-		0.200	0.000	1.015	Continuing
Program Management Support for PF-D/M (SETA)	C/FFP	CACI : APG, MD	0.650	-		0.204		0.218	Mar 2023	-		0.218	0.000	1.072	Continuing
FY22 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.111	Mar 2022	-		-		-	0.000	0.111	-
<b>Subtotal</b>			1.241	0.119		0.520		0.418		-		0.418	0.000	2.298	N/A

<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PF-D/M Software Development efforts	IA	DEVCOM C5ISR, ESI : APG, MD	16.490	2.892		2.006		2.668	Oct 2023	-		2.668	Continuing	Continuing	Continuing
<b>Subtotal</b>			16.490	2.892		2.006		2.668		-		2.668	Continuing	Continuing	N/A

**Remarks**  
Funding increase to support larger scope of development of Block 3 capabilities and begin integration of PF-D software with MMC-S to operate within the Mounted Computing Environment.

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	Various	PM Mission Command (MC) : APG, MD	1.517	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			1.517	-		-		-		-		-	Continuing	Continuing	N/A

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted
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Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Support (Engineering Release)	Various	Testing : Various	1.573	0.188		0.498		0.298	Jan 2023	-		0.298	Continuing	Continuing	Continuing
<b>Subtotal</b>			1.573	0.188		0.498		0.298		-		0.298	Continuing	Continuing	N/A

**Remarks**  
Decrease due to reduced test activities.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	20.821	3.199	3.024	3.384	-	3.384	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Army</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
PF-D SW Development Block 2	████████████████																											
LDD Block 2		▲																										
Operational Test and Evaluation (OT&E) Block 2			■																									
BD Block 3						▲																						
Full Deployment Decision Block 2							▲																					
PF-D/M Software (SW) Development Block 3					██																							
Internal verification and validation testing of Engineering Releases									████████████████																			
PF-D Block 3 DT/OT														■														
PF-D/M Block 3 FDD																				▲								

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Army		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF7 / Precision Fires Warrior Dismounted & Mounted

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone B	3	2015	3	2015
Limited Deployment Decision (LDD)	4	2016	4	2016
Operational Test (OT)	4	2016	4	2016
Full Deployment Decision (FDD)	2	2017	2	2017
Initial Operational Capability (IOC)	3	2017	3	2017
Build Decision (BD) Block 2	2	2018	2	2018
PF-D SW Development Block 2	2	2019	1	2022
LDD Block 2	2	2021	2	2021
Operational Test and Evaluation (OT&E) Block 2	3	2021	3	2021
BD Block 3	1	2022	1	2022
Full Deployment Decision Block 2	2	2022	2	2022
PF-D/M Software (SW) Development Block 3	1	2022	3	2024
Internal verification and validation testing of Engineering Releases	1	2023	4	2023
PF-D Block 3 DT/OT	2	2024	3	2024
PF-D/M Block 3 FDD	3	2025	3	2025

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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
EF8: AFATDS Increment 1	-	39.861	22.465	15.945	-	15.945	1.536	1.418	1.418	1.432	0.000	84.075
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Advanced Field Artillery Tactical Data System (AFATDS) supports the Long Range Precision Fires (LRPF) and Network Cross Functional Teams (CFT). LRPF is the #1 priority and the network is the #4 priority in the Army Modernization Strategy, Efforts support the Common Operating Environment and align to the Network CFT's capability set approach.

AFATDS 7 modernizes the existing AFATDS software currently in the field and enhances the existing legacy baseline by: (1) Providing a modernized web service 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.

AFATDS supports Long Range Precision Fires (LRPF) CFT, Extended Range Canon Artillery (ERCA), Extended Range Guided Multiple Launch Rocket System (ER-GMLRS), Precision Strike Missile System (PRSM), Joint Targeting support to multi-domain operations, and emerging sensor to shooter initiatives. To support these initiatives, AFATDS will serve as the key sensor to shooter link for the Army and US Marine Corps providing fully automated support for planning, coordinating, controlling and executing fires and effects. AFATDS began supporting Long Range Hypersonic Weapons in FY20.

FY23 funding of \$15.945 million will be used for continued development and testing of AFATDS 7.0 capabilities, specifically, code conversion from Ada to Java, cyber enhancements, some User Interface improvements, Link 16 implementation and required testing.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Program Management Costs for AFATDS software development	4.004	3.074	1.971
<b>Description:</b> Provide program support for AFATDS software development efforts.			
<b>FY 2022 Plans:</b> Continue to provide PMO support (Matrix, and Systems Engineering and Technical Assistance (SETA)) for all aspects of the AFATDS program including requirements analysis, software development efforts, logistics and business management support.			
<b>FY 2023 Plans:</b>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Continue to provide PMO support (Matrix, and Systems Engineering and Technical Assistance (SETA)) for all aspects of the AFATDS program including requirements analysis, software development efforts, testing, logistics and business management support.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease reflects reduction in PMO personnel to align with reduced development efforts.				
<b>Title:</b> AFATDS software development efforts  <b>Description:</b> Development of AFATDS 7.0 software  <b>FY 2022 Plans:</b> continue development of AFATDS 7 capabilities, specifically, code conversion from Ada to Java, cyber enhancements and some User Interface improvements.  <b>FY 2023 Plans:</b> Complete development of AFATDS 7.0 capabilities, specifically, code conversion from Ada to Java, cyber enhancements, Link 16 implementation, and some User Interface improvements.  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Decrease in cost as software development efforts complete and transition to support testing.		33.982	18.569	7.354
<b>Title:</b> AFATDS 7.0 test events  <b>Description:</b> AFATDS 7.0 Test Support  <b>FY 2023 Plans:</b> Complete required testing for AFATDS 7.0, including development, internal verification & validation, safety certification, operational fires, Army Interoperability Certification, and Joint Interoperability Testing. The program has a well-established internal verification and validation process which will be conducted while the software is being developed to verify the design, validate issues and/or identify new issues to be addressed to ensure stable designs are carried into the formal developmental and operational tests (DT and OT, respectively).  <b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase supports required AFATDS 7.0 test events and activities including DT/OT, internal verification & validation, safety certification, operational fires, Army Interoperability Certification, and Joint Interoperability Testing.		1.875	-	6.620
<b>Title:</b> SBIR/STTR  <b>Description:</b> Funding transferred in accordance with Title 15 USC ?638		-	0.822	-

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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>FY 2022 Plans:</b> Funding transferred in accordance with Title 15 USC ?638			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding transferred in accordance with Title 15 USC ?638			
<b>Accomplishments/Planned Programs Subtotals</b>	39.861	22.465	15.945

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• B28620: MOD OF IN-SVC EQUIP, AFATDS	5.494	7.205	7.536	-	7.536	6.793	0.913	0.915	0.915	0.000	29.771

**Remarks**

**D. Acquisition Strategy**

The AFATDS 7 requirement was validated by the Joint Requirements Oversight Council (JROC) under the AFATDS Increment 2 Capability Definition Document (CDD) in June 2011. On 13 May 2015, the Army Acquisition Executive (AAE) approved AFATDS as a modification to the existing program, continuing as an Acquisition Category (ACAT) II defense acquisition program (DAP) (non-Automated Information System) with PEO C3T oversight. The AFATDS 7 is a software only modification/modernization effort that will be hosted on already fielded hardware used for legacy AFATDS software.

AFATDS 7 will modernize the underlying architecture of AFATDS to bring it in line with modern software development methodologies and leverage more mainstream technologies which will be easier to sustain long term than the currently fielded system. This modernization effort will eliminate cyber vulnerabilities, update back end code to a modern language (Java), modernize the user interface to reduce user workload and include embedded training that enables the Soldier to receive refresher training on key system capabilities on demand 24/7/365.

The AFATDS Increment 2 CDD was approved under an IT Box construct, which promotes evolutionary development by facilitating requirement refinement and the incorporation of the latest technology. While the JROC Memorandum (JROCM) 083-11 validated the AFATDS 7 performance parameters, it also delegated authority for identifying and approving future capability requirements that fall within the CDD's scope to the Fires Support Command and Control (FSC2) Tactical Software Requirements Governance Board. Subsequent versions of AFATDS 7 will be achieved through a full and open competition planned for FY24 and will continue to be developed to achieve full compliance with the Army's COE, Command Post Computing Environment (CPCE) initiative, and enhance 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.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCs)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1
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<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Program Management Support for AFATDS (Core)	Sub Allot	PM Mission Command (MC) : APG, MD	4.008	-		-		-		-		-	0.000	4.008	-
Program Management Support for AFATDS (Matrix)	IA	Various Matrix Orgs (Govt) : Aberdeen PG, MD	3.769	1.491		1.277		0.898	Oct 2022	-		0.898	0.000	7.435	-
Program Management Support for AFATDS (SETA Contr)	C/FFP	CACI : Aberdeen PG, MD	2.610	1.147	Mar 2021	1.797	Mar 2022	1.073	Mar 2023	-		1.073	0.000	6.627	-
Program Management Support for AFATDS (FFRDC)	FFRDC	MITRE : APG, MD	0.383	-		-		-		-		-	0.000	0.383	-
Taxes	TBD	PEO C3T : APG, MD	1.351	-		-		-		-		-	0.000	1.351	-
FY22 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.822	Mar 2022	-		-		-	0.000	0.822	-
<b>Subtotal</b>			12.121	2.638		3.896		1.971		-		1.971	0.000	20.626	N/A

**Remarks**  
Decrease reflects reduction in PMO personnel to align with reduced development efforts.

<b>Product Development (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
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	Leidos : APG, MD	111.868	36.949	Jul 2021	18.569		7.354	Oct 2022	-		7.354	0.000	174.740	-
<b>Subtotal</b>			133.504	36.949		18.569		7.354		-		7.354	0.000	196.376	N/A

**Remarks**  
Decrease in cost as software development efforts complete and transition to support testing.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCs)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1
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<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	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	-
<b>Subtotal</b>			2.160	-		-		-		-		-	0.000	2.160	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	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	1.992	0.274		-		-		-		-	0.000	2.266	-
Developmental Testing for AFATDS v7.0	IA	Multiple Govt Test Agencies (ATEC, ATC, OTC) : Multiple	0.750	-		-		6.620	Jan 2023	-		6.620	0.000	7.370	-
<b>Subtotal</b>			3.368	0.274		-		6.620		-		6.620	0.000	10.262	N/A

**Remarks**  
Increase supports required AFATDS 7.0 test events and activities including DT/OT, internal verification & validation, safety certification, operational fires, Army Interoperability Certification, and Joint Interoperability Testing

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		151.153	39.861	22.465	15.945	-	15.945	0.000	229.424	N/A

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Army	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1
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	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
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<b>Remarks</b>	
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2023 Army</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
AFATDS v7.0 Development																												
v7.0 Developmental/Operational Testing																												
Full Deployment Decision													▲ 1															
First Unit Equipped (FUE)													▲ 2															
AFATDS 7.1 Development																												
AFATDS 7.1 DT/OT																												
Internal verification and validation testing of Engineering Releases																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2023 Army</b>		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	<b>Project (Number/Name)</b> EF8 / AFATDS Increment 1

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AFATDS v7.0 Development	1	2021	2	2023
v7.0 Developmental/Operational Testing	2	2023	3	2023
Full Deployment Decision	2	2024	2	2024
First Unit Equipped (FUE)	3	2024	3	2024
AFATDS 7.1 Development	1	2024	1	2026
AFATDS 7.1 DT/OT	2	2026	3	2026
Internal verification and validation testing of Engineering Releases	1	2023	4	2026