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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	24.556	19.311	42.177	-	42.177	35.185	4.104	4.147	4.194	0.000	133.674
EF7: Precision Fires Warrior Dismounted & Mounted	-	2.913	3.384	4.429	-	4.429	3.081	2.712	2.741	2.772	0.000	22.032
EF8: AFATDS Increment 1	-	21.643	15.927	37.748	-	37.748	32.104	1.392	1.406	1.422	0.000	111.642

A. Mission Description and Budget Item Justification

Fire Support Command and Control (FSC2) funding lines directly align to the Army Long Range Precision Fires (LRPF) and Network modernization priorities.

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. FSC2 systems automate the planning and execution of fire support operations so appropriate munitions are paired with suitable weapons or group of weapons to adequately cover targets.

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 operating on the Nett Warrior End User Device (EUD). It provides the dismounted FO and FISTs the ability and functionality to accurately and rapidly locate ground targets and digitally process a Call for Fires, which is the act of requesting a fire mission against the identified ground target. 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, allowing them to identify ground targets and request fire missions. PF-M answers the Mounted Computing Environment (MCE) requirement and will reside on the Mounted Family of Computing Systems (MFoCS) computer.

Advanced Field Artillery Tactical Data System (AFATDS) provides the Army and Marine Corps automated fire support command, control and communications and supports Hypersonics and LRPF capabilities by 1) serving as the key sensor-to-shooter link for the Army and Marine Corps; and 2) providing fully automated support for planning, coordinating, controlling and executing fires and effects. The Long-Range Precision Fires (LRPF) capabilities include 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.

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. The program is currently fielding the 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).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army	Date: March 2023
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0203728A / <i>Joint Automated Deep Operation Coordination System (JADOCs)</i>
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AFATDS 7 transitions from 1990's AFATDS code to a data centric capability postured for deployment in a variety of hosting environments that will enhance kill chain responsiveness, integrate with Command Post Computing Environment (CPCE), improve cybersecurity posture and optimize future upgrades. It will address requirements to enable hypersonic capabilities and incorporates LRPF capabilities to include ERCA, ER-GMLRS, PrSM enhancements. The modernization effort will overhaul the intuitive user interface based on Soldier feedback, establish a data bridge with CPCE, enable high tempo counter fire operations, and incorporate embedded training. AFATDS 7 also incorporates Link 16 enhancements and additional digital radios.

FY 2024 funding in the amount of \$4.429 million is allocated to Project EF7: Precision Fires Warrior & Dismounted (PF-D/M). FY 2024 funding will be utilized for continued 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 build the PF-M baseline to integrate with Mounted Mission Command-Software (MMC-S) and operate on the MFOCS within the MCE.

FY 2024 funding in the amount of \$37.748 million is allocated to Project EF8: AFATDS Increment 1 and will be used for AFATDS 7 software modernization to support hosting environment flexibility and improve cybersecurity posture, as well as enhancements to enable hypersonic capabilities and incorporate LRPF munition improvements supporting ERCA, ER-GMLRS, PrSM operations.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	25.489	19.329	4.931	-	4.931
Current President's Budget	24.556	19.311	42.177	-	42.177
Total Adjustments	-0.933	-0.018	37.246	-	37.246
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.933	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	37.246	-	37.246
• FFRDC Transfer	-	-0.018	-	-	-

Change Summary Explanation

FY 2024 funding increase reflects modernization efforts in conjunction with development to satisfy hypersonic/LRPF requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army										Date: March 2023		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)				Project (Number/Name) EF7 / Precision Fires Warrior Dismounted & Mounted			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
EF7: Precision Fires Warrior Dismounted & Mounted	-	2.913	3.384	4.429	-	4.429	3.081	2.712	2.741	2.772	0.000	22.032
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, a software application hosted on the Nett Warrior End User Device (EUD), provides the dismounted FO and FISTs the ability and functionality to accurately and rapidly locate ground targets and digitally process a Call for Fires. This action requests a fire mission against the identified ground target. 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 Devices (LFED) Forward Observer Software (FOS) at the maneuver company FIST allowing them to identify ground targets and request fire missions. PF-M answers the Mounted Computing Environment (MCE) requirement and will reside on the Mounted Family of Computing Systems (MFOCS) computer.

FY 2024 funding of \$4.429 million will be utilized for continued 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 MCE on fire support vehicles.

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

	FY 2022	FY 2023	FY 2024
Title: Program Management Support Costs for PF-D/M	0.149	0.168	0.175
Description: Program support for Precision Fires Dismounted/Mounted (PF-D/M) software development efforts. This includes contractor and matrix support.			
FY 2023 Plans: 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.			
FY 2024 Plans: Continue to provide Matrix and Contractor/SETA support to Project Management Office for all aspects of the PF-D/M program including requirements decomposition, software development efforts of Block 3, logistics and business management support.			
FY 2023 to FY 2024 Increase/Decrease Statement: Funding increase supports planned lifecycle of the effort.			
Title: PF-D/M Software Development	2.764	2.773	3.522

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF7 / Precision Fires Warrior Dismounted & Mounted		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Description: PF-D/M Software Development.</p> <p>FY 2023 Plans: 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>FY 2024 Plans: Modifications of PF-D software to align with Nett Warrior architecture changes for hosting on the EUD. Complete development of PF-M software for integration with MMC-S for hosting on the MFCs on fire support platforms. Incorporate necessary changes to accommodate net-enabled weapons capability for joint services.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase due to additional developmental support for two fire support software baselines and address net-enabled weapons capabilities.</p>				
<p>Title: Testing for PF-D/M</p> <p>Description: Conduct and Support Army Testing Activities for PF-D/M.</p> <p>FY 2024 Plans: Conduct Production Qualification and Functional Quality Testing (developmental), customer test (OT) and Army Interoperability Certification testing of PFDM 3.0 software.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase supports three test events planned for FY 2024.</p>		-	-	0.400
<p>Title: SBIR/STTR/FFRDC Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC §638.</p> <p>FY 2023 Plans: Funding transferred in accordance with Title 15 USC §638.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC §638.</p>		-	0.124	-
<p>Title: Training (Interactive Electronic Technical Manuals)</p> <p>FY 2023 Plans:</p>		-	0.319	0.332

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Administrator Interactive Electronic Technical Manuals (IETM) for Precision Fires-Mounted (PF-M) per Mil-Std 40051-1C. FY 2024 Plans: Additions and modifications to Administrator Interactive Electronic Technical Manuals (IETM) for Precision Fires-Mounted (PF-M). FY 2023 to FY 2024 Increase/Decrease Statement: Funding increase supports planned lifecycle of the effort.			
Accomplishments/Planned Programs Subtotals	2.913	3.384	4.429

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• BZ9851: POCKET FORWARD ENTRY DEVICE (PFED)	2.648	2.140	2.213	-	2.213	6.869	2.299	2.300	2.302	Continuing	Continuing

Remarks

D. Acquisition Strategy
Precision Fires-Dismounted/Mounted (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. The Milestone B approved in 2015 codified a blocking approach to provide structure for incremental capability development over time. PF-D/M is developed in partnership with a government integrator.

PF-D/M Block 1 provided the baseline capability upon which subsequent blocks will be built. It leveraged Army Science and Technology (S&T) investment by transitioning a software application that was 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 toward a technical foundation that operates on an Android Tactical Assault Kit (ATAK) software baseline, the PF-D software, operated on the Nett Warrior End User Device 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 within the ATAK infrastructure.

PF-D/M Block 2 focused on transitioning from a standalone Android application to a plugin on the 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 with the Acquisition Decision Memorandum signed in Feb 2022.

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<p>PF-D/M Block 3 encompasses the continuation of PF-D software with additional capabilities for the handheld environment, and began the development of PF-M by adapting the PF-D software to the mounted environment. PF-M replaces the Lightweight Forward Entry Devices (LFED) Forward Observer Software (FOS) at the maneuver company Fire Support Team 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 computer to meet the Mounted Computing Environment directive. Like Nett Warrior, PdM Joint Battle Command - Platform (JBC-P) will provide an ATAK-based infrastructure called Mounted Mission Command - Software 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 mounted baseline to satisfy mission requirements. A Block 3 Build Decision was approved in Nov 2021.</p> <p>The PFED Inc 2 CPD was approved under the IT Box construct and approval authority for future requirements that fall within the CPD's scope was delegated to the Fires Support Command and Control (FSC2) Tactical Software Requirements Governance Board. Tactical Software Change Requests (TSCRs) will be used to capture future requirements to be satisfied in follow-on PF-D/M blocks.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army **Date:** March 2023

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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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 (Matrix)	IA	Various Mix Orgs (Govt) : APG, MD	0.610	0.149		0.168	Feb 2023	0.175	Feb 2024	-		0.175	0.000	1.102	Continuing
Program Management Support for PF-D/M (SETA)	C/FFP	CACI : APG, MD	0.650	-		-		-		-		-	0.000	0.650	Continuing
SBIR/STTR Transfer	TBD	Various : Various	-	-		0.124		-		-		-	0.000	0.124	-
Subtotal			1.260	0.149		0.292		0.175		-		0.175	0.000	1.876	N/A

Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	19.382	2.764		2.773	Oct 2022	3.532	Oct 2023	-		3.532	Continuing	Continuing	Continuing
Training (Interactive Electronic Technical Manuals (IETM))	IA	TYAD : Tobyhanna, PA	-	-		0.319		0.322		-		0.322	0.000	0.641	-
Subtotal			19.382	2.764		3.092		3.854		-		3.854	Continuing	Continuing	N/A

Remarks
Increase due to additional developmental support for two fire support software baselines and address joint service requirements.

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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	1.761	-		-		0.400	Oct 2023	-		0.400	Continuing	Continuing	Continuing
Subtotal			1.761	-		-		0.400		-		0.400	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army								Date: March 2023					
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)				Project (Number/Name) EF7 / Precision Fires Warrior Dismounted & Mounted					
	Prior Years	FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	22.403	2.913		3.384		4.429		-		4.429	Continuing	Continuing	N/A

Remarks
 Increase in T&E supports three test events planned for FY 2024.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) EF7 / Precision Fires Warrior Dismounted & Mounted

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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	█																											
Build Decision (BD) Block 3	▲																											
Full Deployment Decision Block 2		▲																										
PF-D/M Block 3 Software (SW) Development/Integration	█																											
PF-D/M Block 3 DT/OT									█																			
PF-D/M Block 3 AIC													█															
PF-D/M Block 3 Full Deployment Decision (FDD)													▲															
PF-D/M Future Capability Block Development													█				█				█							

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / Joint Automated Deep Operation Coordination System (JADOCS)	Project (Number/Name) 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
Build Decision (BD) Block 3	1	2022	1	2022
Full Deployment Decision Block 2	2	2022	2	2022
PF-D/M Block 3 Software (SW) Development/Integration	1	2022	2	2024
PF-D/M Block 3 DT/OT	1	2024	3	2024
PF-D/M Block 3 AIC	4	2024	4	2024
PF-D/M Block 3 Full Deployment Decision (FDD)	2	2025	2	2025
PF-D/M Future Capability Block Development	2	2024	4	2028

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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
EF8: AFATDS Increment 1	-	21.643	15.927	37.748	-	37.748	32.104	1.392	1.406	1.422	0.000	111.642
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Fire Support Command and Control (FSC2) funding directly aligns to the Army Long Range Precision Fires (LRPF) and Army Network modernization priorities.

Advanced Field Artillery Tactical Data System (AFATDS) provides the Army and Marine Corps automated fire support command, control and communications and supports Army Hypersonics and LRPF capabilities by 1) serving as the key sensor-to-shooter link for the Army and Marine Corps; and 2) providing fully automated support for planning, coordinating, controlling and executing fires and effects. The LRPF capabilities include 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.

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. The program is currently fielding the 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 transitions from 1990's AFATDS code to a data centric capability postured for deployment in a variety of hosting environments that will enhance kill chain responsiveness, integrates with Command Post Computing Environment (CPCE), improves cyber security posture and optimizes future upgrades. As the modernization effort matures, the AFATDS 7 software will address requirements to enable hypersonic capabilities and incorporate LRPF capabilities, including ERCA, ER-GMLRS, PrSM enhancements. The modernization effort overhauls the system to provide an intuitive user interface based on Soldier feedback, establish a data bridge with CPCE, enable high tempo counter fire operations, and incorporate embedded training. AFATDS 7 also incorporates Link 16 enhancements and additional digital radios.

FY 2024 funding in the amount of \$37.748 million will be used for AFATDS 7 software modernization to support hosting environment flexibility and improve cybersecurity posture, as well as enhancements to enable hypersonic and LRPF munition improvements supporting ERCA, ER-GMLRS, PrSM, as well as address the user interface and embedded training.

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

	FY 2022	FY 2023	FY 2024
Title: AFATDS software development efforts	17.410	13.018	27.392
Description: Development of AFATDS 7 software.			

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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		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>FY 2023 Plans: Complete development of AFATDS 7.0 capabilities, specifically, code modernization, cyber enhancements, Link 16 implementation, and some User Interface improvements.</p> <p>Because of the stop work order and program restructure, testing scheduled to occur in FY 2023 shifted to FY 2024 and the funds allotted to testing (\$6.600 million) was realigned to software development.</p> <p>FY 2024 Plans: Develop modernized software with the flexibility to accommodate a variety of hosting environments (e.g., laptop, server, cloud, etc.) to enable hypersonic capabilities and incorporates Long Range Precision Fires (LRPF) capabilities to include Extended Range Canon Artillery (ERCA), Extended Range Guided Multiple Launch Rocket System (ER-GMLRS), Precision Strike Missile System (PrSM) enhancements. Development will also address user interface upgrades based on Soldier feedback, a data bridge with CPCE, Link 16/digital radio enhancements, and Artillery Systems Cooperation Activities (ASCA) needs and incorporate embedded training while enabling high tempo counter fire operations.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase due to significant modernization efforts in conjunction with development to satisfy hypersonic/LRPF requirements and hosting in multiple environments.</p>				
<p>Title: AFATDS 7 Test events Description: AFATDS 7 Test Support.</p> <p>FY 2024 Plans: Conduct development, internal verification & validation, Army Interoperability Certification testing and begin operational testing (OT). 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 testing and OT.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding Increase reflects efforts of developmental testing and interoperability activities scheduled to begin in FY 2024.</p>		-	-	6.600
<p>Title: SBIR/STTR Transfer Description: Funding transferred in accordance with Title 15 USC §638.</p> <p>FY 2023 Plans:</p>		-	0.581	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Funding transferred in accordance with Title 15 USC §638.			
FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC §638.			
Title: Program Management Costs for AFATDS software development	4.233	2.328	3.756
Description: Provide program support for AFATDS software development efforts.			
FY 2023 Plans: 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.			
FY 2024 Plans: Program Management Support to include: 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.			
FY 2023 to FY 2024 Increase/Decrease Statement: Increase due to additional program management support required to execute a dual-path development approach--software modernization and satisfying Long Range Precision Fires requirements -- and assure software can be hosted in various environments.			
Accomplishments/Planned Programs Subtotals	21.643	15.927	37.748

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• B28620: MOD OF IN-SVC EQUIP, AFATDS	7.205	7.536	7.839	-	7.839	12.288	0.899	0.900	0.900	0.000	37.567

Remarks

D. Acquisition Strategy
AFATDS 7-based on the Jun 2011 Joint Requirements Oversight Council (JROC) validated Capability Definition Document (CDD)-will modernize the underlying architecture of AFATDS leveraging current software development methodologies (e.g., agile) and techniques (i.e., DEVSECOPS) which will create baseline code that is easier to sustain than the legacy software. On 13 May 2015, the Army Acquisition Executive (AAE) approved AFATDS as a modification to the existing program,

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203728A / <i>Joint Automated Deep Operation Coordination System (JADOCS)</i>	Project (Number/Name) EF8 / <i>AFATDS Increment 1</i>
<p>continuing it 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 and is being postured for hosting to a wide variety of environments (e.g., laptop, server, cloud, etc.) in accordance with user needs at different echelons.</p> <p>AFATDS 7 will modernize the underlying architecture of AFATDS leveraging current software development methodologies (e.g., agile) and techniques (i.e., DEVSECOPS) which will create baseline code that is easier to sustain than the legacy software. This modernization effort will eliminate cyber vulnerabilities, update back-end code to a modern language, improve the user interface to reduce user workload and include embedded training to enable on-demand refresher training on key system capabilities for Soldiers 24/7/365. By migrating to an agile development approach and releasing software on an annual basis, the program will be more responsive to emerging hypersonic and Long Range Precision Fires (LRPF) needs/munitions. Additionally, it maximizes flexibility to receive technology insertions and expand hosting options for new munitions.</p> <p>The AFATDS 7 contract was awarded in 2017 via full and open competition; however, due to continual vendor schedule delays and projected cost overruns associated with the estimate at completion, a stop work order was issued in Jan 2023. An alternate strategy has been implemented to continue software modernization using a government developer. The schedule (R-4) reflects the changes resulting from this situation. This new approach, which will combine the modernization efforts with hypersonics/LRPF enhancements and is intended to support annual deliveries of modernized capabilities that address emerging munitions and firing platforms.?</p> <p>The AFATDS CDD was approved in 2011. JROC Memorandum (JROCM) 083-11 provided an additional flexibility by delegating approval authority for identifying and approving future capability requirements that fall within the CDD's scope to an established governance organization, Fires Support Command and Control (FSC2) Tactical Software Requirements Governance Board. This requirements strategy promotes evolutionary development by facilitating requirement refinement and the incorporation of the latest technology.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army **Date:** March 2023

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
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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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 AFATDS (Matrix)	IA	Various Matrix Orgs (Govt) : Aberdeen PG, MD	5.260	1.011		0.612	Oct 2022	1.503	Oct 2023	-		1.503	0.000	8.386	-
Program Management Support for AFATDS (SETA Contr)	C/FFP	CACI : Aberdeen PG, MD	3.757	3.222	Mar 2022	1.716	Mar 2023	2.253	Mar 2024	-		2.253	0.000	10.948	-
SBIR/STTR Transfer	TBD	Various : Various	-	-		0.581		-		-		-	0.000	0.581	-
Subtotal			9.017	4.233		2.909		3.756		-		3.756	0.000	19.915	N/A

Remarks
Increase due to additional program management support required for to execute a dual-path development approach-software modernization and satisfying Long Range Precision Fires requirements.

Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Software Development of AFATDS Version 7.0	IA	DEVCOM AC : Picatinny, NJ	148.817	17.410		13.018	Oct 2022	-		-		-	0.000	179.245	-
Software Modernization/ Development	IA	DEVCOM AC : Picatinny Arsenal, NJ	-	-		-		27.392	Oct 2023	-		27.392	0.000	27.392	-
Subtotal			148.817	17.410		13.018		27.392		-		27.392	0.000	206.637	N/A

Remarks
Increase due to significant effort needed to address software modernization efforts in conjunction with development to satisfy hypersonic/LRPF requirements and hosting in multiple environments.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army **Date:** March 2023

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
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Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Developmental Testing for AFATDS v7.x	IA	Multiple Govt Test Agencies (ATEC, ATC, OTC) : Multiple	0.750	-		-		1.980	Oct 2023	-		1.980	0.000	2.730	-
Internal Verification and Validation of AFATDS 7.x requirements	MIPR	Engility : Various Locations	2.266	-		-		4.620		-		4.620	0.000	6.886	-
Subtotal			3.016	-		-		6.600		-		6.600	0.000	9.616	N/A

Remarks
Increase based on program restructure, which realigned test activities to FY 2024.

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	160.850	21.643	15.927	37.748	-	37.748	0.000	236.168	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
Advanced Field Artillery Tactical Data System (AFATDS) v...	[Blue bar spanning all quarters from FY 2022 to FY 2028]																											
AFATDS v7.x Development	[Blue bar spanning Q3-FY2023 to Q4-FY2024]																											
AFATDS v7.x Developmental Testing (DT)	[Blue bar spanning Q1-FY2024 to Q2-FY2024]																											
AFATDS v7.x Army Interoperability Certification (AIC) te...	[Blue bar spanning Q3-FY2024 to Q4-FY2024]																											
AFATDS v7.x Operational Testing (OT)	[Blue bar spanning Q1-FY2025 to Q2-FY2025]																											
AFATDS v7.x Joint testing	[Blue bar spanning Q3-FY2025 to Q4-FY2025]																											
AFATDS v7.x Fielding	[Blue bar spanning Q1-FY2026 to Q4-FY2026]																											
AFATDS v7.x First Unit Equipped (FUE)	[Blue triangle pointing up at Q1-FY2026]																											
AFATDS v7.x.1 Development	[Blue bar spanning Q3-FY2024 to Q4-FY2025]																											
AFATDS v7.x.1 DT	[Blue bar spanning Q1-FY2025 to Q2-FY2025]																											
AFATDS v7.x.1 AIC testing	[Blue bar spanning Q3-FY2025 to Q4-FY2025]																											
AFATDS v7.x.1 OT	[Blue bar spanning Q1-FY2026 to Q2-FY2026]																											
AFATDS v7.x.1 Joint testing	[Blue bar spanning Q3-FY2026 to Q4-FY2026]																											

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028																																																																																																																																																																																																																																																			
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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
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 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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.x.4 Development																												
AFATDS v7.x.4 DT																												
AFATDS v7.x.4 AIC testing																												
AFATDS v7.x.4 OT																												
AFATDS v7.x.4 Joint testing																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
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

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Advanced Field Artillery Tactical Data System (AFATDS) v7.x Development	1	2021	4	2029
AFATDS v7.x Development	3	2023	4	2024
AFATDS v7.x Developmental Testing (DT)	1	2024	3	2024
AFATDS v7.x Army Interoperability Certification (AIC) testing	4	2024	4	2024
AFATDS v7.x Operational Testing (OT)	4	2024	1	2025
AFATDS v7.x Joint testing	1	2025	2	2025
AFATDS v7.x Fielding	4	2025	4	2026
AFATDS v7.x First Unit Equipped (FUE)	4	2025	4	2025
AFATDS v7.x.1 Development	4	2024	4	2025
AFATDS v7.x.1 DT	1	2025	3	2025
AFATDS v7.x.1 AIC testing	4	2025	4	2025
AFATDS v7.x.1 OT	4	2025	1	2026
AFATDS v7.x.1 Joint testing	1	2026	2	2026
AFATDS v7.x.1 Fielding	4	2026	4	2027
AFATDS v7.x.2 Development	4	2025	4	2026
AFATDS v7.x.2 DT	1	2026	3	2026
AFATDS v7.x.2 AIC testing	4	2026	4	2026
AFATDS v7.x.2 OT	4	2026	1	2027
AFATDS v7.x.2 Joint testing	1	2027	2	2027
AFATDS v7.x.2 Fielding	4	2027	4	2028
AFATDS v7.x.3 Development	4	2026	4	2027
AFATDS v7.x.3 DT	2	2027	4	2027

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army **Date:** March 2023

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
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Events	Start		End	
	Quarter	Year	Quarter	Year
AFATDS v7.x.3 AIC testing	4	2027	4	2027
AFATDS v7.x.3 OT	4	2027	1	2028
AFATDS v7.x.3 Joint testing	1	2028	2	2028
AFATDS v7.x.3 Fielding	4	2028	4	2029
AFATDS v7.x.4 Development	4	2027	4	2028
AFATDS v7.x.4 DT	2	2028	4	2028
AFATDS v7.x.4 AIC testing	4	2028	4	2028
AFATDS v7.x.4 OT	4	2028	1	2029
AFATDS v7.x.4 Joint testing	1	2029	2	2029
AFATDS v7.x.4 Fielding	4	2029	4	2030

Note

Product Manager Fire Support Command and Control migrated to a government developer in 2nd Quarter FY 2023 and implemented an agile development approach that supports annual capability deliveries. Schedule changes reflect this new approach.