Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army											Date: April 2022	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604805A *I Command, Control, Communications Systems - Eng Dev*							
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	-	10.674	20.107	40.038	-	40.038	34.936	34.573	34.559	34.883	0.000	209.770
593: *Joint Battle Command - Platform (JBC-P)*	-	10.674	20.107	40.038	-	40.038	34.936	34.573	34.559	34.883	0.000	209.770

Note

Beginning with FY 2023, the Army combined the Mounted Computing Environment (MCE) (0604818/EJ5) RDT&E funding line with the JBC- P RDT&E funding line (PE 0604805A/Proj 593). As JBC-P moves towards Full Operational Capability (FOC), the JBC-P RDT&E funding requirement, starting in FY 2023, supports the developments of the Mounted Computing Environment (MCE) software (Mounted Mission Command - Software (MMC-S)) and Blue Force Tracking 3 (BFT3) (Mounted Mission Command-Transport (MMC-T)) to modernize the JBC-P capability.

A. Mission Description and Budget Item Justification

This Program Element (PE) is directly aligned to the Army Network Modernization Strategy Line of Effort (LOE) 2, Common Operating Environment and supports the Network-Cross Functional Team capability set approach to achieve the network modernization strategy through a variety of cross-cutting capabilities (CCC). Specifically, Joint Battle Command - Platform (JBC-P)/Mounted Mission Command (MMC) Family of Systems (FoS) supports the N-CFT (LOE) 2 by utilizing and providing:
- Interoperable data, message, and waveforms
- Integration with Joint Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) and strike capabilities
- Sensors and applications that enable operations across domains
- Critical Interoperability features that bridge the communications gap between the Command Post Computing Environment (CPCE) and Mobile/ Handheld Computing Environment (M/HH CE) (Nett Warrior)
- Data mediation, message format translation, and waveform exchanges across all CEs delivering improved information dissemination
- Mounted Common Operating Picture (COP) data sources, shared blue / red situational awareness, and Position / Location Information across the CEs
- Common, reusable services that enable Warfighting Function (WfF) convergence for rapid capability development and delivery with reduced costs for external PORs
- Mounted platform data sensor collection, processing, and disbursement applications that enable and enhance WfFs on the battlefield
- Foundational CCCs that integrate with Joint C5ISR and strike capabilities

The JBC-P and Mounted Mission Command (MMC) programs are the cornerstone of Joint Forces Command and Control (C2) Situational Awareness (SA) and communications and includes networks which enables the movement of data and provides a secure Blue Force Tracking (BFT) capability in Platforms and Command Posts. This capability provides soldiers and commanders a near real-time map-base view of the battlefield, reducing fratricide and populating the Tactical Common Operating Picture. Modernization of this capability will be accomplished via a MMC Family of Systems (FoS) program approach, which allows the most development flexibility. The MMC FoS addresses the BFT-3 effort (under the MMC Transport (MMC-T) program) and MCE effort (under the MMC Software (MMC-S) program); future programs under the FoS will address network, compute and store requirements.

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army	Date: April 2022
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604805A *I Command, Control, Communications Systems - Eng Dev*

The BFT-3 (MMC-T) program continues development of the next generation BFT capabilities, including Electronic Warfare (EW) and Cyber resiliency and Modular Open Systems Approach (MOSA), developing the next generation BFT-3 (MMC-T) transceiver and encryption device. The BFT-3 (MMC-T) transceiver and encryption device will provide the Warfighter with multiple transports and increased EW and cyber resiliency.

MMC-S, which was previously funded under Mounted Computing Environment (MCE 0604818/EJ5), develops the MCE (MMC-S) capability that will converge Warfighting Function (WfF) Applications into its infrastructure, as well as developing smart routing processes which are utilized by the BFT-3 (MMC-T). MCE (MMC-S) will enhance existing JBC-P capability and prepare the software to host applications (apps) developed by external programs to provide robust WfF capabilities within the MCE.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	10.674	20.121	0.000	-	0.000
Current President's Budget	10.674	20.107	40.038	-	40.038
Total Adjustments	0.000	-0.014	40.038	-	40.038
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	40.038	-	40.038
• FFRDC Transfer	-	-0.014	-	-	-

Change Summary Explanation

Fiscal Year 2023 (FY23) funding increase reflects the fact that the FY22 President's Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army											Date: April 2022	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604805A / *Command, Control, Communications Systems - Eng Dev*				Project (Number/Name) 593 / *Joint Battle Command - Platform (JBC-P)*			
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**
593: *Joint Battle Command - Platform (JBC-P)*	-	10.674	20.107	40.038	-	40.038	34.936	34.573	34.559	34.883	0.000	209.770
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project is directly aligned to the Army Network Modernization Strategy Line of Effort (LOE) 2, Common Operating Environment and supports the Network-Cross Functional Team capability set approach to achieve the network modernization strategy through a variety of cross-cutting capabilities (CCC). Specifically, Joint Battle Command - Platform (JBC-P)/Mounted Mission Command (MMC) Family of Systems (FoS) supports the N-CFT (LOE) 2 by utilizing and providing:
- Interoperable data, message, and waveforms
- Integration with Joint Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) and strike capabilities
- Sensors and applications that enable operations across domains
- Critical Interoperability features that bridge the communications gap between the Command Post Computing Environment (CPCE) and Mobile/ Handheld Computing Environment (M/HH CE) (Nett Warrior)
- Data mediation, message format translation, and waveform exchanges across all CEs delivering improved information dissemination
- Mounted Common Operating Picture (COP) data sources, shared blue / red situational awareness, and Position / Location Information across the CEs
- Common, reusable services that enable Warfighting Function (WfF) convergence for rapid capability development and delivery with reduced costs for external PORs
- Mounted platform data sensor collection, processing, and disbursement applications that enable and enhance WfFs on the battlefield
- Foundational CCCs that integrate with Joint C5ISR and strike capabilities

The JBC-P and Mounted Mission Command (MMC) programs are the cornerstone of Joint Forces Command and Control (C2) Situational Awareness (SA) and communications and includes networks which enables the movement of data and provides a secure Blue Force Tracking (BFT) capability in Platforms and Command Posts. This capability provides soldiers and commanders a near real-time map-base view of the battlefield, reducing fratricide and populating the Tactical Common Operating Picture. Modernization of this capability will be accomplished via a MMC Family of Systems (FoS) program approach, which allows the most development flexibility. The MMC FoS addresses the BFT-3 effort (under the MMC Transport (MMC-T) program) and MCE effort (under the MMC Software (MMC-S) program); future programs under the FoS will address network, compute and store requirements.

The BFT-3 (MMC-T) program continues development of the next generation BFT capabilities, including Electronic Warfare (EW) and Cyber resiliency and Modular Open Systems Approach (MOSA), developing the next generation BFT-3 (MMC-T) transceiver and encryption device. The BFT-3 (MMC-T) transceiver and encryption device will provide the Warfighter with multiple transports and increased EW and cyber resiliency.

MMC-S, which was previously funded under Mounted Computing Environment (MCE 0604818/EJ5), develops the MCE (MMC-S) capability that will converge Warfighting Function (WfF) Applications into its infrastructure, as well as developing smart routing processes which are utilized by the BFT-3 (MMC-T). MCE (MMC-S)

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604805A / *Command, Control, Communications Systems - Eng Dev*	**Project (Number/Name)** 593 / *Joint Battle Command - Platform (JBC-P)*

will enhance existing JBC-P capability and prepare the software to host applications (apps) developed by external programs to provide robust WfF capabilities within the MCE.

FY 2023 funding supports BFT-3 (MMC-T) development providing for the BFT-3 (MMC-T) transceiver and encryption device development contracts and systems engineering efforts to continue the BFT-3 (MMC-T) prototype development. BFT-3 (MMC-T) activities will include the integration of the BFT modular waveform and line of sight waveform on the transceiver; integration of the transceiver and encryption device to each mounted platform; interoperability with the BFT-2 Satellite Network Control Center (SNCC) and Satellite Ground Station (SGS); and upgrade of the Waveform/Network Virtualization for the BFT network to support the new modular waveform and line of sight waveform. In addition, a Critical Design Review (CDR) will be conducted for the BFT-3 transceiver and encryption device along with DEVOPS events during FY 2023.

FY 2023 funding supports MCE (MMC-S) development of MCE convergence of WfF applications and smart routing capabilities. MCE (MMC-S) activities will include development of the MCE infrastructure to host WfF apps; an Operational Test to support a Fielding Decision; and interface development to Integrated and Firing Platforms.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Software/Systems Engineering	9.475	16.503	32.159
Description: Perform Software/Systems Engineering needed to develop BFT-3 (MMC-T) capabilities, applications and services, to include, but not limited to conducting engineering studies, architecture development (network and software), system analyses, technical readiness assessments, technical interchange/exchange meetings/events, and development of related reports and other deliverables. MCE (MMC-S) provides an integrated mission command capability across Platforms, through all echelons, delivering simplicity, intuitiveness, core services and applications, a common look and feel, and functionality across all Warfighting Functions (WfF); Fires, Logistics, Intelligence, and Maneuver. Software development is focused on enhanced situational awareness functions, cross-cutting data exchange services, and Mission Command applications displayed on the next-generation common geospatial solution [map] through a graphical user interface that delivers a "common look and feel" across the CEs. ***FY 2022 Plans:*** Funding supports BFT-3 transceiver and encryption device development contracts and systems engineering efforts to continue prototype development for BFT-3. Support will include the integration of the BFT modular waveform and line of sight waveform on the transceiver, integration of the transceiver and encryption device to each mounted platform, interoperability with the BFT-2 Satellite Network Control Center (SNCC) and Satellite Ground Station (SGS), and upgrade of the Waveform/Network Virtualization for the BFT network to support the new modular waveform and line of sight waveform. A Preliminary Design Review (PDR) and Critical Design Review (CDR) will also be conducted for the transceiver and encryption device development. ***FY 2023 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Funds continue to support software/systems engineering and development of the BFT-3 capability (MMC-T). Specifically, it covers the BFT-3 transceiver and encryption device development contracts. Support will include; the integration of the BFT modular waveform, enabling competition by allowing third party transceiver manufacturers to access and interoperate with the existing BFT network, to include the BFT-2 SNCC and SGS, the integration of a resilient line of sight waveform on a software defined radio, the integration of the transceiver and encryption devices to each mounted platform, and an upgrade of the Waveform/Network Virtualization for the BFT network to support the new modular waveform and line of sight waveform. A CDR will also be conducted for the transceiver and encryption device development. Funds continue software development/systems engineering and incorporation of MCE (MMC-S) baseline capabilities (version 3.1) focused on infrastructure, core utilities, backwards compatibility, and WfF application convergence into a holistic system of systems, while ensuring subsystems function together in accordance with program requirements, specifications, and interoperability requirements. These efforts require extensive development of complex capabilities to ensure robust features are delivered to the Warfighter. Funding will continue development of MMC-S version 3.2, focused on multiple platforms and programs, such as: Platform Integration (Stryker, JLTV, Abrams, Bradley, AMPV), Sensor Integration (Long-Range Acquisition System (LRAS), Improved Target Acquisition System (ITAS), Fire-Support Sensor System (FS3), Netted Lethality Upgrades, Precision Fires - Mounted Integration, finalize Over the Air Updates (Over The Network Keying (OTNK), Map Updates), Remote Display, Improved Route Planning / Navigation, Network Path Diversity (Smart Routing / APACE), additional third-party application integration, message standards migration, netted asset (Non A-PNT), and VICTORY migration. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Overall funding increase reflects inclusion of FY 2023 MCE (MMC-S) efforts (prior years funded in 0604818/EJ5).			
Title: Test, Evaluation and Integration	0.120	0.483	4.400
Description: Test and evaluation (T&E) efforts consist of planning and execution of required test events for MCE (MMC-S) and BFT-3 (MMC-T) to inform fielding decisions and ensure the safe delivery of capability to the Warfighter. T&E events include: Development Operations (DevOps), Developmental Tests (DT), Software Assurance Tests, Capability Set Integration Events, Risk Reduction Tests, DT and Capability Set Operational Demonstration, Army Interoperability Certification (AIC), Security Control Assessment-Validation, and Initial Operational Test and Evaluation (IOT&E). ***FY 2022 Plans:*** Funds support C5ISR lab based internal BFT-3 prototype testing to inform FY22 CDR. Will continue to conduct testing enhancements to the BFT/JBC-P network, to include third party component (transceiver) characterization, and validation, and validation of the initial BFT-3 transceiver and encryption device prototypes. Continue to maintain and upgrade BFT network			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
mitigation test lab (operational risk reduction of the currently fielded BFT 1 and BFT 2 network, to include the Satellite Network Control Center (SNCC), Satellite Ground Station (SGS)), and the updated modular waveform virtualization. ***FY 2023 Plans:*** Funds support the National Security Agency (NSA) Cybersecurity evaluation and subsequent NSA certification for the BFT-3 (MMC-T) Transceiver Encryption Device (TED), as well as Soldier Touch Point (STP) #1. Funds the required AIC and IOT&E events that support the MMC-S version 3.1 Full Deployment Decision planned for FY23. Additionally, funds DevOps activities for MMC-S version 3.2 that will commence in FY23. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The net funding increase is due to the inclusion of MCE (MMC-S) requirements in FY23 (prior years funded in 0604818/EJ5). Individually, BFT-3 (MMC-T) funding increased due to the addition of Soldier Touch Point and Crypto Certification events. MCE (MMC-S) funding decreased to align with the MDA approved schedule change in which the Initial Operational Test (IOT) moved to FY23 in support of FDD.			
Title: PM Support (Matrix & Contractor) ***Description:*** Matrix and contractor support, including technical, logistics, and business staff oversight, for BFT-3 (MMC-T) and MCE (MMC-S). ***FY 2022 Plans:*** Will fund matrix personnel to support to the development of the BFT-3 transceiver and encryption device prototypes, as well as continue to provide technical (SATCOM, Network, Intel, RF, Cyber, Waveform, Transport) and business oversight for JBC-P architecture sustainment and system engineering activities. Program Management includes funds execution, contract management, and logistical support for the BFT-3 standards body (responsible for configuration management, and new technology insertion into the modular open systems architecture, the modular waveform). ***FY 2023 Plans:*** Funds continue to support matrix and contractor personnel to support BFT-3 (MMC-T) and MCE (MMC-S) development/systems engineering and provide technical and business oversight for BFT-3 transceiver and encryption device prototypes, and MMC-S software changes. Technical areas include SATCOM, Network, Intel, Cyber, RF, Waveform and Transport. Additionally, this PM support includes system analyses of Program of Record systems and future systems for integration and convergence into the MCE (MMC-S) baselines, technical readiness assessments and assistance with stakeholder technical exchange meetings and events. Business/program management includes funds execution, contract management and logistical support. Some of this work is secured via Functional Support Agreements (FSAs) between PM MC and various Government support agencies, such	1.079	2.386	3.479

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
as the Combat Capabilities Development Command (CCDC) C5ISR (Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance) Center, and other PEOs (e.g. PEO GCS). ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Overall funding increase reflects inclusion of FY 2023 MCE (MMC-S) efforts (prior years funded in 0604818/EJ5).			
Title: SBIR/STTR Transfer ***FY 2022 Plans:*** Funding transferred in accordance with Title 15 USC ?638 ***FY 2022 to FY 2023 Increase/Decrease Statement:*** Funding transferred in accordance with Title 15 USC ?638	-	0.735	-
Accomplishments/Planned Programs Subtotals	10.674	20.107	40.038

C. Other Program Funding Summary ($ in Millions)

Line Item	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
• W61990: *JOINT BATTLE COMMAND - PLATFORM (JBC-P)*	243.850	253.661	186.515	-	186.515	213.794	240.614	244.014	223.542	Continuing	Continuing

Remarks

Procurement funding (Base funding) is designated for the procurement, fielding, and program management of JBC-P and Mounted Mission Command (starting in FY 2025). JBC-P will complete procurement of its Army Acquisition Objective (AAO)/Basis of Issue (BOI) in FY24, and reach Full Operational Capability (FOC) in FY25. Mounted Mission Command will begin to field BFT-3 (MMC-T) in FY 2025.

D. Acquisition Strategy

The JBC-P program achieved First Unit Equipped in FY15 in response to the JBC-P Capabilities Development Document in lieu of Capabilities Production Document (CDD ILO CPD), which was Joint Requirements Oversight Council (JROC) approved in March 2013. Using the CDD ILO CPD objective requirements, PdM JBC-P began Systems Engineering development in FY17 for the program's next generation Blue Force Tracking (BFT) Open Systems Architecture Developmental and systems engineering efforts are being performed through intra-government collaboration with C5ISR's Research and Technology Integration Directorate (RTI) and the Engineering and Systems Integration Directorate (ESI).

At this same time, PdM JBC-P was overseeing development for the Mounted Computing Environment (MCE), which is one of six computing environments in the Common Operating Environment (COE). MCE is the Army's initiative to provide simple and intuitive Mission Command on-the-Move (MCoTM) and situational awareness down to the platoon level. It is standards based, protected, and supports incremental improvements and Warfighting Function (WfF) app capability enhancements.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
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Modernization of the JBC-P capability will be accomplished via a MMC Family of Systems (FoS) program approach, which allows the most development flexibility. The MMC FoS addresses the BFT-3 effort (under the MMC Transport (MMC-T) program) and MCE effort (under the MMC Software (MMC-S) program); future programs under the FoS will address network, compute and store requirements. This structure allows maximum flexibility to utilize and respond to technological advances to provide cutting-edge capabilities to the Warfighters and out-pace the obsolescence curve.

BFT-3 (MMC-T) is based on the objective requirements in the JBC-P CDD ILO CPD, the MCE RDP, and the Mounted Mission Command-Hardware & Transport (MMC HW&T) Abbreviated CDD. This program will offer a transport agnostic Modular Open System Approach (MOSA) compliant, resilient, multi-band, multi-path capability that enables Commanders' the ability to perform Mission Command on the Move against near-peer adversaries during Multi Domain Operations in cyber- and electronic warfare-denied environments.

The BFT-3 (MMC-T) Materiel Development Decision (MDD) Acquisition Decision Memorandum (ADM) signed in September 2021, designated BFT-3 (MMC-T) an Acquisition Category II program. The life cycle entry point will be identified based on system maturity and CDD status. BFT-3 (MMC-T) utilizes an approved evolutionary acquisition approach punctuated by prototype development of the BFT-3 transceivers and encryption devices, as well as modular waveforms, which will be subjected to Developmental/Operations (DevOps) and Soldier Touch Points (STPs) to inform a MMC HW&T CDD.

In response to the COE Information System-Initial Capability Document (approved in October 2018) and the MCE Requirements Definition Package (RDP) (approved in October 2018), PdM JBC-P established the MMC-S program to develop MCE capabilities. MMC-S provides a common user experience that enables leaders to lead and fight their formations from anywhere on the battlefield. MMC-S serves as the data mediator between disparate computing environments (CEs), including the Command Post Computing Environment (CPCE) and the Mobile/Handheld Computing Environment (Nett Warrior), enabling seamless Mission Command and Common Operating Picture (COP) generation across all three CEs.

The MCE (MMC-S) MDD ADM signed in June 2020 designated MCE (MMC-S) an Acquisition Category II program and identified its entry into the acquisition life cycle at the Limited Deployment Decision (LDD), which was held for version 3.1 in FY22. MCE (MMC-S) utilizes an incremental development approach, leveraging DevOps, to ensure capability is delivered quickly, satisfies requirements, and addresses Warfighter feedback. This agile development process injects enhancements into the baseline software, making it easier and faster to incorporate technological advances. The product office conducts commercial software assessments to determine applicability and suitability for inclusion in the MCE (MMC-S) baseline.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY2022 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.735		-		-		-	0.000	0.735	-
		Subtotal	-	-		0.735		-		-		-	0.000	0.735	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BFT-3 (MMC-T) Software/ Systems Engineering	C/FFP	TBD : TBD	69.326	9.475	Nov 2020	16.503	Nov 2021	17.248	Nov 2022	-		17.248	Continuing	Continuing	-
MCE (MMC-S) Software/ Systems Engineering	SS/ Various	Multiple (Government and industry) : Multiple	-	-		-		14.911	Nov 2022	-		14.911	Continuing	Continuing	-
		Subtotal	69.326	9.475		16.503		32.159		-		32.159	Continuing	Continuing	N/A

Remarks

Overall funding increase reflects inclusion of FY 2023 MCE (MMC-S) efforts (prior years funded in 0604818/EJ5).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Support (Matrix / SETA Contractor)	Various	PM JBC-P : Aberdeen Proving Ground (APG), MD	10.395	1.079	Nov 2020	2.386	Nov 2021	3.479	Nov 2022	-		3.479	Continuing	Continuing	-
		Subtotal	10.395	1.079		2.386		3.479		-		3.479	Continuing	Continuing	N/A

Remarks

Overall funding increase reflects inclusion of FY 2023 MCE (MMC-S) efforts (prior years funded in 0604818/EJ5).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BFT-3 (MMC-T) Develop and Conduct Tests and Assessments	MIPR	Multiple : Multiple	30.274	0.120	Oct 2020	0.483	Oct 2021	0.796	Oct 2022	-		0.796	Continuing	Continuing	-
MCE (MMC-S) Develop and Conduct Tests and Assessments	MIPR	Multiple : Multiple	-	-		-		3.604	Nov 2022	-		3.604	Continuing	Continuing	-
		Subtotal	30.274	0.120		0.483		4.400		-		4.400	Continuing	Continuing	N/A

Remarks

Overall, the funding increase is due to the inclusion of MCE (MMC-S) requirements in FY23 (prior years funded in 0604818/EJ5); however BFT-3 (MMC-T) funding increased due to evaluation and certification events and MCE (MMC-S) T&E funding has decreased from FY22 to FY23 to align with FY23 test efforts.

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	109.995	10.674		20.107		40.038		-		40.038	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
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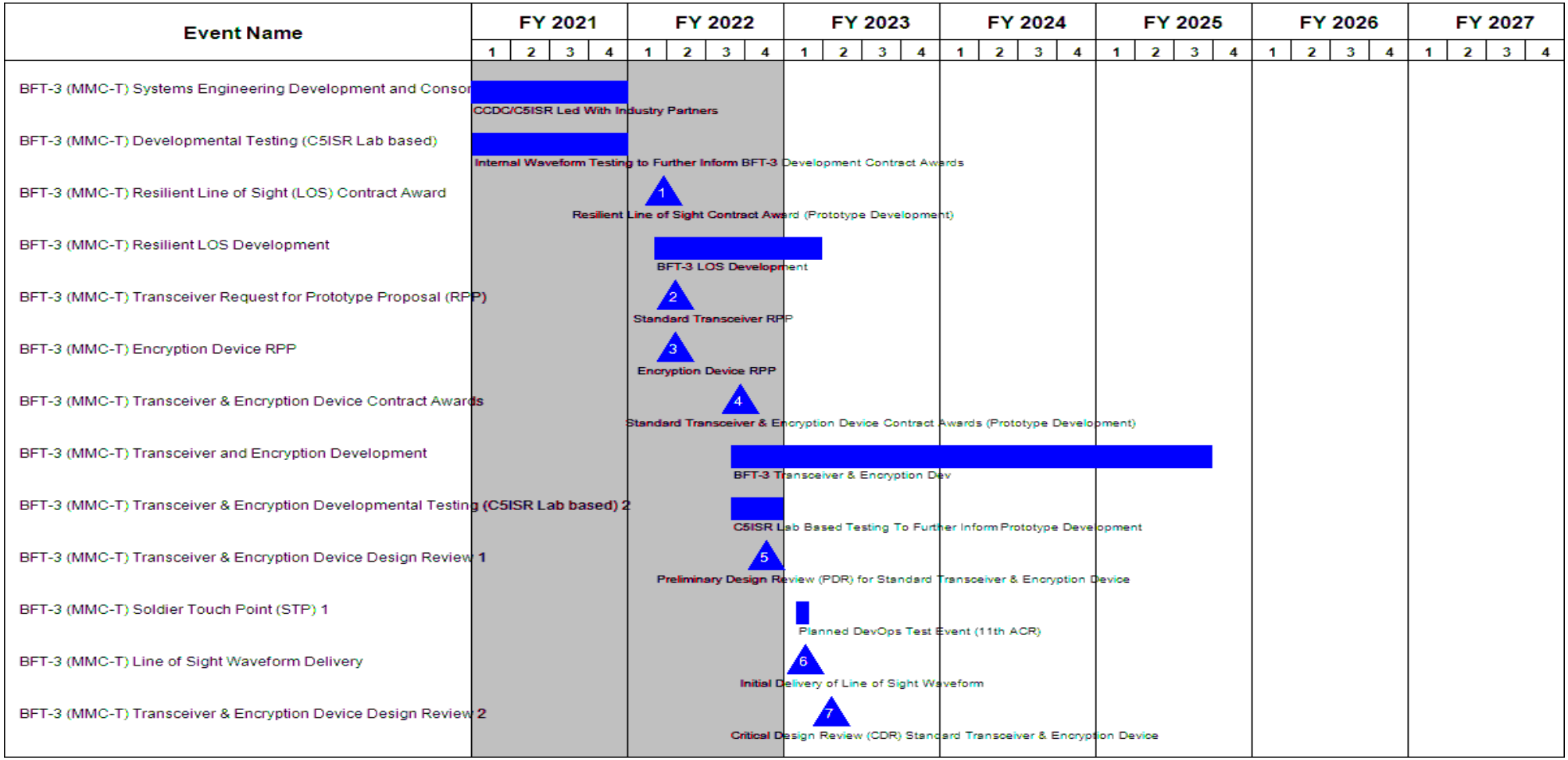


Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604805A / *Command, Control, Communications Systems - Eng Dev*	**Project (Number/Name)** 593 / *Joint Battle Command - Platform (JBC-P)*

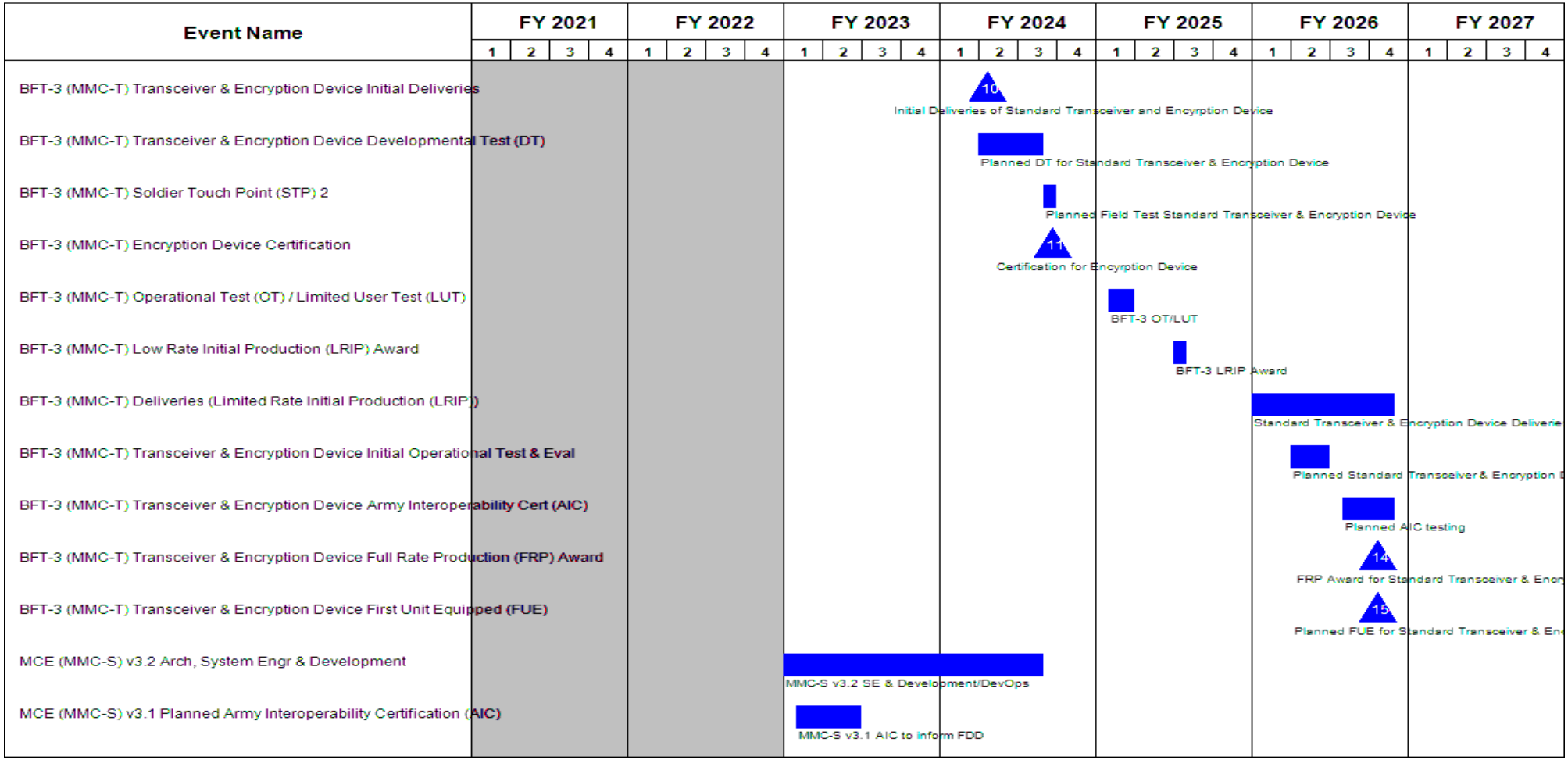
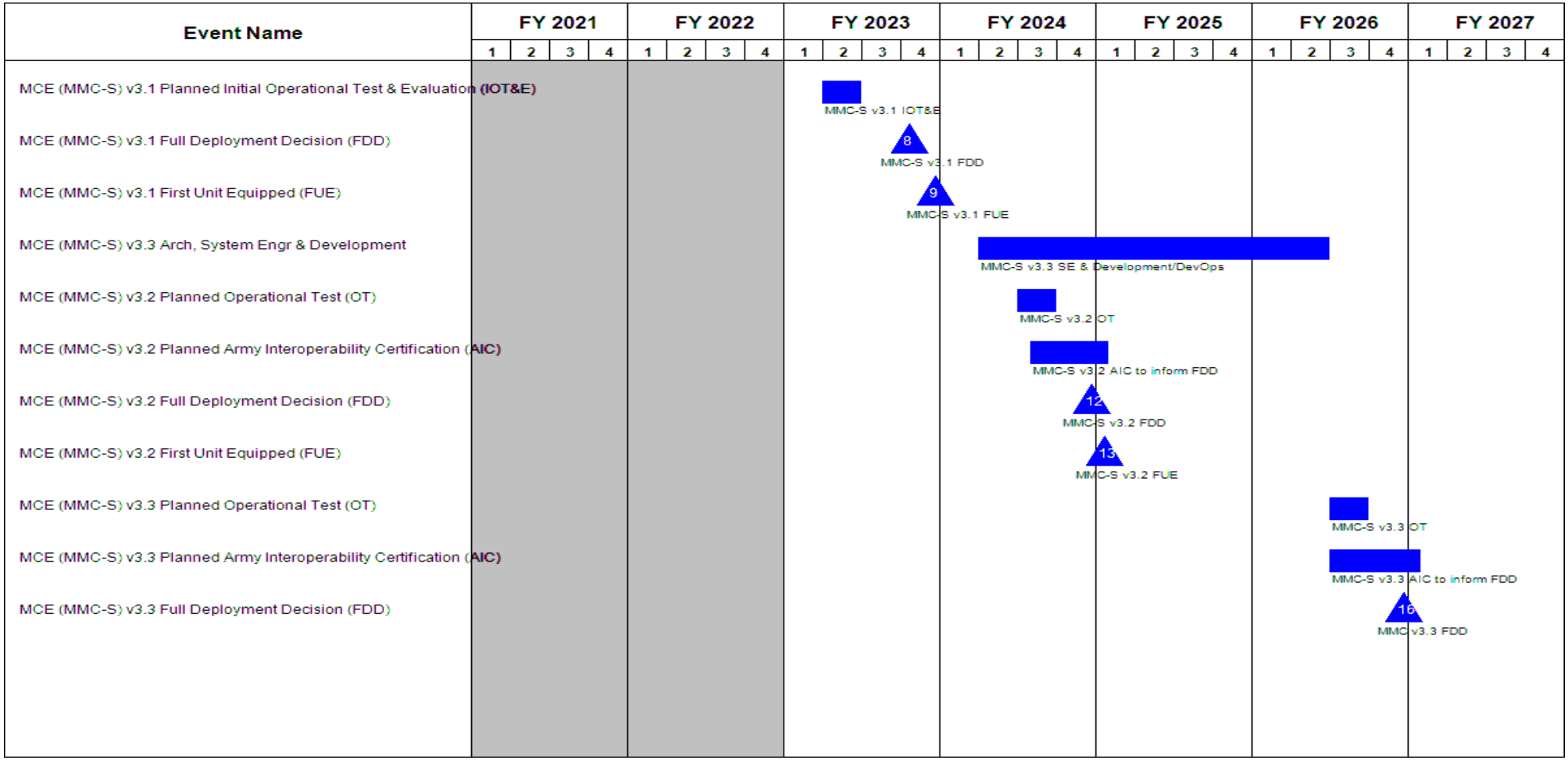


Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604805A / *Command, Control, Communications Systems - Eng Dev*	**Project (Number/Name)** 593 / *Joint Battle Command - Platform (JBC-P)*



Note

Beginning with FY 2023, the Army has realigned Mounted Computing Environment (MCE) (0604818/EJ5) RDT&E funding to this JBC- P RDT&E funding line (PE 0604805A/Proj 593) for the development of the MCE under the Mounted Mission Command - Software (MMC-S) program. These funds will support continued MCE

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604805A / *Command, Control, Communications Systems - Eng Dev*	**Project (Number/Name)** 593 / *Joint Battle Command - Platform (JBC-P)*

(MMC-S) development as part of the MMC Family of Systems (MMC FoS) strategy for modernizing and replacing the JBC-P capability. Consolidating the RDT&E funding enables agile development and flexibility in support of the MMC-FoS.

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604805A / *Command, Control, Communications Systems - Eng Dev*	**Project (Number/Name)** 593 / *Joint Battle Command - Platform (JBC-P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
BFT-3 (MMC-T) Systems Engineering Development and Consortium	2	2017	4	2021
BFT-3 (MMC-T) Developmental Testing (C5ISR Lab based)	1	2021	4	2021
BFT-3 (MMC-T) Resilient Line of Sight (LOS) Contract Award	1	2022	1	2022
BFT-3 (MMC-T) Resilient LOS Development	1	2022	1	2023
BFT-3 (MMC-T) Transceiver Request for Prototype Proposal (RPP)	2	2022	2	2022
BFT-3 (MMC-T) Encryption Device RPP	2	2022	2	2022
BFT-3 (MMC-T) Transceiver & Encryption Device Contract Awards	3	2022	3	2022
BFT-3 (MMC-T) Transceiver and Encryption Development	3	2022	3	2025
BFT-3 (MMC-T) Transceiver & Encryption Developmental Testing (C5ISR Lab based) 2	3	2022	4	2022
BFT-3 (MMC-T) Transceiver & Encryption Device Design Review 1	4	2022	4	2022
BFT-3 (MMC-T) Soldier Touch Point (STP) 1	1	2023	1	2023
BFT-3 (MMC-T) Line of Sight Waveform Delivery	1	2023	1	2023
BFT-3 (MMC-T) Transceiver & Encryption Device Design Review 2	2	2023	2	2023
BFT-3 (MMC-T) Transceiver & Encryption Device Initial Deliveries	2	2024	2	2024
BFT-3 (MMC-T) Transceiver & Encryption Device Developmental Test (DT)	2	2024	3	2024
BFT-3 (MMC-T) Soldier Touch Point (STP) 2	3	2024	3	2024
BFT-3 (MMC-T) Encryption Device Certification	3	2024	3	2024
BFT-3 (MMC-T) Operational Test (OT) / Limited User Test (LUT)	1	2025	1	2025
BFT-3 (MMC-T) Low Rate Initial Production (LRIP) Award	3	2025	3	2025
BFT-3 (MMC-T) Deliveries (Limited Rate Initial Production (LRIP))	1	2026	4	2026
BFT-3 (MMC-T) Transceiver & Encryption Device Initial Operational Test & Eval	2	2026	2	2026
BFT-3 (MMC-T) Transceiver & Encryption Device Army Interoperability Cert (AIC)	3	2026	4	2026

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604805A / *Command, Control, Communications Systems - Eng Dev*	**Project (Number/Name)** 593 / *Joint Battle Command - Platform (JBC-P)*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
BFT-3 (MMC-T) Transceiver & Encryption Device Full Rate Production (FRP) Award	4	2026	4	2026
BFT-3 (MMC-T) Transceiver & Encryption Device First Unit Equipped (FUE)	4	2026	4	2026
MCE (MMC-S) v3.2 Arch, System Engr & Development	1	2023	3	2024
MCE (MMC-S) v3.1 Planned Army Interoperability Certification (AIC)	1	2023	2	2023
MCE (MMC-S) v3.1 Planned Initial Operational Test & Evaluation (IOT&E)	2	2023	2	2023
MCE (MMC-S) v3.1 Full Deployment Decision (FDD)	4	2023	4	2023
MCE (MMC-S) v3.1 First Unit Equipped (FUE)	4	2023	4	2023
MCE (MMC-S) v3.3 Arch, System Engr & Development	2	2024	2	2026
MCE (MMC-S) v3.2 Planned Operational Test (OT)	3	2024	3	2024
MCE (MMC-S) v3.2 Planned Army Interoperability Certification (AIC)	3	2024	1	2025
MCE (MMC-S) v3.2 Full Deployment Decision (FDD)	4	2024	4	2024
MCE (MMC-S) v3.2 First Unit Equipped (FUE)	1	2025	1	2025
MCE (MMC-S) v3.3 Planned Operational Test (OT)	3	2026	3	2026
MCE (MMC-S) v3.3 Planned Army Interoperability Certification (AIC)	3	2026	1	2027
MCE (MMC-S) v3.3 Full Deployment Decision (FDD)	4	2026	4	2026

Note

Beginning with FY 2023, the Army has realigned Mounted Computing Environment (MCE) (0604818/EJ5) RDT&E funding to this JBC- P RDT&E funding line (PE 0604805A/Proj 593) for the development of the MCE under the Mounted Mission Command - Software (MMC-S) program. These funds will support continued MCE (MMC-S) development as part of the MMC Family of Systems (MMC FoS) strategy for modernizing and replacing the JBC-P capability. Consolidating the RDT&E funding enables agile development and flexibility in support of the MMC-FoS.