Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604818A *I Army Tactical Command & Control Hardware & Software*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	128.240	168.574	165.229	-	165.229	105.971	106.960	95.450	93.743	Continuing	Continuing
323: *Common Hardware Systems*	-	4.934	4.630	5.036	-	5.036	5.043	5.096	5.153	5.204	Continuing	Continuing
C29: *Centralized Technical Support Facility (CTSF)*	-	8.910	4.380	4.373	-	4.373	4.478	4.580	4.631	4.677	Continuing	Continuing
C34: *Army Tac C2 Sys Eng*	-	40.433	11.141	11.177	-	11.177	11.190	11.310	11.436	11.550	Continuing	Continuing
DD1: *Unified Network Technology Trans & Integ (UNTTI)*	-	-	7.898	13.203	-	13.203	14.537	12.960	10.420	7.906	Continuing	Continuing
DK3: *Sensor Computing Environment (SCE)*	-	-	-	2.392	-	2.392	-	-	-	-	0.000	2.392
EJ4: *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*	-	26.973	45.489	27.064	-	27.064	27.096	27.385	27.691	27.967	Continuing	Continuing
EJ6: *TACTICAL ENHANCEMENT*	-	-	9.040	-	-	-	-	-	-	-	0.000	9.040
EK9: *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*	-	3.276	49.577	86.642	-	86.642	25.504	26.032	26.692	26.958	0.000	244.681
EQ8: *Mobile/Handheld Computing Environment (M/HHCE)*	-	5.105	7.549	10.332	-	10.332	13.113	14.587	5.419	5.473	Continuing	Continuing
ER9: *Expeditionary Army Command Post*	-	25.314	28.870	5.010	-	5.010	5.010	5.010	4.008	4.008	0.000	77.230
EW3: *Unit Task Reorganization (UTR) Development*	-	13.295	-	-	-	-	-	-	-	-	Continuing	Continuing

Note

Project DK3 / Sensor Computing Environment (SCE) is a new start within the Army Tactical Command & Control Hardware & Software program in FY 2025

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army	Date: March 2024
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604818A *I Army Tactical Command & Control Hardware & Software*

Project EK9, Tactical Network Operations Management funding increased from $49.577 million in FY 2024 to $86.642 million in FY 2025. The increased funding supports acceleration of Unified Network Operations (UNO) Upper-Tier Tactical (UTT) Requirements Definition Package (RDP) requirements, which defines the UNO software capabilities for tactical users at Brigade (BDE) and above echelons. UNO UTT capabilities will extend software development, testing and evaluation, to include soldier engagements, to deliver the planning, management, monitoring, configuring, and securing of the network. UNO UTT will also incorporate enhanced features for Artificial Intelligence (AI) and Machine Learning (ML).

A. Mission Description and Budget Item Justification

Project 323, Common Hardware Systems (CHS) is a mandated Army Strategic Source, as annotated in AR 25-1 that acquires and sustains highly flexible, cost-effective, and simplified non-developmental solutions that integrate the latest and emerging commercial information technology onto the Converged Mission Command Network. This funding line also supports network solution procurement and sustainment for U.S. Army Reserves, U.S. Army National Guard, U.S. Navy, U.S. Air Force, U.S. Marine Corps, and other Federal agencies.

Project C29, the Central Technical Support Facility (CTSF), is the Army's single strategic facility responsible for executing Army Interoperability Certification (AIC) system of system verification/validation checkout, testing, and configuration management for the Army's LandWarNet Baseline. The Centralized Technical Support Facility (CTSF) funding line supports the Army's Network Modernization Strategy Line of Effort LOE 1B Network Enabling Functions.

Project C34, the Army Tac C2 Sys Eng project funds the PEO Command, Control, Communications-Tactical (PEO C3T) System of Systems engineering, Enterprise and Integration efforts. The system engineering efforts are to facilitate overall network interoperability of all the various programs that must be able to seamlessly connect together while addressing their individual distinct requirements. Efforts address continuing evolution of the network within the PEO C3T portfolio of technology across capability enhancement packages to deliver efficient and effective cross-domain technical solution.

Project DD1, Unified Network Technology Transition and Integration (UNTTI) is an RDT&E initiative enabling transport of agnostic, high-capacity and resilient tactical communications for expeditionary operations. UNTTI efforts support system/subsystem development and demonstration, aimed at integration, maturation, evaluation and testing to validate system prototypes meet requirements. In FY2025, the UNTTI efforts include Technical Exchange Meeting (TEM) Projects - Pathway Diversity, Line of Sight (LOS) - Command Post Networking, and Line of Sight Modernization. These technologies support new and improved capabilities with reduced Size, Weight, and Power, while increasing throughput, providing network resiliency and Low Probability of Intercept/Low Probability of Detection.

Project EJ4, the Command Post Computing Environment (CPCE) implements an integrated, interoperable, cyber-secure, software infrastructure that serves as the host for a unified set of multiple warfighting functional applications within the command post at echelons Battalion to Army Service Component Command (ASCC); eliminating "stove-piped" legacy systems, duplicative or redundant implementations, simplifying future application development efforts, and enhancing interoperability and data sharing across multiple echelons. CPCE software infrastructure and applications reside on the Tactical Services Infrastructure (TSI) hardware and BCCS/TSI servers previously fielded under the TMC/MCS program of record. CPCE/TSI provides the software and hardware infrastructure to host capabilities, such as movement and maneuver applications, network enabling tools (i.e. Tactical Defensive Cyber Operation Infrastructure), collaboration tools, and warfighting function applications. This software infrastructure provides the Army's Common Operating Picture (COP) solution, enabling interoperability between command posts, mounted platforms, and dismounted handheld devices while supporting collaboration with Joint and Unified Action partners. CPCE provides common look and feel (user interface), common data strategy, interoperable tactical messaging/ chat, and essential warfighting capabilities.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army	Date: March 2024
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604818A *I Army Tactical Command & Control Hardware & Software*

Project EJ6, this funding line is directly aligned to the Army Network Modernization Priority. Efforts are aligned to support the Army's capability set approach to achieve the network modernization strategy.
Troposcatter Transmission (TROPO): Tactical Enhancement supports the evaluation and testing requirements for TROPO capabilities procured and fielded under the Signal Modernization (SIGMOD) funding line, B00010. TROPO will provide redundancy communications in a Satellite denied environment by providing Beyond Line of Sight (BLOS) capability over longer ranges and at higher throughput than the current BLOS System. TROPO extends the network by utilizing a significantly reduced SWaP radio verses the current system. TROPO will enable Army units to reduce reliance on costly satellite bandwidth. STS: Tactical Enhancement supports the evaluation and testing requirements for Sustainment Transport System (STS) capabilities procured and fielded under the CSS Communications funding line, BD3501. STS is a data transport capability through satellite communications (SATCOM) and an integrated component of the Unified Network (UN) providing unclassified communications to US Army sustainment units in their support to the warfighter. STS provides network connectivity and enables a satellite communications pathway for logistics, financial management, personnel and health service support information to be exchanged on the battlefield across multiple echelons.

Project EK9, Tactical Network Operations Management (TNOM) supports development and testing of the Unified Network Operations (UNO). UNO is foundational to Army network modernization efforts that enhance network security, resiliency, and data exchange, and to the service's Unified Network (UN) vision - which integrates and converges enterprise and tactical networks. UNO is a series of integrated software-based solutions, designed to replace and consolidate existing Network Operations (NetOps) tools. UNO will provide a simple, user-friendly capability for planning, management, monitoring, configuring, and securing the network. UNO provides fully integrated Network and Enterprise Management Systems (NM/EM) and Identity, Credential, and Access Management (ICAM), an important tool in achieving a Zero Trust (ZT) environment. UNO management systems enable users to design and plan the network, which includes configuration, operation, and maintenance functions. The continuous and iterative software development approach for UNO fully integrates cybersecurity capabilities and information dissemination management / content sharing (IDM / CS), including Army ZT initiatives, to enable network mission command functions across the Enterprise and Tactical network environments.

The UNO Middle Tier Acquisition (MTA) Rapid Prototyping effort is $83.712 million RDT&E from FY 2019 - FY 2024. The remainder of the UNO MTA is fully funded across the Future Years Defense Program.

Unified Network Operations (UNO) is a signature modernization effort designed to support the Army of 2030 and 2040 network capabilities objectives. UNO software development will provide continuous development of unified network components to meet the Army's prioritization of desired capabilities.

Project EQ8, Mobile/Handheld Computing Environment (M/HHCE), is one of the six computing environments (CEs) formalized by the Army Acquisition Executive (AAE) under the Common Operating Environment (COE) initiative and supports the Nett Warrior (NW) also known as the Ground Soldier Systems (GSS) program. The program leverages commercial smart devices and secure Army tactical radios, Commercial 4G/LTE/WIFI and cloud-based infrastructure to provide the dismounted leader an integrated mission command and situational awareness system for use during combat operations. The NW system provides leaders electronic real-time information on friendly positions; information about enemy activity and movement; navigational data and map imagery; a collaborative planning tool; and other mission related graphics which effectively puts the power of the entire Army tactical network in the hands of the dismounted leader. The NW hardware is the computational

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army	Date: March 2024
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604818A *I Army Tactical Command & Control Hardware & Software*

platform that other M/HHCE systems run their applications. The M/HHCE will provide incremental improvements with additional application capabilities over time, and will be interoperable with Command Post CE and Mounted CE systems.

Project ER9, Command Post Integrated Infrastructure (CPI2), fields mobile Command Post nodes by integrating mission command solutions into vehicle platforms and mounted shelter systems to enhance the survivability and mobility of command post formations. CPI2 will replace selected elements of the legacy command post to provide improved expeditionary capability, survivability, agility, and scalability for command post formations at all echelons. By integrating mission command warfighting functions on to vehicle platforms, a dispersed command post construct will enable the battle staff to blend in with the overall maneuver formation while giving the commander the ability to synchronize the close fight on the move.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	131.190	168.574	103.953	-	103.953
Current President's Budget	128.240	168.574	165.229	-	165.229
Total Adjustments	-2.950	0.000	61.276	-	61.276
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.001	-			
• SBIR/STTR Transfer	-3.951	-			
• Adjustments to Budget Years	-	-	61.276	-	61.276

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: C34: *Army Tac C2 Sys Eng*		
Congressional Add: *Red Team Automation and Zero Trust Capabilities*	23.000	-
Congressional Add: *Multi-Factor Authentication for Cyber Security*	6.000	-
Congressional Add Subtotals for Project: C34	29.000	-
Congressional Add Totals for all Projects	29.000	-

Change Summary Explanation

FY 2025 funds increased due to acceleration of Unified Network Operations (UNO) Upper-Tier Tactical (UTT) capabilities beginning in FY 2025.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*				Project (Number/Name) 323 / *Common Hardware Systems*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
323: *Common Hardware Systems*	-	4.934	4.630	5.036	-	5.036	5.043	5.096	5.153	5.204	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Common Hardware Systems (CHS) is a mandated Army Strategic Source, as annotated in Army Regulation (AR) 25-1 Army Information Technology (IT) that acquires and sustains highly flexible, cost-effective, and simplified non-developmental solutions that integrate the latest and emerging commercial IT onto the Converged Mission Command Network. Efforts are aligned to support the Network Cross-Functional Team (CFT) capability set approach to achieve network modernization strategy goals. This funding line also supports network solution procurement and sustainment for U.S. Army Reserves, U.S. Army National Guard, U.S. Navy, U.S. Air Force, U.S. Marine Corps, and other Federal agencies.

CHS provides technical support, warranty support, system engineering and design, and end-of-life and configuration management services to ensure interoperability and integration of hardware throughout the computing infrastructure. CHS continuously analyzes and tracks hardware from cradle to grave; from emerging technology until end of life. The program conducts hardware evaluations that facilitate and simplify the selection of common hardware solutions across numerous Army programs, agencies, Joint Services, and other Federal Agencies including: Mission Command; Tactical Network; Tactical Radios; Intelligence Systems and Analytics; Aviation Systems; Counter-Rocket, Artillery, Mortar (C-RAM); Communication Electronics Command; Combat Capabilities Development Command (DEVCOM); Army National Guard and Reserves; Navy; Air Force; Marines; the Federal Bureau of Investigation; among others. CHS rapidly procures common hardware configurations in support of Army 2030/2040, the sustainment community, and tactical programs that enable continuous modernization. CHS logistical services include the ability to add worldwide, 24-hour turn-around repair through strategically located support centers for tactical military units. These support centers provide tailorable supply chain and cybersecurity measures, customizable warranty management, maintenance and failure rate reporting, and technical support services to support specific Army program requirements.

CHS is a model for modern acquisition strategy that strengthens the U.S. cybersecurity supply chain and manages risk by providing hardware solutions including servers, storage, clients, networking devices, tactical radios, ruggedized platforms, hand-held end devices, operational transit cases, installation kits, and peripheral devices procured from a mix of small and large businesses. CHS partners with the CECOM Integrated Logistics Support Center (ILSC) to develop a model for sustaining Commercial Off The Shelf (COTS) IT using the Standard Army Supply System.

CHS supports Better Buying Power (BBP) initiatives by through volume discounting, economies of scale, the elimination of duplication of effort, reduced barriers to entry, price breaks, streamlined processes, reduced cycle times, and centralized contracting.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Acquisition Support	2.809	2.885	2.953

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** 323 / *Common Hardware Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Funding is provided for acquisition support for the following effort. ***FY 2024 Plans:*** Acquisition support for CHS and customer programs. CHS rapidly procures common hardware configurations across all four Network Modernization Lines of Effort, Capability Sets, and Network Cross Functional Team (CFT). Supports tactical/operational programs that enable the continuous modernization of a unified network requirements, the sustainment community, and DoD and Federal Government customers. Program Management Office (PMO) costs will be covered by OMA funding. ***FY 2025 Plans:*** Acquisition support for CHS and customer programs. CHS rapidly procures common hardware configurations across all four Network Modernization Lines of Effort, Capability Sets, and Network Cross Functional Team (CFT). Supports tactical/operational programs that enable the continuous modernization of a unified network requirements, the sustainment community, and DoD and Federal Government customers. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Modest rise in costs for tactical and operational programs designed to facilitate the ongoing modernization of unified network requirements.			
Title: Technical and Test Support ***Description:*** Funding is provided for technical, and testing support for the following effort. ***FY 2024 Plans:*** CHS provides technical support, environmental and survivability testing, system engineering and design, end of life/configuration management, and strengthens cyber security/supply chain management across Army tactical/operational programs to ensure interoperability and integration of hardware throughout the computing infrastructure. CHS conducts hardware evaluations that facilitate and simplify the selection of common hardware solutions across numerous Army programs and agencies. ***FY 2025 Plans:*** CHS provides technical support, environmental and survivability testing, system engineering and design, end of life/configuration management, and strengthens cyber security/supply chain management across Army tactical/operational programs to ensure interoperability and integration of hardware throughout the computing infrastructure. CHS conducts hardware evaluations that facilitate and simplify the selection of common hardware solutions across numerous Army programs and agencies. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned life cycle lines of effort to support the additional workload required to execute the CHS-6 contract.	1.513	1.120	1.446
Title: Logistical Service Support	0.408	0.417	0.425

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** 323 / *Common Hardware Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Funding is provided for logistics services, materiel, and transportation required to support the efforts. ***FY 2024 Plans:*** CHS logistical services include worldwide support with a 72-hour turnaround for repairs, tailorable supply chain and cybersecurity measures, manages customizable warranty, maintenance and failure rate reporting, and technical support services to support specific Army program requirements. ***FY 2025 Plans:*** CHS logistical services include worldwide support with a 24-hour turnaround for repairs, tailorable supply chain and cybersecurity measures, manages customizable warranty, maintenance and failure rate reporting, and technical support services to support specific Army program requirements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase is for the expansion of CHS logistical services encompasses global assistance with a rapid 24-hour repair turnaround, customizable supply chain and cybersecurity measures.			
Title: Contract Support Services ***Description:*** Funding is provided for contract support services for the following effort. ***FY 2024 Plans:*** Contract Support Services are required to provide continuing expedited acquisition support for customer procurements. ***FY 2025 Plans:*** Contract Support Services are required to provide continuing expedited acquisition support for customer procurements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase support services are required to provide continuing expedited acquisition support for customer procurements	0.204	0.208	0.212
Accomplishments/Planned Programs Subtotals	4.934	4.630	5.036

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

CHS is currently executing an approved acquisition strategy to facilitate the procurement of commercial IT through a single award, full and open competition contract. CHS-6 was competitively awarded on 31 August 2023. CHS-6 has a base period of performance of 4 years with two 3 year options. The CHS PMO shaped the CHS-6

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** 323 / *Common Hardware Systems*

contract to allow all Federal Agencies with tactical requirements to achieve their missions and strategic initiatives by providing a rapid and streamlined process and access to critical Commercial Information Technology.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) 323 / *Common Hardware Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Support	C/FP	Various : Various	13.318	2.809	Dec 2022	2.885	Dec 2023	2.953	Dec 2024	-		2.953	Continuing	Continuing	Continuing
Logistical Service Support	C/FP	Various : Various	2.146	0.408	Dec 2022	0.417	Dec 2023	0.425	Dec 2024	-		0.425	Continuing	Continuing	Continuing
Technical & Test Support	C/FP	Various : Various	7.969	1.513	Dec 2022	1.120	Dec 2023	1.446	Dec 2024	-		1.446	Continuing	Continuing	Continuing
		Subtotal	23.433	4.730		4.422		4.824		-		4.824	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Support Services	SS/CR	APG, MD : APG, MD	0.402	0.204	Dec 2022	0.208	Dec 2023	0.212	Dec 2024	-		0.212	Continuing	Continuing	Continuing
		Subtotal	0.402	0.204		0.208		0.212		-		0.212	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	23.835	4.934		4.630		5.036		-		5.036	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** 323 / *Common Hardware Systems*

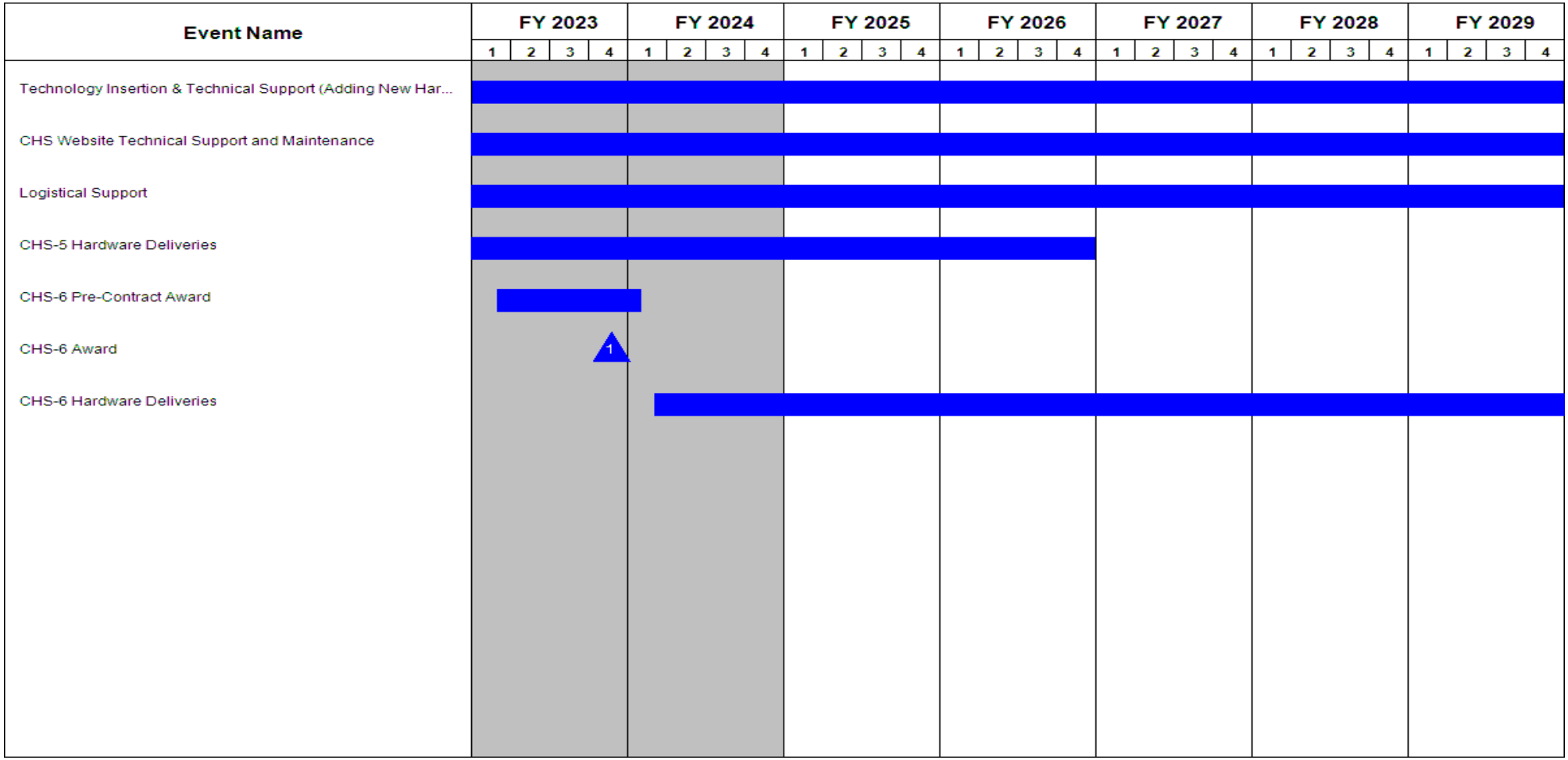


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** 323 / *Common Hardware Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Technology Insertion & Technical Support (Adding New Hardware to Contract)	1	2007	4	2029
CHS Website Technical Support and Maintenance	4	2018	4	2029
Logistical Support	4	2018	4	2029
CHS-5 Hardware Deliveries	4	2018	4	2026
CHS-6 Pre-Contract Award	1	2020	1	2024
CHS-6 Award	4	2023	4	2023
CHS-6 Hardware Deliveries	1	2024	4	2036

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) C29 / *Centralized Technical Support Facility (CTSF)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
C29: *Centralized Technical Support Facility (CTSF)*	-	8.910	4.380	4.373	-	4.373	4.478	4.580	4.631	4.677	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project C29, The Centralized Technical Support Facility (CTSF): The CTSF is the Army's premier test and certification facility for System of Systems interoperability, functioning as CIO/G6's designated independent test agent and Land/WarNet/Mission Command (LWN/MC) configuration manager. The Central Technical Support Facility's (CTSF) directed mission is to perform Army Interoperability Certification (AIC) testing and configuration management for all 23 operational through tactical level Command, Computing, Control, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) systems, Mission and Space systems, Aviation systems and other individual, family, and system of systems, applications, and hardware prior to release to the field. The CTSF accomplishes this through the enforcement of a standards based architecture while supporting the development and implementation of an integrated computing infrastructure and a converged network. The CTSF provides validated test data to the Department of the Army and Joint agencies to accredit interoperability certifications. The distributed test environment of the CTSF is accomplished through the Federation of Net-centric Sites (FaNS) construct. This FaNS construct addresses distributed integration development and testing using the core infrastructure of the CTSF to harness Army and Joint expertise/resources. Through these federated resources, the CTSF executes or supports interoperability development, integration and certification testing of the systems and system of systems in the Warfighter Mission Area, to include Network Evaluation spinouts, as they become part of the Army's LandWarNet. The cited work is consistent with Strategic Planning Guidance and the Army Modernization and Strategy Plan.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Army Interoperability Certification (AIC) Testing	2.924	1.873	1.809
Description: Conduct Army Interoperability Certification (AIC), planning/coordination/scheduling/ and reporting of Common Operating Environment (COE) and software block testing (local and distributed). Additionally, provide stakeholders data collection/data analysis/data dissemination/simulation/stimulation verification/validation in support of Army geospatial interoperability certification, system of system cybersecurity posture assessment and individual system cybersecurity policy adjustment. Manage the set-up, configuration, integration, operations and maintenance of the LandWarNet/Mission Command (LWN/MC) systems within the CTSF test environments. Function as the HQDA G-6's Independent Test Agent for Program Managers of LWN/MC systems that have an Acquisition Life Cycle requirement for testing interoperability of software and associated hardware prior to fielding to the Warfighter. Act as the central control node to synchronize the HQDA G-6 accredited Federation of Net-centric Sites (FaNS) distributed AIC testing environment. Report the results of Army Interoperability Certification tests to the HQDA G-6, PM, TRADOC and AFC communities.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Continue SWB11-12 test planning, test case development, test environment architecture set-up, for interoperability testing, Geospatial Information Systems (GIS) interoperability assessment, cybersecurity posture adjustment and assessment activities for the systems that comprise the Army's tactical software baselines. Conduct COE v3.0 planning, test case development and architecture set-up to support the technical standards update timelines for the Army's tactical software baseline. Conduct interoperability testing for the SWB11-12 and COE v3.0 systems that comprise the LWN/MC baseline to ensure the tactical integrated computing infrastructure is interoperable in a System of Systems (SoS) environment and to enable the HQDA G-6 to enforce a standards based architecture. Continue the virtualization build out and scale up of the test environment to support AIC testing. Partner with ATEC and AFC to leverage the CTSF assets in support of PMs' Operational Test activities. ***FY 2025 Plans:*** Continue SWB11-12 test planning, test case development, test environment architecture set-up, for interoperability testing, Geospatial Information Systems (GIS) interoperability assessment, cybersecurity posture adjustment and assessment activities for the systems that comprise the Army's tactical software baselines. Conduct COE v3.0 planning, test case development and architecture set-up to support the technical standards update timelines for the Army's tactical software baseline. Conduct interoperability testing for the SWB11-12 and COE v3.0 systems that comprise the LWN/MC baseline to ensure the tactical integrated computing infrastructure is interoperable in a System of Systems (SoS) environment and to enable the HQDA G-6 to enforce a standards based architecture. Continue the virtualization build out and scale up of the test environment to support AIC testing. Partner with ATEC and AFC to leverage the CTSF assets in support of PMs' Operational Test activities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to applying efficiencies.			
Title: Engineering Services ***Description:*** Provide network engineering support to establish and maintain tactical architectures on the CTSF test floors and to deploying/fielded units at training centers around the world (JRTC, NTC, JMRC). System engineering support provides hardware virtualization, Army End Point Security System (AESS) support, system validation and integration support to numerous PMs on the integration and risk reduction labs, and assists Army programs with interoperability assessments and AIC rehearsal. Modify and merge army data products for CTSF test architectures. Continuously seek emerging markets. Develop/Maintain Applications for CTSF Configuration Tracking System Version 4 (CMTSv4). ***FY 2024 Plans:*** Continue to provide Network support for integration and test floors, network support to fielded units, and systems engineering and analysis support to system of systems integration activities. Enhance the Security posture of the CTSF by ensuring the latest Information Assurance Vulnerability Alerts (IAVAs) and Security Technical Implementation Guides (STIGs) are implemented as required by Risk Management Framework (RMF). Integrate and implement Army End Point Security System (AESS) technology,	0.199	0.203	0.207

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
assist PMs in the development of AESS policies. Plan and conduct engineering evaluations for AIC testing and data collection in the Joint Warfighter Assessment (JWA)/Capability Integration Evaluation (CIE) to leverage the operational environment and JWA/ CIE resources. Work with Network Cross Functional Team on Network modernization and Integrated Tactical Network (ITN) design and testing. Assist integration and test architectures to include Program of Record (POR) and non-POR Soldier radio waveforms to provide PMs and Material Developers testing in realistic environments. Support Army Test and Evaluation Command (ATEC) and Army Futures Command interoperability assessments of Cross-Functional Team (CFT) solutions. Continue efforts to implement an AIC Secret Releasable test environment network that integrates Army and the Unified Action Partners (UAP). ***FY 2025 Plans:*** Continue to provide Network support for integration and test floors, network support to fielded units, and systems engineering and analysis support to system of systems integration activities. Enhance the Security posture of the CTSF by ensuring the latest Information Assurance Vulnerability Alerts (IAVAs) and Security Technical Implementation Guides (STIGs) are implemented as required by Risk Management Framework (RMF). Integrate and implement Army End Point Security System (AESS) technology, assist PMs in the development of AESS policies. Plan and conduct engineering evaluations for AIC testing and data collection in the Joint Warfighter Assessment (JWA)/Capability Integration Evaluation (CIE) to leverage the operational environment and JWA/ CIE resources. Work with Network Cross Functional Team on Network modernization and Integrated Tactical Network (ITN) design and testing. Assist integration and test architectures to include Program of Record (POR) and non-POR Soldier radio waveforms to provide PMs and Material Developers testing in realistic environments. Support Army Test and Evaluation Command (ATEC) and Army Futures Command interoperability assessments of Cross-Functional Team (CFT) solutions. Continue efforts to implement an AIC Secret Releasable test environment network that integrates Army and the Unified Action Partners (UAP). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in funding reflects planned lifecycle of the effort.			
Title: Configuration Management ***Description:*** As the CTSF Configuration Management Office, provide CM functional and physical configuration management and change management to the CTSF Army Interoperability Certification test floor environment. Additionally, as the Army Configuration Management Office (ACMO), establish and maintain oversight control of the Army Master Library for the Army Interoperability Certified Fielded Baseline (AICFB). Archive system software and data products, correlated with their associated documentation, for the Army LandWarNet Mission Command Baseline (ALWNMCB), a subset of the AICFB. Establish and maintain the configuration and change management to the AICFB and the ALWNMCB for Lifecycle Software Management (LCSM). Provide support to the Army Staff (ARSTAF), Material Developers (MATDEV), Project Managers (PM), and System Owners (SO) through the orderly management of product configuration information and product change management (ChM),	2.276	1.910	1.958

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
which enables capability revisions, improved reliability and maintainability, and extended life-cycle. Maintain and improve the Configuration Management Tracking System version 3 (CMTSIII), the Army's authoritative database management system (DBMS) for configuration management (CM) of the systems comprising Coalition Interoperability Assurance and Validation (CIAV), and the Warfighter Mission and Business Mission Areas of the Army Information Technology (IT) portfolio. Assist the HQDA G-6 conduct accreditation inspections and training for Federation of Net-centric Sites (FaNS) locations. ***FY 2024 Plans:*** Continue to provide CM functional and physical configuration management and change management to the CTSF Army Interoperability Certification test floor environment. Provide CM functional and physical configuration management and change management to the AICFB, to include archiving the required system software, data products and documentation, while correlating the relevant data within the CMTSIII DBMS for visibility to users Army wide. Provide baseline reconciliation to the four quarterly HQDA G6 AICFB reports, identifying to commanders and their G-3/G-6 staff the Army's AIC certified, Interoperability Capability and Limitations assessed, AIC waivered, and AIC exempted system software that is authorized to connect to the Army's network. Assist the HQDA G-6 AICFB in conducting accreditation inspections and training for Federation of Net-centric Sites (FaNS) locations. ***FY 2025 Plans:*** Continue to provide CM functional and physical configuration management and change management to the CTSF Army Interoperability Certification test floor environment. Provide CM functional and physical configuration management and change management to the AICFB, to include archiving the required system software, data products and documentation, while correlating the relevant data within the CMTSIII DBMS for visibility to users Army wide. Provide baseline reconciliation to the four quarterly HQDA G6 AICFB reports, identifying to commanders and their G-3/G-6 staff the Army's AIC certified, Interoperability Capability and Limitations assessed, AIC waivered, and AIC exempted system software that is authorized to connect to the Army's network. Assist the HQDA G-6 AICFB in conducting accreditation inspections and training for Federation of Net-centric Sites (FaNS) locations. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned life cycle lines of effort.			
Title: Management Operations/Program Office ***Description:*** Provide management operations consisting of planning, programming and executing funds; planning and programming for required personnel; planning, programming and executing contracts supporting AIC testing processes; identifying reimbursable tests and collecting/allocating appropriate funds; planning and programming logistics activities, managing/controlling/documenting physical assets and inventories; and perform oversight and coordination of physical security with hosting installation.	0.452	0.394	0.399

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Continuation of programming and execution of funding. Plan and program manpower, identify contracting requirements and develop strategy for implementation in conjunction with CECOM Acquisition Center. Track testing schedule, prepare/coordinate/ track customer funding for AIC testing activities and infrastructure support. Continue to provide field support coordination for unit training and exercises upon request. Maintain existing infrastructure; continue to enhance physical security, access control, force protection, Continuity Of Operations (COOP) and Emergency Action Plan (EAP) activities and exercises. Continue inventory accountability programs and asset control. ***FY 2025 Plans:*** Continuation of programming and execution of funding. Plan and program manpower, identify contracting requirements and develop strategy for implementation in conjunction with CECOM Acquisition Center. Track testing schedule, prepare/coordinate/ track customer funding for AIC testing activities and infrastructure support. Continue to provide field support coordination for unit training and exercises upon request. Maintain existing infrastructure; continue to enhance physical security, access control, force protection, Continuity Of Operations (COOP) and Emergency Action Plan (EAP) activities and exercises. Continue inventory accountability programs and asset control. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned life cycle lines of effort.			
Title: Modernization ***Description:*** Technical modernization FY22-23 effort for Army Interoperability Certification (AIC) to enhance CTSF testing capabilities. Estimated cost of modernization is approximately $6M in investment with virtualization efforts and test automation. Funding provided for hardware & software integration for virtualization and automation, software licensing, and labor and other supporting integration efforts.	3.059	-	-
Accomplishments/Planned Programs Subtotals	8.910	4.380	4.373

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Transition from executing a single test event at a time to multiple simultaneous test events using new universal mission threads, providing speed and efficiency to the test/acquisition timeline. Execute system of systems interoperability testing and certification through the use of Government and Systems Engineering and Technical Analysis (SETA) contract personnel experienced in product development and interoperability testing. Testing and certification occurs in a cyclical fashion, with an

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

expectation of an annual Software Block/Capability Set test followed with cyclical multiple test events to ensure integrity of software baselines to the Warfighter. Engineering Services provides strategic integration of software into a system of systems/family of systems environment to support interoperability testing. Establish and maintain Configuration Management and version control of the Army's Interoperable Battle Command LandWarNet Baseline. Distributed testing capability uses local assets and leverages other federated test facilities to create synergy and realize efficiencies.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CECOM Matrix	Allot	Program and Budget Analysis Support : Fort Hood, TX/ Aberdeen Proving Grounds, MD	5.992	0.154		0.151		0.154		-		0.154	0.000	6.451	-
ISSA/Training/TDY	Allot	Site Support Activities : Fort Hood, TX	1.317	0.215		0.168		0.179		-		0.179	0.000	1.879	-
Supplies	C/UCA	Management Operations, Logistics Support : Fort Hood, TX	1.726	0.083		0.075		0.066		-		0.066	0.000	1.950	-
		Subtotal	9.035	0.452		0.394		0.399		-		0.399	0.000	10.280	N/A

Remarks

Under "open-the-door" cost model, all In-house support efforts are included under Test & Evaluation.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CECOM RS3	C/CPFF	Test, Configuration Management : Fort Hood, TX	21.053	1.564	Apr 2023	0.443		0.452		-		0.452	0.000	23.512	-
CECOM GSA BMO SB SITE SUPPORT SERVICES	C/T&M	Facilities, Maintenance, Security : Fort Hood, TX	15.180	1.360	Apr 2023	1.430		1.357		-		1.357	0.000	19.327	-
In-House Support	Allot	Test : Fort Hood,TX	15.411	1.974		1.587		1.628		-		1.628	0.000	20.600	-
Equipment/Instrumentation	C/UCA	Test Equipment Infrastructure : Fort Hood, TX	3.205	0.501		0.526		0.537		-		0.537	0.000	4.769	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) C29 / *Centralized Technical Support Facility (CTSF)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Modernization	MIPR	Test, Configuration Management : Fort Hood, TX	4.484	3.059		-		-		-		-	0.000	7.543	-
		Subtotal	59.333	8.458		3.986		3.974		-		3.974	0.000	75.751	N/A

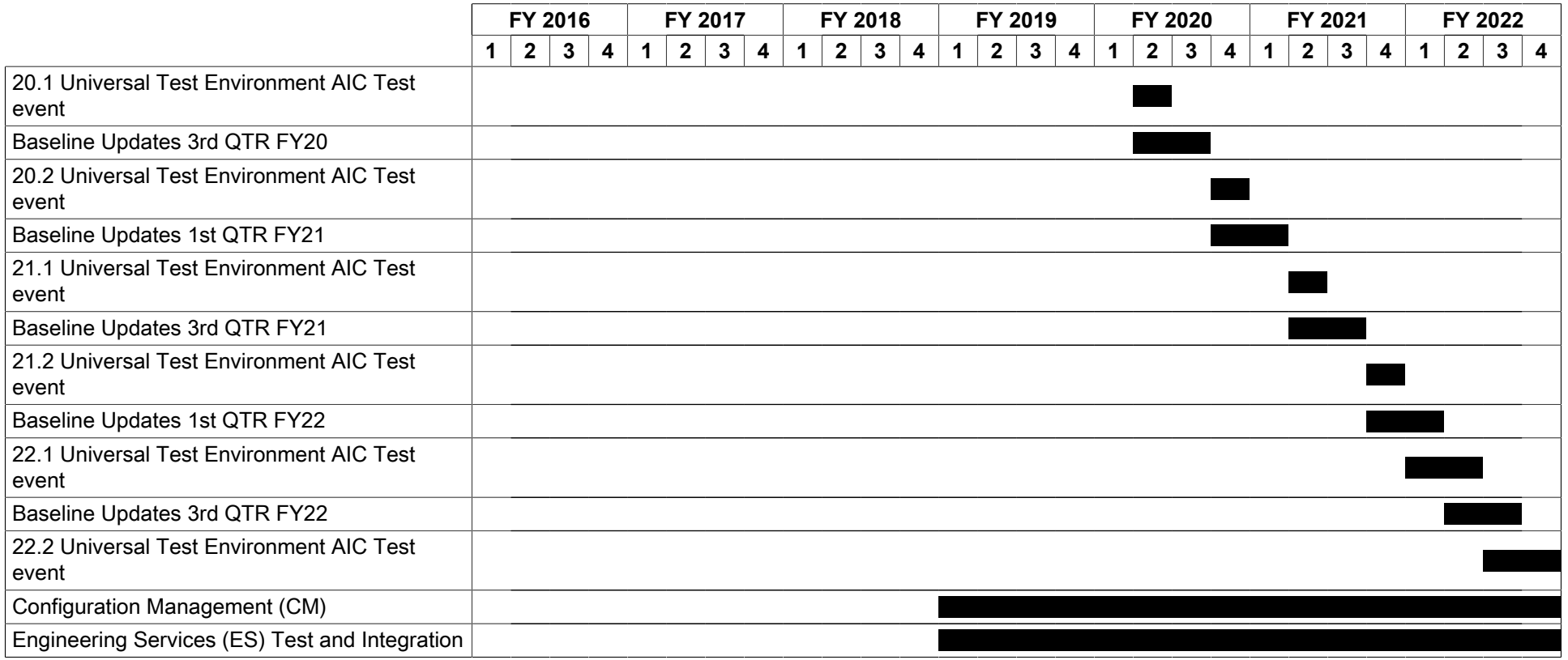
Remarks

ARL Matrix effort became a "reimbursable" effort under Open-the-Door cost model effective in FY17; no longer "Direct" funded.
ISSA no longer funded at CTSF level.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	68.368	8.910		4.380		4.373		-		4.373	0.000	86.031	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*



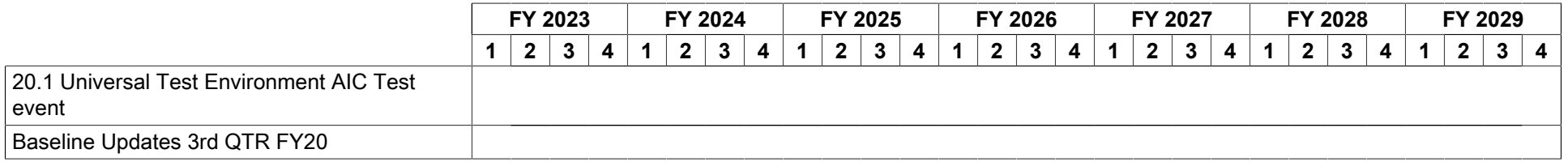


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
20.2 Universal Test Environment AIC Test event																												
Baseline Updates 1st QTR FY21																												
21.1 Universal Test Environment AIC Test event																												
Baseline Updates 3rd QTR FY21																												
21.2 Universal Test Environment AIC Test event																												
Baseline Updates 1st QTR FY22																												
22.1 Universal Test Environment AIC Test event																												
Baseline Updates 3rd QTR FY22																												
22.2 Universal Test Environment AIC Test event																												
Configuration Management (CM)																												
Engineering Services (ES) Test and Integration																												

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C29 / *Centralized Technical Support Facility (CTSF)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
20.1 Universal Test Environment AIC Test event	2	2020	2	2020
Baseline Updates 3rd QTR FY20	2	2020	3	2020
20.2 Universal Test Environment AIC Test event	4	2020	4	2020
Baseline Updates 1st QTR FY21	4	2020	1	2021
21.1 Universal Test Environment AIC Test event	2	2021	2	2021
Baseline Updates 3rd QTR FY21	2	2021	3	2021
21.2 Universal Test Environment AIC Test event	4	2021	4	2021
Baseline Updates 1st QTR FY22	4	2021	1	2022
22.1 Universal Test Environment AIC Test event	1	2022	2	2022
Baseline Updates 3rd QTR FY22	2	2022	3	2022
22.2 Universal Test Environment AIC Test event	3	2022	4	2022
Configuration Management (CM)	1	2019	4	2022
Engineering Services (ES) Test and Integration	1	2019	4	2022

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) C34 / *Army Tac C2 Sys Eng*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
C34: *Army Tac C2 Sys Eng*	-	40.433	11.141	11.177	-	11.177	11.190	11.310	11.436	11.550	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding line is a key enabler of the Army Network Modernization Priority. Project C34, Army Tactical Command and Control Systems Engineering supports the Army's Network Modernization Strategy and coordinates technical efforts across and outside of PEO Command, Control, Communications-Tactical (PEO C3T) to ensure integration with the current and future Mission Command Network. Project C34 provides technical support to programs, informing design and solutions with specific emphasis on the ability for different program efforts to be integrated and interoperable with one another. Efforts support Army Modernization priorities including Army Unified Network Plan, Multi-Domain Operations, Joint All Domain Command and Control (JADC2), Data Modernization and emerging data-centric requirements.

Project C34, Army Tactical Command and Control Systems Engineering: This project funds the PEO C3T System of Systems (SoS) engineering and integration, experimentation, acquisition management, testing, fielding and sustainment support to ensure interoperability and affordability within the PEO C3T portfolio. The effort focuses on SoS Engineering and Integration for the Mission Command Network with increased emphasis on immediate Warfighter needs as well as leveraging emerging technologies.

Fiscal Year 2025 will focus on the continued development, implementation and integration of the Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) network architectures. This includes maturing the technology enhancement roadmap for SoS capability evolution across the PEO C3T portfolio that incorporates network integration support and design products for system validation experimentation and integration testing, integration of tactical networked capabilities for all Mission Command Network systems including integration events, integration of tactical information assurance solutions and security measures for consistent cyber protection.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: System of Systems (SoS) Developmental Test and Integration Test Support across tactical C2 systems	1.404	1.312	1.257
Description: System of Systems (SoS) Developmental Test and Integration Test Support across tactical Command and Control (C2) systems funds support the following effort: ***FY 2024 Plans:*** Continue to provide the infrastructure and support to conduct integration testing and systems engineering for C3T systems, products, technical insertions, and systems under evaluation, ensuring integration of capabilities across the network. Funds include sustainment of increased level of integration testing and required maintenance to support data-centric network design. Funds also include continued participation as part of the Army Interoperability Certification (AIC) Federated Net-centric Sites			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(FaNS) facility. ***FY 2025 Plans:*** Continue to provide the infrastructure and support to conduct integration testing and systems engineering for PEO C3T systems, products, technical insertions, and systems under evaluation, ensuring integration of capabilities across the network. Funds include sustainment of increased level of integration testing and required maintenance to support data-centric network design. Funds also include continued participation as part of the Army Interoperability Certification (AIC) Federated Net-centric Sites (FaNS) facility. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease reflects planned life cycle lines of effort.			
Title: Conduct and Support System of Systems (SoS) Interoperability Engineering ***Description:*** Funds support the following efforts: ***FY 2024 Plans:*** Across the Army Unified Network and Mission Command applications within and external to PEO C3T, provide integration support for testing, exercises and experimentation. Identify critical integrated test points, monitor developmental testing at integration points, develop event architectural data processes and products, and facilitate the transition of Network capabilities to the warfighter. Provide technical support to exercises and demonstrations of Army modernization initiatives. Develop integration testing strategies designed to enhance Development Security Operations (DEVSECOPS) implementation and more expeditious testing cycles. ***FY 2025 Plans:*** Across the Army Unified Network and Mission Command applications within and external to PEO C3T, provide integration support for testing, exercises and experimentation. Identify critical integrated test points, monitor developmental testing at integration points, develop event architectural data processes and products, and facilitate the transition of Network capabilities to the warfighter. Provide technical support to exercises and demonstrations of Army modernization initiatives. Develop integration testing strategies designed to enhance Development Security Operations (DEVSECOPS) implementation and more expeditious testing cycles. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned life cycle lines of effort.	2.534	2.585	2.779
Title: Development and Implementation of Tactical Information Assurance (IA) ***Description:*** Funds support the following efforts:	1.428	1.293	1.459

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Continue to implement ARCYBER, CIO, G6 and CYBERCOM guidance for execution of Cyber Security policies and procedures at the tactical level. Continue to document the current tactical network security architecture with the goal of developing recommendations to eliminate inconsistencies/duplications, increasing the security posture, decreasing complexity of operations, and decreasing costs. Support planning of tactical implementation of integrated security approaches for the Army Unified Network. This includes support for incorporation of DoD-driven Zero Trust principles. ***FY 2025 Plans:*** Continue to implement ARCYBER, CIO, G6 and CYBERCOM guidance for execution of Cyber Security policies and procedures at the tactical level. Continue to document the current tactical network security architecture while developing recommendations to eliminate inconsistencies/duplications, increase the security posture, decrease complexity of operations and decrease costs. Funds also support development of a security architecture implementation strategy to enable integration between the Army persistent and episodic network concept and planning of tactical implementation of integrated security approaches for the Army Unified Network, including support for incorporation of DoD-driven Zero Trust principles. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned life cycle lines of effort.			
Title: System of Systems (SoS) Engineering and Integration Evolution of the Network	1.562	1.666	1.123
Description: Funds support the following efforts: ***FY 2024 Plans:*** Continue technical implementation of cross-PEO System of Systems Engineering and Integration analysis and processes to ensure successful development and engineering of current and future systems for Unified Network. Includes SoS engineering design for capabilities planned to field in FY 2025 and FY 2027 to include Program of Record and emerging Network Modernization technologies. Continue to deliver engineering products to support strategic decisions or address operational technical challenges. ***FY 2025 Plans:*** Continue technical implementation of cross-PEO System of Systems Engineering and Integration analysis and processes to ensure successful development and engineering of current and future systems for Unified Network. Includes SoS engineering design for Program of Record and emerging Network Modernization technologies capabilities planned fielding. Continue to deliver engineering products to support strategic decisions or address operational technical challenges. ***FY 2024 to FY 2025 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Decrease reflects planned life cycle lines of effort.			
Title: System of Systems Development ***Description:*** Funds support the following efforts: ***FY 2024 Plans:*** Continue to develop System of Systems Engineering tools, standards and interfaces to support DoD-driven initiatives. Tool development and implementation improves technical integration across the Army Unified Network. Tools also support integration of technical, logistics and business data for improved trade studies in support of programmatic decisions. ***FY 2025 Plans:*** Continue to develop System of Systems Engineering tools, standards and interfaces to support DoD-driven initiatives. Tool development and implementation improves technical integration across the Army Unified Network. Tools also support integration of technical, logistics and business data for improved trade studies in support of programmatic decisions. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned lifecycle of the effort.	3.376	3.184	3.313
Title: Mission Command Network Synchronization and Integration Support ***Description:*** Funds are for the following effort: ***FY 2024 Plans:*** Continue the support of current force and the development of future force C5ISR across the tactical network to ensure all Assistant Secretary of the Army (Acquisition, Logistics & Technology) (ASA(ALT)) programs are synchronized and redundancies and overlapping capabilities are reduced across the network and in synchronization with Army Modernization priorities and Cross Functional Team activities. Develop effective engineering strategies to integrate tactical applications for use across the Mission Command network to include support to the Common Operating Environment Technical Authority. Continue to perform network planning and integration activities across all cross-domain system-of-systems future capabilities and technologies. Develop or support development of networking documentation and standards identification that defines integration of evolving Capability Set systems. Provide technical support to exercises and demonstrations of Army modernization initiatives such as Mission Partner Environment Secret/Releasable (SEC/REL) implementation and Army Futures Command (AFC). ***FY 2025 Plans:*** Continue the support of current force and the development of future force C5ISR across the tactical network to ensure all Assistant Secretary of the Army (Acquisition, Logistics & Technology) (ASA(ALT)) programs are synchronized and redundancies	1.129	1.101	1.246

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
and overlapping capabilities are reduced across the network and in synchronization with Army Modernization priorities. Develop effective engineering strategies to integrate tactical applications for use across the Mission Command network to include support to the Common Operating Environment Technical Authority. Continue to perform network planning and integration activities across all cross-domain system-of-systems future capabilities and technologies. Develop or support development of networking documentation and standards identification that defines integration of evolving system configurations and architectures. Provide technical support to exercises and demonstrations of Army modernization initiatives such as Mission Partner Environment Secret/Releasable (SEC/REL) implementation and Army Futures Command (AFC). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned life cycle lines of effort.			
Accomplishments/Planned Programs Subtotals	11.433	11.141	11.177

	FY 2023	FY 2024
Congressional Add: Red Team Automation and Zero Trust Capabilities	23.000	-
FY 2023 Accomplishments: Develop and pilot a Tactical Zero Trust Architecture across the tactical network and mission command systems. Establish data-centric network design integrated with the on-going tactical data fabric and preliminary Identify, Credential and Access Management strategies. Develop and assess Red-Teaming software for use in a DevSecOps environment and for unit-level utility. Option if Red-Team software demonstrates utility then follow on effort utilizing additional RDT&E funding would be initiated to bring into DevSecOps environment.		
Congressional Add: Multi-Factor Authentication for Cyber Security	6.000	-
FY 2023 Accomplishments: Develop and pilot a data- informed Identity and authentication algorithms that provide risk informed access to unified network and mission command systems. Pilot and assess Multi Factor Authentication integrated with Identity and authentication algorithms. Establish data centric strategy for Behavior Analytics, Continual Authentication, and security protections.		
Congressional Adds Subtotals	29.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Not applicable for this item.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

D. Acquisition Strategy

This project provides the technical and programmatic disciplines required for systems engineering and integration, experimentation, testing, interoperability, support to fielding and sustainment. It will focus on System of Systems (SoS) Systems Engineering and Integration for the tactical network with increased emphasis on Warfighter needs as well as leveraging emerging technologies. Efforts align to support the acquisition strategies of the programs that must connect to the network.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Info/Network Synchronization/SoS Dev	C/CPFF	Bowhead : APG MD	11.386	1.900	Nov 2022	1.945	Nov 2023	1.797	Nov 2024	-		1.797	Continuing	Continuing	Continuing
SoS Development	Various	Various : APG, MD	7.540	2.901	Dec 2022	2.699	Oct 2023	3.044	Oct 2024	-		3.044	Continuing	Continuing	Continuing
SoS Eng and Integ of the Network	SS/FP	MITRE : Aberdeen Proving Ground, MD/ Eatontown, NJ	112.962	1.562	Dec 2022	1.666	Oct 2023	1.123	Oct 2024	-		1.123	Continuing	Continuing	Continuing
System of Systems (SoS) Interoperability Engineering	C/CPFF	CACI : APG, MD	2.389	1.836	Feb 2023	1.886	Nov 2023	1.841	Nov 2024	-		1.841	Continuing	Continuing	Continuing
SoS Developmental Test and Integration Test Support	C/Various	Various : Various	0.976	1.404	Nov 2022	1.312	Nov 2023	1.257	Nov 2024	-		1.257	Continuing	Continuing	Continuing
Tactical Information	Various	Various : Various	0.404	0.858	Oct 2022	0.709	Oct 2023	0.919	Oct 2024	-		0.919	Continuing	Continuing	Continuing
Red Team Automation and Zero Trust Capabilities	Various	Various : Varous	-	23.000	Jun 2023	-		-		-		-	0.000	23.000	-
Multi-Factor Authentication for Cyber Security	Various	Various : Various	-	6.000	Oct 2023	-		-		-		-	0.000	6.000	-
		Subtotal	135.657	39.461		10.217		9.981		-		9.981	Continuing	Continuing	N/A

Remarks

The overall funding remains relatively consistent.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System of Systems (SoS) Interoperability Engineering	MIPR	MATRIX - C5ISR : Aberdeen Proving Ground, MD	15.623	0.698	Nov 2022	0.698	Oct 2023	0.939	Oct 2024	-		0.939	0.000	17.958	Continuing
Network Synchronization	MIPR	MATRIX - C5ISR : Aberdeen Proving Ground, MD	0.225	0.274		0.226	Oct 2023	0.257	Oct 2024	-		0.257	0.000	0.982	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) C34 / *Army Tac C2 Sys Eng*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	15.848	0.972		0.924		1.196		-		1.196	0.000	18.940	N/A

Remarks

The overall funding remains relatively consistent. Support costs capture Matrix labor associated with Integration and Test Support among PORs.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	151.505	40.433		11.141		11.177		-		11.177	Continuing	Continuing	N/A

Remarks

The overall funding remains relatively consistent.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

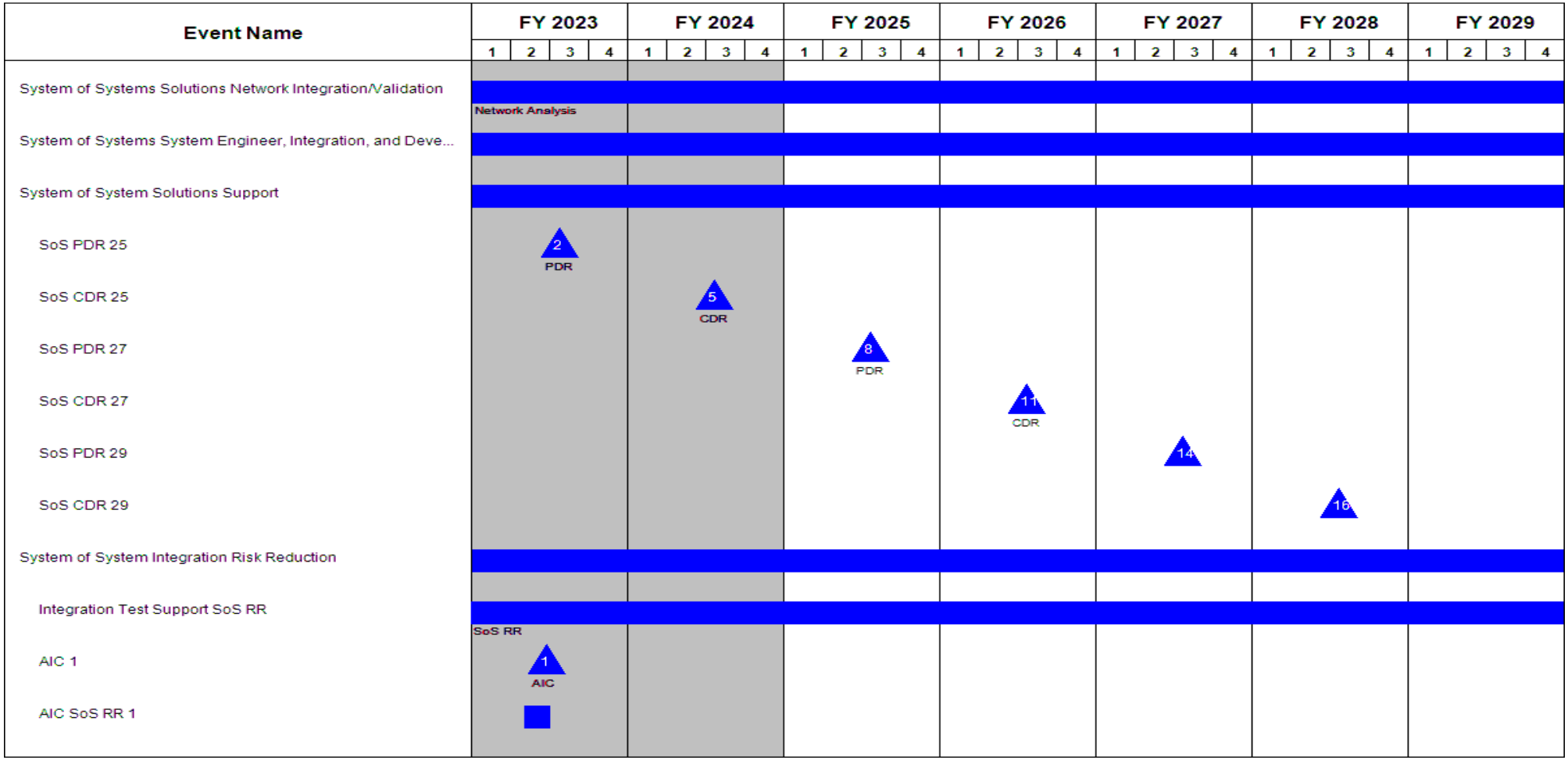


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

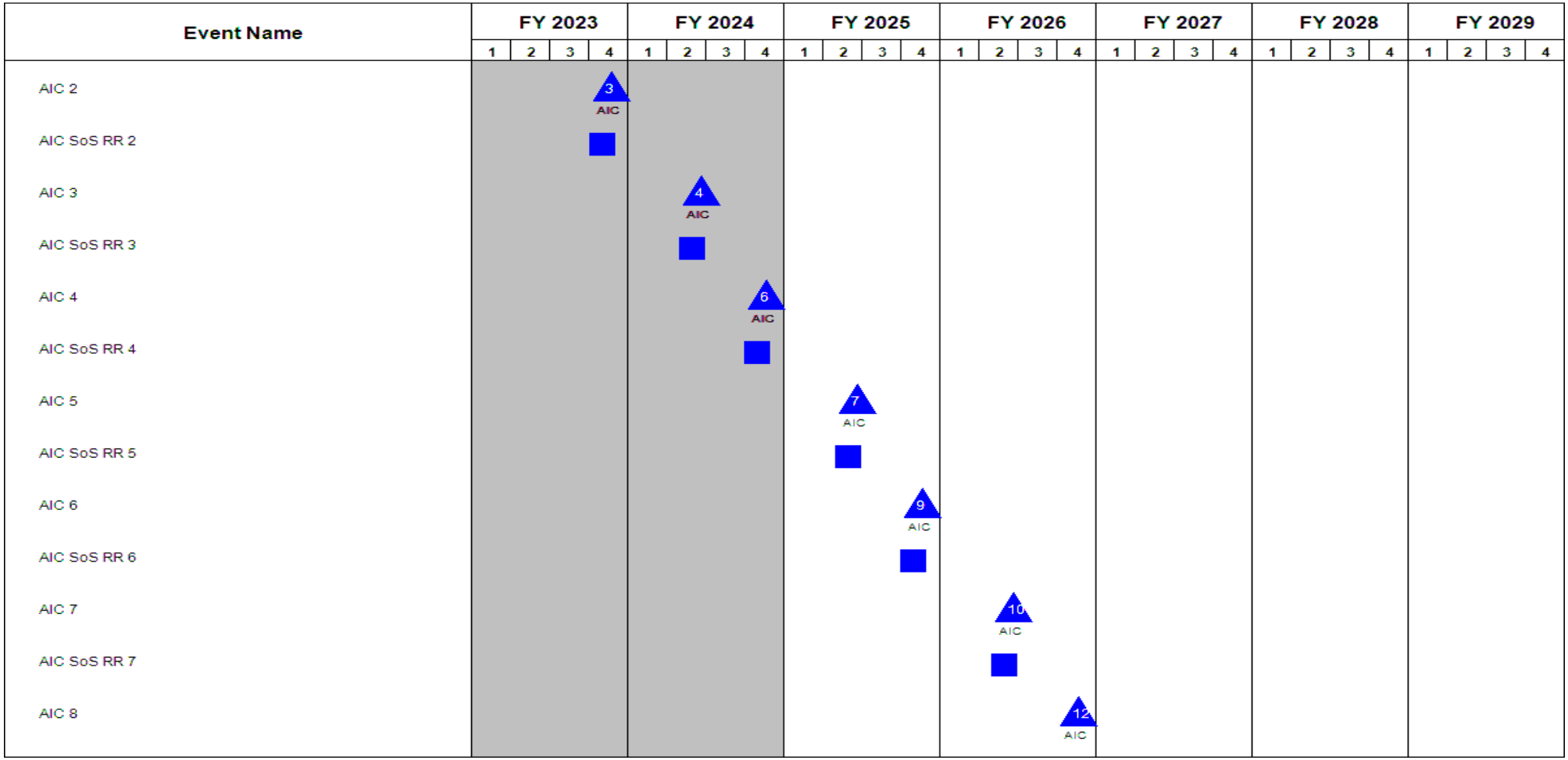


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

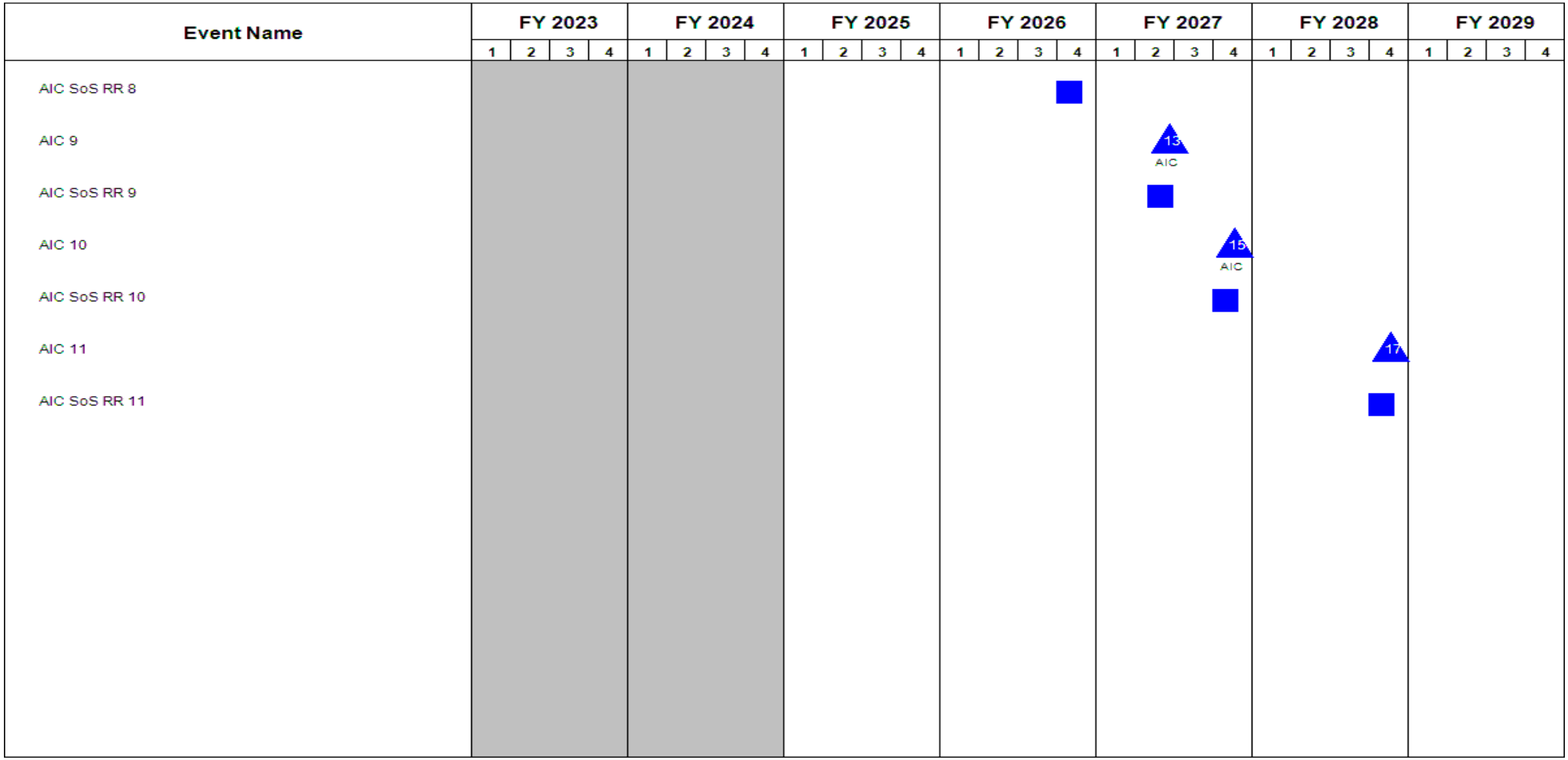


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
System of Systems Solutions Network Integration/Validation	1	2022	4	2029
System of Systems System Engineer, Integration, and Development	1	2022	4	2029
System of System Solutions Support	1	2022	4	2029
SoS PDR 23	3	2021	3	2021
SoS CDR 23	3	2022	3	2022
SoS PDR 25	3	2023	3	2023
SoS CDR 25	3	2024	3	2024
SoS PDR 27	3	2025	3	2025
SoS CDR 27	3	2026	3	2026
SoS PDR 29	3	2027	3	2027
SoS CDR 29	3	2028	3	2028
System of System Integration Risk Reduction	1	2022	4	2029
Integration Test Support SoS RR	3	2022	4	2029
AIC 1	2	2023	2	2023
AIC SoS RR 1	2	2023	2	2023
AIC 2	4	2023	4	2023
AIC SoS RR 2	4	2023	4	2023
AIC 3	2	2024	2	2024
AIC SoS RR 3	2	2024	2	2024
AIC 4	4	2024	4	2024
AIC SoS RR 4	4	2024	4	2024
AIC 5	2	2025	2	2025

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** C34 / *Army Tac C2 Sys Eng*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
AIC SoS RR 5	2	2025	2	2025
AIC 6	4	2025	4	2025
AIC SoS RR 6	4	2025	4	2025
AIC 7	2	2026	2	2026
AIC SoS RR 7	2	2026	2	2026
AIC 8	4	2026	4	2026
AIC SoS RR 8	4	2026	4	2026
AIC 9	2	2027	2	2027
AIC SoS RR 9	2	2027	2	2027
AIC 10	4	2027	4	2027
AIC SoS RR 10	4	2027	4	2027
AIC 11	4	2028	4	2028
AIC SoS RR 11	4	2028	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*				Project (Number/Name) DD1 / *Unified Network Technology Trans & Integ (UNTTI)*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
DD1: *Unified Network Technology Trans & Integ (UNTTI)*	-	-	7.898	13.203	-	13.203	14.537	12.960	10.420	7.906	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Army priority for network modernization and supports the Army's strategy for establishing a Unified Network. UNTTI directly supports the development of capabilities that enable the Army of 2030 and Army of 2040 with a particular focus on Command and Control On-the-Move (C2 OTM) and increasing resiliency through network thickening.

Project DD1, Unified Network Technology Transition and Integration (UNTTI) is an RDT&E initiative enabling transport agnostic, high-capacity and resilient tactical communications for expeditionary operations. UNTTI efforts support system/subsystem development and demonstration, aimed at integration, maturation, evaluation, and testing to validate system prototypes against requirements. In FY2025, the UNTTI efforts include Technical Exchange Meeting (TEM) Projects - Pathway Diversity, Line of Sight (LOS) - Command Post Networking, and Transport Modernization. These technologies support new and improved communications capabilities with reduced Size, Weight, and Power (SWAP), while increasing throughput, providing network resiliency and Low Probability of Intercept/Low Probability of Detection (LPI/LPD) capabilities.

The Program Executive Office Command, Control, Communications-Tactical (PEO C3T) is responsible for prioritizing, programming, managing and executing the projects detailed below and ensuring these funds are prioritized to support the Army modernization priorities and prototyping. The Network Cross Functional Team (N-CFT), Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center, Army Capability Network (ACM) Networks and Services (N&S) support the prioritization of technology demonstrations, focused evaluations, and expert analyses to inform future requirements, mature technologies, and deliver new capabilities. These projects inform technology integration, support user assessments, and transition to programs if appropriate.

UNTTI procures, modifies, integrates, and tests system prototypes to insert enhanced capabilities in accordance with Army modernization priorities. UNTTI supports developing technical, logistics, training, and other acquisition documentation to assist with the transition, insertion, and integration of efforts across PM Tactical Network. In addition, UNTTI resources validation and test efforts which improves the reliability, maintainability, and supportability of Tactical Network equipped units. These improvements avoid future costs by mitigating single point failures and thickening the network which ultimately improves network and cyber resiliency along with unit availability for contingency operations.

In FY 2025, funding in the amount of $13.203M are for the UNTTI efforts including: TEM Projects - Pathway Diversity, Line of Sight (LOS) - Command Post Networking, and Transport Modernization.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DD1 / *Unified Network Technology Trans & Integ (UNTTI)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Systems Engineering and Program Management ***Description:*** Includes overall management of program execution, major events, reporting, funding execution, and contract management. Includes participation in program planning and Integrated Product Team meetings with key stakeholders including the Network Cross Functional Team (N-CFT), Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center, Army Capability Network (ACM) Networks and Services (N&S), etc. ***FY 2024 Plans:*** Funds matrix and contractor personnel labor and travel requirements. Includes program oversight, systems engineering and technical control, risk management, documentation, and fielding support for UNTTI efforts. ***FY 2025 Plans:*** Funds matrix and contractor personnel labor and travel requirements in support of multiple planned Soldier Touch Points and other demonstration/exercise/training events. Includes program oversight, systems engineering and technical control, risk management, documentation, and fielding support for UNTTI efforts. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in FY25 is due to additional support required for Soldier Touch Points and other demonstration and exercises planned for FY25.	-	0.752	1.111
Title: TEM Projects - Pathway Diversity ***Description:*** TEM Projects - Pathway Diversity is a user configurable software solution that enables the network to be optimized based on real-time battlefield conditions. This software increases network resiliency and leverages multiple transports to send/ receive increased throughput simultaneously. ***FY 2024 Plans:*** Funds improve the usability, security, and performance aspects of the software based on FY23 small-scale operational feedback. Funds prototype procurement/modification, complete a large-scale pilot event, incorporating new transport systems (mesh SATCOM, LOS, etc.), RHN(s), and select Units (ESB-E or DIV focus) to understand integration and performance at scale. ***FY 2025 Plans:*** Funds improve the usability, security, and performance aspects of the software based on operational feedback. Funds software modification, software licenses, evaluation of hardware integration options, and supports initial demonstrations of capability to select Army Units to understand integration and performance at scale. Funds development of sustainment strategy and completes development, testing, and integration of this project. ***FY 2024 to FY 2025 Increase/Decrease Statement:***	-	2.417	4.195

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DD1 / *Unified Network Technology Trans & Integ (UNTTI)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Increase in FY25 due to software licenses for initial efforts.			
Title: Line of Sight (LOS) - Command Post Networking ***Description:*** Line of Sight (LOS) - Command Post Networking is a terrestrial communications solution capable of functioning in multiple operating environments and can adapt radio frequencies based on the physical and/or electronic environment with limited user interaction. This system provides more resilient communications for use within and between command post nodes. ***FY 2024 Plans:*** Funds will be used for prototype procurement/modification, to conduct required cyber assessments and Information Assurance certifications, and testing to MIL-STD-810H (Environmental) and MIL-STD-461G (Electromagnetic Interference). ***FY 2025 Plans:*** Funds will be used for prototype procurement/modification, to conduct required cyber assessments and Information Assurance certifications, and testing to MIL-STD-810H (Environmental) and MIL-STD-461G (Electromagnetic Interference). Funds platform integration efforts as well as support scaled exercise with capability. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in FY25 is due to addition of platform integration efforts.	-	0.754	3.881
Title: Satellite Communications (SATCOM) - Modem Virtualization ***Description:*** Satellite Communications (SATCOM) - Modem Virtualization is a prototyping effort focused on satellite communications (SATCOM) terminal and modem technologies to increase resiliency through multi-orbit, multi-constellation efforts while reducing system Size, Weight, Power, and Cost, and leveraging COTS hardware platforms. ***FY 2024 Plans:*** Funds will be used for prototype procurement/modification, to complete certification requirements (commercial and/or military), MIL-STD testing, terminal and system integration, and Risk Reduction events leading towards a Unit Experimentation and will provide the required technical expertise to plan/execute integration and experimentation events. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease in FY25 due to modem virtualization effort completion in FY24.	-	3.975	-
Title: System of System (SoS) Training ***Description:*** System of Systems (SoS) Training is an ongoing effort to synchronize, simplify, standardize training for efforts that integrate multiple capabilities in a System of Systems (SoS) configuration. Training efforts prioritize computer based training (CBT)	-	-	0.504

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DD1 / *Unified Network Technology Trans & Integ (UNTTI)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
and other virtual technologies that support efficient and effective delivery of complex emerging capabilities to the end user in the field. ***FY 2025 Plans:*** Funds will be used to develop System of Systems (SoS) training materials for units that have multiple integrated systems from across the PM Tactical Network portfolio. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in FY25 due to addition of new effort.			
Title: Transport Modernization ***Description:*** Transport Modernization is a prototyping effort focused on modernization of communications transport technologies to increase resiliency, data capacity/throughput, and provide enhanced capabilities in denied, degraded, intermittent, or limited (DDIL) and Electronic Warfare (EW) communications environments, while reducing system Size, Weight, Power, and Cost, and leveraging COTS hardware platforms both At-the-Halt (ATH) and On-the-Move (OTM). ***FY 2025 Plans:*** Funds will be used for prototype procurement and modification of an emerging technology in transport modernization, along with integration and testing of modernized baseband solutions. Funds evaluation of hardware form factor variants and supports integration and testing with various Army platforms. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in FY25 due to new effort.	-	-	3.512
Accomplishments/Planned Programs Subtotals	-	7.898	13.203

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

UNTTI related technologies will be pursued via competitively awarded contracts using best value source selection procedures. These technologies will be matured, demonstrated, tested, and evaluated in realistic environments. Selected technologies will integrate into existing programs as a modernization effort. The Integrated Product Team of key stakeholders including the Network Cross Functional Team (N-CFT), Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center, Army Capability Network (ACM) Networks and Services (N&S) determine technologies for further evaluation to close capability gaps.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DD1 / *Unified Network Technology Trans & Integ (UNTTI)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering/ Program Management	C/T&M	Various : APG	-	-		0.752	Feb 2024	1.111	Feb 2025	-		1.111	0.000	1.863	-
		Subtotal	-	-		0.752		1.111		-		1.111	0.000	1.863	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TEM Projects - Pathway Diversity	SS/FFP	CloudJuncxion : APG	-	-		1.208	Feb 2024	2.097	Feb 2025	-		2.097	0.000	3.305	-
Satellite Communications (SATCOM) - Modem Virtualization	SS/FFP	Various : To be determined	-	-		1.988	Feb 2024	-		-		-	0.000	1.988	-
System of Systems (SoS) Training	SS/FFP	Various : To be determined	-	-		-		0.504		-		0.504	0.000	0.504	-
		Subtotal	-	-		3.196		2.601		-		2.601	0.000	5.797	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TEM Projects - Pathway Diversity	SS/FFP	CloudJuncxion : APG	-	-		1.209	Feb 2024	2.098	Feb 2025	-		2.098	0.000	3.307	-
Line of Sight (LOS) - Command Post Networking	SS/FFP	Various : To be determined	-	-		0.754	Feb 2024	3.881	Feb 2025	-		3.881	0.000	4.635	-
Line of Sight (LOS) - LOS Modernization	SS/FFP	Various : To be determined	-	-		-		0.000	Feb 2025	-		0.000	-	-	-
Satellite Communications (SATCOM) - Modem Virtualization	SS/FFP	Various : To be determined	-	-		1.987	Feb 2024	-		-		-	0.000	1.987	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) DD1 / *Unified Network Technology Trans & Integ (UNTTI)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Transport Modernization	SS/FFP	Various : To be determined	-	-		-		3.512		-		3.512	0.000	3.512	-
		Subtotal	-	-		3.950		9.491		-		9.491	0.000	13.441	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		7.898		13.203		-		13.203	0.000	21.101	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DD1 / *Unified Network Technology Trans & Integ (UNTTI)*

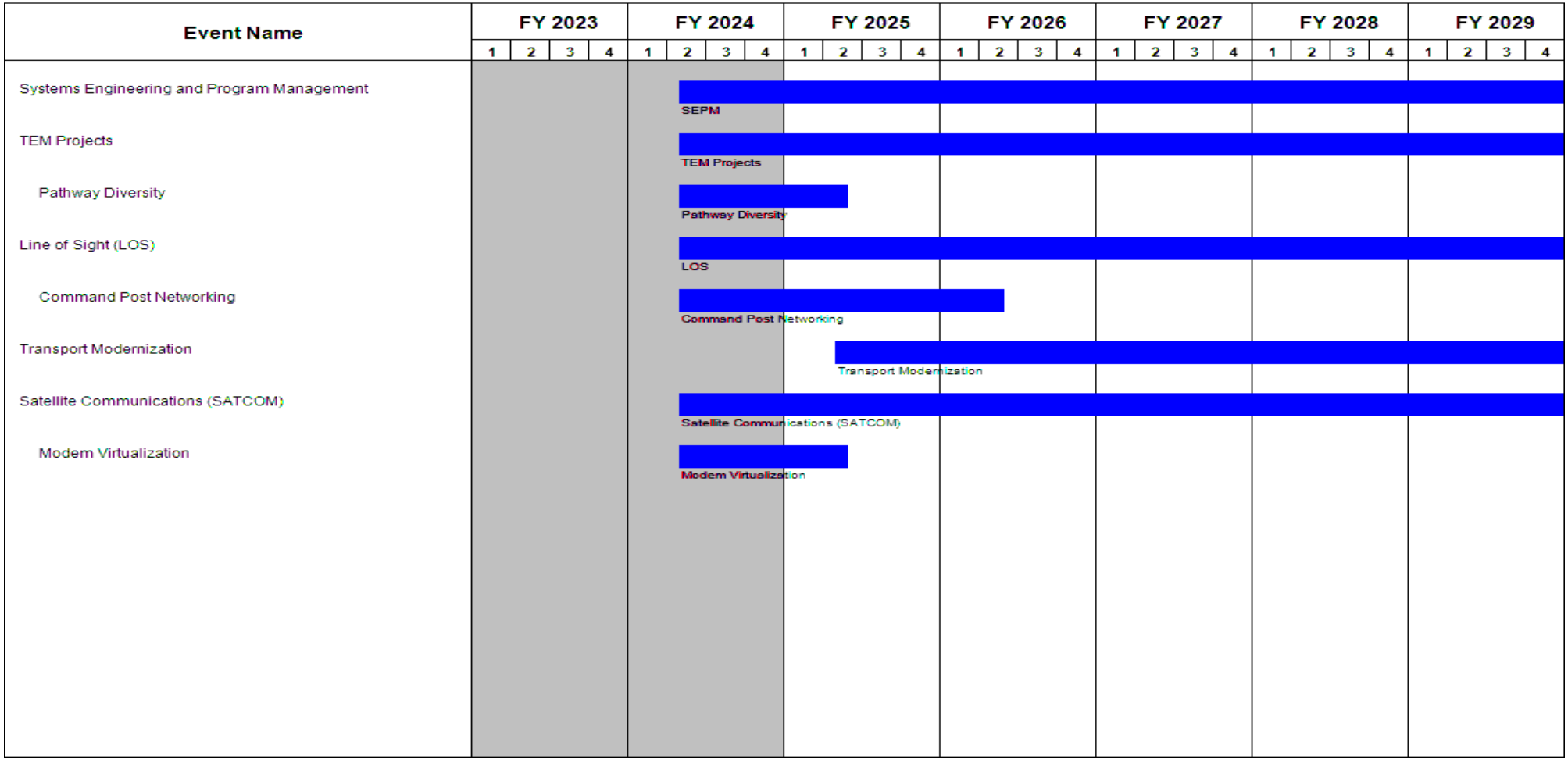


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DD1 / *Unified Network Technology Trans & Integ (UNTTI)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Systems Engineering and Program Management	2	2024	4	2029
TEM Projects	2	2024	4	2029
Pathway Diversity	2	2024	2	2025
Line of Sight (LOS)	2	2024	4	2029
Command Post Networking	2	2024	2	2026
Transport Modernization	2	2025	4	2029
Satellite Communications (SATCOM)	2	2024	4	2029
Modem Virtualization	2	2024	2	2025

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) DK3 / *Sensor Computing Environment (SCE)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
DK3: *Sensor Computing Environment (SCE)*	-	-	-	2.392	-	2.392	-	-	-	-	0.000	2.392
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Sensor Computing Environment (SCE) is a new start within the Army Tactical Command & Control Hardware & Software program in FY 2025.

A. Mission Description and Budget Item Justification

The Sensor Computing Environment (SCE) provides interoperability for sensors and systems across the Army. SCE operates across any modality of sensors and is designed for resilient operations in tactical conditions. Sensor CE provides the following capabilities to the Army and End Users: Provides software, standards, and a common sensor data model for all sensor information; Enables interoperability and understanding across all network security enclaves; Enables the sharing and control of sensor information; Provides a mature Software Development Kit (SDK) for rapid integration of sensors onto the Army's networks; and Implements the COE Cross Cutting Capability (CCC) for Sensor Alert Distribution providing common sensor awareness from tactical edge to all systems on the Enterprise network.

The end state for SCE is to ensure the accessibility of multi-domain sensor data to those who need it through the network to enable information sharing among CEs while reducing acquisition and life-cycle costs through open standards and re-usable solutions across programs. This vision becomes achievable with the implementation of the COE CCC through the Army's MCN modernization.

FY2025 funding in the amount of $2.392 million maintains support of currently fielded Integrated Sensor Architecture (ISA) capabilities for sensor interoperability. Capabilities Include: Common Sensor Data Model, Definition of Standard, Interface Specification, Architecture Definition, Mature Software Development Kit (SDK), Compliance Verifications & Validation Tools. Yearly technology refreshes of ISA software support evolving cyber, sensor, and network changes in the Army.

DK3 Sensor CE program will support the Army's Common Operating Environment (COE), and the further development of requirements to define the standards for interoperability used when connecting sensors to the Army networks. This will follow the Integrated Sensor Architecture (ISA), which is a Modular Open Systems Approach (MOSA) that provides a modular solution and extensible data model that can be used to meet requirements of operations with any modality of sensor, from Enterprise to tactical networks, across any security enclave, and capable of being used on embedded platforms.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Sensor Computing Environment	-	-	2.392
Description: The Sensor Computing Environment (SCE) provides interoperability for sensors and systems across the Army. SCE operates across any modality of sensors and is designed for resilient operations in tactical			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DK3 / *Sensor Computing Environment (SCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
conditions. Accomplishments include: Maintaining support of currently fielded ISA capabilities for sensor interoperability and yearly technology refreshes of ISA software to support evolving cyber, sensor, and network changes in the Army. ISA capabilities will include: Common Sensor Data Model, Definition of Standard, Interface Specification, Architecture Definition, Mature Software Development Kit (SDK), Compliance V&V Tools. ***FY 2025 Plans:*** Fiscal Year (FY) 2025 Base funds in the amount of $2.392 million for Sensor CE capability development. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased to support Sensor CE capability development.			
Accomplishments/Planned Programs Subtotals	-	-	2.392

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Sensor CE capability will be implemented by utilizing a mix of competitive Other Transaction Authority (OTA) and Federal Acquisition Regulation (FAR) contracts. This will provide incremental capability to ensure the accessibility of multi-domain sensor data to those who need it through the network to enable information sharing among CEs while reducing acquisition and life-cycle costs through open standards and re-usable solutions across programs. This vision becomes achievable with the Sensor CE requirements.

Requirement Documents:

- Sensor CE RDP approved by AROC OCT 2018 (CARDS #08108).
- COE IS CDD - FOC (FY25).
- PEO IEW&S OPR for Sensor CE MFR (November 2020).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) DK3 / *Sensor Computing Environment (SCE)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Sensor CE Program Management	C/CPAF	TBD : TBD	-	-		-		0.192	Nov 2024	-		0.192	0.000	0.192	-
		Subtotal	-	-		-		0.192		-		0.192	0.000	0.192	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SCE Software Development and Validation	C/CPAF	TBD : TBD	-	-		-		0.828	Nov 2024	-		0.828	0.000	0.828	-
SCE ISA Engineering Refresh	C/CPAF	TBD : TBD	-	-		-		0.521	Nov 2024	-		0.521	0.000	0.521	-
SCE Architecture and System Engineering	C/CPAF	TBD : TBD	-	-		-		0.326	Nov 2024	-		0.326	0.000	0.326	-
		Subtotal	-	-		-		1.675		-		1.675	0.000	1.675	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SCE Engineer - Matrix Gov	IA	C5ISR RTI : Belvoir, VA	-	-		-		0.243	Nov 2024	-		0.243	0.000	0.243	-
SCE Fielded Systems Support - Contractor	C/CPAF	TBD : TBD	-	-		-		0.282	Nov 2024	-		0.282	0.000	0.282	-
		Subtotal	-	-		-		0.525		-		0.525	0.000	0.525	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		-		2.392		-		2.392	0.000	2.392	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) DK3 / *Sensor Computing Environment (SCE)*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DK3 / *Sensor Computing Environment (SCE)*

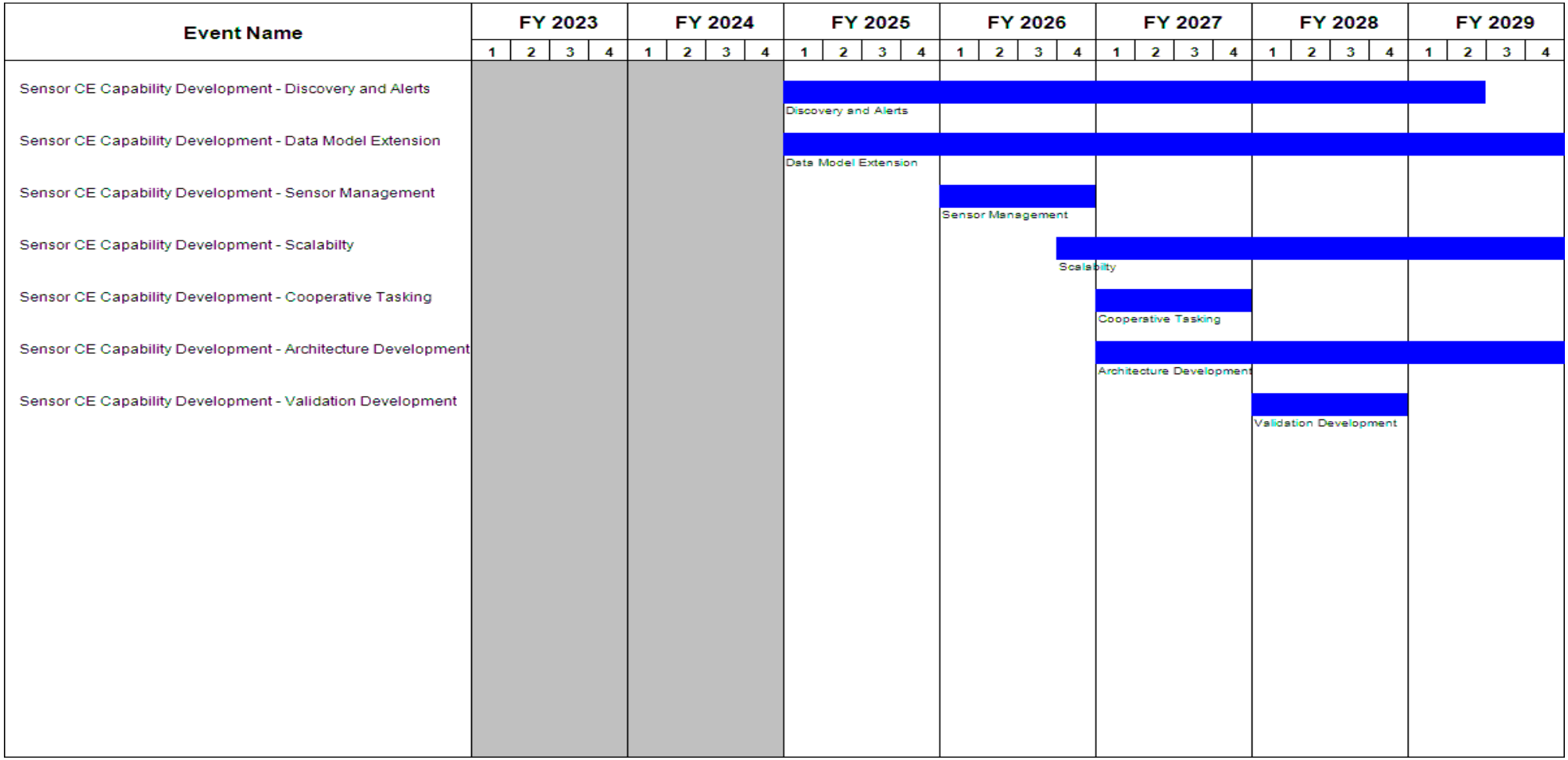


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** DK3 / *Sensor Computing Environment (SCE)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Sensor CE Capability Development - Discovery and Alerts	1	2025	2	2029
Sensor CE Capability Development - Data Model Extension	1	2025	4	2030
Sensor CE Capability Development - Sensor Management	1	2026	4	2026
Sensor CE Capability Development - Scalabilty	4	2026	2	2030
Sensor CE Capability Development - Cooperative Tasking	1	2027	4	2027
Sensor CE Capability Development - Architecture Development	1	2027	4	2030
Sensor CE Capability Development - Validation Development	1	2028	4	2028

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
EJ4: *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*	-	26.973	45.489	27.064	-	27.064	27.096	27.385	27.691	27.967	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding line is directly aligned with the Army Network Modernization Strategy and Army 2030/2040 priorities.

Command Post Computing Environment (CPCE) is a modular environment providing scalable capabilities from Battalion through Army Service Component Command (ASCC), including data visualization/management, the Army's primary command post Common Operational Picture (COP) that provides the Commander the ability to understand, visualize, and direct the operational environment allowing them to plan and execute the mission scenario leveraging common data, collaboration within and external to the unit through voice, video and chat. Provides access to all network domains and enables the Mission Partner Environment (MPE).

CPCE provides an available, reliable, and resilient infrastructure which unifies data and services within the Command Post. CPCE implements an integrated, interoperable, cyber-secure, software infrastructure that serves as the host for a unified set of multiple warfighting functional applications within the command post at echelons Battalion to ASCC; eliminating "stove-piped" systems, duplicative or redundant implementations, simplifying future application development efforts, and provides key improvements in interoperability and data sharing across multiple echelons.

CPCE software infrastructure and applications reside on TSI hardware as well as previously fielded servers. The TSI provides the converged computing and data storage hardware/software required to host the tactical Computing Environments, their supported Warfighter Functional Area applications, integration of Cross Domain Solutions for Mission Partner Environment (MPE), Common Operating Environment (COE) Cross-Cutting Capabilities and enables a collaborative work environment.

FY2025 funding matures the tactical data fabric capability, to include continued work on the Combat Power tool; convergence of Warfighting functions applications through integration with Tactical Data Fabric; support to exercises and experiments through Developmental Operations (DevOps) engagements and Soldier Touch Points with Combatant Commands (COCOMs) to inform the implementation of self-service capabilities, collaboration tools, data analytics and Command and Control (C2) Core Capabilities as part of a bridge to Next Generation C2 Effort; development of Cloud enabled CPCE and Edge Node computing infrastructure facilitating distributed command and control. Funding also provides for continuous testing of CPCE.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: SW Dev - Core Infrastructure	22.646	35.556	22.038
Description: Provides the core software infrastructure that serves as the host for multiple warfighting functional applications within the command post at echelons Battalion to Army Service Component Command, eliminating "stove-piped" systems,			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
duplicative or redundant implementations, simplifying future application development efforts, and enhancing interoperability and data sharing across multiple echelons. Core software development efforts include the development of Tactical Data Fabric and Sustainment capabilities; Improved Geospatial capabilities; Improved system administration tools, Integration of user feedback from Developmental Operations (DevOps) engagements, Soldier Touch Points with Combatant Commands (COCOMs), and backwards compatibility to previously fielded enduring systems. Software development efforts will focus on ensuring C2 Core capabilities in a bridge to Next Generation C2 and building a modular infrastructure suitable for Warfighting function application convergence. ***FY 2024 Plans:*** CPCE Increment 2 will focus on delivering Tactical Data Fabric and Sustainment capabilities, enhancing collaboration capabilities, migrating CPCE to a "Cloud Native" environment, and integrating transitioned Science & Technology (S&T) capabilities to include information trust capabilities as well as geospatial planning tools. FY2024 will also include addressing interoperability requirements, improving interoperability with Joint Services and Coalition partners and convergence of warfighting functions. Convergence of warfighting functions include new Intelligence applications onto CPCE; new engineering capabilities; and will accomplish convergence of Air Defense and Air Space Coordination capabilities and accelerated delivery of a combat power tool that enables a unit's logistical status and sustainment running estimate. In addition, efforts will focus on integration of user feedback from exercises and experiments through Developmental Operations (DevOps) engagements, Soldier Touch Points with Combatant Commands (COCOMs), U.S. Army Pacific (USARPAC) and U.S. Army Europe and Africa (USAREUR-AF) on the Tactical Data Fabric, Logistics Command and Control (C2) capabilities and Cloud Native Mission Command development efforts. CPCE Increment 3 development will begin in FY2024. ***FY 2025 Plans:*** FY2025 funding matures the tactical data fabric capability, to include continued work on the Combat Power tool; convergence of Warfighting functions applications through integration with Tactical Data Fabric; support to exercises and experiments through Developmental Operations (DevOps) engagements and Soldier Touch Points with Combatant Commands (COCOMs) to inform the implementation of self-service capabilities, collaboration tools, data analytics and C2 Core Capabilities as part of a bridge to Next Generation C2 Effort; development of Cloud enabled CPCE and Edge Node computing infrastructure facilitating distributed command and control. Funding also provides implementation of an "over-the-air" content delivery and provisioning capability. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to additional funding provided in FY2024 for implementation of Tactical Data Fabric and Sustainment capabilities.			
Title: Hardware/Software Integration	2.376	1.192	1.610
Description: The Tactical Server Infrastructure (TSI) server stacks host multiple software services including but not limited to: SQL, Chat, Active Directory, Microsoft Exchange, SharePoint, and CPCE. Primary Hardware/Software integration tasks include			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
developing the automation that reduces the time it takes to set up, manage and ensure updated security postures for the TSI environment on a recurring basis as well as required V3 test assets. ***FY 2024 Plans:*** In FY2024 the Hardware/Software integration effort will focus on transitioning the current TSI hardware configurations to a Server Edge Node configuration which supports cloud objectives as established in the Army Unified Network Strategy. In addition the FY2024 integration effort will focus on improving system automation to enable it to run on any server type. ***FY 2025 Plans:*** In FY2025, the Hardware/Software integration effort will continue optimizing TSI hardware configurations to a Server Edge Node which supports cloud objectives as established in the Army Unified Network Strategy, as well as integration work with the Army's Enterprise Private Cloud (AEPC) infrastructure. Integration efforts will also focus on improving system automation utilizing the TSI V3. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to efforts meeting TSI V3 integration requirements and AEPC in FY25.			
Title: Test and Evaluation ***Description:*** The CPCE/TSI Integrated Test Strategy featured developmental testing, multiple integration and risk reduction events, as well as interoperability testing, Soldier Touch Points (STPs) and large-scale operational test events. As part of the continuous integration/continuous delivery approach, the test strategy will be modified to focus on lab-based assessments, STPs and DevOps in operational environments and scope-focused operational assessments to inform software materiel releases and support capability fielding. ***FY 2024 Plans:*** CPCE will complete an Operational Test for CPCE Increment 2, Software Acceptance Tests, multiple Developmental Tests, multiple Soldier Touch Points, Cloud Native Mission Command Tests and Army Interoperability Certification test events. In addition to CPCE testing, the TSI hardware will complete multiple Soldier Touch Points and Developmental Tests as well as support the CPCE Operational Test. ***FY 2025 Plans:*** FY2025 continuous testing throughout CPCE development incorporating lab-based assessments, operational environments, and Soldier feedback. ***FY 2024 to FY 2025 Increase/Decrease Statement:***	0.820	6.288	1.065

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Decrease due to the completion of major testing in FY24 and pivot to continuous testing approach in FY25.			
Title: Program Management	1.131	2.453	2.351
Description: Program management includes efforts related to the management and operations of the Product Management office. Includes matrix and contractor personnel, program planning meetings, IPTs, and market research activities related to the potential adoption of new technology solutions into the CPCE baseline. ***FY 2024 Plans:*** Program office management of engineering, logistics teams, Software (SW) development, system engineering, exercise support, and testing remains a requirement in FY24. This support includes personnel covered by Functional Support Agreements between PM Mission Command and various Government support agencies such as the U.S. Army Combat Capabilities Development Command (DEVCOM) Armaments Center. and the U.S Army Communications and Electronics Command (CECOM) Software Engineering Center (SEC). ***FY 2025 Plans:*** Program office management of engineering, logistics teams, SW development, system engineering, exercise support, and testing remains a requirement in FY25. This support includes personnel covered by Functional Support Agreements between PM Mission Command and various Government support agencies such as the U.S. Army Combat Capabilities Development Command (DEVCOM) Armaments Center. and the U.S Army Communications and Electronics Command (CECOM) Software Engineering Center (SEC). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to the required level of matrix and contractor support commensurate with planned activities in FY2025.			
Accomplishments/Planned Programs Subtotals	26.973	45.489	27.064

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• B70000: *COE Tactical Server Infrastructure (TSI)*	90.387	77.999	61.772	-	61.772	60.665	60.651	60.626	61.432	Continuing	Continuing

Remarks

Related to CPCE is the Tactical Server Infrastructure (TSI) funding line, B70000, which funds computer hardware and software servers/hosting platforms for CPCE software.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

D. Acquisition Strategy

The initial Increment of CPCE (CPCE Inc 0) and TSI capabilities are based on Minimum Essential Capability (MEC) requirements specified in the Army's Directed Requirements for Command Post capabilities. The subsequent increments of CPCE and TSI requirements are codified within Joint Capabilities Integration and Development System (JCIDS) documents including the COE Information System Initial Capabilities Document (COE IS ICD), CPCE Requirements Definition Package (RDP) and TSI RDP. These JCIDS documents comprise an Information Technology (IT) Box construct, valid in five (5) year blocks. Each IT Box is revised/renewed for a follow-on 5-year block.

Requirements are further codified in Mission Command Center of Excellence (MCCoE) Capability Drop (CD) documents that contain Warfighting Function Operational Need summaries and detailed requirements sponsored by respective Army Centers of Excellence. In addition to these documents, CPCE will also incorporate technical requirements from other sources such as PEO C3T technical working groups (TWGs), Network Cross Functional Team (N-CFT) design goals and directives, Cyber COE TWGs, user feedback resulting from Development Operations (DevOps) as Operational Incident Tickets (OIT), and emerging/future warfighting functional requirements already in draft form. As the capabilities continue to evolve, those capabilities are captured in the form of CDs to adapt to changes in the field.

The acquisition strategy for CPCE/TSI program is based upon the concept of Buy and Adapt, whereby the Government procures commercial technology and adapts it to meet specific Government requirements. CPCE/TSI consists of the integration of Commercial off the Shelf (COTS) hardware components, COTS software, and sequentially developed additional software capabilities.

The original CPCE strategy called for an Incremental development approach to meeting the requirements. In FY2024 CPCE transitioned to a continuous improvement construct with no further increments. The current version of CPCE software will bring enhancements to existing capabilities, in addition will continue maturation of capabilities like Tactical Data Fabric, Logistical applications, and additional convergence of warfighting functions. Future CPCE design and development will focus on Agile development, modular architecture, and user centric self-service tools enabling a set of bridge capabilities for Next Generation C2. CPCE will continue warfighting function convergence within a hybrid architecture that supports Distributed Command and Control. CPCE will also set the framework of data analytics functionality, nonrecurring engineering of Cross Domain Solutions for Mission Partner Environment, and continue addressing mission partner objectives outlined in the Army Unified Network Strategy.

CPCE/TSI is an Acquisition Category II program, initially structured in Increments delivering capability every two years. Each Increment (0-1) contained an initial (year one) and final (year two) capability release. Follow-on versions of CPCE will follow a continuous agile development, testing, and delivery/fielding construct to provide more frequent software capabilities improvements to the Warfighter. This will include emphasis on industry partner capabilities and competition to facilitate best of breed development efforts.

The Product Management Office delivers the CPCE core infrastructure (underlying basis for convergence), Movement & Maneuver capabilities, and Logistics Command and Control (C2) capabilities. The Program Management Office continues to fund developmental and convergence work that enhances the capabilities of the core infrastructure to align with integration efforts, while external organizations such as other Army Programs of Record and S&T organizations fund the development of specific warfighting capabilities and technologies for integration into the core framework. Integrated testing is conducted continually with lab-based testing, Soldier Touch Points to gather User feedback, and operational testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Support (Gov't-Matrix)	IA	Various Matrix Orgs incl CECOM SEC, ILSC, PRD, et al) : APG, MD	8.483	1.043	Nov 2022	0.960	Nov 2023	1.064	Nov 2024	-		1.064	Continuing	Continuing	-
PM Support (SETA Contractor)	C/FFP	Multiple incl CACI and others : APG, MD	23.362	0.088	Nov 2022	1.493	Nov 2023	1.287	Nov 2024	-		1.287	Continuing	Continuing	-
		Subtotal	31.845	1.131		2.453		2.351		-		2.351	Continuing	Continuing	N/A

Remarks

Decrease due to the required level of matrix and contractor support commensurate with planned activities in FY2025.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development - Core Infrastructure	Option/ Various	CCDC - AC, Systematic : Picatinny, NJ APG, MD Centerville, VA	222.646	22.646	Nov 2022	35.556	Nov 2023	22.038	Nov 2024	-		22.038	Continuing	Continuing	-
Hardware / Software Integration	IA	Various Matrix Orgs incl CECOM SEC, CCDC - AC, ILSC, PRD, et al) : APG Md	28.147	2.376	Feb 2022	1.192	Feb 2023	1.610	Feb 2025	-		1.610	Continuing	Continuing	-
		Subtotal	250.793	25.022		36.748		23.648		-		23.648	Continuing	Continuing	N/A

Remarks

SW Development - Decrease due to additional funding provided in FY2024 for implementation of Tactical Data Fabric and Sustainment capabilities.
SW Development - Core Infrastructure leverages various Industry partners with a government integrator.
HW/SW Integration increase due to efforts meeting TSI V3 integration requirements and AEPC integration in FY25.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Develop and Conduct Tests and Assessments	MIPR	Multiple Test Agencies : Multiple Locations (Primary APG)	25.664	0.820	Feb 2022	6.288	Dec 2023	1.065	Dec 2024	-		1.065	Continuing	Continuing	-
		Subtotal	25.664	0.820		6.288		1.065		-		1.065	Continuing	Continuing	N/A

Remarks

Decrease due to the completion of major testing in FY24 and pivot to continuous testing approach in FY25.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	308.302	26.973		45.489		27.064		-		27.064	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

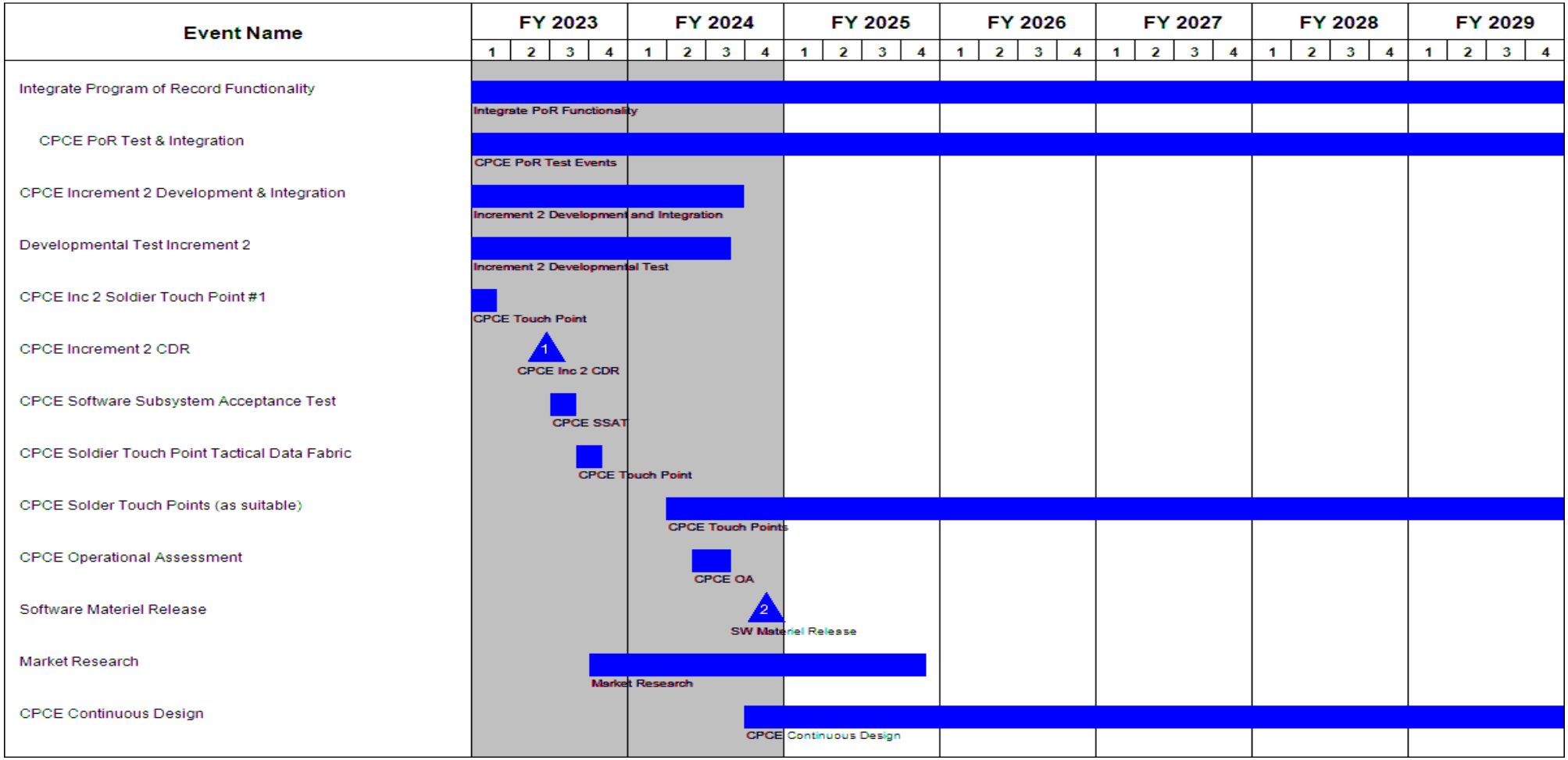


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

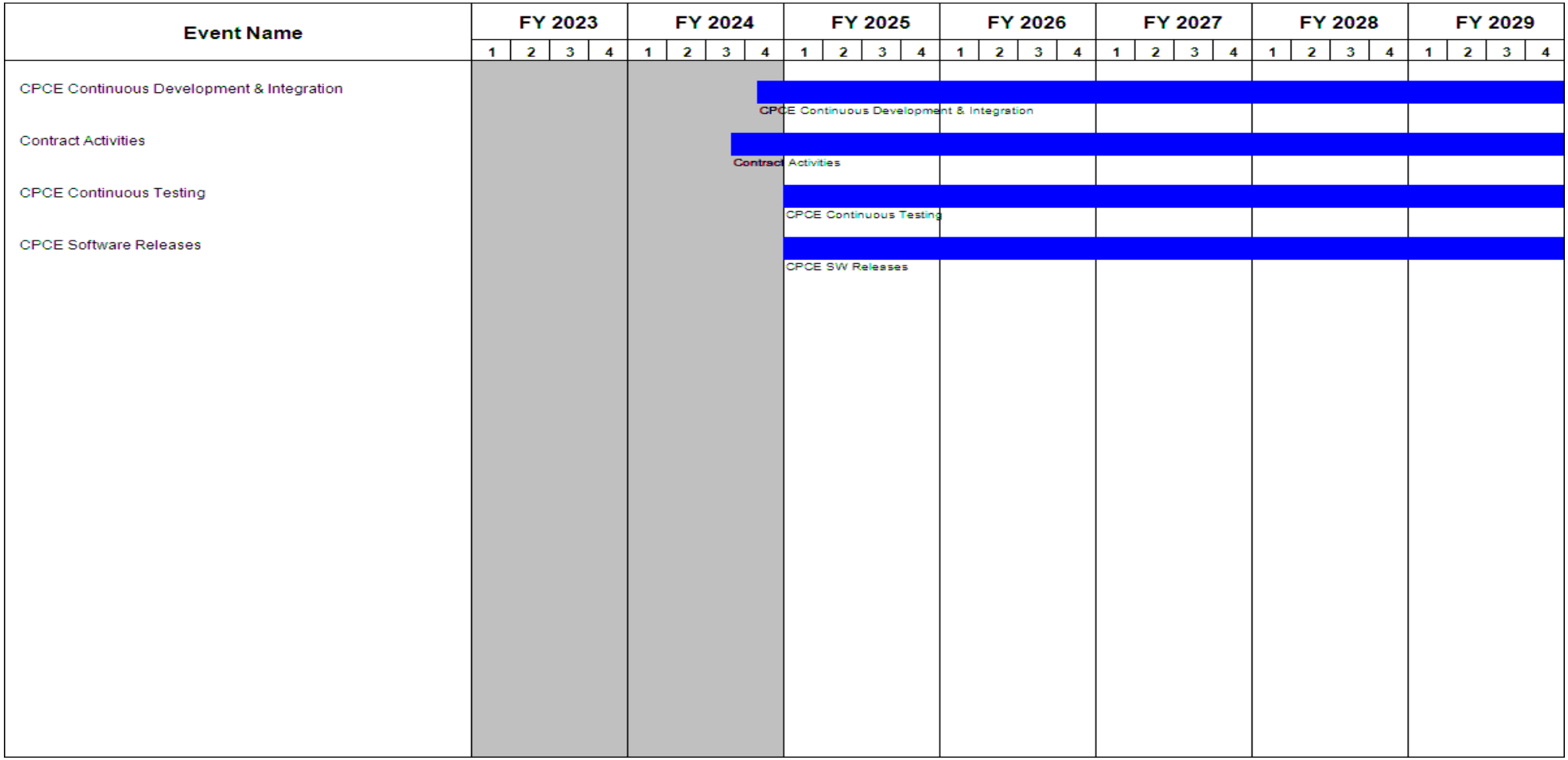


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Integrate Program of Record Functionality	2	2019	4	2029
CPCE PoR Test & Integration	1	2018	4	2029
CPCE Increment 1 Design	3	2019	2	2020
CPCE Increment 1 Development & Integration	2	2020	4	2021
Developmental Test Increment 1	3	2020	3	2022
CPCE Increment 1 Operational Assessment	3	2021	4	2021
Fielding Decision Increment 1	1	2022	1	2022
CPCE Increment 2 Design	1	2022	4	2022
CPCE Increment 2 Development & Integration	3	2022	3	2024
Developmental Test Increment 2	3	2022	3	2024
CPCE Inc 2 Soldier Touch Point #1	4	2022	1	2023
CPCE Increment 2 CDR	2	2023	2	2023
CPCE Software Subsystem Acceptance Test	3	2023	3	2023
CPCE Soldier Touch Point Tactical Data Fabric	3	2023	4	2023
CPCE Solder Touch Points (as suitable)	2	2024	4	2029
CPCE Operational Assessment	2	2024	3	2024
Software Materiel Release	4	2024	4	2024
Market Research	4	2023	4	2025
CPCE Continuous Design	4	2024	4	2029
CPCE Continuous Development & Integration	4	2024	4	2029
Contract Activities	3	2024	4	2029
CPCE Continuous Testing	1	2025	4	2029

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ4 / *COMMAND POST COMPUTING ENVIRONMENT (CPCE)*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CPCE Software Releases	1	2025	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EJ6 / *TACTICAL ENHANCEMENT*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
EJ6: *TACTICAL ENHANCEMENT*	-	-	9.040	-	-	-	-	-	-	-	0.000	9.040
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Army Network Modernization Priority and supports the Army's strategy for Logistics Transport Convergence. Efforts are aligned to support the Network-Cross Functional Team capability set approach to achieve the network modernization strategy.

Troposcatter Transmission (TROPO): Tactical Enhancement supports the evaluation and testing requirements for TROPO capabilities procured and fielded under the Signal Modernization (SIGMOD) funding line, B00010. TROPO will provide redundancy communications in a Satellite Denied environment by providing improved Line of Sight and Beyond Line of Sight (BLOS) radio systems. Enables Mission Command in a Satellite Denied environment by providing BLOS capability over longer ranges and at higher throughput than the current BLOS System. TROPO extends the network by utilizing a significantly reduced SWaP radio verses the current system. TROPO will enable Army units to reduce reliance on costly satellite bandwidth.

COMMAND POST NETWORKING: Enables Command Post networking capabilities by providing communications solutions to enable a more survivable Command Post against near peer advisories. The solutions will utilize advanced waveform and antenna improvements to decrease radio frequency detection and interception in the battlefield and will be integrated onto the appropriate platforms to increase Command Post survivability.

STS: The Sustainment Transport System (STS) is a data transport capability through satellite communications (SATCOM) and an integrated component of the Unified Network providing unclassified communications to U.S. Army sustainment units in their support to the Warfighter. STS provides network connectivity and enables a SATCOM pathway for logistics, financial management, personnel, and health service support data to be exchanged on the battlefield between multiple echelons and enterprise data sources. The STS provides critical connectivity on the battlefield where the Integrated Tactical Network (ITN) and other communication systems do not extend to dispersed and forward deployed sustainment units.

STS is comprised of one SATCOM System to enable Beyond Line of Sight (BLOS) communication and enterprise access. Each SATCOM System is accompanied by Line of Sight (LOS) radio systems to extend service to distant enclaves, and Wireless Network Access (Wi-Fi) to connect subscriber computers within a local enclave. STS will be acquired as three Programs of Record (PORs) beginning in FY23: STS SATCOM (ACAT II), STS Wi-Fi (ACAT II), and STS LOS (ACAT III). FY24 funding supports the execution of an Initial Test and Evaluation (IOT&E) for each STS POR in FY24. No FY25 request for funding.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: STS SATCOM Test and Evaluation	-	3.500	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ6 / *TACTICAL ENHANCEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: These funds will be used to conduct an Initial Test and Evaluation (IOT&E) of the STS SATCOM System in order to facilitate integration into the Unified Network. This Acquisition Strategy enables the integration of proven Commercial-Off-The-Shelf (COTS) capabilities into existing Tactical Network nodes to expand and enhance network capacity and user access. The STS SATCOM capability will be acquired as an ACAT II program to replace legacy equipment in the field as a distinct Major Capability Acquisition program. Milestone C decision on 4 April 2023 authorized entry into Low Rate Initial Production (LRIP). ***FY 2024 Plans:*** FY24 funding supports STS SATCOM Systems product development consisting of test assets that will be used during initial engineering tests and Army Test and Evaluation Command (ATEC) evaluation of the STS capabilities/requirements including integration into the Unified Network. Test and evaluation will include verification/validation of the approved capabilities/ requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). In addition, this funds ATEC personnel conducting the evaluation, any test tools and test range time that may be needed to conduct these tests, and associated travel costs. This funding will also be used to conduct a cyber assessment of STS SATCOM and will include Red Team Penetration Testing. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to completion of STS SATCOM IOT&E in FY24. No FY25 request for funding.			
Title: STS Wi-Fi Test and Evaluation	-	2.640	-
Description: These funds will be used to conduct an Initial Test and Evaluation (IOT&E) of the STS Wi-Fi System in order to facilitate integration into the Unified Network. This Acquisition Strategy enables the integration of proven Commercial-Off-The-Shelf (COTS) capabilities into existing Tactical Network nodes to expand and enhance network capacity and user access. The STS SATCOM capability will be acquired as an ACAT II program to replace legacy equipment in the field as a distinct Major Capability Acquisition program. Milestone C decision on 4 April 2023 authorized entry into Low Rate Initial Production (LRIP). ***FY 2024 Plans:*** FY24 funding supports STS Wi-Fi System product development consisting of test assets that will be used during initial engineering tests and Army Test and Evaluation Command (ATEC) evaluation of the STS capabilities/requirements including integration into the Unified Network. Test and evaluation will include verification/validation of the approved capabilities/requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). In addition, this funds ATEC personnel conducting the evaluation, any test tools and test range time that may be needed to conduct these tests, and associated travel costs. This funding will also be used to conduct a cyber assessment of STS Wi-Fi and will include Red Team Penetration Testing. ***FY 2024 to FY 2025 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ6 / *TACTICAL ENHANCEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Decrease due to completion of STS Wi-Fi IOT&E in FY24. No FY25 request for funding.			
Title: STS LOS Test and Evaluation	-	2.900	-
Description: These funds will be used to conduct an Initial Test and Evaluation (IOT&E) of the STS LOS System in order to facilitate integration into the Unified Network. This Acquisition Strategy enables the integration of proven Commercial-Off-The-Shelf (COTS) capabilities into existing Tactical Network nodes to expand and enhance network capacity and user access. The STS SATCOM capability will be acquired as an ACAT III program to replace legacy equipment in the field as a distinct Major Capability Acquisition program. Milestone C decision on 4 April 2023 authorized entry into Low Rate Initial Production (LRIP). ***FY 2024 Plans:*** FY24 funding supports STS LOS System product development consisting of test assets that will be used during initial engineering tests and Army Test and Evaluation Command (ATEC) evaluation of the STS capabilities/requirements including integration into the Unified Network. Test and evaluation will include verification/validation of the approved capabilities/requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). In addition, this funds ATEC personnel conducting the evaluation, any test tools and test range time that may be needed to conduct these tests, and associated travel costs. This funding will also be used to conduct a cyber assessment of STS LOS and will include Red Team Penetration Testing. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to completion of STS LOS IOT&E in FY24. No FY25 request for funding.			
Accomplishments/Planned Programs Subtotals	-	9.040	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• B00010: *Signal Modernization Program*	167.058	161.585	127.479	-	127.479	106.246	106.378	107.556	131.600	Continuing	Continuing
• BD3513: *CSS SATCOM*	60.879	56.804	60.850	-	60.850	64.114	64.283	64.507	65.070	0.000	436.507

Remarks

B00010: OPA funding line for Signal Modernization (SIGMOD): TROPO
BD3513: OPA funding line for CSS SATCOM: STS SATCOM, STS Wi-Fi, STS LOS

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ6 / *TACTICAL ENHANCEMENT*

D. Acquisition Strategy

These funds will be used to conduct Initial Operational Tests and Evaluation (IOT&E) of STS SATCOM, STS LOS, and STS Wi-Fi Systems in order to facilitate integration into the Unified Network. This Acquisition Strategy enables the integration of proven Commercial-Off-The-Shelf (COTS) capabilities into existing Tactical Network nodes to expand and enhance network capacity and user access. The STS capabilities will be acquired as ACAT II and ACAT III programs to replace legacy equipment in the field as three distinct Major Capability Acquisition programs. Milestone C decisions on 4 April 2023 authorized entry into Low Rate Initial Production (LRIP).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EJ6 / *TACTICAL ENHANCEMENT*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
STS SATCOM Test and Evaluation	MIPR	ATEC : Aberdeen Proving Ground, MD	-	-		3.500	Feb 2024	-		-		-	0.000	3.500	-
STS Wi-Fi Test and Evaluation	MIPR	ATEC : Aberdeen Proving Ground, MD	-	-		2.640	Feb 2024	-		-		-	0.000	2.640	-
STS LOS Test and Evaluation	MIPR	ATEC : Aberdeen Proving Ground, MD	-	-		2.900	Feb 2024	-		-		-	0.000	2.900	-
		Subtotal	-	-		9.040		-		-		-	0.000	9.040	N/A

Remarks

TROPO Customer Test will be a Soldier Touch Point (STP) in March 2023, to evaluate multiple industry solutions. This will be supported and instrumented by Army Test and Evaluation Command (ATEC).

STS SATCOM Test and Evaluation: FY24 funding supports STS SATCOM System product development consisting of test assets that will be used during initial engineering tests and Army Test and Evaluation Command (ATEC) evaluation of the STS capabilities/requirements including integration into the Unified Network. Test and evaluation will include verification/validation of the approved capabilities/requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). In addition, this funds ATEC personnel conducting the evaluation, any test tools and test range time that may be needed to conduct these tests, and associated travel costs. This funding will also be used to conduct a cyber assessment of the STS SATCOM System and will include Red Team Penetration Testing.

STS Wi-Fi Test and Evaluation: FY24 funding supports STS Wi-Fi System product development consisting of test assets that will be used during initial engineering tests and ATEC evaluation of the STS capabilities/requirements including integration into the Unified Network. Test and evaluation will include verification/validation of the approved capabilities/requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). In addition, this funds ATEC personnel conducting the evaluation, any test tools and test range time that may be needed to conduct these tests, and associated travel costs. This funding will also be used to conduct a cyber assessment of the STS Wi-Fi System and will include Red Team Penetration Testing.

STS LOS Test and Evaluation: FY24 funding supports STS Line of Sight System product development consisting of test assets that will be used during initial engineering tests and the full ATEC evaluation of the STS capabilities/requirements including integration into the Unified Network. Test and evaluation will include verification/validation of the approved capabilities/requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). In addition, this funds ATEC personnel conducting the evaluation, any test tools and test range time that may be needed to conduct these tests, and associated travel costs. This funding will also be used to conduct a cyber assessment of the STS LOS System and will include Red Team Penetration Testing.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		9.040		-		-		-	0.000	9.040	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EJ6 / *TACTICAL ENHANCEMENT*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

FY24 funding supports the Initial Tests and Evaluation (IOT&E) of STS SATCOM, Wi-Fi, and LOS systems to verify/validate the approved capabilities/requirements in the Bridge to Future Networks (BFN) Capability Production Document (CPD) Rev 2 (dated 23 May 2022). This funding will support the integration of STS to function as a System of Systems including satellite time on Ka, Ku, and X bands. Test and evaluation personnel, instrumentation, data collection, travel, and analysis will also be supported. This funding will also be used to conduct a cyber assessment of the STS programs and will include Red Team Penetration Testing. No FY25 request for funding.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ6 / *TACTICAL ENHANCEMENT*

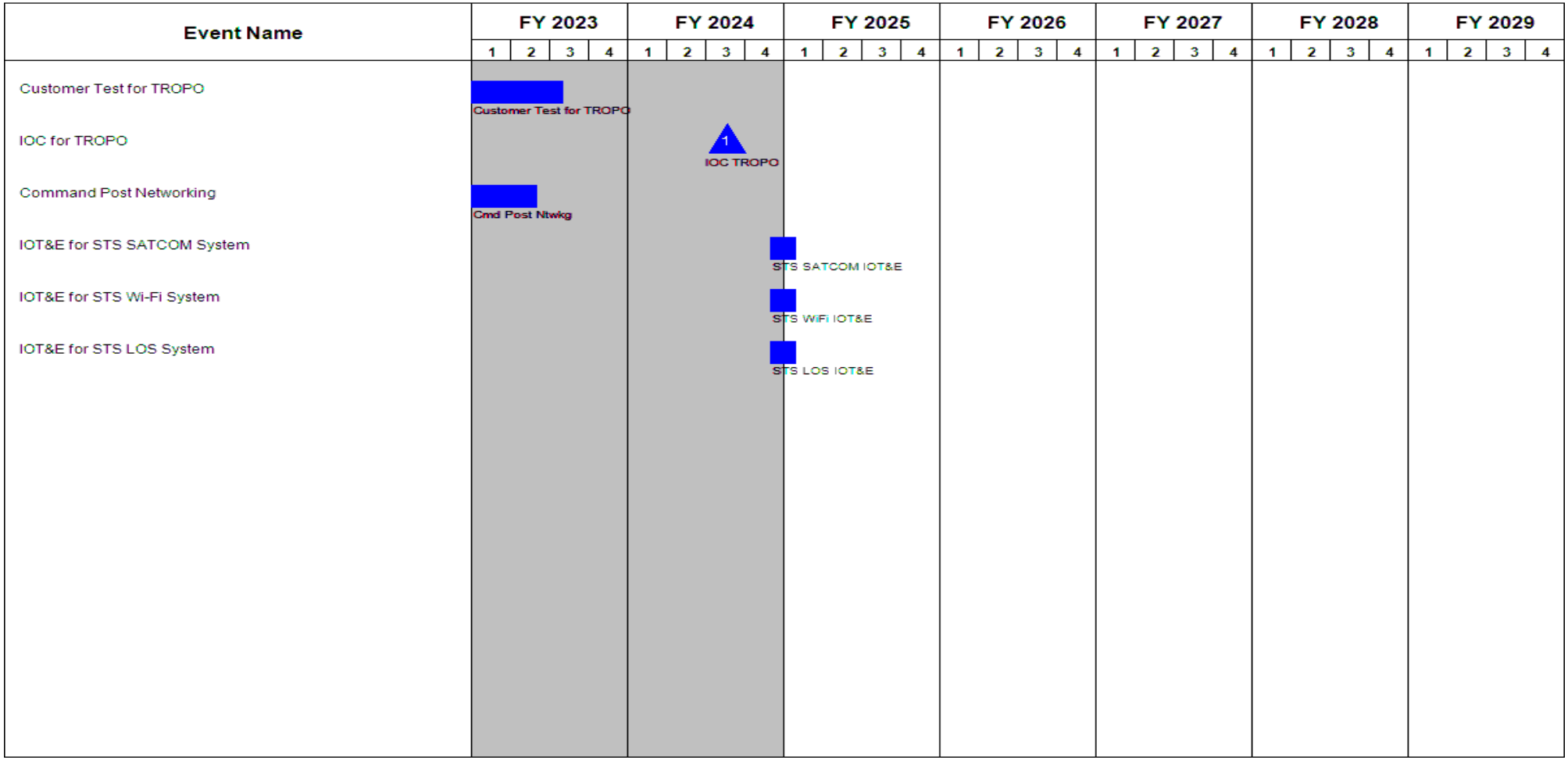


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EJ6 / *TACTICAL ENHANCEMENT*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Customer Test for TROPO	3	2022	3	2023
IOC for TROPO	3	2024	3	2024
Command Post Networking	4	2022	2	2023
IOT&E for STS SATCOM System	4	2024	1	2025
IOT&E for STS Wi-Fi System	4	2024	1	2025
IOT&E for STS LOS System	4	2024	1	2025

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*				Project (Number/Name) EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
EK9: *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*	-	3.276	49.577	86.642	-	86.642	25.504	26.032	26.692	26.958	0.000	244.681
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Unified Network Operations (UNO) is a signature modernization effort designed to support the Army of 2030 and 2040 network capabilities objectives. UNO software development will provide continuous development of unified network components to meet the Army's prioritization of desired capabilities.

UNO is foundational to Army network modernization efforts that enhance network security, resiliency, and data exchange, and to the service's Unified Network (UN) vision - which integrates and converges enterprise and tactical networks. UNO is a series of integrated software-based solutions, designed to replace and consolidate existing Network Operations tools.

UNO will leverage an iterative software development approach, following Agile and Development, Security, and Operations (DevSecOps) approaches, for fully integrated cybersecurity capabilities and information dissemination management / content sharing (IDM / CS), including Army Zero Trust (ZT) initiatives (e.g., Identity, Credential, and Access Management (ICAM), to enable network mission command functions across the Enterprise and Tactical network environments.
UNO capabilities provide the key components of the UN across the Army. These components include streamlined and enhanced Network Planning and Device Configurations, Network Management and Monitoring tools, enhanced security and data exchange capabilities, including ICAM.

FY 2025 funding supports the competitive prototyping development, demonstration, assessments, and evaluation (including soldier feedback) of UNO solutions. Prototype solutions of integrated core Network Operations (NetOps) tools and functions will provide the foundational components of UNO including a Simplified User Interface (SUI), open network architectures, Application Program Interfaces (APIs) that enable access to the core NetOps tools (e.g., planning, management, monitoring, security), core NetOps tools, operations, and maintenance functions which enable plan/design, model and simulation, install, operate, maintain, sustain, and security of the network for tactical users. Prototype solutions of the core NetOps tools and functions will also demonstrate the ability integrate with prototype solutions for tactical ICAM (T-ICAM). UNO T-ICAM prototype solutions will provide instances of an Identity Service, Multi-Factor Authentication (MFA), automated account provisioning/ deprovisioning and access control based on identity attributes leveraging Army Master Identity Directory (AMID) (e.g., Attribute Based Access Control (ABAC)).

The UNO Middle Tier Acquisition (MTA) Rapid Prototyping effort is $83.712 million RDT&E from FY 2019 - FY 2024. The remainder of the UNO MTA is fully funded across the Future Years Defense Program.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Management Services	-	2.466	3.015

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Management Services provides Program Management Office (PMO) activities (e.g., contract(s) management, acquisition efforts, costs, program management) to ensure the program maintains cost, schedule, and performance parameters. ***FY 2024 Plans:*** Management Services funds will provide for PMO support activities to the Unified Network Operations (UNO) program, to include contracts management, logistical support, program and business management functions. ***FY 2025 Plans:*** Management Services funds will provide for Program Management Office (PMO) support activities to the Unified Network Operations (UNO) program, to include contracts management, logistical support, program and business management functions. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased for additional PMO support activities, development and prototype contracts, and logistical support for UNO software solutions.			
Title: Product Development	3.276	41.088	73.945
Description: Product Development provides software development of Unified Network Operations (UNO) capabilities. UNO Middle Tier Acquisition (MTA) Rapid Prototyping provides Network Planning and Network Management capabilities to support weapon systems (e.g., tactical radios, Satellite Communications (SATCOM), Line of Sight (LOS) and Beyond Line of Sight (BLOS)) to Integrated Tactical Network (ITN) users. Network Planning includes the development of automated analysis processes, improved planning accuracy, and simplified configuration operations. Network Management includes the management, network status, and monitoring capabilities to allow users the ability to adjust the network to meet mission requirements. Embedded training of the Network Planning and Network Management prototypes provides soldiers with a consistent look and feel of the applications. The MTA prototype development served as a risk reduction effort (RRE) designed to inform the initial proof of concept of critical planning and management functions. The lessons learned from the prototype activities will inform future design and may consider these prototypes for implementation as part of future solutions. UNO Information Systems - Initial Capabilities Document (IS-ICD) requirements will expand UNO capabilities to provide the key components of the Unified Network (UN) across the Army. These components include streamlined and enhanced Network Planning and Device Configurations, Network Management and Monitoring tools, and enhanced security and data exchange capabilities, including identity, credential, and access management capabilities in support of Zero Trust. These components provide standardized, tailorable, and scalable capabilities across the UN. UNO Lower-Tier Tactical (LTT) and UNO Upper-Tier Tactical (UTT) will develop prototypes of the planning, management, monitoring, security, operations, and maintenance capabilities as a fully integrated suite of Network Operations (NetOps) tools for			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
tactical users. UNO LTT supports users at the Battalion (BN) and below formations, while UNO UTT supports users at Brigade (BDE) and above. UNO UTT will provide additional enhanced features for Artificial Intelligence (AI) and Machine Learning (ML). UNO Tactical Identity, Credential, and Access Management (T-ICAM) will develop prototypes of ICAM capabilities for tactical users within all tactical formations. Initial development will provide prototypes of ICAM data repository capabilities and solutions, Identity Provider (IdP) / Multi-Factor Authentication (MFA), automated Active Directory (AD) account provisioning and deprovisioning, and access control capabilities based on Authoritative Attributes. ***FY 2024 Plans:*** Product Development funds will provide for iterative software development of UNO capabilities. UNO MTA Rapid Prototyping product development includes software development of Network Planning and Network Management capabilities for the delivery of UNO prototype v1.1 software to support the overarching 2-year CS cycle for FY 2023 - FY 2024. Product Development supports the transition from rapid prototyping to fully integrated UNO capabilities in FY 2024 to support the UNO IS-ICD requirements. UNO IS-ICD product development includes software development of integrated Network and Enterprise Management Systems (NM/EMS), cybersecurity, and information dissemination management/content sharing (IDM/CS), including Zero Trust. UNO IS-ICD requirements will leverage and enhance existing prototypes to delivery NetOps tools/capabilities to develop and maintain critical situational awareness (SA) in all operational environments. NM/EMS software development results in designing, planning, configuration, operation, and maintenance functions (e.g., network and transports systems, cryptographic devices, servers, clients, end user devices, applications, and services). Cybersecurity capabilities will address cyber defense of the network that are threat agnostic; integrated with cyberspace operations, intelligence, and other information related capabilities to establish cyberspace defense in depth. IDM/CS provides information management planning; information discovery/delivery management; storage/cataloging of available information; and system administration functions. ***FY 2025 Plans:*** Product Development funds the competitive prototype development of UNO solutions.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Prototype development of LTT and UTT capabilities serve as the foundational components of UNO including a Simplified User Interface (SUI), open network architectures, Application Program Interfaces (APIs) that enable access to core NetOps tools (e.g., planning, management, monitoring, security), core NetOps tools, operations and maintenance functions which enable plan/design, model and simulation, install, operate, maintain, sustain, and security of the network for tactical users. These capabilities are intended to be interoperable and integrated with future UNO components and support NetOps across the tactical network (e.g., tactical radios and waveforms, transmission systems and components, deployed nodes, network devices, and software). Prototype development of T-ICAM capabilities will deliver Identity Provider (IdP) services, Multi-Factor Authentication (MFA), and automated provisioning/deprovisioning of access control leveraging identity attributes from Army Master Identity Directory (AMID) (e.g., Attribute Based Access Control)). These capabilities enable the use of multiple methods of authentication (e.g., Fast Identity Online 2 (FIDO2), MFA, etc.) and Active Directory (AD); multiple factors to verify Soldier identity (e.g., physical tokens, personal identification numbers (PIN), biometrics templates); and dynamic access control. These capabilities will demonstrate the ability to leverage industry standard protocols to provide ICAM services at the point of need in DDIL environments and enables the tactical environment to meet the DoD and Army Zero Trust requirements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased for accelerated development of UNO capabilities to support Brigade (BDE) and above echelons and continued development of ICAM for tactical users.			
Title: Training Development ***Description:*** Training Development provides development of training materials in support of Unified Network Operations (UNO) Information Systems - Initial Capabilities Document (IS-ICD) requirements. Training development includes classroom training curriculums and subsequent training materials required to support Soldier training, allowing for maximum competency when operating UNO capabilities. ***FY 2024 Plans:*** Training Development funds will provide for development of training materials beginning in FY 2024 to support UNO IS-ICD requirements. Training development will support the iterative software development process and Development, Security, and Operations (DevSecOps) activities, including Soldier Touch Points (STPs) throughout the development cycle. ***FY 2025 Plans:*** Training Development funds will provide for development of training materials in FY 2025 to support UNO IS-ICD requirements. Training development will support the iterative software development process and Development, Security, Operations	-	1.509	1.963

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
(DevSecOps) activities, including Soldier Touch Points (STPs) and Operational User Assessments (OUAs) throughout the development cycle. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased for development of training curriculums and materials driven by acceleration of UNO capabilities to support Brigade (BDE) and above echelons and continued development of ICAM for tactical users for demonstration and soldier assessments of prototypes in FY 2025.			
Title: Test & Evaluation ***Description:*** Test & Evaluation provides funding to support testing and evaluation of Unified Network Operations (UNO) capabilities; ensures necessary certifications required to operate UNO capabilities across Army networks to support Department of Defense Information Networks (DODIN) operations are attained; ensures UNO capabilities are well integrated and interoperable across the Army's Unified Network (UN). ***FY 2024 Plans:*** Test & Evaluation funds will provide for the test and evaluation of UNO capabilities, acquiring the necessary certifications to operate UNO capabilities across Army networks for DODIN operations, and will ensure UNO capabilities are integrated and interoperable across the Army's UN. This includes the Office of the Director, Operational Test and Evaluation (DOT&E) and Army Test and Evaluation Center (ATEC) support, test lab and equipment (hardware/software), development test activities (quarterly software testing, annual Formal Qualification Testing (FQT) and cybersecurity testing), operational Soldier Touch Points (STPs), cybersecurity and penetration testing during STPs, testing range coordination, network configuration, and test documentation. ***FY 2025 Plans:*** Test & Evaluation funds will provide for the continuous integration, test, and evaluation of UNO capabilities, acquiring the necessary certifications to operate UNO capabilities across Army networks and Department of Defense Information Networks (DODIN) operations, and will ensure UNO capabilities are integrated and interoperable across the Army's Unified Network. This includes the Office of the Director, Operational Test and Evaluation (DOT&E) and Army Test and Evaluation Center (ATEC) support, test lab and equipment (hardware / software), continuous developmental test activities, operational Soldier Touch Points (STPs) / Operational User Assessments (OUAs), cybersecurity and penetration testing during STPs / OUAs, testing range coordination, network configuration, and test documentation. ***FY 2024 to FY 2025 Increase/Decrease Statement:***	-	4.514	7.719

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Funding increased to support testing and certification driven by acceleration of UNO capabilities to support Brigade (BDE) and above echelons and continued assessment of ICAM for tactical users, which includes additional lab hardware and participation in OUAs in FY 2025.			
Accomplishments/Planned Programs Subtotals	3.276	49.577	86.642

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• EW3: *Unit Task Reorganization (UTR) Development*	13.295	-	0.000	-	0.000	-	-	-	-	Continuing	Continuing
• B99418: *UNIFIED NETWORK OPERATIONS (UNO)*	-	-	37.695	-	37.695	5.379	6.064	6.430	6.495	0.000	62.063

Remarks

In accordance with National Defense Authorization Act (NDAA) funding policy for Middle Tier Acquisition (MTA) programs, Unified Network Operations (UNO) MTA Rapid Prototyping leverages funds from Unit Task Reorganization (UTR) 0604818A/EW3 and Tactical Network Operations Management (TNOM) 0604818A/EK9 to achieve its required funding levels.

UTR 0604818A/EW3 funding has been re-aligned to TNOM 0604818A/EK9 beginning in FY 2024.

In FY 2025, Unified Network Operations (UNO) BA9301 / B99418 provides the procurement funding to procure and deploy the UNO software releases developed under the Tactical Network Operations Management (TNOM) 0604818A / EK9 funding line.

D. Acquisition Strategy

Tactical Network Operations Management (TNOM) supports software development, test, and integration of Unified Network Operations (UNO) capabilities (Lower-Tier Tactical (LTT), Upper-Tier Tactical (UTT), Identity, Credential, and Access Management (ICAM), Managed Data, Installation, and Strategic).

On 12 October 2023, the Army Requirements Oversight Council (AROC) approved the revised UNO Information Systems - Initial Capabilities Document (IS-ICD) Information Technology (IT) Box cost thresholds to include UNO Lower-Tier Tactical (LTT), Upper-Tier Tactical (UTT), and Identity, Credential, and Access Management (ICAM) (enterprise and tactical) requirements. This decision supported approvals by the AROC Capabilities Board (ACB) of the UNO IS-ICD subordinate Requirements Definition Packages (RDPs) for LTT (24 March 2023), UTT (15 June 2023), and ICAM (01 November 2023). The UNO Managed Data, Installation, and Strategic RDPs are expected to be approved in FY 2024.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

Approval of the above requirements documents supports the close out of the UNO Middle Tier Acquisition (MTA) Rapid Prototyping effort in FY 2024 and transition to multiple follow-on acquisitions programs approved by the Army Acquisition Executive (AAE). The AAE conducted a series of Acquisition Shaping Panels (ASPs) to identify and approve the acquisition approaches for these programs. On 05 July 2023, the AAE signed a memorandum authorizing the use of the Software Acquisition Pathway for development, testing, and integration of UNO LTT capabilities. Memorandums authorizing UNO UTT and UNO Tactical ICAM (T-ICAM) acquisition approaches are expected in FY 2024.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Office	Various	Various : Various	-	-		2.466	Nov 2023	3.015	Nov 2024	-		3.015	0.000	5.481	-
		Subtotal	-	-		2.466		3.015		-		3.015	0.000	5.481	N/A

Remarks

Management Services funds increased to provide additional PMO support activities to establish and manage development and integration contracts, provide additional logistical support and program management for development of UNO IS-ICD software releases.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	C/CPFF	Various : Various	16.530	3.276	Jan 2023	-		-		-		-	0.000	19.806	-
UNO LTT/UTT Software Development	Various	To Be Determined : To Be Determined	-	-		41.088	Nov 2023	63.486	Nov 2024	-		63.486	0.000	104.574	-
UNO T-ICAM Software Development	TBD	To Be Determined : To Be Determined	-	-		-		10.459	Nov 2024	-		10.459	0.000	10.459	-
		Subtotal	16.530	3.276		41.088		73.945		-		73.945	0.000	134.839	N/A

Remarks

Product Development funds increased to include the iterative software development to meet UNO IS-ICD requirements for the development of UNO software releases.

The program anticipates awarding multiple Other Transactional Authority (OTA) Agreements in FY 2024, that will continue into FY 2025.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Training Development	Various	To Be Determined : To Be Determined	-	-		1.509	Mar 2024	1.963	Nov 2024	-		1.963	0.000	3.472	-
		Subtotal	-	-		1.509		1.963		-		1.963	0.000	3.472	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Support costs increased to support development of training curriculums and training materials required to support the DevSecOps approach, including STPs, throughout the software development cycle for UNO software releases.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Test and Evaluation	Various	To Be Determined : To Be Determined	-	-		4.514	Apr 2024	7.719	Nov 2024	-		7.719	0.000	12.233	-
		Subtotal	-	-		4.514		7.719		-		7.719	0.000	12.233	N/A

Remarks

Test & Evaluation funds increased to support testing and certification of fully integration Network and Enterprise Management System (NM/EMS) software, cybersecurity capabilities, and information dissemination management and content sharing (IDM/CS) to support UNO software releases.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.530	3.276		49.577		86.642		-		86.642	0.000	156.025	N/A

Remarks

Tactical Network Operations Management (TNOM) funding increased from $49.577 million in FY 2024 to $86.642 million in FY 2025. The increase is the result of the approval of subsequent Requirements Definition Packages (RDPs) to the Unified Network Operations (UNO) Information Systems - Initial Capabilities Document (IS-ICD) beginning in FY 2025.

This increased funding supports the continuation of software development, test and evaluation efforts towards development of fully integrated Unified Network (UN) capabilities within the tactical networks.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

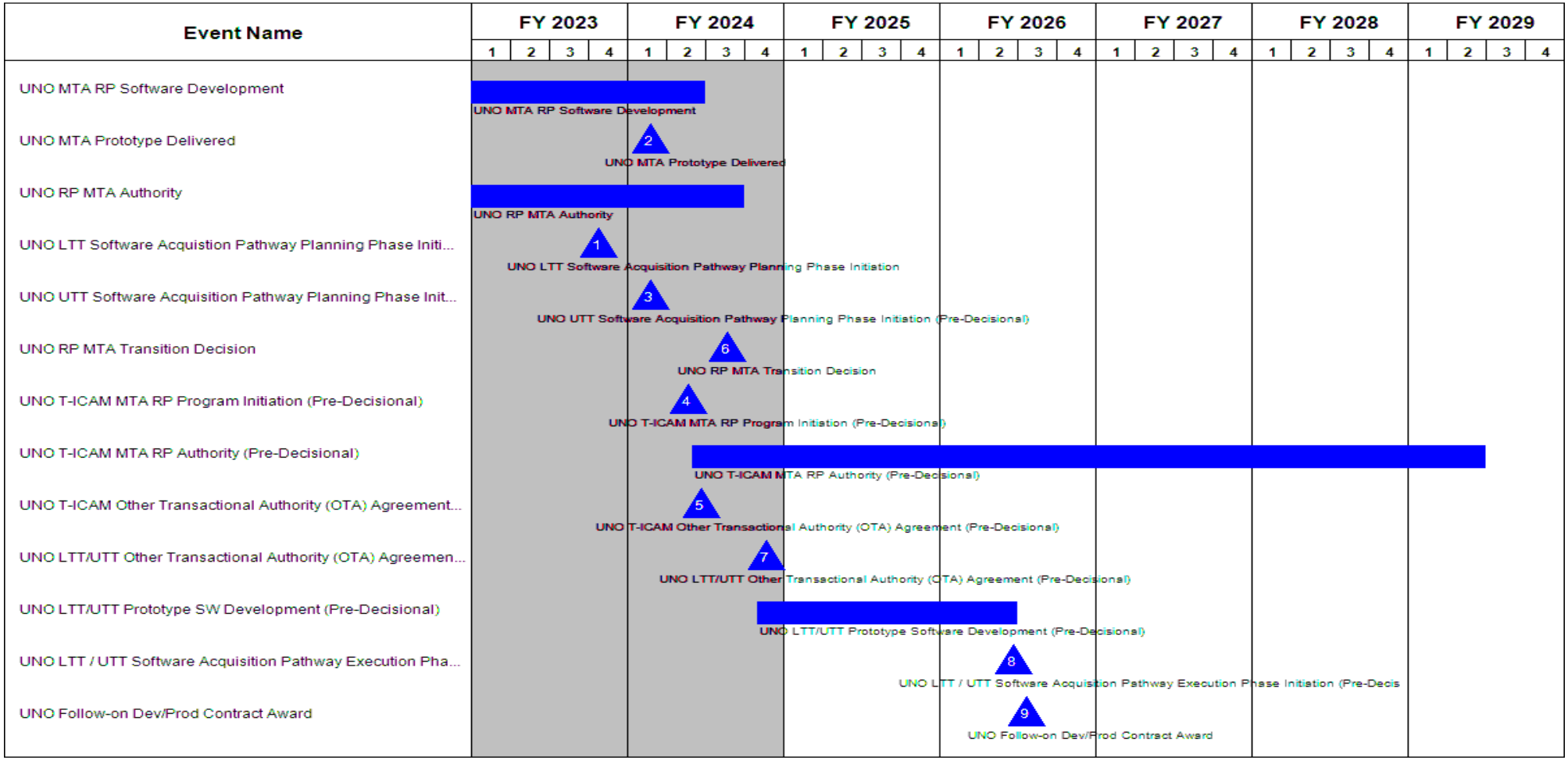


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

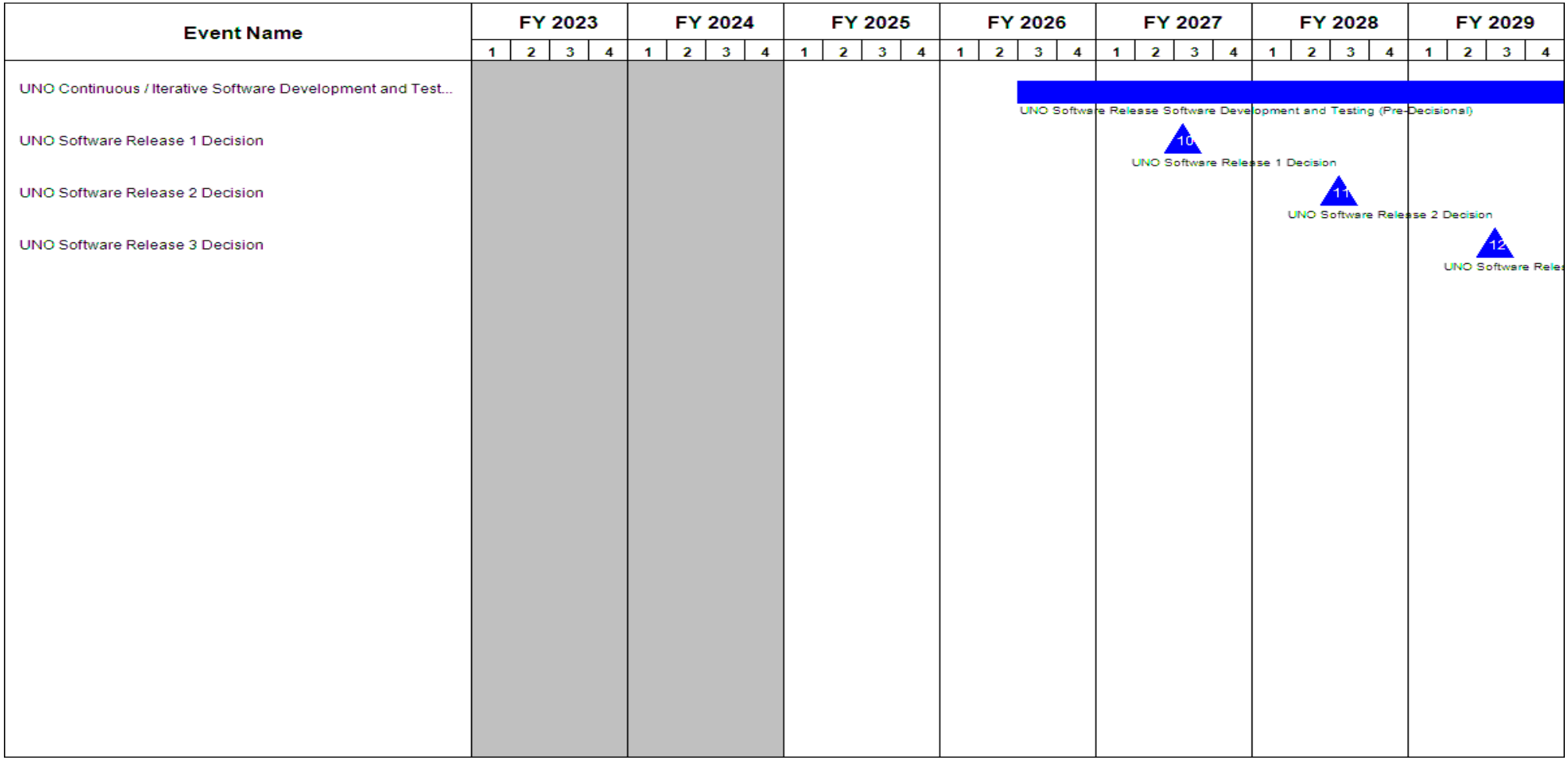


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EK9 / *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
UNO MTA RP Software Development	2	2021	2	2024
UNO MTA Prototype Delivered	1	2024	1	2024
UNO RP MTA Authority	3	2019	3	2024
UNO LTT Software Acquistion Pathway Planning Phase Initiation	4	2023	4	2023
UNO UTT Software Acquisition Pathway Planning Phase Initiation (Pre-Decisional)	1	2024	1	2024
UNO RP MTA Transition Decision	3	2024	3	2024
UNO T-ICAM MTA RP Program Initiation (Pre-Decisional)	2	2024	2	2024
UNO T-ICAM MTA RP Authority (Pre-Decisional)	2	2024	2	2029
UNO T-ICAM Other Transactional Authority (OTA) Agreement (Pre-Decisional)	2	2024	2	2024
UNO LTT/UTT Other Transactional Authority (OTA) Agreement (Pre-Decisional)	4	2024	4	2024
UNO LTT/UTT Prototype SW Development (Pre-Decisional)	4	2024	2	2026
UNO LTT / UTT Software Acquisition Pathway Execution Phase Initiation (Pre-Decisional)	2	2026	2	2026
UNO Follow-on Dev/Prod Contract Award	3	2026	3	2026
UNO Continuous / Iterative Software Development and Testing (Pre-Decisional)	3	2026	4	2029
UNO Software Release 1 Decision	3	2027	3	2027
UNO Software Release 2 Decision	3	2028	3	2028
UNO Software Release 3 Decision	3	2029	3	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*				Project (Number/Name) EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
EQ8: *Mobile/Handheld Computing Environment (M/HHCE)*	-	5.105	7.549	10.332	-	10.332	13.113	14.587	5.419	5.473	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project EQ8, Mobile/Handheld Computing Environment (M/HHCE), is one of the six computing environments (CEs) formalized by the Army Acquisition Executive (AAE) under the Common Operating Environment (COE) initiative and supports the Nett Warrior (NW) also known as the Ground Soldier Systems (GSS) program. The program leverages commercial smart devices and secure Army tactical radios, Commercial 4G/LTE/WIFI and cloud-based infrastructure to provide the dismounted leader an integrated mission command and situational awareness system for use during combat operations. The NW system provides leaders electronic real-time information on friendly positions; information about enemy activity and movement; navigational data and map imagery; a collaborative planning tool; and other mission related graphics which effectively puts the power of the entire Army tactical network in the hands of the dismounted leader. The NW hardware is the computational platform that other M/HHCE systems run their applications. The M/HHCE will provide incremental improvements with additional application capabilities over time, and will be interoperable with Command Post CE and Mounted CE systems.

Nett Warrior (NW) and Integrated Visual Augmentation System (IVAS) are the instantiation of the M/HHCE and comply with the technical standards documented by the M/HHCE and provide the dismounted common computational platform for other products relevant to dismounted Soldiers. Through compliance with the M/HHCE, software applications from other programs are integrated with the NW and IVAS systems, reducing the need for duplicate hardware resulting in reduced Soldier Load. The M/HHCE is directly aligned to the Army Network Modernization Strategy Line of Effort (LOE) 1 (Unified Network). M/HHCE also supports the Army Network Modernization Strategy LOE 2 (Common Operating Environment). These efforts are aligned to the Army's Tactical Network Capability Set development and fielding plans by utilizing (1) interoperable data, message, and waveforms, (2) sensors and applications that enable operations across domains and automated tools to aid decision-making and (3) integration with Joint C4ISR and strike capabilities. NW leverages commercial smart phone devices and secure Army tactical radios to provide the dismounted leader an integrated mission command and situational awareness capability for use during combat operations. NW applied feedback from conventional and Special Operations units to procure and implement Secret and Secure But Unclassified (SBU) networking equipment for Brigade Combat Teams (BCTs) and the Security Force Assistance Brigades to enable faster, more flexible Mission Command data exchanges with Joint and Coalition forces while maintaining the existing integrated mission command capability with Mounted CE (e.g., Joint Battle Command - Platform (JBC-P)) system. NW uses Commercial-Off-The-Shelf (COTS) and Non-Developmental (NDI) computational & communication equipment to create a robust and flexible Integrated Tactical Network that enables faster and more accurate decision making in fights at the tactical level.

Requirements for the M/HHCE are established in the Army Requirements Oversight Council (AROC) approved COE Information Systems Initial Capability Document (IS ICD), the M/HHCE Requirements Definition Package (RDP), and the NW Capability Development Document in lieu of Capability Production Document. M/HHCE is a signature effort under the Network CFT (Common Operating Environment focused on dismounted Soldier). The Network CFT is one of the six Army modernization priorities per Army Modernization Strategy 2019. M/HHCE employs a Developmental and Security Operations (DevSecOps) process to incrementally develop capability

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

over time to satisfy requirements and meet fielding decisions. FY2025 funding will continue DevSecOps activities to incorporate new capability and enhancements based on user feedback and address provisioning of the Windows operating system in the Watchtower mobile device management system. Additionally, FY2025 funding provides for integration/test equipment and risk reduction events such as Project Convergence FY25, as well as funding to initiate Artificial Intelligence/Machine Learning (AI/ML)-based analytics into the Nett Warrior ecosystem and develop tools within the Intra-Soldier Wireless environment. FY2025 funding will also go to supporting product integration in pursuit of a Fused Awareness System (FAS) in accordance with the Situational Awareness Strategy (SAS).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Test and Evaluation	0.315	1.210	2.619
Description: Test and evaluation efforts include the planning and conduct of combined COE events with Command Post/Mounted Computing Environment, Software Acceptance Testing, System Integration Events, Risk Reduction Events, Security Penetration Testing and Operational Assessment like annual Army Expeditionary Warrior Experiment (AEWE) to gain Soldier Touch point feedback on new capabilities. ***FY 2024 Plans:*** Conduct NW test and 3rd party applications evaluation for technical verification at developmental test events and user verification. Support NW as a baseline ITN/mobile CE system including conduct yearly environmental testing and Information Assurance penetration prevention testing for new commercial smart devices, software, and accessories. Support annual DevOps operational assessments to gain Soldier touch point feedback on emerging dismounted capabilities. ***FY 2025 Plans:*** Conduct NW test and 3rd party applications evaluation for technical verification at developmental test events and user verification. Support NW as a baseline ITN/mobile CE system including conduct yearly environmental testing and Information Assurance penetration prevention testing for new commercial smart devices, software, and accessories. Support annual DevSecOps operational assessments to gain Soldier touch point feedback on emerging dismounted capabilities. Support Project Convergence testing by providing NW equipment and by sending Field Support personnel to integrate, participate in interoperability events, train, operate, troubleshoot and provide fixes as required. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to start of Project Convergence FY25 test events.			
Title: Hardware and Software Integration and Evaluation for Capability Improvements	1.215	2.031	4.410
Description: Hardware and Software Integration and Evaluation for Capability Improvements ***FY 2024 Plans:*** Evaluate next End User Devices (EUD) and associated hardware components to stay aligned with commercial and Army evolving requirements. Provide NW software / hardware updates to support incorporation of 3rd party software applications onto NW EUD platform and cyber security testing. Support Defense Advanced Research Projects Agency (DARPA) integration and transition			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
of future technologies. Update software to M/HHCE standards as revised to maintain compliance with COE. Continue DARPA SHARE network server reduction infrastructure transition capability. Continue integration of PANTHER into NW, PANTHER leverages terrain features and EUD camera to provide a non-GPS based approach for determining a user's location. Continue integration and certification testing of Intra Service Wireless (ISW) Multi-Mode Body Area Network chipsets/packaging within NW system. Supports development, evaluation, and integration efforts for robotics controllers configurable to the mobile handheld computing environment. ***FY 2025 Plans:*** Evaluate next End User Devices (EUD) and associated hardware components to stay aligned with commercial and Army evolving requirements. Provide NW software / hardware updates to support incorporation of 3rd party software applications onto NW EUD platform and cyber security testing. Support Defense Advanced Research Projects Agency (DARPA) integration and transition of future technologies. Update software to M/HHCE standards as revised to maintain compliance with COE. Continue integration of PANTHER into NW; PANTHER leverages terrain features and EUD camera to provide a non-GPS based approach for determining a user's location. Continue DARPA SHARE network server reduction infrastructure transition capability. Continue integration and certification testing of ISW Multi-Mode Body Area Network chipsets/packaging within NW system. Supports Watchtower provisioning in the Windows operating system. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to Windows OS Watchtower provisioning in FY25 and expansion of ISW toolset, in addition to the start of universal controllers development and 2nd source qualification integration..			
Title: Software Development & Integration	1.190	3.290	2.128
Description: Funding is provided for the following efforts. ***FY 2024 Plans:*** Evaluate next generation NW / Android Team Awareness Kit (ATAK) map engines and Operating System (OS) trade studies software development efforts with NW. Update NW Software Development Kit (SDK) with new functionality. Continue software upgrades to ITN component software based on security and operational requirements. Continue incorporating the Army's Common Operating Environment (COE) Cross-Cutting Capabilities and Mobile HH RDP into NW software to support Capability Set (CS) 25 ITN. Complete NW tactical cloud IL5 ecosystem (SBU) to IL6 (to handle up to secret) integration efforts to allow for over the air updates to fielded NW systems for Security Technical Implementation Guide (STIG) compliance, OS, application updates and remote troubleshooting.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Support for emerging Mobile Handheld Computing Environment (CE) RDP (Requirements Definition Package) supporting CS25-CS29 next iteration of software requirements. ***FY 2025 Plans:*** Evaluate next generation NW / Android Tactical Assault Kit (ATAK) map engines and Operating System (OS) trade studies software development efforts with NW. Update NW Software Development Kit (SDK) with new functionality. Continue software upgrades to ITN component software based on security and operational requirements. FY2025 funding provides for integration/ test equipment and risk reduction events such as Project Convergence FY25, as well as funding to initiate of Artificial Intelligence/ Machine Learning (AI/ML)-based analytics into the Nett Warrior ecosystem. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to completion of FY24 one-year Windows OS software development and M/HHCE labor for the RDP.			
Title: Conduct SEPM Support to NW ***Description:*** Conduct Systems Engineering and Program Management Support ***FY 2024 Plans:*** Continue to conduct government systems / software engineering and program management support for NW program. Will collect input from Soldiers to improve NW and IVAS size, weight, power, lethality, safety and effectiveness via surveys. Will manage system configuration, and execute test, development and integration planning including investigation and analysis of emerging innovative commercial technologies to reduce the size, weight, power, cost, and increase NW, IVAS and ITN functionality. ***FY 2025 Plans:*** Continue to conduct government systems / software engineering and program management support for NW program. Will collect input from Soldiers to improve NW and IVAS size, weight, power, lethality, safety and effectiveness via surveys. Will manage system configuration, and execute test, development and integration planning including investigation and analysis of emerging innovative commercial technologies to reduce the size, weight, power, cost, and increase NW, IVAS and ITN functionality. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increased funding for product integration of FAS in accordance with SAS.	2.025	0.677	0.808
Title: M/HHCE Governance ***Description:*** Development of the M/HHCE standards and M/HHCE governance. ***FY 2024 Plans:*** Continue to provide Mobile Handheld Computing Environment (M/HHCE) governance and standards development for external	0.360	0.341	0.367

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
program integration with NW and IVAS to eliminate separate handheld devices and reduce Soldier load. Maintain compliance with overarching COE standards to continue support of CS25 ITN. ***FY 2025 Plans:*** Continue to provide Mobile Handheld Computing Environment (M/HHCE) governance and standards development for external program integration with NW and IVAS to eliminate separate handheld devices and reduce Soldier load. Maintain compliance with overarching COE standards to continue support of CS25 ITN. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects planned lifecycle lines of effort.			
Accomplishments/Planned Programs Subtotals	5.105	7.549	10.332

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• R80501: *Ground Soldier System*	124.828	167.129	141.613	-	141.613	107.273	101.572	107.946	143.549	Continuing	Continuing

Remarks

D. Acquisition Strategy

To capitalize on commercial industry's investment in advanced smart device technology as well as innovation and changes within Army, Nett Warrior (NW) and IVAS require annual RDT&E funding for integration and evaluation of new technology. Through this process and at low cost, the Army is able to integrate and evaluate for combat utility the hundreds of millions spent in product development by the major commercial device manufactures. The NW program provides situational awareness and mission command to dismounted combat leaders through secure smart devices, a central power source, cables and the Integrated Tactical Network (ITN). NW system is currently the central element within the Mobile Handheld Computing Environment (Mobile HHCE) that other programs host their software. The Mobile HHCE is one of the six computing environments within the Army Common Operating Environment. NW and IVAS fund development and evaluation of new technology and software integration through a combination of competitively awarded contracts and Other Transaction Authorities (OTAs). Various existing follow on procurement contracts are utilized to procure a combination of COTs and GOTs equipment to include supporting services. Now in production, NW seeks operational feedback and uses the DevSecOps process to identify and implement new capabilities. M/HHCE standards are updated annually under the M/HHCE governance process.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering & Program Management Support	Various	Various : Various	8.271	2.025	Sep 2023	0.677	Sep 2024	0.808	Sep 2025	-		0.808	Continuing	Continuing	-
		Subtotal	8.271	2.025		0.677		0.808		-		0.808	Continuing	Continuing	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Integration & Evaluation	Various	Various : Various	16.603	1.215	Apr 2023	2.031	Apr 2024	4.410	Apr 2025	-		4.410	Continuing	Continuing	-
MHH Governance	MIPR	Various : Various	10.772	0.360	Jan 2023	0.341	Jan 2024	0.367	Jan 2025	-		0.367	Continuing	Continuing	-
		Subtotal	27.375	1.575		2.372		4.777		-		4.777	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development and Integration	Various	Various : Various	9.248	1.190	Apr 2023	3.290	Apr 2024	2.128	Apr 2025	-		2.128	Continuing	Continuing	-
		Subtotal	9.248	1.190		3.290		2.128		-		2.128	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Various : Various	7.862	0.315	Jul 2023	1.210	Jul 2024	2.619	Jul 2025	-		2.619	Continuing	Continuing	-
		Subtotal	7.862	0.315		1.210		2.619		-		2.619	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*	

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	52.756	5.105		7.549		10.332		-		10.332	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

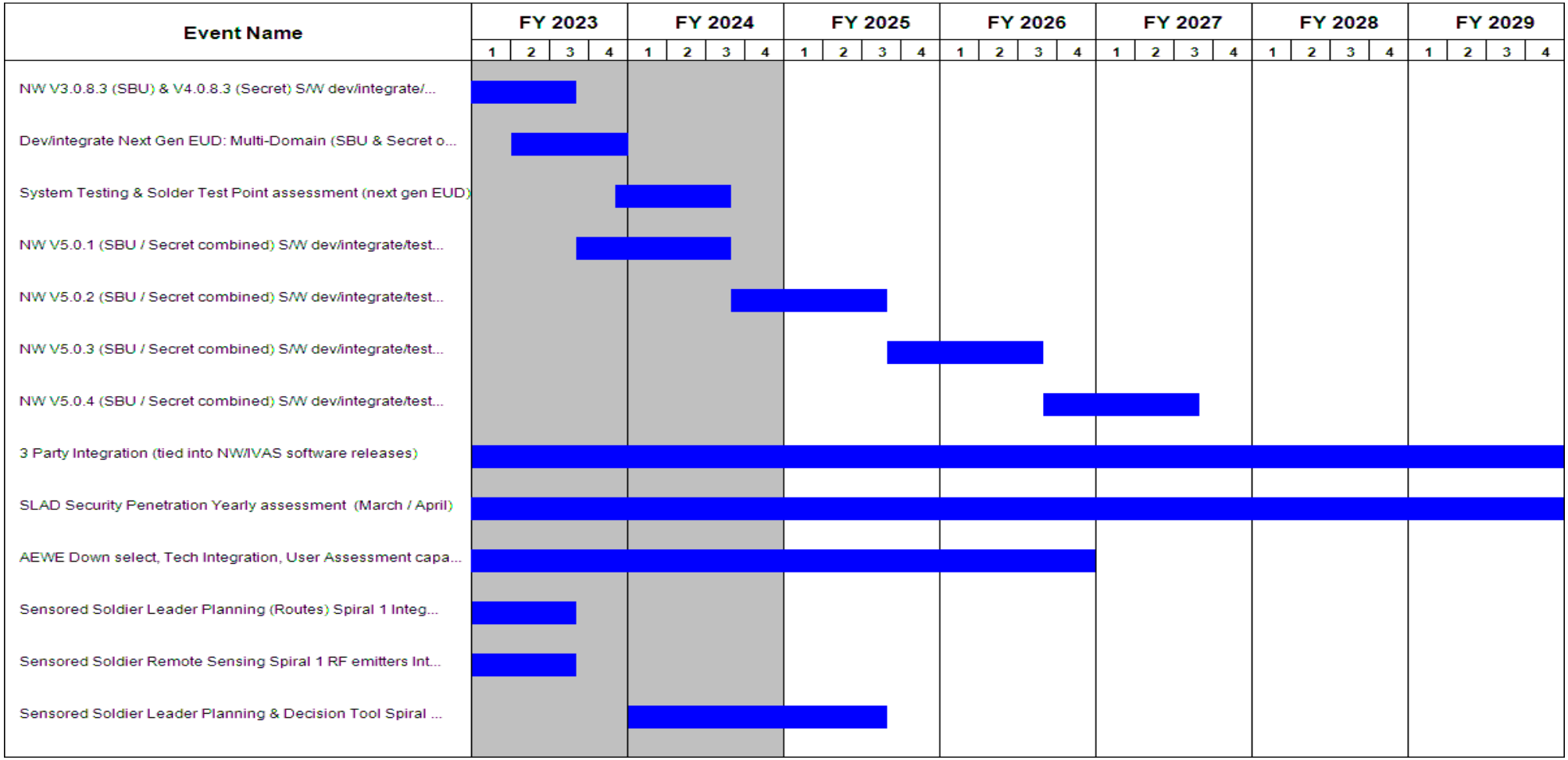


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

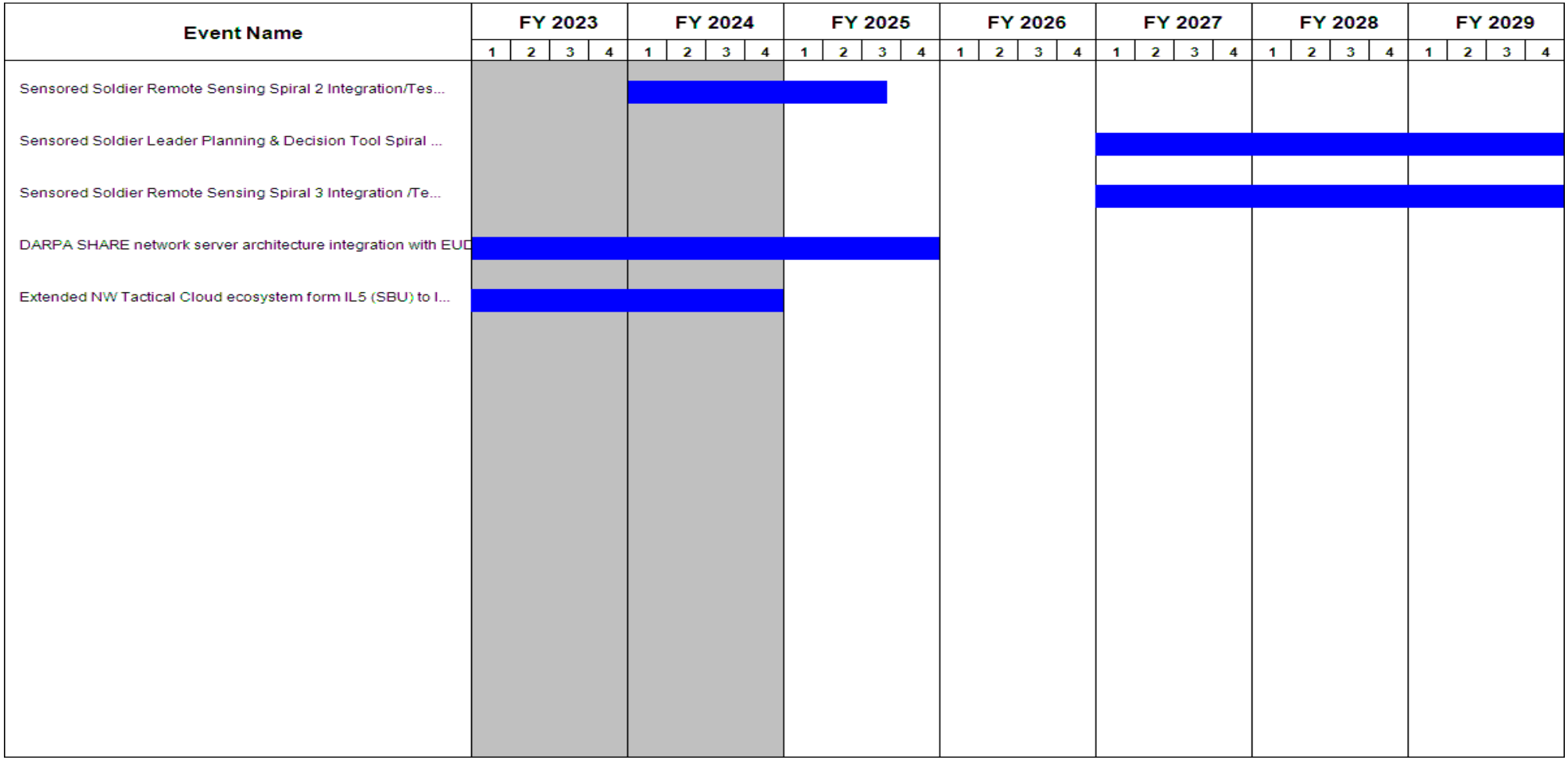


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EQ8 / *Mobile/Handheld Computing Environment (M/HHCE)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NW V3.0.8.3 (SBU) & V4.0.8.3 (Secret) S/W dev/integrate/test (M/HHCE & CS23 ITN)	3	2022	3	2023
Dev/integrate Next Gen EUD: Multi-Domain (SBU & Secret one device) (CS25 & CS27)	2	2023	4	2023
System Testing & Solder Test Point assessment (next gen EUD)	4	2023	3	2024
NW V5.0.1 (SBU / Secret combined) S/W dev/integrate/test (M/HHCE & CS25 ITN)	3	2023	3	2024
NW V5.0.2 (SBU / Secret combined) S/W dev/integrate/test (M/HHCE & CS25 ITN)	3	2024	3	2025
NW V5.0.3 (SBU / Secret combined) S/W dev/integrate/test (M/HHCE & CS27 ITN)	3	2025	3	2026
NW V5.0.4 (SBU / Secret combined) S/W dev/integrate/test (M/HHCE & CS27 ITN)	3	2026	3	2027
3 Party Integration (tied into NW/IVAS software releases)	1	2020	4	2029
SLAD Security Penetration Yearly assessment (March / April)	2	2021	4	2029
AEWE Down select, Tech Integration, User Assessment capability (Yearly)(May-Feb)	3	2020	4	2026
Sensored Soldier Leader Planning (Routes) Spiral 1 Integr /Testing (NW/IVAS tie)	1	2022	3	2023
Sensored Soldier Remote Sensing Spiral 1 RF emitters Integr/Testing (NW/IVAS tie	1	2022	3	2023
Sensored Soldier Leader Planning & Decision Tool Spiral 2 Integr/Testing (NW/IVA	1	2024	3	2025
Sensored Soldier Remote Sensing Spiral 2 Integration/Testing (NW/IVAS tie)	1	2024	3	2025
Sensored Soldier Leader Planning & Decision Tool Spiral 3 Integr/Testing (NW/IVA	1	2027	4	2029
Sensored Soldier Remote Sensing Spiral 3 Integration /Testing (NW/IVAS tie)	1	2027	4	2029
DARPA SHARE network server architecture integration with EUD	1	2023	4	2025
Extended NW Tactical Cloud ecosystem form IL5 (SBU) to IL6 (Secret)	2	2022	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*				Project (Number/Name) ER9 / *Expeditionary Army Command Post*				
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
ER9: *Expeditionary Army Command Post*	-	25.314	28.870	5.010	-	5.010	5.010	5.010	4.008	4.008	0.000	77.230
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Command Post Integrated Infrastructure (CPI2) invests in the design, prototype, and testing of the Mission Command Platform (MCP) and Command Post Support Vehicle (CPSV). Increment (Inc) 0 invested in the MCP/CPSV capability on the Family of Medium Tactical Vehicles (FMTV). Inc 1(Milestone B approved 12 June 2021) expanded the design capability to Stryker, Armored Multi-Purpose Vehicle (AMPV) and Joint Light Tactical Vehicle (JLTV).

A. Mission Description and Budget Item Justification

CPI2 addresses the Army requirements for more mobile, scalable, interoperable, and agile command posts. Currently fielded command posts are too large and take too long to setup and teardown making them vulnerable to near peer detection and targeting technologies. By integrating mission command warfighting functions onto formation appropriate vehicle platforms, a dispersed command post construct will enable the battle staff to blend in with the overall maneuver formation while giving the commander the ability to synchronize the close fight on the move. This dispersed mobile command post consists of MCP and CPSV. CPI2 capability, design, and development for the MCP and CPSV is accomplished on the FMTV platforms and shelter systems. The MCP is a formation appropriate vehicle that provides digital workstations for all mission command warfighting functions. The CPSV is the hub of the dispersed Command Post; it hosts mission command servers, radios, local area network components and a secure wireless capability.

Increment 1 initiated at Milestone B (ADM signed 12 June 2021); expands on the development, prototype, and testing of the MCP/CPSV from FMTV to the formation appropriate platforms (Stryker, AMPV and JLTV) and scalable command post sets, kits and outfits that were not designed in Increment 0. These combined capabilities will enable the Army to employ command posts across the operational spectrum, from early entry to major combat operations that will resolve current command post issues with set up and tear down, survivability, mobility, suitability, and footprint. The prototypes will be tested and will inform platform production decisions to align with CPI2 fieldings in future years.

FY 2025 funding continues Increment 1 efforts for prototyping to evolve CPI2 designs for on the move operation of the command post. Funding also provides for testing, logistical support, and program management.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Product Development	13.513	17.252	2.610
Description: Includes the costs for design/integration/fabrication and prototyping of MCP, CPSV, and MCG platforms. These prototypes address capability gaps identified in current Army Command Post formations. Also includes equipment and ancillary items necessary to prototype a distributed CPI2 capability.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: FY 2024 funds support the Inc 1 design, engineering and prototype development of Mission Command Platforms and Command Post Support Vehicles for formation appropriate platforms (Stryker, AMPV and JLTV) through their existing platform contracts. Includes costs for development of a Towable Expeditionary Shelter Family of Systems for support to Division and Corps echelon. ***FY 2025 Plans:*** Continued prototyping to evolve CPI2 designs for on the move operation of the command post to accommodate power on the move, increased wireless capability and mobile command group functionality and scalable command post sets, kits and outfits. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to reduced scope of prototyping efforts.			
Title: Support Costs ***Description:*** Program costs for training and development of data packages. ***FY 2024 Plans:*** Funding supports Increment 1 updates to technical data packages, training for test events, as well as support to the Soldier Touch Points at CPI2 Division formation. ***FY 2025 Plans:*** Funding supports updates to the Inc 1 technical data packages and various unit engagements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to reduced scope of Division Main experimentation.	3.375	3.800	0.600
Title: Systems Test and Evaluation ***Description:*** Costs required for test activities to inform CPI2 solution set. ***FY 2024 Plans:*** Conduct Increment 1 test events for formation appropriate vehicles (Stryker, APMV, JLTV) to obtain approval for production orders. Conduct the Safety Testing on the FMTV A2 Vehicle platform. ***FY 2025 Plans:*** Testing for the MCP/CPSV platforms and a Soldier Touch Point. ***FY 2024 to FY 2025 Increase/Decrease Statement:***	4.646	5.023	1.300

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Decrease due to reduction of the number of test activities.			
Title: Program Office Management ***Description:*** Contractor/Matrix Labor support and program travel. ***FY 2024 Plans:*** Contract and Matrix personnel to support CPI2 Increment 1 in achieving mission requirements to include managing multiple design/prototyping efforts, test events and training. ***FY 2025 Plans:*** Contract and Matrix personnel to support CPI2 in achieving mission requirements to include managing multiple design/prototyping efforts, test events and training. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to program transition to production.	3.780	2.795	0.500
Accomplishments/Planned Programs Subtotals	25.314	28.870	5.010

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• B29801: *CPI2*	50.455	78.512	20.039	-	20.039	15.029	-	-	-	Continuing	Continuing

Remarks

CPI2 OPA funding provides Mission Command Platforms and Command Post Support Vehicles. CPI2 OPA funding does not procure the FMTV, Stryker, AMPV or JLTV vehicle platforms, that funding resides with the programs of record for each vehicle platform.

D. Acquisition Strategy

CPI2 addresses the Army's requirements for a more mobile, scalable, interoperable, and agile command post. Currently fielded command posts are too large and take too long to setup and teardown making them vulnerable to near peer detection and targeting technologies. By designing/installing and fielding mission command warfighting functions on a vehicle platform, a battle staff can disperse its command posts and blend in with the overall maneuver formation, while giving commanders the ability to synchronize the close fight on the move via the Mission Command Platform (MCP) and Command Post Support Vehicle (CPSV). The MCP is a formation appropriate vehicle that provides digital workstations for mission command warfighting functions. The CPSV is the hub of the dispersed Command Post; it hosts mission command servers, radios, local area network components and a secure wireless capability.

CPI2 Increment 0 delivers initial MCP and CPSV capability to units as directed by the Army. The vehicle for this capability will be the Family of Medium Tactical Vehicles (FMTV). The vehicles are issued to CPI2 in alignment with the proposed fielding schedule. CPI2 is an integration program responsible for procuring hardware solutions

from existing Army contracts for installation on to the platform vehicles to produce the MCP and CPSV capability for Echelons Above Brigade. Annual CPI2 hardware quantities are driven by the number of units, and unit type, that CPI2 is forecasted to field.

CPI2 Increment 1 expands on the development and prototype/testing of the MCP/CPSV from FMTV-based capability to the Stryker, AMPV and JLTV platforms, and scalable command post sets, kits and outfits that were not designed in Increment 0. The prototypes will be tested and will inform platform production decisions to align with CPI2 fieldings in future years. The CPI2 capabilities will enable the Army to employ command posts across the operational spectrum, from early entry to major combat operations, that will resolve current command post issues with set up and tear down, survivability, mobility, suitability, and footprint.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SETA Support	MIPR	TBD : Aberdeen Proving Ground, MD	2.163	1.780	Dec 2022	1.185	Dec 2023	0.250	Dec 2024	-		0.250	Continuing	Continuing	Continuing
Matrix Support	MIPR	Various : Aberdeen Proving Ground, MD	8.396	2.000	Dec 2022	1.610	Dec 2023	0.250	Dec 2024	-		0.250	Continuing	Continuing	Continuing
		Subtotal	10.559	3.780		2.795		0.500		-		0.500	Continuing	Continuing	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Stryker MCP Design/ Development	Allot	PM SBCT : Detroit, MI	27.125	9.156	Jan 2023	10.103	Jan 2024	-		-		-	Continuing	Continuing	Continuing
AMPV MCP Design/ Development	Allot	PM AMPV : Detroit Arsenal, MI	3.989	2.784	Jan 2023	2.949	Jan 2024	0.810	Jan 2025	-		0.810	Continuing	Continuing	Continuing
JLTV MCP/CPSV Design/ Development	Allot	PM JLTV : Detroit , MI	3.060	1.573	Jan 2023	1.900	Jan 2024	0.700	Jan 2025	-		0.700	Continuing	Continuing	Continuing
TESS Design/ Development	Allot	PdM FSS : Natick, MA	5.287	-		2.300	Nov 2023	-		-		-	0.000	7.587	-
MCP/CPSV/MCG Design Experimentation	TBD	TBD : TBD	-	-		-		1.100	Jan 2025	-		1.100	0.000	1.100	-
		Subtotal	39.461	13.513		17.252		2.610		-		2.610	Continuing	Continuing	N/A

Remarks

1) CPI2 funds existing contracts managed by Stryker, AMPV and JLTV to execute design/development/vehicle prototyping.
2) MCP/CPSV/MCG Design Experimentation supports the continued prototyping to evolve CPI2 designs for on the move operation of the command post to accommodate power on the move, increased wireless capability and mobile command group functionality and scalable command post sets, kits and outfits.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tech Manuals/Training Development Packages	Various	Various : Various	4.958	1.320	Dec 2022	1.381	Dec 2023	0.200	Dec 2024	-		0.200	Continuing	Continuing	Continuing
Division Main Soldier Touch Point & Experimentation	Option/ Various	Various : Ft Bliss, TX	2.502	2.055	Dec 2022	2.419	Dec 2023	0.400	Dec 2024	-		0.400	Continuing	Continuing	-
		Subtotal	7.460	3.375		3.800		0.600		-		0.600	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Test and Evaluation	MIPR	Various : Various	6.634	4.646	Feb 2023	5.023	Nov 2023	1.300	Nov 2024	-		1.300	Continuing	Continuing	Continuing
		Subtotal	6.634	4.646		5.023		1.300		-		1.300	Continuing	Continuing	N/A

Remarks

1) System Test and Evaluation decrease is aligned with fewer test activities for the Stryker, AMPV and JLTV designs.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	64.114	25.314		28.870		5.010		-		5.010	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

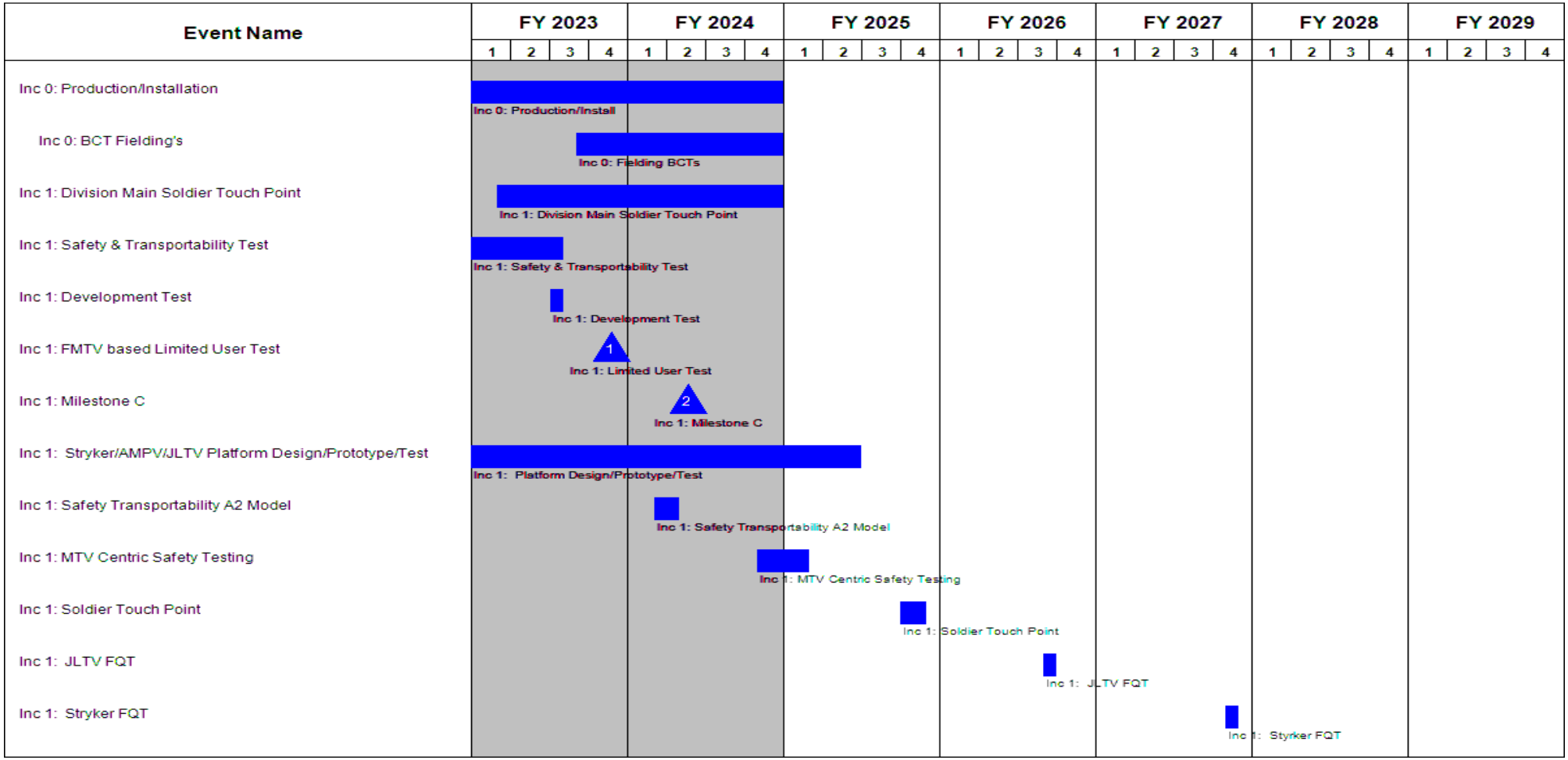


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

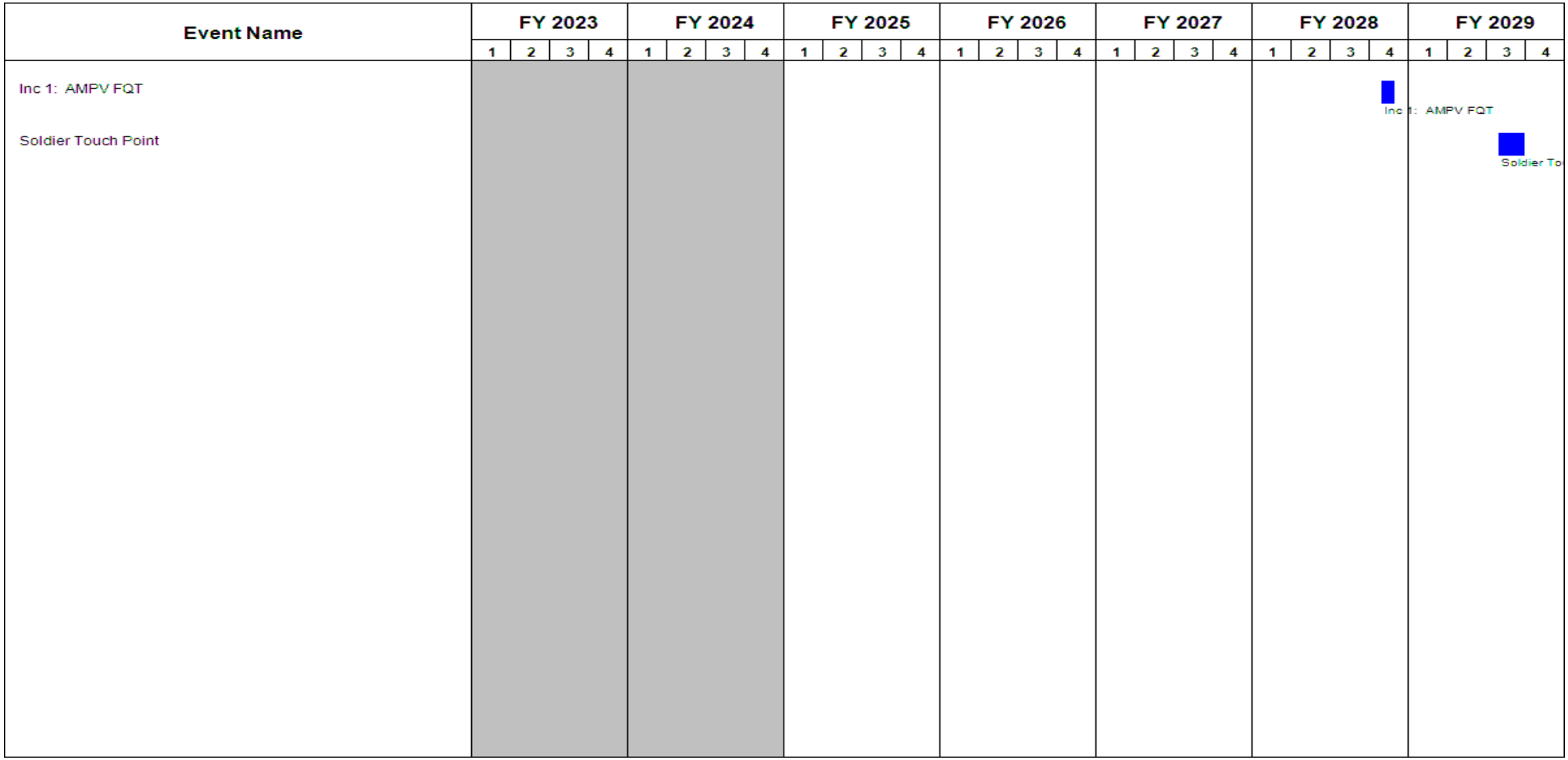


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Command Post Directed Requirement Signed	1	2018	1	2018
CPI2 MDD	3	2018	3	2018
Inc 0: MS A	2	2019	2	2019
Inc 0: Product Development (BCT Unit) -Gov't Design	2	2019	2	2021
Inc 0: BCT Unit Safety Release Testing	4	2020	2	2021
Inc 0: BCT Operational Assessment	4	2021	4	2021
Inc 0: Product Development (BCT Unit)- Elbit Design	4	2019	3	2021
Inc 0: BCT Safety Release Testing	1	2021	2	2021
Inc 0: BCT Operational Assessment	3	2021	3	2021
Inc 0: Engineering Changes	4	2021	2	2022
Inc 0: Milestone C	3	2022	3	2022
Inc 0: Production/Installation	4	2022	4	2024
Inc 0: BCT Fielding's	3	2023	4	2024
Inc 0: Division/MCG Development	4	2019	1	2022
Inc 0: Div/MCG Safety Release Test	3	2021	4	2021
Inc 0: Division Main /MCG New Equipment Training	4	2021	1	2022
Inc 0: Division Main/MCG Operational Assessment	1	2022	1	2022
Inc 1: Division Main Soldier Touch Point	1	2022	4	2024
Inc 1: Capablity Development Document Approved	3	2020	3	2020
Inc 1: Milestone B Brief	3	2021	3	2021
Inc 1: Safety & Transportability Test	4	2022	3	2023
Inc 1: Development Test	3	2023	3	2023

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** ER9 / *Expeditionary Army Command Post*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Inc 1: FMTV based Limited User Test	4	2023	4	2023
Inc 1: Milestone C	2	2024	2	2024
Inc 1: Stryker/AMPV/JLTV Platform Design/Prototype/Test	3	2021	2	2025
Inc 1: Safety Transportability A2 Model	1	2024	2	2024
Inc 1: MTV Centric Safety Testing	4	2024	1	2025
Inc 1: Soldier Touch Point	4	2025	4	2025
Inc 1: JLTV FQT	3	2026	3	2026
Inc 1: Stryker FQT	4	2027	4	2027
Inc 1: AMPV FQT	4	2028	4	2028
Soldier Touch Point	3	2029	3	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army												Date: March 2024
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*				Project (Number/Name) EW3 / *Unit Task Reorganization (UTR) Development*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
EW3: *Unit Task Reorganization (UTR) Development*	-	13.295	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Unit Task Reorganization (UTR) funding line supports the Army Network Plan Framework objective to deliver a Standards Based Network Architecture. This will enable modernizing the Mission Command Network through the coordination of a common set of network operations (NetOps) tools and infrastructure development supporting the unit communication staff's ability to conduct Network Planning, Network Provisioning, and Network Management, aligning with the Army's plan for a unified network. UTR provides an integrated planning tool suite; tools and technologies to provision and automate delivery of configurations; and replace stove-piped management systems with integrated tools providing detailed views of the network and its components. The UTR funding line, in accordance with the National Defense Authorization Act (NDAA) policy for Middle Tier Acquisition (MTA) funding, is leveraged by the Unified Network Operations (UNO) MTA Rapid Prototyping program to achieve its required funding levels.

The total cost of the UNO MTA Rapid Prototyping program is $83.7 million RDT&E from FY 2019 - FY 2024. The remainder of the UNO MTA is fully funded across the Future Years Defense
Program.

The UTR funding has been re-aligned to the Tactical Network Operations Management (TNOM) 654818 / EK9 funding line beginning in FY 2024.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Network Management	11.386	-	-
Description: UTR introduces improvements to the way the network is managed, reducing closed management systems and replacing them with integrated tools that provide a consolidated, as well as detailed, view of the network and its components. The UTR software provides integrated management solutions for Transportable Tactical Command Communications (T2C2) and Scalable Class of Unified Terminals (SCOUT) systems, Satellite Transport Terminals (STTs), Tactical Communications Node - Lite (TCN-L) systems. UTR also provides initial Tactical Radio Integration Kit (TRIK) management interfaces. UTR leverages Integrated Tactical Network (ITN) and Capability Set (CS) schedules to conduct Soldier Touch Points (STPs) and demonstrate network management prototype capabilities to gain user feedback to improve network management software capabilities.			
Title: Program Management	1.909	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EW3 / *Unit Task Reorganization (UTR) Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: The UNO Program Office will support the continuation of NetOps component development. The UNO Program Office will also support the transition of UNO MTA RP to a suitable acquisition pathway for software capability fielding in FY2024 to meet Unified Network requirements.			
Accomplishments/Planned Programs Subtotals	13.295	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• EK9: *TACTICAL NETWORK OPERATIONS AND MANAGEMENT*	3.276	49.577	86.642	-	86.642	25.504	26.032	26.692	26.958	0.000	244.681

Remarks

In accordance with the National Defense Authorization Act (NDAA) policy for Middle Tier Acquistion (MTA) programs, Unified Network Operations (UNO) MTA Rapid Prototyping leverages funds from Unit Task Reorganization (UTR) 654818 / EW3 and Tactical Network Operations Management (TNOM) 654818 / EK9 to achieve its required funding levels.

The UTR funding has been re-aligned to the Tactical Network Operations Management (TNOM) 654818 / EK9 funding line beginning in FY 2024.

D. Acquisition Strategy

Unit Task Reorganization (UTR) is an overarching effort that supports the establishment of a standards-based network architecture and integration of requirements across multiple efforts in the tactical network. UTR resources are applied directly to current products which are modified through Engineering Change Proposals and Modified Work Orders to comply with network standards. This enables current systems to share the information, reducing time and task for soldiers as well as new systems to access the network. Efforts are enduring to react to evolving prioritization of requirements.

The UTR funding has been realigned to the Tactical Network Operations Management (TNOM) 654818 / EK9 funding line beginning in FY 2024.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / *Army Tactical Command & Control Hardware & Software*	Project (Number/Name) EW3 / *Unit Task Reorganization (UTR) Development*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	Various	Various : Various	-	1.909	Nov 2022	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	1.909		-		-		-		-	Continuing	Continuing	N/A

Product Development ($ in Millions)

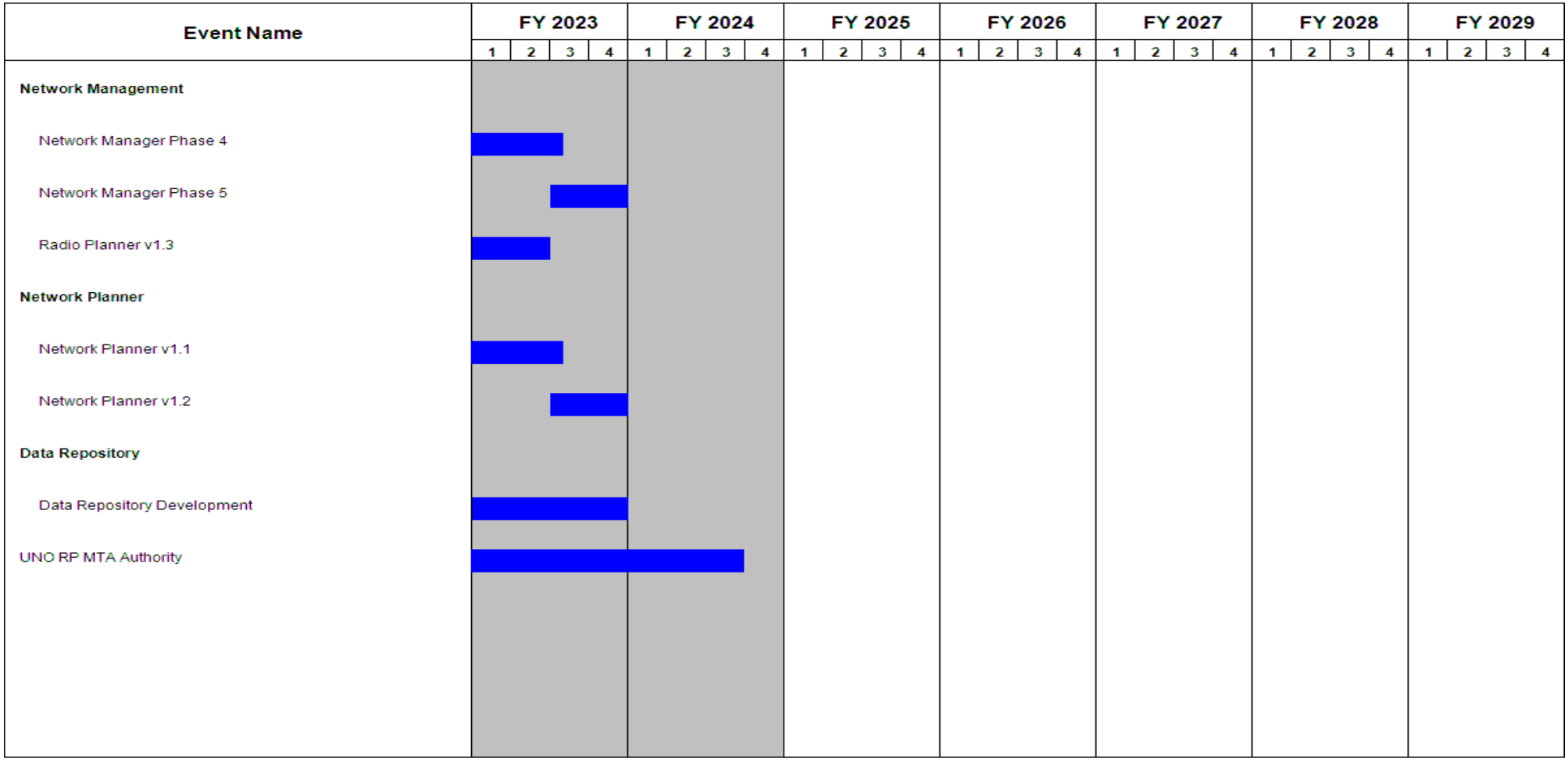
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Network Management	C/FFP	Various : TBD	55.721	11.386	Nov 2022	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	55.721	11.386		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	55.721	13.295		-		-		-		-	Continuing	Continuing	N/A

Remarks

Beginning in FY 2024, UTR RDTE funding has been realigned to UNO (PE 0604818A, Project EK9).

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EW3 / *Unit Task Reorganization (UTR) Development*



Note

The UTR funding has been realigned to the Tactical Network Operations Management (TNOM) 654818 / EK9 funding line beginning in FY 2024.

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604818A / *Army Tactical Command & Control Hardware & Software*	**Project (Number/Name)** EW3 / *Unit Task Reorganization (UTR) Development*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Network Management	1	2019	3	2024
Network Manager Phase 3	2	2021	3	2022
Network Manager Phase 4	3	2022	3	2023
Network Manager Phase 5	3	2023	4	2023
Radio Planner	1	2019	2	2021
Radio Planner v1.3	1	2021	2	2023
Network Planner	1	2020	4	2023
Network Planner v1.0	3	2021	3	2022
Network Planner v1.1	3	2022	3	2023
Network Planner v1.2	3	2023	4	2023
Network Provisioning	1	2019	4	2021
Radio Provisioning	1	2019	4	2022
Radio Provisioner x.1	1	2021	4	2021
Data Repository	1	2019	3	2024
Data Repository Development	1	2021	4	2023
Radio Standards version x.1	4	2020	4	2021
UNO RP MTA Authority	3	2019	3	2024

Note

The UTR funding has been re-aligned to the Tactical Network Operations Management (TNOM) 654818 / EK9 funding line beginning in FY 2024.