Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*							
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	-	187.377	146.635	272.926	-	272.926	380.386	193.662	163.119	154.831	Continuing	Continuing
280: *RECOV VEH IMPROV PROG*	-	64.247	13.197	-	-	-	-	-	-	-	0.000	77.444
330: *Abrams Tank Improve Prog*	-	58.971	96.240	246.475	-	246.475	366.247	179.373	148.671	140.239	Continuing	Continuing
DD4: *AMPV Improvement Program*	-	-	12.354	12.325	-	12.325	-	-	-	-	Continuing	Continuing
EE2: *Stryker Improvement*	-	64.159	24.844	14.126	-	14.126	14.139	14.289	14.448	14.592	Continuing	Continuing

Note

280: The M88 Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES) program is on-track to complete the M88A3 Engineering Change Proposals (ECP) development/integration in FY 2024.

A. Mission Description and Budget Item Justification

Program Element (PE) 0203735A Combat Vehicle Improvement Programs corrects vehicle deficiencies identified during Army operations; continues technical system upgrades to include the integration of applicable technologies on ground systems; addresses needed evolutionary enhancements to tracked combat vehicles; and develops technology improvements which have application to or insertion opportunities across multiple Ground Combat Systems vehicles. This PE provides combat effectiveness and Operating and Support (O&S) cost reduction enhancements for the Abrams tanks, Bradley Fighting Vehicles, Armored Multi-Purpose Vehicles, and the Stryker Family of Vehicles (FOVs) through a series of product improvements.

The Combat Recovery System/M88 HERCULES vehicle program is an Engineering Change Proposal (ECP) that will allow the current recovery vehicle to regain Single Vehicle Recovery (SVR) for the heaviest tracked combat vehicle as defined in the Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES) Enhanced M88A2E1 Capability Production Document Increment 2 dated 20 January 2017. The fielded M88A2 HERCULES lacks the necessary power, weight, and braking ability to safely support the recovery of the M1A2SEPv2 as well as the M1A2SEPv3 in all situations. The M88A3 vehicles will bring back the operational capability of the single vehicle recovery. The increased winching and lifting capability accommodates all 80-ton Abrams variants. Without this increased capability, units must use two M88A2 Medium Recovery Vehicles to perform the necessary spectrum of recovery operations.

The Abrams M1A2SEPv2/v3 and M2/M3A3 Bradley Fighting Vehicles are at or exceed Space, Weight, and Power-Cooling (SWaP-C) limitations. In order to host and restore lost platform capability, the Abrams Tank and Bradley Fighting Vehicle programs will execute a series of ECPs to support the current embedded systems and to facilitate integration of technologies currently in development under other existing Programs of Record. The ECPs are not intended to exceed the operational capability outlined in current system requirements documents, but rather to ensure that the existing system performance is not further degraded and that Army mission equipment packages can be integrated on the Abrams and Bradley Platforms. The strategy for Abrams and Bradley will focus on incrementally delivering capability

to the warfighter to meet both near-term limitations as well as mitigating gaps and maintaining combat overmatch in the future. This effort was approved by the Army Acquisition Executive in 3rd Quarter (QTR) Fiscal Year (FY) 2011.

The Abrams Main Battle Tank program has approved Engineering Change Proposals (ECPs) to restore lost capability, host inbound technologies, and to meet objective performance requirements called out in approved platform requirements documents. The strategy for Abrams will focus on incrementally delivering capability to the warfighter to meet both near-term limitations as well as mitigating gaps and maintaining combat overmatch in the future. This approach was approved by the Army Acquisition Executive in 3rd Quarter (Q) Fiscal Year (FY) 2011 and revalidated in an Army Requirements Oversight Council (AROC) decision in 2018. The Army will modernize the tank fleet through a series of deliberate, incremental Engineering Change Proposals (ECPs). The current M1A2 SEPv3 tank (Engineering Change Proposal (ECP) 1A - Power) is in production and is designed to mitigate Space, Weight, and Power (SWaP) limitations as well as create additional margin for integration of future technologies being developed by existing Programs of Record (POR).

The Armored Multi-Purpose Vehicle (AMPV) is the materiel solution for replacement of the Army's Armored Personnel Carrier (M113) Family of Vehicles (FoV) within the Armored Brigade Combat Team (ABCT). It will mitigate current and future capability gaps in force protection, survivability, mobility, reliability, and interoperability across the Spectrum of Conflict. AMPV Improvement will address the development of Survivability, Lethality, Mobility, Network Lethality, and Communication, Command and Control (C3) improvements within the AMPV Family of Vehicles (FOVs). The strategy for AMPV Combat Vehicle Improvement line will focus on incrementally delivering capability to the warfighter to meet both near-term limitations as well as mitigating gaps and maintaining combat overmatch in the future while transitioning material solutions for integration and implementation to the AMPV FOV fleet to increase combat capability. FY 2025 Base funding in the amount of $12.325 million for Project DD4 supports funding for: Army requested changes and those stemming from the Initial Operational Test and initiates development and integration of Enhanced Driver Viewer System (EDVS), Composite Rubber Track (CRT), and Modular Turreted Mortar System (MTMS) on the AMPV FOV. The EDVS color camera system will provide the driver high definition, low and visible light capability to provide the driver substantially improved situational awareness while driving in all weather conditions. The CRT offers significant advantages compared to traditional linked steel track currently utilized to include vehicle weight savings, improved fuel economy, improved track and road wheel durability, reduced Soldier maintenance. MTMS will provide added capabilities in 120mm caliber: low angle fires, fire on the move capability, increased range, and improved crew protection with turret.

Stryker Improvement will address the development of Lethality, Survivability, Mobility, Network Lethality, and Communication, Command and Control (C3) improvements within the Stryker Family of Vehicles (FOVs). Principal development efforts include upgrades associated with the Stryker Double V-Hull A1 (DVH A1) Engineering Change Proposal (ECP), Common Remotely Operated Weapon Station-Javelin (CROWS-J) ONS, Stryker Survivability Enhancement, and Stryker Lethality ECPs. DVH A1 ECP upgrades restore Stryker DVH Space, Weight, and Power-Cooling (SWaP-C) lost as a result of incorporating vehicle changes to counter threats encountered during deployment operations while allowing the future network to be hosted without further degradation in vehicle protection and mobility. The Stryker CROWS-J ONS efforts addressed Urgent Operational Need to increase the lethality of Stryker Infantry Carrier Vehicles (ICV) within the United States Army European Command (USAREUR). The Stryker Survivability Enhancements address evolving threats by assessing survivability improvements, to include but not limited to, 360 Situational Awareness, reactive armor tiles, and integration of emerging and existing technologies and other Stryker based platform solutions. The Stryker platform will also include future Mission Equipment Package (MEP) integration that includes but not limited to the Fire Direction Center (FDC) providing an on-the move capability that processes voice and digital data while maintaining contact with the indirect fire team over extended distances. Stryker Lethality ECP efforts (CROWS-J, Anti-Tank Guided Missile (ATGM), and other capabilities) focus on the integration of a suite of complementary MEP lethality upgrades that will improve the suppressive fire and armored vehicle

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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0203735A *I Combat Vehicle Improvement Programs*

engagement capabilities across the Army's Stryker Brigade Combat Teams (SBCTs). Additionally, the Lethality MEP upgrades will address existing obsolescence issues of the Remote Weapon Station (RWS) with the CROWS and CROWS-J upgrade. The ATGM ECP will upgrade the Modified Improved Target Acquisitions System (MITAS), incorporating a far target locator and enabling the dissemination of target acquirement information utilizing networked lethality, providing a common operating picture. The ATGM ECP also added the Embedded Training System Software (ETSS) and integrated the M-Code Global Positioning System (GPS) Receiver into the MITAS to provide anti-jam/anti-spoofing capabilities to the ATGM primary weapon system. Adding these capabilities addressed the obsolescence of the following: Basic Skills Trainer, Card Rack Assembly that is the controller of the ATGM primary weapon system, and SAASM GPS receiver of the MITAS Precision Far Target Locator. Stryker Network Modernization will formalize the system integration of the network modernization efforts, including Integrated Tactical Network (ITN). Upgrades of the Stryker flat-bottom hull and DVH variants were completed to mitigate known system deficiencies. In support of Readiness, Training-Rapid Fielding of Digitization of Stryker, Army Rapid Sustainment Improvement Process (RSIP) to develop two-way interface between Global Combat Support System - Army (GCSS-Army) and the Operator Tablet to support data transfers of maintenance work orders, parts ordering and updating of maintenance plans.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	194.229	146.635	97.719	-	97.719
Current President's Budget	187.377	146.635	272.926	-	272.926
Total Adjustments	-6.852	0.000	175.207	-	175.207
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.852	-			
• Adjustments to Budget Years	-	-	175.207	-	175.207

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 280: *RECOV VEH IMPROV PROG*		
Congressional Add: *Wireless Intercommunication System Encryption*	6.500	-
Congressional Add Subtotals for Project: 280	6.500	-
Congressional Add Totals for all Projects	6.500	-

Change Summary Explanation

Funding changes in FY2025 include funding increase to support the Abrams Modernization efforts ramp up in FY 2025. The focus is on advanced technology maturation and system engineering priorities for the Abrams tank.

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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0203735A *I Combat Vehicle Improvement Programs*

Funding changes in FY2025 also include funding increase aligned to Armored Multi Purpose Vehicle (AMPV) Product Development to increase current capability of AMPV Platform related to emerging Army requirements impacting the AMPV design.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army												Date: March 2024
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*				Project (Number/Name) 280 / *RECOV VEH IMPROV PROG*			
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**
280: *RECOV VEH IMPROV PROG*	-	64.247	13.197	-	-	-	-	-	-	-	0.000	77.444
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The M88 Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES) program is on-track to complete the M88A3 Engineering Change Proposals (ECP) development/integration in FY 2024.

A. Mission Description and Budget Item Justification

The M88 Heavy Equipment Recovery Combat Utility Lift and Evacuation System (HERCULES), designated as an Acquisition Category (ACAT) IC program on 15 Jun 2016, has been providing towing, winching, and hoisting operations to support battlefield recovery operations and evacuation of heavy tanks and other tracked combat vehicles since its production and deployment in 1998. The M88 HERCULES recovers tanks mired to different depths, removes M1 Abrams turrets and power packs, and uprights overturned heavy combat vehicles. Currently, the M88A2 is unable to safely perform Single Vehicle Recovery (SVR) of the Abrams tank in all conditions, due to added weight/survivability improvements made to the tank. To ensure single vehicle recovery is met, Project Manager-Mounted Armored Vehicle (PM-MAV) will develop and integrate Engineering Change Proposal (ECP) technologies for the M88A2 HERCULES through an initiative to meet its operational requirements of single vehicle recovery throughout its life cycle. This initiative is not intended to exceed current operational capability but will instead regain single vehicle recovery capability of the heaviest tracked combat vehicle.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Product Development ***Description:*** Design and Development of ECPs. ***FY 2024 Plans:*** The program begins ramping down the OTA project oversight, support for system level verification and test execution, as well as user touch points; begins preparation of production contract(s). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease is due to completion of the Design and Development of the ECP in FY 2024.	39.818	4.401	-
Title: Test and Evaluation ***Description:*** The Army is conducting Developmental Test and Evaluation (DT&E) on (8) prototype M88A3 vehicles to confirm Single Vehicle Recovery capability for an 80T Main Battle Tank. Test data supports an evaluation of the M88A3 for use in a production decision in 1Q FY 2025. DT&E for the M88A3 includes safety testing, automotive performance, recovery,	15.585	6.408	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 280 / *RECOV VEH IMPROV PROG*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
transportability, Reliability Availability and Maintainability (RAM), Electromagnetic Interference (EMI), Cybersecurity, Survivability-Live Fire Test & Evaluation (LFT&E), Environmental Effects, Logistics Demonstration, and Soldier Touch Point. ***FY 2024 Plans:*** The USG will continue all test activities started in FY 2023 i.e., DT&E conducted at both Aberdeen Test Center (ATC) and Yuma Proving Grounds (YPG), as well as technical manual validation and the logistics demonstration occurring at the contractor facility. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease is due to completion of the Test and Evaluation activities in FY 2024.			
Title: Program Management Office (PMO) Support ***Description:*** PMO support includes Systems Engineering, Logistics, Government and in-house support Contractor salaries, travel and other support costs required to effectively manage the program. ***FY 2024 Plans:*** The FY 2024 program management office completes it's support towards the OTA project oversight, government systems engineering, logistics and test support at multiple sites as the program transitions into preparation of the M88A3 production contracting efforts. PMO support includes labor, training, travel, supplies, and equipment to effectively manage the program. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease is due to completion of the OTA project in FY 2024 as personnel transition to the ramp up of M88A3 production efforts.	2.344	2.388	-
Accomplishments/Planned Programs Subtotals	57.747	13.197	-

	FY 2023	FY 2024
Congressional Add: Wireless Intercommunication System Encryption ***FY 2023 Accomplishments:*** The USG awarded the M88 Original Equipment Manufacturer (OEM) and wireless communication supplier to begin integration design work for system encryption capability, leading to demonstration and test.	6.500	-
Congressional Adds Subtotals	6.500	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 280 / *RECOV VEH IMPROV PROG*

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
• GA0570: *IMPROVED RECOVERY VEHICLE (M88 HERCULES)*	179.150	41.058	151.657	-	151.657	158.754	154.177	144.913	146.363	0.000	976.072

Remarks

D. Acquisition Strategy

The Project Manager (PM) for Mounted Armored Vehicles (MAV) is executing an Engineering Change Proposal (ECP) to regain single vehicle recovery capability of the M88A2 HERCULES vehicle. The strategy utilizes the Detroit Arsenal Automotive Other Transaction Authority (DA2 OTA) which competitively awarded a single contract to develop, integrate and produce (8) prototype vehicles entered in testing in FY 2023. After achieving OTA success criteria, a contract award using procurement dollars procures up to (70) initial production vehicles, as well as the procurement of hardware kits/components comprised of engines, transmissions, track and suspensions. Follow on M88A3 production will utilize a Federal Acquisition Regulation (FAR) based contract through the defined Army Acquisition Objective (AAO). The M88A2 HERCULES production vehicles continue fielding to units through FY 2026.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*	Project (Number/Name) 280 / *RECOV VEH IMPROV PROG*	

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
Product Development	Various	BAE Systems : TBD	313.458	39.818	Oct 2022	4.401	Nov 2023	-		-		-	0.000	357.677	-
Wireless Intercommunication System Encryption	TBD	BAE Systems : York, PA	-	6.500	Mar 2023	-		-		-		-	0.000	6.500	-
		Subtotal	313.458	46.318		4.401		-		-		-	0.000	364.177	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
Program Management Office (PMO) Support	MIPR	PMO Support Offices, Ricardo Defense, DCS and Army Research Labs (ARL) : Various	8.832	2.344	Dec 2022	2.388	Dec 2023	-		-		-	0.000	13.564	-
		Subtotal	8.832	2.344		2.388		-		-		-	0.000	13.564	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	Aberdeen Test Center (ATC), Yuma Test Center (YTC), CASCOM : Various	6.156	15.585	Feb 2023	6.408	Jan 2024	-		-		-	0.000	28.149	-
		Subtotal	6.156	15.585		6.408		-		-		-	0.000	28.149	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	328.446	64.247		13.197		-		-		-	0.000	405.890	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 280 / *RECOV VEH IMPROV PROG*

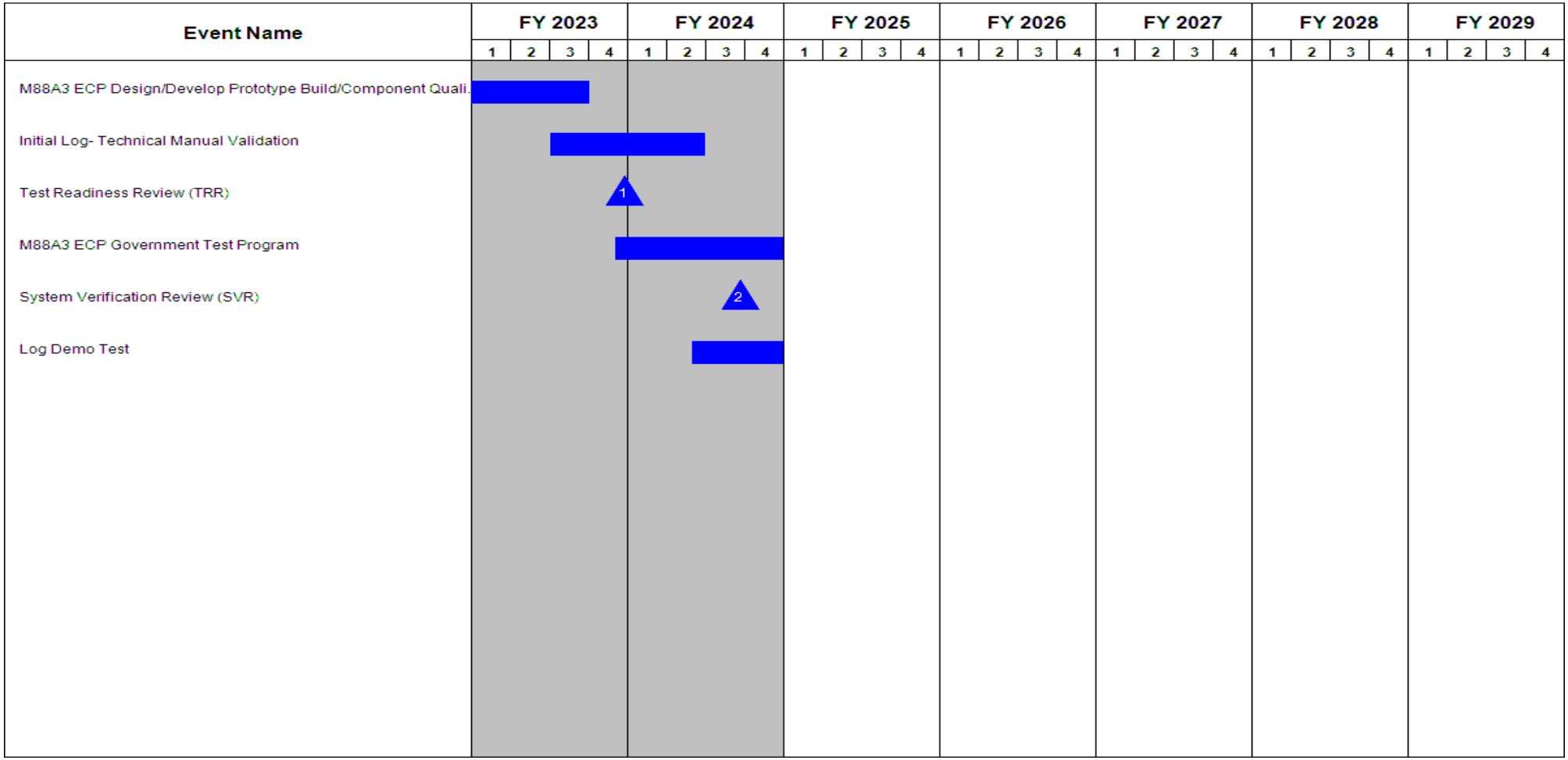


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 280 / *RECOV VEH IMPROV PROG*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
M88A3 ECP Design/Develop Prototype Build/Component Qualification	4	2019	3	2023
Initial Log- Technical Manual Validation	3	2023	2	2024
Test Readiness Review (TRR)	4	2023	4	2023
M88A3 ECP Government Test Program	4	2023	4	2024
System Verification Review (SVR)	3	2024	3	2024
Log Demo Test	2	2024	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*	Project (Number/Name) 330 / *Abrams Tank Improve Prog*	

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
330: *Abrams Tank Improve Prog*	-	58.971	96.240	246.475	-	246.475	366.247	179.373	148.671	140.239	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Army has approved Engineering Change Proposals (ECPs) for the Abrams Main Battle Tank to restore lost capability, host inbound technologies, and to meet objective performance requirements called out in approved platform requirements documents. The strategy for Abrams will focus on incrementally delivering capability to the warfighter to meet both near-term limitations as well as mitigating gaps and maintaining combat overmatch in the future. This approach was approved by the Army Acquisition Executive in 3rd Quarter (Q) Fiscal Year (FY) 2011 and revalidated in an AROC decision in 2018.

The Army will modernize the tank fleet through a series of deliberate, incremental Engineering Change Proposals (ECPs). The current M1A2 SEPv3 tank (Engineering Change Proposal (ECP) 1A - Power) is in production and is designed to mitigate Space, Weight, and Power (SWaP) limitations as well as create additional margin for integration of future technologies being developed by existing Programs of Record (POR).

In FY 2022, MBTS received a $65 million Congressional Add for efforts to mature technology for the next Abrams/modernization program. The FY 2022 congressional add was received in 4th Quarter FY 2022 with work continuing through FY 2023. In FY 2024, a new cost element, Abrams Modernization, was added. This effort is ongoing and a continuation of work from the FY 2022 Congressional Add.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Abrams Lethality Engineering Change Proposal M1A2SEP V4/ECP 1B	4.000	12.446	-
Description: The Abrams SEP (System Enhancement Package) v4 program consists of lethality improvements primarily focused on the integration of 3rd Generation Forward Looking Infrared (FLIR). Additional improvements include a Laser Warning Receiver (LWR), Improved Thermal Management System (ITMS), and target acquisition sensor upgrades consisting of inclusion of color cameras, laser capabilities, image processing and embedded training enhancements. ***FY 2024 Plans:*** SEPv4 program will continue and complete Army developmental test and evaluation. Begin Army Live Fire Testing in Q4. Majority of contractor activities will focus on logistics products and resolving issues found in Army test and evaluation report. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease due to realignment of resources to Abram Modernization accomplishment within this project.			
Title: Program Management Office (PMO) Support	5.908	5.825	9.224

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 330 / *Abrams Tank Improve Prog*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: PMO Support includes Systems Engineering and Government and Contractor salaries, travel and other support costs required to effectively manage the program. ***FY 2024 Plans:*** Continue Government Systems Engineering and Program Management office support. This will include labor, training, travel, supplies, and equipment to effectively manage the program. ***FY 2025 Plans:*** Continue Government Systems Engineering and Program Management (SEPM) office support. This will include labor, training, travel, supplies, and equipment to effectively manage the program. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in funding due to the ramp up of the Abrams Modernization program.			
Title: Test & Evaluation - Engineering Change Proposal M1A2SEP V4/ECP 1B ***Description:*** Comprises government test and evaluation of the SEP (System Enhancement Package) v4. Testing includes developmental, operational, and live fire test and evaluation. Government test modeling and simulation, detailed vehicle test planning, and initial test site preparation are also included. ***FY 2024 Plans:*** Will continue and complete Army developmental test and evaluation activities. Will begin Army Live Fire Testing in Q4. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No additional funding will be required as the Army Live Fire SEPv4 testing will conclude the end of second quarter FY 2025.	9.028	7.081	-
Title: Lethality and Survivability Enhancements ***Description:*** Enhances lethality primarily through integration of improved munitions (smart rounds), gun turret drive improvements, cannon improvements, image processing enhancements and advanced algorithms. Survivability enhancements will focus on improved sensors, 360 Situational Awareness, active protection systems, armor improvements, and unmanned system defeat. Mobility enhancements will focus on efforts to reduce the weight of the tank to ensure operational mobility. ***FY 2024 Plans:*** Abrams will continue integration of survivability enhancements and will further investigate mature technologies for future integration efforts. ***FY 2025 Plans:***	40.035	8.150	9.703

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 330 / *Abrams Tank Improve Prog*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Abrams will continue integration of survivability enhancements and will further investigate mature technologies for future integration efforts. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase supports Abrams Modernization efforts focused on advanced technology maturation and system engineering priorities.			
Title: Abrams Modernization ***Description:*** Matures technologies to help Army Senior Leaders shape the next Abrams modernization program. Focus is on, but not limited to, weight reduction to reclaim operational mobility, improve Abrams' lethality, and survivability. ***FY 2024 Plans:*** Will investigate, mature, and demonstrate candidate technology options in accordance with Army Senior Leader guidance. ***FY 2025 Plans:*** Continuing efforts to investigate, mature, and demonstrate candidate technology options in accordance with Army Senior Leader guidance. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase supports Abrams Modernization efforts focused on advanced technology maturation and system engineering priorities.	-	62.738	227.548
Accomplishments/Planned Programs Subtotals	58.971	96.240	246.475

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
• GA0750: *Abrams Upgrade Program*	1,238.743	800.323	773.745	-	773.745	791.692	840.116	994.347	940.579	Continuing	Continuing

Remarks

D. Acquisition Strategy

Abrams Modernization retains current performance requirements and focuses on the integration of new and developing technologies to improve system and crew efficiency.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 330 / *Abrams Tank Improve Prog*	

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
Abrams SEPV4	SS/CPIF	General Dynamics Land Systems : Sterling Heights, MI	405.056	4.000	Oct 2022	12.446	Nov 2023	-		-		-	0.000	421.502	-
Lethality and,Survivability Enhancements	Option/ Various	Various : Various	24.261	40.035	Jan 2023	8.150	May 2024	9.703	May 2025	-		9.703	Continuing	Continuing	Continuing
Abrams Modernization	TBD	TBD : TBD	-	-		62.738	May 2024	227.548	Jan 2025	-		227.548	Continuing	Continuing	Continuing
		Subtotal	429.317	44.035		83.334		237.251		-		237.251	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
Program Management Office (PMO) Support	MIPR	PMO Support Offices : TACOM, GVSC, ARDEC, ARL, Picatinny	98.037	5.908	Dec 2022	5.825	Dec 2023	9.224	Dec 2024	-		9.224	Continuing	Continuing	Continuing
		Subtotal	98.037	5.908		5.825		9.224		-		9.224	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

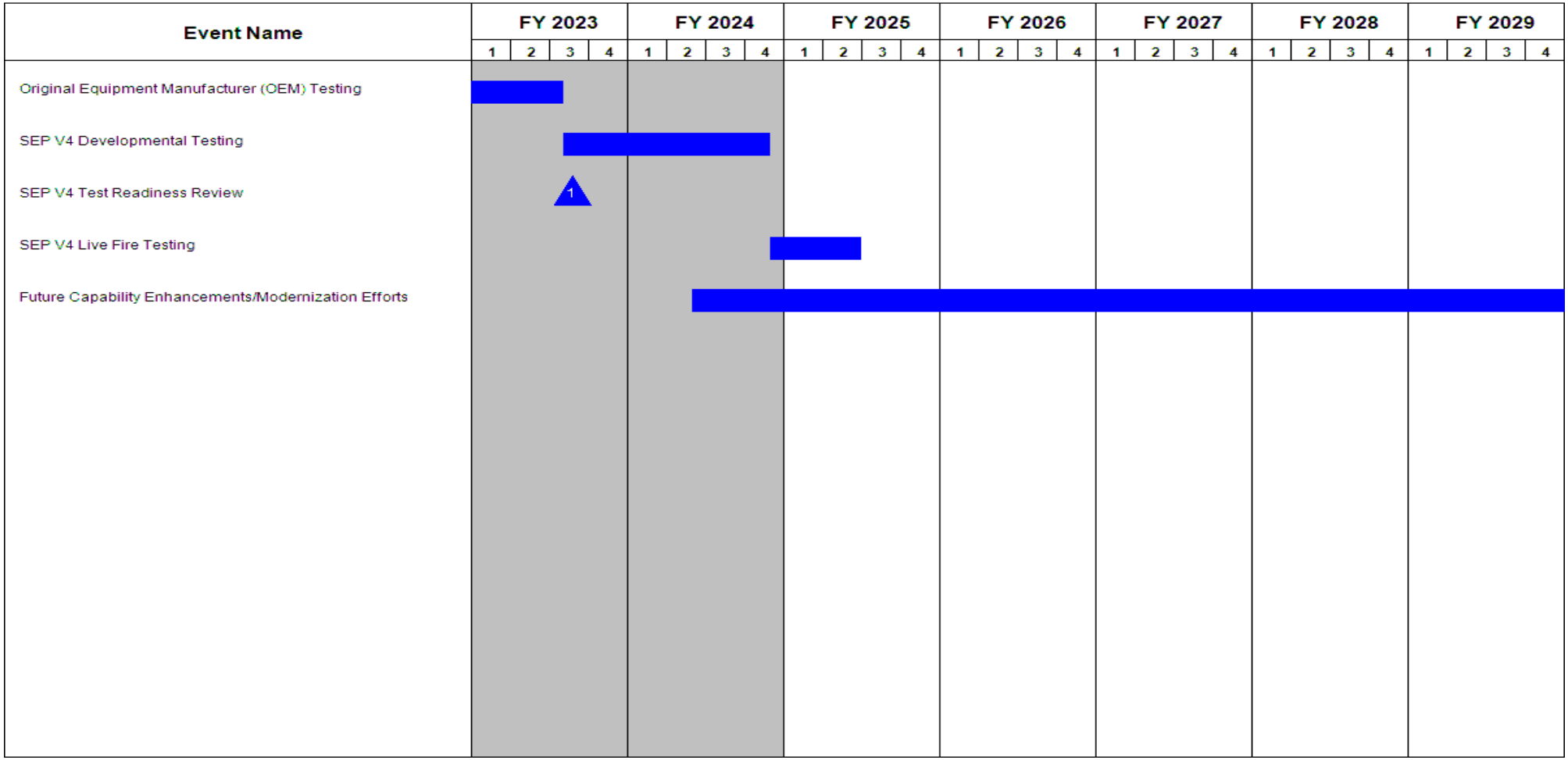
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Testing / SEPV4	MIPR	Aberdeen Proving Ground; Yuma Proving Ground; White Sands Missile Range, : Various	67.887	9.028	Jan 2023	7.081	Nov 2023	-		-		-	0.000	83.996	-
		Subtotal	67.887	9.028		7.081		-		-		-	0.000	83.996	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*	Project (Number/Name) 330 / *Abrams Tank Improve Prog*	

	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	595.241	58.971		96.240		246.475		-		246.475	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 330 / *Abrams Tank Improve Prog*



Note

SEP (System Enhancement Program)

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 330 / *Abrams Tank Improve Prog*

Future Capability Enhancements includes Lethality and Survivability Enhancements & Abrams Modernization Efforts.

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** 330 / *Abrams Tank Improve Prog*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Original Equipment Manufacturer (OEM) Testing	3	2022	3	2023
SEP V4 Developmental Testing	3	2023	4	2024
SEP V4 Test Readiness Review	3	2023	3	2023
SEP V4 Live Fire Testing	4	2024	2	2025
Future Capability Enhancements/Modernization Efforts	2	2024	4	2030

Note

SEP (System Enhancement Program)

Future Capability Enhancements includes Lethality and Survivability Enhancements & Abrams Modernization Efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*				Project (Number/Name) DD4 / *AMPV Improvement Program*			
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**
DD4: *AMPV Improvement Program*	-	-	12.354	12.325	-	12.325	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Armored Multi-Purpose Vehicle (AMPV) is the materiel solution for replacement of the Army's Armored Personnel Carrier (M113) Family of Vehicles (FoV) within the Armored Brigade Combat Team (ABCT). It will mitigate current and future capability gaps in force protection, survivability, mobility, reliability, and interoperability across the Spectrum of Conflict. AMPV Improvement will address the development of Survivability, Lethality, Mobility, Network Lethality, and Communication, Command and Control (C3) improvements within the AMPV Family of Vehicles (FOVs). The strategy for AMPV Combat Vehicle Improvement line will focus on incrementally delivering capability to the warfighter to meet both near-term limitations as well as mitigating gaps and maintaining combat overmatch in the future while transitioning material solutions for integration and implementation to the AMPV FOV fleet to increase combat capability.

FY 2025 Base funding in the amount of $12.325 million for Project DD4 supports funding for: Army requested changes and those stemming from the Initial Operational Test, and initiates development and integration of Composite Rubber Track (CRT), Enhanced Driver's Vision System (EDVS), Field Artillery and Engineering configurations, Terrestrial Layer System, and Modular Turreted Mortar System (MTMS) on the AMPV FOV. As required, support Army assessment, experimentation, testing efforts relating to emerging Army requirements impacting the AMPV design. CRT is a single continuous 'band' of track manufactured from multiple rubber compounds, Kevlar, steel reinforcement, and metallic composite stiffeners. The CRT offers significant advantages compared to traditional linked steel track currently utilized to include vehicle weight savings, improved fuel economy, improved track and road wheel durability, reduced Soldier maintenance. The EDVS color camera system will provide the driver high definition, low and visible light capability to provide the driver substantially improved situational awareness while driving in all weather conditions. Field Artillery and Engineering configurations will provide additional capabilities for AMPV FOV. MTMS will provide added capabilities in 120mm caliber: low angle fires, fire on the move capability, increased range, and improved crew protection with turret.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Armored Multi Purpose Vehicle (AMPV) Product Development	-	11.520	11.491
Description: Provides funding for the analysis, engineering, development, and integration to support Army directed inbound technologies as well as any additional fixes that resulted from AMPV Test and Evaluation. As required, support Army assessment, experimentation, and testing efforts relating to emerging Army requirements impacting the AMPV design.			
FY 2024 Plans: Conduct system level integration and engineering efforts to upgrade and design mobility, survivability, reliability, and lethality upgrades. Will conduct trade studies, market surveys, select and demonstrate capability for FCD and MTMS projects. CRT will start the design and related engineering changes, start track qualification, and begin logistical development packages for the			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** DD4 / *AMPV Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
AMPV FOV. FDC will start the design and related engineering efforts to reconfigure the AMPV variant to execute the necessary functions. MTMS will execute technology demonstration to provide body of knowledge for future decisions on acquisition and integration on the AMPV vehicle. ***FY 2025 Plans:*** Conduct system level integration and engineering efforts to upgrade and design mobility, survivability, reliability, and lethality upgrades. Will conduct trade studies, market surveys, select and demonstrate capability for Engineering and Field Artillery, configurations, CRT and MTMS projects. CRT and MTMS will continue to execute technology demonstrations to provide body of knowledge for future decisions on acquisition and integration on the AMPV vehicle. Establish programs of record to allow CRT and MTMS insertion to increase current capability of AMPV Platform. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Stable effort with a very slight decrease to engineering efforts.			
Title: Program Management Office (PMO) Support ***Description:*** Program Office Support include systems engineering, government and contractor salaries, travel, training, and other support costs required to effectively manage the program. ***FY 2024 Plans:*** Systems Engineering and Program Management support (labor, travel, training, supplies, and equipment) for Research, Development, Test, & Evaluation (RDT&E) efforts related to emerging Army requirements impacting the AMPV design. ***FY 2025 Plans:*** Systems Engineering and Program Management support (labor, travel, training, supplies, and equipment) for Research, Development, Test, & Evaluation (RDT&E) efforts related to emerging Army requirements impacting the AMPV design.	-	0.834	0.834
Accomplishments/Planned Programs Subtotals	-	12.354	12.325

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The AMPV program was initiated at Milestone B (MS B). The 22 December 2014 MS B Acquisition Decision Memorandum (ADM) approved contract award for the Engineering and Manufacturing Development phase plus three Low Rate Initial Production (LRIP) options to BAE Systems Land & Armaments, L.P. on a competitive basis. The Army Acquisition Executive (AAE) approved the Milestone C ADM on January 25, 2019, authorizing Low Rate Initial Production. All three LRIP options have

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** DD4 / *AMPV Improvement Program*

since been exercised. As a result of vehicle delivery delays, the AAE approved a revised Acquisition Program Baseline to adjust the program schedule on January 7, 2021. The program achieved a Full Rate Production Decision in FY23.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*	Project (Number/Name) DD4 / *AMPV Improvement Program*	

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
Product Development	C/TBD	TBD : TBD	-	-		11.520	Nov 2023	11.491	Nov 2024	-		11.491	0.000	23.011	Continuing
		Subtotal	-	-		11.520		11.491		-		11.491	0.000	23.011	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
Program Management	RO	TBD : Warren, MI	-	-		0.834	Dec 2023	0.834	Dec 2024	-		0.834	0.000	1.668	Continuing
		Subtotal	-	-		0.834		0.834		-		0.834	0.000	1.668	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	-	-		12.354		12.325		-		12.325	0.000	24.679	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** DD4 / *AMPV Improvement Program*

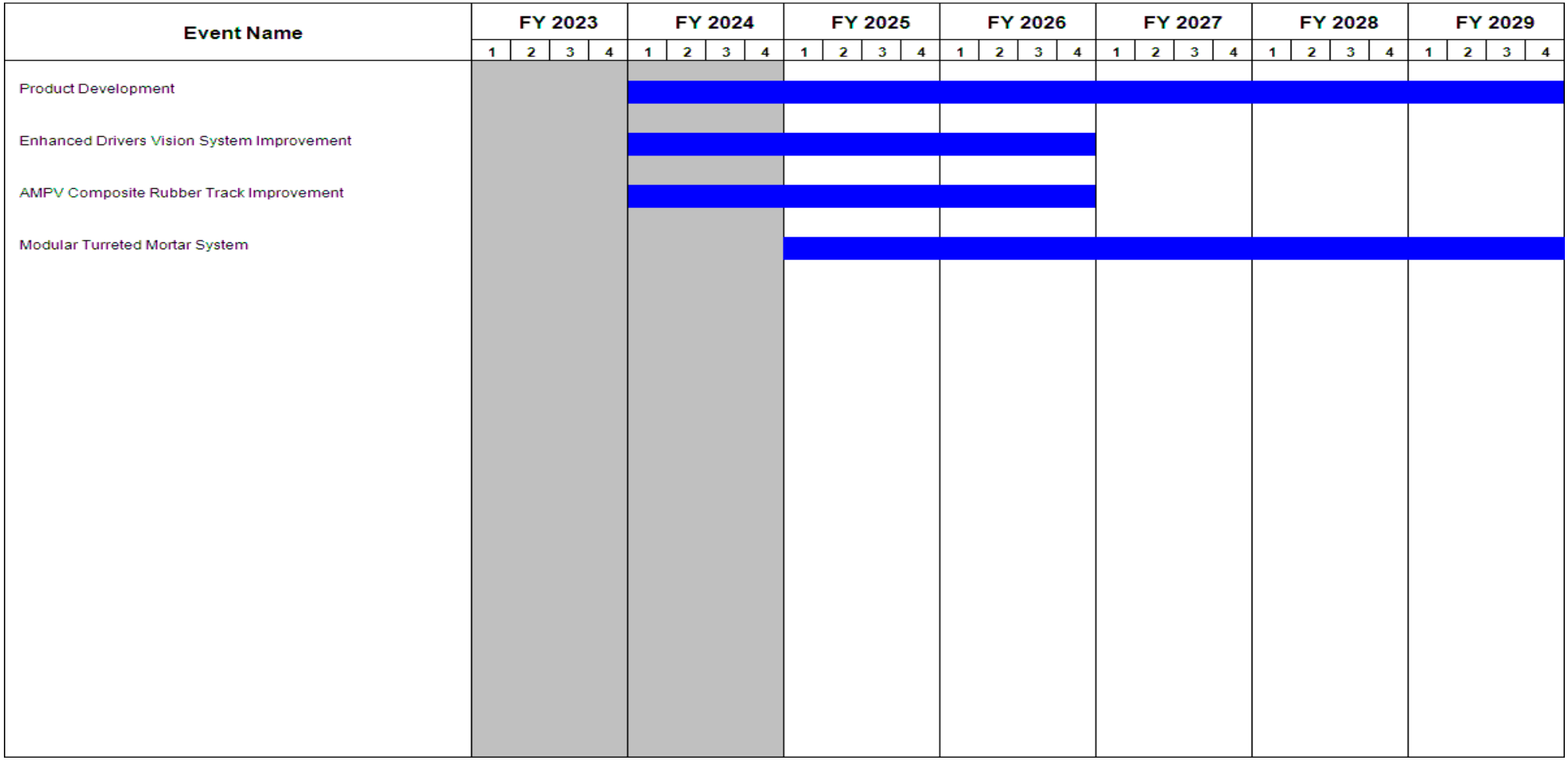


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** DD4 / *AMPV Improvement Program*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Product Development	1	2024	4	2029
Enhanced Drivers Vision System Improvement	1	2024	4	2026
AMPV Composite Rubber Track Improvement	1	2024	4	2026
Modular Turreted Mortar System	1	2025	4	2030

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*	Project (Number/Name) EE2 / *Stryker Improvement*	

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
EE2: *Stryker Improvement*	-	64.159	24.844	14.126	-	14.126	14.139	14.289	14.448	14.592	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Stryker Improvement will address the development of Lethality, Survivability, Mobility, Network Lethality, and Communication, Command and Control (C3) improvements within the Stryker Family of Vehicles (FOVs). Principal development efforts include upgrades associated with the Stryker Double V-Hull A1 (DVH A1) Engineering Change Proposal (ECP), Common Remotely Operated Weapon Station-Javelin (CROWS-J) ONS, Stryker Survivability Enhancement, and Stryker Lethality ECPs. DVH A1 ECP upgrades restore Stryker DVH Space, Weight, and Power-Cooling (SWaP-C) lost as a result of incorporating vehicle changes to counter threats encountered during deployment operations while allowing the future network to be hosted without further degradation in vehicle protection and mobility. The Stryker CROWS-J ONS efforts addressed Urgent Operational Need to increase the lethality of Stryker Infantry Carrier Vehicles (ICV) within the United States Army European Command (USAREUR). The Stryker Survivability Enhancements address evolving threats by assessing survivability improvements, to include but not limited to, 360 Situational Awareness, reactive armor tiles, and integration of emerging and existing technologies and other Stryker based platform solutions. The Stryker platform will also include future Mission Equipment Package (MEP) integration that includes but not limited to the Fire Direction Center (FDC) providing an on-the move capability that processes voice and digital data while maintaining contact with the indirect fire team over extended distances. Stryker Lethality ECP efforts (CROWS-J, Anti-Tank Guided Missile (ATGM), and other capabilities) focus on the integration of a suite of complementary MEP lethality upgrades that will improve the suppressive fire and armored vehicle engagement capabilities across the Army's Stryker Brigade Combat Teams (SBCTs). Additionally, the Lethality MEP upgrades will address existing obsolescence issues of the Remote Weapon Station (RWS) with the CROWS and CROWS-J upgrade. The ATGM ECP will upgrade the Modified Improved Target Acquisitions System (MITAS), incorporating a far target locator and enabling the dissemination of target acquirement information utilizing networked lethality, providing a common operating picture. The ATGM ECP also added the Embedded Training System Software (ETSS) and integrated the M-Code Global Positioning System (GPS) Receiver into the MITAS to provide anti-jam/anti-spoofing capabilities to the ATGM primary weapon system. Adding these capabilities addressed the obsolescence of the following: Basic Skills Trainer, Card Rack Assembly that is the controller of the ATGM primary weapon system, and SAASM GPS receiver of the MITAS Precision Far Target Locator. Stryker Network Modernization will formalize the system integration of the network modernization efforts, including Integrated Tactical Network (ITN). Upgrades of the Stryker flat-bottom hull and DVH variants were completed to mitigate known system deficiencies. In support of Readiness, Training-Rapid Fielding of Digitization of Stryker, Army Rapid Sustainment Improvement Process (RSIP) to develop two-way interface between Global Combat Support System - Army (GCSS-Army) and the Operator Tablet to support data transfers of maintenance work orders, parts ordering and updating of maintenance plans.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Stryker Lethality ECPs Development (Engineering/Protoypes)	2.091	-	7.387
Description: Lethality ECPs encompass the integration of a 30 millimeter (mm) (ICVVA1-30mm), under armor Javelin fire capability (Common Remotely Operated Weapon Station-Javelin (CROWS-J)), ATGM ETSS and M-Code Precision Far Target Locator (PFTL), improved optics and targeting systems, Inertial Navigation Unit (INU) sensor, Network Lethality capability, and other capabilities into the Stryker fleet. These improvements will provide for increased under armor fire capability, target			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
identification range, provide over-match against peer threats and supporting infantry assault, and address obsolescence within the targeting and reconnaissance systems utilized on the Stryker FoV. ***FY 2025 Plans:*** Stryker Lethality ECPs development of sub-system level development and integration engineering for Network Lethality capability, including component hardware and software development, technical data package and interface architecture development in support of incorporation onto the CROWS system. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to the start of the sub-system level development effort for Network Lethality for incorporation onto the CROWS system.			
Title: Stryker Lethality ECPs Testing ***Description:*** Government and Contractor Support for developmental, operational and live fire testing in support of Lethality ECPs, including Inertial Navigation Unit (INU) sensor testing.	1.762	-	-
Title: Government Systems Engineering and Project Management ***Description:*** Government Systems Engineering and Program Management includes salaries, travel and other support costs required to effectively manage all Research, Development, Test, & Evaluation (RDT&E) efforts. ***FY 2024 Plans:*** Government Systems Engineering and Program Management support (labor, travel, training, supplies, and equipment) for Research, Development, Test, & Evaluation (RDT&E) efforts, including Survivability Enhancement, Non Primary Power Systems, Fire Direction Center development, and Stryker Network Modernization Development. ***FY 2025 Plans:*** Government Systems Engineering and Program Management support (labor, travel, training, supplies, and equipment) for Research, Development, Test, & Evaluation (RDT&E) efforts, including Network Lethality, Survivability Enhancement, Fire Direction Center development, and Stryker Network Modernization Development. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to reduction of development efforts reducing labor, travel, training, supplies, and equipment.	4.642	3.290	1.973
Title: Stryker Power System	3.554	3.024	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Development and testing of a non-primary power solution for the Stryker platform. The non-primary power enhancement incorporates multiple components and capabilities, including the battery box container, Auxiliary Power Unit (APU) and interface kits. ***FY 2024 Plans:*** Completion of the non-primary power design effort and integration. Testing and logistics product development and execution continues. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to the pausing of Non-Primary Power System efforts.			
Title: Stryker Platform Mission Equipment Packages Integration ***Description:*** Development engineering of Mission Equipment Packages (MEP) onto the Stryker platforms. Integration of the Fire Direction Center MEP onto the DVH A1 platform. ***FY 2024 Plans:*** Continue integration engineering for the Fire Direction Center MEP onto the DVHA1. ***FY 2025 Plans:*** Continue Fire Direction Center MEP development efforts, including logistics products. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to the engineering for logistics products to support the Fire Direction Center MEP.	7.942	0.270	1.163
Title: Stryker Survivability Enhancements ***Description:*** The Stryker Survivability Enhancements will develop strategies, through technical and engineering analyses, for the integration of emerging technologies onto the Stryker Platforms. The Stryker Survivability Enhancements will include, but are not limited to, the fleet wide 360 degree Situational Awareness, hardware convergence, and sensor suite collaboration. ***FY 2024 Plans:*** Funding supports 360-degree Situational Awareness A-kit and B-kit non-recurring engineering (NRE). ***FY 2025 Plans:*** Continue support of the 360-degree Situational Awareness A-kit and B-kit non-recurring engineering (NRE) and engineering analyses, including support of Vehicle Excursions with Universal 360 Situational Awareness on Stryker DVHA1 vehicles. ***FY 2024 to FY 2025 Increase/Decrease Statement:***	5.905	4.232	1.405

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Decrease due to the partial completion of non-recurring engineering (NRE) efforts.			
Title: Stryker Network Modernization Development (Engineering / Prototypes) ***Description:*** Stryker Network Modernization will formally integrate the Integrated Tactical Network (ITN), Integrated Visual Augmentation System (IVAS) vehicle support kit, and Tactical Cloud Package (TCP) as part of Mounted Capability Set 23 (MCS23) at the System of Systems level. Effort will prioritize the DVHA1 Platform and include DVHA0. With the Army's Network Vision 2028, and Army 2030 planning, the Network CFT has coordinated closely with PEO C3T, PEO GCS, PEO Soldier, and PEO IEW&S to deliver a suite of capabilities as part of M-CS23 for DVHA1 and DVHA0. These capabilities are required in SBCT formations to provide Soldiers with a resilient and assured data transport network to the tactical edge, provide a robust and real-time common tactical operating picture among friendly forces and ensure overmatch with near-peer adversaries. ***FY 2024 Plans:*** Continue integration engineering and procurement of prototype hardware, and initiate logistics product development for M-CS23 on the DVHA1 and DVHA0. ***FY 2025 Plans:*** Continue integration engineering and complete logistics product development for M-CS23. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to the completion of M-CS23 prototype hardware.	35.217	9.328	2.198
Title: Stryker Network Modernization Testing ***Description:*** Government and Contractor support for developmental and operational testing of the Integrated Tactical Network (ITN), Integrated Visual Augmentation System (IVAS) vehicle support kit, and Tactical Cloud Package (TCP).	2.922	-	-
Title: Stryker Lethality ECPs Contractor Support to Test ***Description:*** Contractor support to Lethality ECPs upgrade testing, to include system troubleshooting, maintenance, repair of prototypes during execution of tests, and Failure Analysis and Corrective Action Reporting (FACAR).	0.124	-	-
Title: Stryker Predictive Logistics (Engineering/Prototypes) ***Description:*** Readiness / Training-Rapid Fielding of Digitization of Stryker, Army Rapid Sustainment Improvement Process (RSIP). Develop two-way interface between Global Combat Support System - Army (GCSS - Army) and the Operator Tablet to support data transfers of maintenance work order, parts ordering and updating of maintenance plans. Further development will incorporate health data elements from platform diagnostics.	-	4.700	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Develop two-way interface between Global Combat Support System - Army (GCSS - Army) and the Operator Tablet in support of the Army's Prognostic and Predictive Maintenance (PPMx) vision. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to the completion of development for the two-way interface between Global Combat Support System - Army (GCSS - Army) and the Operator Tablet.			
Accomplishments/Planned Programs Subtotals	64.159	24.844	14.126

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
• GM0100: *Stryker (Mod)*	-	-	52.471	-	52.471	80.732	87.328	60.412	78.703	Continuing	Continuing
• G85200: *Stryker Upgrade*	1,210.848	614.282	402.840	-	402.840	496.935	457.614	450.969	250.653	Continuing	Continuing

Remarks

23 March 2018 Army Requirements Oversight Council (AROC) decision to exchange all remaining flat-bottom brigades results in continuing exchange production beginning in FY 2018 funded in Stryker Upgrade (G85200). Stryker MOD (GM0100) will support Command Post Integrated Infrastructure (CPI2) platform procurement beginning in FY 2025.

D. Acquisition Strategy

The Stryker ECP 1 effort will buy back the vehicle space, weight, and power margin lost due to the addition of numerous kits in response to eleven years of war (20-combat rotations & 37+ million total miles), in order to allow integration of the future network (as directed by VCSA in August 2011) without further degrading the performance of the platform. In May 2012, Stryker ECP 1 program (Phase I) was approved, permitting preliminary design and integration efforts on both the Flat Bottom (FB) and DVH variants. In March 2013, Phase II was approved continuing design and integration of ECP 1 mechanical power, electrical power generation, chassis upgrades, and the in-vehicle network upgrades. Based on additional testing conducted in the summer of 2013, the decision was made to focus ECP 1 efforts on the DVH platform and defer efforts on flat-bottom Stryker vehicles. The effort has subsequently been renamed the Stryker DVH A1 ECP. The DVH A1 ECP Phase II contract, awarded November 25, 2013, continued development engineering, prototype build test and evaluation. The initial DVH A1 ECP production contract was awarded in October 2016 (Sole-Source Firm Fixed Price arrangement). A second and third buy of DVH A1 ECP vehicles was awarded as a Fixed Price Incentive Fee arrangement. A March 2018 AROC decision was made to pure fleet the Stryker brigades to DVH with the initial approval for 6 DVH A1 brigades. The objective acquisition strategy is to annually procure 1/2 of a brigade.

On July 2, 2015, Army Systems Acquisitions and Review Council (ASARC) authorization was granted to execute the Stryker 30mm ICVD ONS effort. 30mm ICVD Engineering, Manufacturing, and Development (EMD) contracts for Non-Recurring Engineering (NRE) and Logistics Products Development/Test Support were awarded

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

in January 2016 and May 2016, respectively (Cost Plus Incentive-Fee basis). The 30mm ICVD ONS Production/Retrofit contract was awarded in May 2016 through an Undefinitized Contract Action (UCA). Definitization of the Fixed Price Incentive Fee (FPIF) Production contract occurred in March 2017.

The Stryker Lethality ECP efforts will focus on the integration of a suite of complementary Mission Equipment Package MEP lethality upgrades, which include the CROWS-J, ATGM target acquisition optics, integration of emerging and existing technologies such as the Fire Direction Center requirement, Integrated Visual Augmentation System (IVAS), and other Stryker-based platform solutions, as well as additional capabilities that will improve the suppressive fire and armored vehicle engagement capabilities across the Army's SBCTs. Army Acquisition Executive (AAE) approval to initiate the Stryker CROWS-J and ATGM ECP efforts was received in a September 30, 2016, Acquisition Decision Memorandum (ADM). A ICVVA1-30mm decision was made in March 2019. The ICVVA1-30mm effort awarded design studies to multiple vendors and evaluated the bid samples and awarded a production ready solution meeting requirements at the best value to the Army. To improve platform survivability fleet wide, 360 Situational Awareness is being developed by integrating existing technologies, for fleet wide installation to allow the occupants during both open and closed hatch operations to visualize their immediate surrounding while stationary and on the move in adverse weather conditions.

In 2016, the Army approved the FDC requirement and the Field Artillery Battalion TAC using excess Flat Bottom Hull (FBH) Stryker during Force Design Update (FDU) process. Following the March 2018 Pure fleet AROC decision, Force Design Division (FDD) identified the Double V Hull A1 (DVH A1) as the platform for the FDC.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*	

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
Project Management Office (PMO)	MIPR	PEO GCS/TACOM : Various	73.538	4.642	Jan 2023	3.290	Jan 2024	1.973	Jan 2025	-		1.973	Continuing	Continuing	-
		Subtotal	73.538	4.642		3.290		1.973		-		1.973	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 Lethality ECPs Development	C/Various	PM CSW; PM CCWS : Various	57.915	2.091	Jan 2023	-		7.387	Feb 2025	-		7.387	0.000	67.393	-
Stryker Survivability Enhancement	C/Various	US Army CCDC GVSC, Various : Various	1.771	5.905	Feb 2023	3.727	Feb 2024	1.405	Feb 2025	-		1.405	Continuing	Continuing	-
Stryker Power System Development	MIPR	US Army CCDC GVSC, Various : Various	17.666	1.207	Mar 2023	1.052	Mar 2024	-		-		-	0.000	19.925	-
Stryker Fire Direction Center Variant Development	Various	GDLS, Various : Sterling Heights, MI; Various	2.716	1.383	Jun 2023	0.270	Jun 2024	1.163	Apr 2025	-		1.163	Continuing	Continuing	-
Stryker Network Modernization Development	C/Various	US Army CCDC GVSC, Various : Various	1.099	35.217	Jan 2023	9.328	Jan 2024	2.198	Jan 2025	-		2.198	0.000	47.842	-
Stryker Predictive Logistics Development	C/Various	CECOM, Various : APG, MD; Various	-	-		4.700	Jan 2024	-		-		-	0.000	4.700	-
		Subtotal	81.167	45.803		19.077		12.153		-		12.153	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
Stryker Lethality ECPs Testing	MIPR	Army Test Centers : Various	34.348	1.762		-		-		-		-	0.000	36.110	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203735A / *Combat Vehicle Improvement Programs*	Project (Number/Name) EE2 / *Stryker Improvement*	

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
Stryker Survivability Enhancement Testing	MIPR	Army Test Centers : Various	2.996	-		0.505	Dec 2023	-		-		-	Continuing	Continuing	-
Stryker Power System Testing	MIPR	Army Test Centers : Various	7.730	2.347	Dec 2022	1.972	Dec 2023	-		-		-	0.000	12.049	-
Stryker Fire Direction Center Variant Testing	MIPR	Army Test Centers : Various	-	6.559	Jul 2023	-		-		-		-	Continuing	Continuing	-
Stryker Network Modernization Testing	MIPR	Army Test Centers : Various	3.315	2.922	Apr 2023	-		-		-		-	0.000	6.237	-
Stryker Network Modernization Contractor Support to Test	MIPR	Army Test Centers : Various	0.212	-		-		-		-		-	0.000	0.212	-
Stryker Lethality ECPs Contractor Support to Test	MIPR	Army Test Centers : Various	11.345	0.124		-		-		-		-	0.000	11.469	-
		Subtotal	59.946	13.714		2.477		-		-		-	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	214.651	64.159		24.844		14.126		-		14.126	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

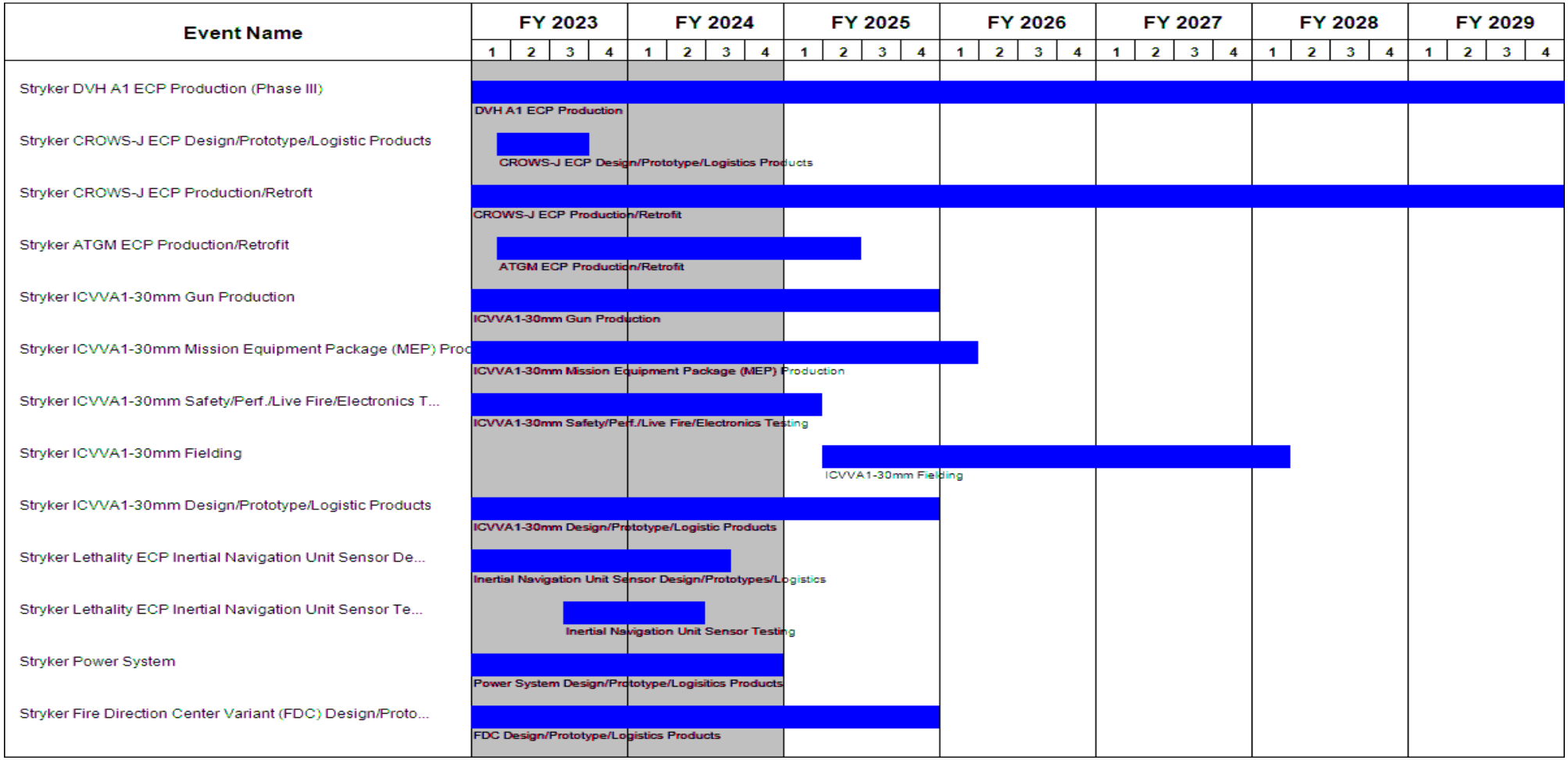


Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

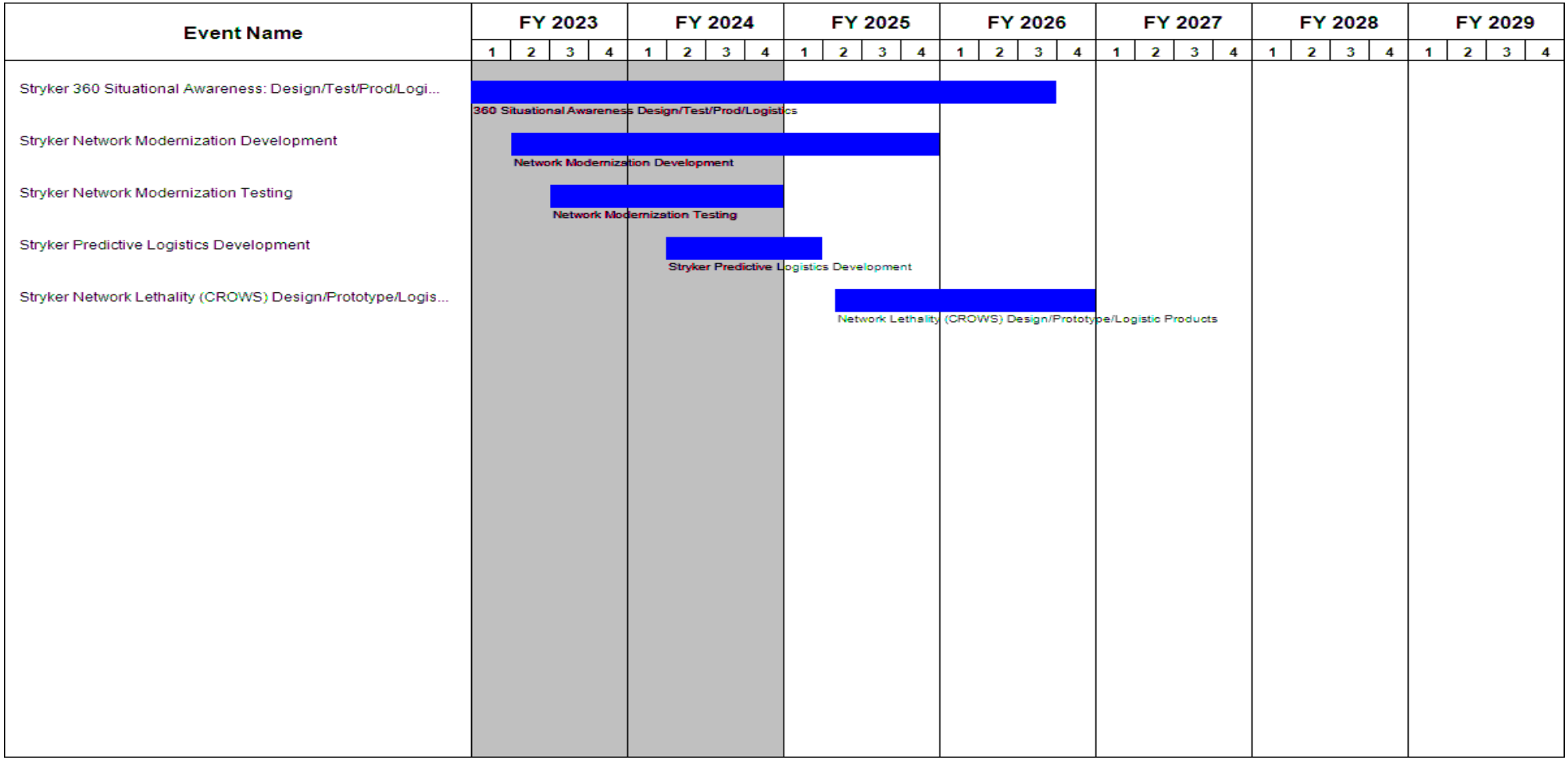


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0203735A / *Combat Vehicle Improvement Programs*	**Project (Number/Name)** EE2 / *Stryker Improvement*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Stryker DVH A1 ECP Production (Phase III)	1	2017	4	2030
Stryker CROWS-J ECP Design/Prototype/Logistic Products	1	2019	3	2023
Stryker CROWS-J ECP Production/Retroft	3	2019	4	2029
Stryker ATGM ECP Production/Retrofit	1	2020	2	2025
Stryker ICVVA1-30mm Gun Production	4	2020	4	2025
Stryker ICVVA1-30mm Mission Equipment Package (MEP) Production	3	2021	1	2026
Stryker ICVVA1-30mm Safety/Perf./Live Fire/Electronics Testing	4	2021	1	2025
Stryker ICVVA1-30mm Fielding	2	2025	1	2028
Stryker ICVVA1-30mm Design/Prototype/Logistic Products	2	2019	4	2025
Stryker Lethality ECP Inertial Navigation Unit Sensor Development	3	2022	3	2024
Stryker Lethality ECP Inertial Navigation Unit Sensor Testing	3	2023	2	2024
Stryker Power System	2	2019	4	2024
Stryker Fire Direction Center Variant (FDC) Design/Prototype/Logistics Products	4	2022	4	2025
Stryker 360 Situational Awareness: Design/Test/Prod/Logistics	3	2021	3	2026
Stryker Network Modernization Development	2	2023	4	2025
Stryker Network Modernization Testing	3	2023	4	2024
Stryker Predictive Logistics Development	2	2024	1	2025
Stryker Network Lethality (CROWS) Design/Prototype/Logistic Products	2	2025	4	2026

Note

Schedule includes the major Stryker RDTE and Procurement (WTCV) funded activities.