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

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603645A / <i>Armored System Modernization - Adv Dev</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	154.010	135.122	43.026	-	43.026	23.188	23.177	23.404	23.665	0.000	425.592
<i>EV7: Combat Vehicle Prototyping</i>	-	154.010	135.122	43.026	-	43.026	23.188	23.177	23.404	23.665	0.000	425.592

A. Mission Description and Budget Item Justification

This funding line is directly aligned to the Next Generation Combat Vehicle (NGCV) Army Modernization Priority. Armored System Modernization Advanced Development provides maturation of emerging Science and Technology (S&T) and industry technologies for potential integration to ground combat vehicles. The purpose of this Program Element's (PE) funding is to demonstrate new capabilities to meet current and future military needs and to determine integration potential across the Army portfolio of ground combat vehicles by testing and evaluating a variety of technologies.

The total cost of the OMFV Middle Tier of Acquisition effort is \$1,348 million RDT&E from FY21 to FY24. The OMFV is fully funded across the Future Years Defense Program.

The total cost of the RCV(L) Middle Tier of Acquisition effort is \$508 million RDT&E from FY22 to FY27. The RCV(L) is fully funded across the Future Years Defense Program.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	164.328	49.944	43.935	-	43.935
Current President's Budget	154.010	135.122	43.026	-	43.026
Total Adjustments	-10.318	85.178	-0.909	-	-0.909
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	85.200			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-10.318	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.909	-	-0.909
• FFRDC Transfer	-	-0.022	-	-	-

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: *EV7: Combat Vehicle Prototyping*

Congressional Add: *Program Increase - Advanced Combat Engine*

	FY 2022	FY 2023
	4.000	13.000

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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Congressional Add: *Program Increase - Abrams Modernization*

Congressional Add: *Program Increase - Next Generation Auxiliary Power Unit*

Congressional Add Subtotals for Project: EV7

Congressional Add Totals for all Projects

	FY 2022	FY 2023
	-	67.200
	-	5.000
	4.000	85.200
	4.000	85.200

Change Summary Explanation

Decreased funding to support higher Army priorities.

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Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603645A / <i>Armored System Modernization - Adv Dev</i>				Project (Number/Name) EV7 / <i>Combat Vehicle Prototyping</i>			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
<i>EV7: Combat Vehicle Prototyping</i>	-	154.010	135.122	43.026	-	43.026	23.188	23.177	23.404	23.665	0.000	425.592
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Armored System Modernization Advanced Development will continue the maturation of emerging ground combat vehicle capabilities to provide a bridge from S&T investment to application on a vehicle platform, informing requirements through User Evaluations, identification of capability gaps and reduction of integration risks. Maturing emerging technologies like those in Project Convergence will enable ground combat platforms to meet the Army's strategy of fielding key Modernization efforts.

The funding will support virtual and physical concept development, trade studies, technical and operational analyses to assess future concepts and designs. This would also include the support for survivability, lethality and other soldier defined system requirements. In addition, this funding will provide program management, expertise and a business process for the maturation and transition of emerging Science and Technology systems, system integration labs, technology demonstration efforts risk reduction, maturation, testing and assessment, and develop and integrate systems for Ground Combat Systems (GCS) platforms.

The total cost of the OMFV Middle Tier of Acquisition effort is \$1,348 million RDT&E from FY21 to FY24. The OMFV is fully funded across the Future Years Defense Program.

The total cost of the RCV(L) Middle Tier of Acquisition effort is \$508 million RDT&E from FY22 to FY27. The RCV(L) is fully funded across the Future Years Defense Program.

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

	FY 2022	FY 2023	FY 2024
Title: Government Engineering & Program Management	8.097	6.226	5.762
Description: This effort will support Program Management Office (PMO) support that will cover the costs of government and direct support contractor labor, travel, training, supplies, equipment and facilities to manage the experimental prototyping projects.			
FY 2023 Plans: This funding will support Government oversight and project management of planned efforts which will cover government salaries, contractor labor, travel, training, supplies, equipment and facilities costs.			
FY 2024 Plans: This funding will support Government oversight and project management of planned efforts which will cover government salaries, contractor labor, travel, training, supplies, equipment and facilities costs.			
FY 2023 to FY 2024 Increase/Decrease Statement:			

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Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / <i>Armored System Modernization - Adv Dev</i>	Project (Number/Name) EV7 / <i>Combat Vehicle Prototyping</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
The decrease is due to reduced project management oversight requirements.				
<p>Title: Developmental Engineering</p> <p>Description: Efforts will include the continued development and maturation of advanced technology concepts for ground combat vehicles and related support equipment.</p> <p>FY 2023 Plans: This funding will further refine Advanced Combat Powertrain (ACP) maturation, which is comprised of the Advanced Combat Engine (ACE) and the Advanced Combat Transmission (ACT), to support production by FY24. A potential transition partner for this effort is the Optionally Manned Fighting Vehicle (OMFV), but could be applied to other combat vehicle platforms. Other Developmental Engineering efforts include but are not limited to 2nd Source High Voltage Power Controller, MUM-T, OMT, Combat Vehicle Light-weighting, Project Origin, Data Architecture Efforts and other combat vehicle technology advancement efforts. These advanced development efforts will support performance analysis, trade space analysis, capabilities assessments, and hardware demonstrations to support the emerging technologies to support the Army's Modernization Strategy.</p> <p>FY 2024 Plans: This funding will further refine Advanced Combat Powertrain (ACP) maturation, which is comprised of the Advanced Combat Engine (ACE) and the Advanced Combat Transmission (ACT), to support production by FY24. A potential transition partner for this effort is the Optionally Manned Fighting Vehicle (OMFV), but could be applied to other combat vehicle platforms. Other Developmental Engineering efforts include but are not limited to MUM-T Protected Comms, Advanced Combat Vehicle Concepts, Combat Vehicle Light-weighting, Combat Optimization for Robotic Systems, Autonomy, Integration, and Reliability (CORSAIR) (formerly named Project Origin), and other combat vehicle technology advancement efforts. These advanced development efforts will support performance analysis, trade space analysis, capabilities assessments, and hardware demonstrations to support the emerging technologies to support the Army's Modernization Strategy.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: The decrease is due to completion of multiple projects in FY23 and the Advanced Combat Vehicle Concepts effort, Advanced Combat Powertrain, and other activities moving to prototype builds and test and evaluation in FY24.</p>		76.657	21.893	9.977
<p>Title: Test & Evaluation</p> <p>Description: Test and Evaluation (T&E) activities include contractor and government testing of prototype vehicles and technologies as well as user evaluations. Testing will be conducted using United States Army test facilities.</p> <p>FY 2023 Plans: T&E efforts include but are not limited to: Project Origin soldier assessment efforts, Advanced Combat Powertrain Maturation, Combat Vehicle Light-weighting, High Voltage Power Controller, Tank Modernization, MUM-T, OMT, Aided Target Recognition</p>		36.437	8.737	12.900

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>(AiTR), and other emerging combat vehicle technology advancements. To assist in determining future requirements while evaluating maturation level and aid in determination of bridging to S&T efforts above to vehicle platforms.</p> <p>FY 2024 Plans: T&E efforts include but are not limited to: Combat Optimization for Robotic Systems, Autonomy, Integration, and Reliability (CORSAIR) (formerly named Project Origin) soldier assessment efforts, Advanced Combat Powertrain Maturation, Combat Vehicle Light-weighting, Tank Modernization, MUM-T Protected Comms, Aided Target Recognition (AiTR), and other emerging combat vehicle technology advancements. To assist in determining future requirements while evaluating maturation level and aid in determination of bridging S&T efforts to vehicle platforms.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: The increase is due to additional test activities for the Advanced Combat Vehicle Concepts efforts, Advanced Combat Powertrain, and other activities.</p>				
<p>Title: Modeling & Simulation</p> <p>Description: Modeling and simulation efforts will allow for the ability to experiment with various technologies in a virtual environment. Support will include reviewing studies conducted and determining any significant issues, areas of concern or potential differences to aid in decision making. The results will provide the analytical underpinnings to support development of requirements.</p> <p>FY 2023 Plans: This funding will support Optionally Manned Tank (OMT) and other Combat Vehicle efforts to analyze and assess technologies in a virtual environment to aide in decision making.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: The decrease is due to the completion of the Optionally Manned Tank (OMT) and other Combat Vehicle efforts in FY23.</p>		0.260	0.500	-
<p>Title: Experimental Prototyping</p> <p>Description: Experimental prototyping allows for maturation of emerging S&T and industry technologies to inform requirements, identify mitigations for capability gaps and reduce technology integration and program risks for emerging technologies. The funding will support prototyping for Advanced Combat Powertrain, Advanced Combat Vehicle Concepts and Studies, Advanced Lightweight Track, Combat Optimization for Robotic Systems, Autonomy, Integration, and Reliability (CORSAIR) (formerly named Project Origin) soldier assessment efforts and Other Technology Advancements.</p> <p>FY 2023 Plans:</p>		28.559	10.744	14.387

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>This funding will support prototype design, builds, validation/verification, and maintenance for MUM-T, OMT, Project Origin Soldier Operational Experiment (SOE) Campaign, 2nd Source High Voltage Power Controller and Other Technology Advancement efforts.</p> <p>FY 2024 Plans: This funding will support prototype design, builds, validation/verification, and maintenance for MUM-T Protected Comms, Combat Optimization for Robotic Systems, Autonomy, Integration, and Reliability (CORSAIR) Soldier Operational Experiment (SOE) (formerly named Project Origin), and Other Technology Advancement efforts.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: The increase is due to Advanced Combat Vehicle Concepts and MUM-T Protected Comms prototype builds addressing engineering refinements.</p>				
<p>Title: SBIR/STTR Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC 638</p> <p>FY 2023 Plans: Funding transferred in accordance with Title 15 USC 638.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC 638.</p>		-	1.822	-
Accomplishments/Planned Programs Subtotals		150.010	49.922	43.026
		FY 2022	FY 2023	
Congressional Add: Program Increase - Advanced Combat Engine		4.000	13.000	
<p>FY 2022 Accomplishments: This effort improves engine subsystem designs, optimizes performance, and funds engine units for vehicle demonstration.</p> <p>FY 2023 Plans: This effort improves engine subsystem designs, optimizes performance, and funds engine units for vehicle demonstration.</p>				
Congressional Add: Program Increase - Abrams Modernization		-	67.200	

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	FY 2022	FY 2023
FY 2023 Plans: The Congressional Add reflects an increase for Abrams Modernization efforts to include, but not limited to: Unmanned Turret, Autoloader and Automated Ammunition Handling System, Hydro-Pneumatic suspension, Integration APS, and Hybrid Electric Drive.		
Congressional Add: Program Increase - Next Generation Auxiliary Power Unit	-	5.000
FY 2023 Plans: The Congressional Add of \$5M reflects an increase to evaluate integration of Hydro-Pneumatic Suspension Units onto the Abrams chassis.		
Congressional Adds Subtotals	4.000	85.200

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

These level of efforts provide the focused investment for the development and demonstration of technology and prototyping for future combat vehicles in the battlefield. The intent of this funding is to mature the next generation of technology which will enable demonstration of capabilities developed in the S&T portfolio to meet emerging military needs across the current Army portfolio of ground vehicles.

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

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / Armored System Modernization - Adv Dev	Project (Number/Name) EV7 / Combat Vehicle Prototyping
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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SBIR/STTR Transfer	TBD	TBD : TBD	-	-		1.822	Apr 2023	-		-		-	0.000	1.822	-
Subtotal			-	-		1.822		-		-		-	0.000	1.822	N/A

Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Experimental Prototyping	Various	Various / QinetiQ North America / GVSC / DCS / Picatinny Arsenal / Aberdeen Proving Grounds : Various	31.508	28.559	Jun 2022	10.744	Jun 2023	14.387	Jun 2024	-		14.387	Continuing	Continuing	Continuing
Developmental Engineering	Various	Cummins Power Generation and GVSC : Various	-	76.657	Jun 2022	21.893		9.977	Jan 2024	-		9.977	0.000	108.527	-
Program Increase - Advanced Combat Engine	Various	Cummins Power Generation : Various	-	4.000	Jun 2022	13.000	Apr 2023	-		-		-	0.000	17.000	-
Program Increase - Next Generation Auxiliary Power Unit	Various	Various : Various	-	-		5.000	Apr 2023	-		-		-	0.000	5.000	-
Program Increase - Abrams Modernization	TBD	General Dynamics / GVSC : TBD	-	-		67.200	Jun 2023	-		-		-	0.000	67.200	-
Subtotal			31.508	109.216		117.837		24.364		-		24.364	Continuing	Continuing	N/A

Remarks
 Program decrease experimental prototyping costs by \$15,464K in FY21.
 Congressional add \$8,200K for Next Generation Electrified Transmission in FY21.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / Armored System Modernization - Adv Dev	Project (Number/Name) EV I / Combat Vehicle Prototyping

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MET-D Phase 2 Testing	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
MET-D Phase 2 Soldier Operational Evaluation (SOE)	[Redacted]				3 SOE				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
MET-D Phase 2 Project Finish	[Redacted]				4 MET-D Phase 2 Project Finish				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
XM913 Weapon Improvements and TDP Development	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
XM913 Subscale Muzzle Brake Erosion Test (30mm)	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
XM913 Environmental Testing	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Bradley Hybrid Electric Vehicle (BHEV) Development	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Bradley Hybrid Electric Vehicle Prototype Build/Integration	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Bradley Hybrid Electric Vehicle ATC Test	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Bradley Hybrid Electric Vehicle Transition Decision	[Redacted]				6 Bradley Hybrid Electric Vehicle Transition Decision				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Advanced Combat Vehicle Concepts and Studies	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Advanced Lightweight Track (ALWT) Development	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			
Advanced Lightweight Track (ALWT) Validation Testing	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]			

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / Armored System Modernization - Adv Dev	Project (Number/Name) EV7 / Combat Vehicle Prototyping

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SPHS Lightweighting Prototype Development																												
SPHS Lightweighting Testing																												
High Voltage Power Controller (HVPC) Prototype																												
High Voltage Power Controller (HVPC) Testing																												
High Voltage Power Controller (HVPC) 2nd Source Development																												
High Voltage Power Controller 2nd Source Prototype Build																												
High Voltage Power Controller 2nd Source Test																												
High Voltage Power Controller 2nd Source Transition Decision																												
Advanced Combat Powertrain Production Design Mechanical ...																												
Advanced Combat Powertrain Refinement																												
Advanced Combat Powertrain Design Refinement Build																												
Advanced Combat Powertrain Field Test Support and FACAR ...																												
Advanced Combat Powertrain Design Validation Plan																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / Armored System Modernization - Adv Dev	Project (Number/Name) EV7 / Combat Vehicle Prototyping

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Advanced Combat Powertrain Design CAD																												
Advanced Combat Powertrain Field Test																												
Abrams Lightweight Running Gear Casting Prototype																												
Abrams Lightweight Running Gear Lab Prototype																												
Abrams Lightweight Running Gear Vehicle Prototype Set																												
MUM-T Manned Control Vehicles (MCV) Development																												
MUM-T Manned Control Vehicles (MCV) Prototypes																												
MUM-T Manned Control Vehicles (MCV) Test																												
MUM-T - Protected Comms (PCM) C5ISR Modular Open Suite of...																												
MUM-T - Protected Comms (PCM) CMOSS Prototypes Build																												
MUM-T - Protected Comms (PCM) CMOSS Prototypes Test																												
Stryker Energy Attenuating (EA) Seat Development																												
Stryker Energy Attenuating (EA) Seat Hardware Evaluation																												

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Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Stryker Energy Attenuating (EA) Seat Transition Decision									▲ 10 Stryker EA Seat Down Select																				
AMERCA-M Prototype Build																													
AMERCA-M Design																													
AMERCA-M Track and Suspension CDR																													
AMERCA-M Powertrain CDR																													
AMERCA-M Build Complete																													
AMERCA-M Dynamometer Testing																													
AMERCA-M Test Site T&E																													
Tank Modernization Design																													
Tank Modernization Build																													
Tank Modernization Test																													
Soft Kill System Advancements - Countermeasure Development																													
Soft Kill System Advancements - Countermeasure Prototype...																													

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Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Soft Kill System Advancements - Coutermeasure Test			■																									
			■ Soft Kill System Coutermeasure Advancements - Coutermeasure Harding Test																									
Soft Kill System Advancements - CountermeasureTechniqu...			■																									
			■ Soft Kill System Advancements - Coutermeasure Techniques Test																									
Soft Kill System Advancements - Countermeasure Transiti...				▲																								
				▲ 5																								
Soft Kill System Advancements - Coutermeasure Transition Decision																												
Optionally Manned Tank (OMT) Development/Design/Modeling	■																											
	■ OMT Development/Design/Modeling																											
Optionally Manned Tank (OMT) Build			■																									
			■ OMT Build																									
Optionally Manned Tank (OMT) Soldier Touch Point								▲																				
								▲ 7																				
Optionally Manned Tank (OMT) Experiment								▲																				
								▲ 8																				
								▲ 8																				
OMT Experiment																												
AiTR Phase II Test			■																									
			■ AiTR Phase II Test																									
AiTR Phase II Data Collection			■																									
			■ AiTR Phase II Data Collection																									
AiTR Phase II Algorithm Improvement			■																									
			■ AiTR Phase II Algorithm Improvement																									
AiTR Phase II Test 2			■																									
			■ AiTR Phase II Test 2																									
AiTR Phase III 3GF Test & Evaluation							■																					
							■ AiTR Phase III 3rd Generation Forward Looking Infrared Test & Evaluation																					
Data Architecture Library			■																									
			■ Data Architecture Library																									

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Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Data Architecture Model																												
CORSAIR Soldier Experiments																												
Congressional ADD Abrams Modernization																												
Congressional ADD Auxiliary Power Unit																												

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

Events	Start		End	
	Quarter	Year	Quarter	Year
MET-D Phase 2 Build	1	2021	2	2021
MET-D Phase 2 Testing	4	2021	3	2022
MET-D Phase 2 Soldier Operational Evaluation (SOE)	4	2022	4	2022
MET-D Phase 2 Project Finish	1	2023	1	2023
XM913 Weapon Improvements and TDP Development	1	2021	3	2023
XM913 Subscale Muzzle Brake Erosion Test (30mm)	2	2022	3	2022
XM913 Environmental Testing	1	2023	3	2023
Bradley Hybrid Electric Vehicle (BHEV) Development	3	2020	3	2022
Bradley Hybrid Electric Vehicle Prototype Build/Integration	4	2021	4	2022
Bradley Hybrid Electric Vehicle ATC Test	4	2022	2	2023
Bradley Hybrid Electric Vehicle Transition Decision	2	2023	2	2023
Advanced Combat Vehicle Concepts and Studies	2	2021	3	2023
Advanced Lightweight Track (ALwT) Development	4	2021	1	2023
Advanced Lightweight Track (ALwT) Validation Testing	2	2023	4	2023
SPHS Lightweighting Prototype Development	2	2022	2	2023
SPHS Lightweighting Testing	3	2022	3	2023
High Voltage Power Controller (HVPC) Prototype	2	2021	3	2022
High Voltage Power Controller (HVPC) Testing	3	2022	3	2023
High Voltage Power Controller (HVPC) 2nd Source Development	1	2023	4	2023
High Voltage Power Controller 2nd Source Prototype Build	2	2023	3	2023
High Voltage Power Controller 2nd Source Test	3	2023	4	2023
High Voltage Power Controller 2nd Source Transition Decision	4	2024	4	2024

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

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / Armored System Modernization - Adv Dev	Project (Number/Name) EV7 / Combat Vehicle Prototyping
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Events	Start		End	
	Quarter	Year	Quarter	Year
Advanced Combat Powertrain Production Design Mechanical Verification	1	2021	1	2024
Advanced Combat Powertrain Refinement	1	2024	1	2026
Advanced Combat Powertrain Design Refinement Build	2	2022	4	2022
Advanced Combat Powertrain Field Test Support and FACAR Review	3	2022	4	2022
Advanced Combat Powertrain Design Validation Plan	4	2022	2	2023
Advanced Combat Powertrain Design CAD	2	2023	3	2023
Advanced Combat Powertrain Field Test	1	2024	1	2026
Abrams Lightweight Running Gear Casting Prototype	4	2023	2	2024
Abrams Lightweight Running Gear Lab Prototype	3	2024	1	2025
Abrams Lightweight Running Gear Vehicle Prototype Set	1	2025	4	2025
MUM-T Manned Control Vehicles (MCV) Development	2	2022	3	2023
MUM-T Manned Control Vehicles (MCV) Prototypes	3	2022	4	2023
MUM-T Manned Control Vehicles (MCV) Test	4	2022	2	2025
MUM-T- Protected Comms (PCM) C5ISR Modular Open Suite of Standards (CMOSS) Dev	3	2023	2	2024
MUM-T - Protected Comms (PCM) CMOSS Prototypes Build	1	2024	1	2025
MUM-T - Protected Comms (PCM) CMOSS Prototypes Test	1	2025	3	2026
Stryker Energy Attenuating (EA) Seat Development	3	2022	4	2022
Stryker Energy Attenuating (EA) Seat Hardware Evaluation	4	2022	3	2023
Stryker Energy Attenuating (EA) Seat Transition Decision	1	2024	1	2024
AMERCA-M Prototype Build	4	2022	1	2023
AMERCA-M Design	3	2022	1	2023
AMERCA-M Track and Suspension CDR	3	2022	3	2022
AMERCA-M Powertrain CDR	3	2022	3	2022
AMERCA-M Build Complete	4	2023	4	2023
AMERCA-M Dynamometer Testing	1	2023	2	2023

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

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603645A / Armored System Modernization - Adv Dev	Project (Number/Name) EV7 / Combat Vehicle Prototyping
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Events	Start		End	
	Quarter	Year	Quarter	Year
AMERCA-M Test Site T&E	3	2023	4	2023
Tank Modernization Design	1	2021	2	2022
Tank Modernization Build	2	2022	4	2022
Tank Modernization Test	1	2023	4	2024
Soft Kill System Advancements - Countermeasure Development	4	2022	1	2023
Soft Kill System Advancements - Countermeasure Prototype Build	4	2021	2	2022
Soft Kill System Advancements - Countermeasure Test	3	2022	3	2022
Soft Kill System Advancements - Countermeasure Techniques Test	3	2022	1	2023
Soft Kill System Advancements - Countermeasure Transition Decision	1	2023	1	2023
Optionally Manned Tank (OMT) Development/Design/Modeling	4	2021	3	2023
Optionally Manned Tank (OMT) Build	2	2022	2	2023
Optionally Manned Tank (OMT) Soldier Touch Point	2	2023	2	2023
Optionally Manned Tank (OMT) Experiment	3	2023	3	2023
AiTR Phase II SW & Algorithm Improvements	4	2020	2	2021
AiTR Phase II Test	1	2021	2	2022
AiTR Phase II Data Collection	2	2022	2	2022
AiTR Phase II Algorithm Improvement	2	2022	2	2022
AiTR Phase II Test 2	3	2022	4	2022
AiTR Phase III 3GF Test & Evaluation	1	2023	2	2024
Data Architecture Library	3	2022	1	2023
Data Architecture Model	4	2022	1	2023
CORSAIR Soldier Experiments	3	2022	4	2024
Congressional ADD Abrams Modernization	3	2023	4	2024
Congressional ADD Auxiliary Power Unit	3	2023	4	2024