Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*							
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	-	150.020	102.778	94.899	-	94.899	118.236	135.096	137.886	139.275	0.000	878.190
AY5: *Soldier Squad Small Arms Armaments Advanced Tech*	-	6.417	6.651	8.530	-	8.530	10.891	10.900	10.977	11.087	0.000	65.453
AY7: *Small Arms Fire Control Advanced Technology*	-	2.954	2.575	-	-	-	-	-	-	-	0.000	5.529
AY9: *Body Armor & Integrated Headborne Advanced Tech*	-	7.915	8.247	5.897	-	5.897	4.902	4.261	4.373	4.417	0.000	40.012
AZ6: *Soldier Signature Management Advanced Technology*	-	3.005	3.130	-	-	-	-	-	-	-	0.000	6.135
BB3: *Dismounted Soldier Survivability Equip/Tech Integ*	-	3.338	3.538	11.551	-	11.551	11.482	10.627	10.703	10.810	0.000	62.049
BB8: *Soldier Centric Advanced Technology*	-	2.317	1.888	-	-	-	-	-	-	-	0.000	4.205
BC1: *Human Performance AdvTech for Mobility & Lethality*	-	9.171	7.017	7.230	-	7.230	17.380	24.407	26.113	26.374	0.000	117.692
BC8: *Training Advanced Technology (Other than STE)*	-	6.826	7.684	8.073	-	8.073	23.316	32.521	32.866	33.194	0.000	144.480
BC9: *Adv Soldier Sensors/ Displays AdvTech for Dismounts*	-	25.302	27.160	24.041	-	24.041	26.106	29.209	29.527	29.823	0.000	191.168
BD7: *Soldier Sys Interfaces/ Integration-Sensor AdvTech*	-	8.254	7.931	7.628	-	7.628	7.432	8.595	8.597	8.692	0.000	57.129
BD9: *Soldier & Sm Unit Tactical Energy AdvTech*	-	4.143	9.310	7.577	-	7.577	6.573	5.064	5.114	5.165	0.000	42.946
BE2: *Joint Service Combat Feeding Advanced Technology*	-	1.969	2.673	2.678	-	2.678	2.786	2.140	2.163	2.185	0.000	16.594
BE5: *Personnel & Airdrop Safety Advanced Technology*	-	6.307	6.632	6.718	-	6.718	7.368	7.372	7.453	7.528	0.000	49.378
BE9: *STE Advanced Technology*	-	10.352	8.342	4.976	-	4.976	-	-	-	-	0.000	23.670

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 3: *Advanced Technology Development (ATD)*					R-1 Program Element (Number/Name) PE 0603118A *I Soldier Lethality Advanced Technology*							
BS8: *Soldier Lethality Advanced Technology*	-	51.750	-	-	-	-	-	-	-	-	0.000	51.750

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and demonstrates Soldier Lethality technologies that improve Soldier operational performance by increasing lethality, mobility, protection, and optimizing situational awareness across the spectrum of operating environments and missions. This PE matures Soldier weapons and enabling components / subsystems, demonstrates lethal weapons systems with potential to provide greater lethality, target acquisition, fire control, and range at a significantly reduced weight for optimized Soldier and Small Unit system performance. The major focus areas for Soldier Lethality Science and Technology are Soldier weapons and ammunition technologies, protection technologies, cognitive and physical performance measures, training in synthetic training environments, and mission support capabilities such as situational awareness sensors and displays, dismounted power and energy technologies, and Soldier and Small Unit sustainment capabilities. This technology diverse PE also matures and demonstrates sensor technologies that increase Warfighter situational understanding, survivability, and lethality by providing sensor capabilities to acquire and engage all targets and threats at longer ranges in complex environments and operational conditions (e.g. day/night, obscured, smoke, adverse weather, and other degraded visual environments), and for advancing live training technologies that accurately replicate and realistically represent the effects of current and future weapons systems during force-on-force and force-on-target training. This PE matures and demonstrates effective technology in personal combat clothing, protective equipment such as personal armor, helmets, and eyewear, combat rations, shelters, logistical support items for aerial delivery of personnel and cargo, and energy systems to power current and emerging Soldier-born Intelligence, Surveillance, and Reconnaissance (ISR), sensor, optical, and communication systems with the least weight and sustainment burden on the Soldiers and Small Combat Units. This PE also matures and demonstrates technologies supporting the Army's Synthetic Training Environment (STE), a single, interconnected synthetic training system that will enable Army units and leaders to conduct realistic multi-echelon / multi-domain combined arms maneuver and mission command training, increasing proficiency through repetition. A specific research thrust area is applying systems-based practices to mature and demonstrate scientific and tailored knowledge of Soldiers' physical and cognitive architecture to facilitate rapid and efficient designs, assessments and trade-off analyses of technology insertions on the Soldier. Significant science and technology (S&T) investments are directed to improve the effectiveness of the technologies a Soldier utilizes while reducing the size and weight of the form factor of the equipment.

Research in this PE complements PE 0602143A (Soldier Lethality Technology).

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 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603118A *I Soldier Lethality Advanced Technology*

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	154.639	102.778	102.970	-	102.970
Current President's Budget	150.020	102.778	94.899	-	94.899
Total Adjustments	-4.619	0.000	-8.071	-	-8.071
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.998	-			
• SBIR/STTR Transfer	-2.621	-			
• Adjustments to Budget Years	-	-	-8.071	-	-8.071

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: BS8: *Soldier Lethality Advanced Technology*		
Congressional Add: *Program Increase - Small Arms Fire Control Advanced Technology*	4.500	-
Congressional Add: *Program Increase - ADVANCED TECHNOLOGY DEVELOPMENT FOR MDO TO SUPPORT SOLDIER LETHALITY*	15.000	-
Congressional Add: *Program Increase - HMD RISK REDUCTION FOR IVAS FUTURES*	5.000	-
Congressional Add: *Program Increase - HYPER ENABLED SOLDIER LETHALITY*	10.000	-
Congressional Add: *Program Increase - SHOCK ATTENUATION AND BLUNT FORCE TRAUMA IMPROVEMENTS IN HEADBORNE*	5.000	-
Congressional Add: *Program Increase - SPECTROSCOPY DEVICES FOR CHEM BIO DETECTION AND DEACTIVATION WITH UV-C*	11.250	-
Congressional Add: *Program Increase - Improvements to Arctic Heaters for Tents and Shelters*	1.000	-
Congressional Add Subtotals for Project: BS8	51.750	-
Congressional Add Totals for all Projects	51.750	-

Change Summary Explanation

Funding realigned to PE 0603464A / Long Range Precision Fires Advanced Technology, AF2 / Long Range Maneuverable Fires (LRMF) Advanced Tech in support of Precision Strike Missile (PRSM) Increment 4.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) AY5 / *Soldier Squad Small Arms Armaments Advanced Tech*	

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
AY5: *Soldier Squad Small Arms Armaments Advanced Tech*	-	6.417	6.651	8.530	-	8.530	10.891	10.900	10.977	11.087	0.000	65.453
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project demonstrates individual and crew-served weapon designs and technologies that enhance the fighting capabilities and survivability of the dismounted Warfighter in support of the Army's Soldier Lethality Modernization priority and all of the Services. All work is led by the Joint Service Small Arms Program (JSSAP) and is based upon the Joint Service Small Arms Master Plan (JSSAMP) and the Joint Capabilities Integration Development System's Small Arms Analyses.

Work in this Project complements Program Element (PE) 0602143A (Soldier Lethality Technology) / AY6 (Soldier Squad Small Arms Armaments Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Small Arms Technology Demonstration	6.417	6.651	6.666
Description: This effort matures and demonstrates advanced small arms ammunition, enablers, and weapon system technologies for integration into live fire demonstrations. It refines and optimizes weapon system integration and supports the Joint Warfighters' small arms capability needs. The effort validates small arms weapon system technology readiness levels and confidence of design functionality in advanced and emerging operating scenarios.			
FY 2024 Plans: Will?demonstrate future small arms concepts to enable a more efficient, effective, and lethal Joint?Warfighter. Will mature weapon and munition prototypes to improve small arms system performance against future targets in relevant environments. Will validate signature reduction devices and automated target recognition technologies for fielded and next generation weapons. Will mature hardware, software, and algorithms to improve small arms fire control targeting and precision.			
FY 2025 Plans: Will optimize weapon and munition prototypes to improve small arms system performance against future targets in relevant environments; optimize signature reduction devices and automated target recognition and engagement technologies based on validation results; demonstrate hardware, software, and algorithms to improve small arms fire control targeting performance.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** AY5 / *Soldier Squad Small Arms Armaments Advanced Tech*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Funding increase is an economic adjustment.			
Title: Medium Machinegun for Maneuvers (Mounted and Dismounted) Technology (M4DT) ***Description:*** This effort demonstrates feasibility of advanced small arms weapon, ammunition, enablers, and subsystem concepts by means of live-fire demonstrations and Soldier assessment. Mature small caliber gun system technologies to achieve infantry mobility needs and increase lethality. ***FY 2025 Plans:*** Will mature small arms concepts and models for target defeat, target suppression, and future operational needs; analyze high-risk components of machine gun, ammunition, and fire control subsystems for maturation and future demonstration; demonstrate system weight optimization through material selection and advanced system designs. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase reflects the initiation of efforts to support Medium Machine Gun research.	-	-	1.864
Accomplishments/Planned Programs Subtotals	6.417	6.651	8.530

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*				Project (Number/Name) AY7 / *Small Arms Fire Control Advanced Technology*			
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**
AY7: *Small Arms Fire Control Advanced Technology*	-	2.954	2.575	-	-	-	-	-	-	-	0.000	5.529
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In Fiscal Year (FY) 2025, this Project is completed.

A. Mission Description and Budget Item Justification

This Project matures and demonstrates fire control and targeting sensor technologies and techniques to improve targeting and lethality in order to maintain overmatch at longer ranges in all operational environments and to meet the capability needs of Army Science and Technology Soldier Lethality, Next Generation Combat Vehicle, and Long-Range Precision Fires modernization priorities.

Work in this Project complements Program Element (PE) 0602143A (Soldier Lethality Technology) / AY8 (Small Arms Fire Control Technology).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Armaments Center (AC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Advanced Fire Control Tech	2.954	2.575	-
Description: This effort will mature and demonstrate fire control and targeting sensor technologies and techniques to improve targeting and lethality, and maintain overmatch at longer ranges in all environments. ***FY 2024 Plans:*** Will mature common fire control system interfaces and architecture. Will mature advanced target recognition and tracking for static and dynamic partially obscured objects. Will improve small arms precision while reducing target engagement time. Will validate the integration of shooter aim augmentation devices. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding change reflects planned life cycle conclusion of this effort.			
Accomplishments/Planned Programs Subtotals	2.954	2.575	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** AY7 / *Small Arms Fire Control Advanced Technology*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) AY9 / *Body Armor & Integrated Headborne Advanced Tech*	

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
AY9: *Body Armor & Integrated Headborne Advanced Tech*	-	7.915	8.247	5.897	-	5.897	4.902	4.261	4.373	4.417	0.000	40.012
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates body armor weight reductions and improves the performance of personal protection and survivability equipment. It also demonstrates combat helmet ballistic, blast, and small arms protection performance enhancements and the integration and optimization of power, energy, and digital sensor and display headborne technologies.

This Project supports Force Protection capability demonstrations for Soldiers and Small Units and demonstrated technologies from this effort transition to various Program Executive Office (PEO) Soldier programs.

This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / AZ2 (Body Armor & Integrated Headborne Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Body Armor and Integrated Headborne Advanced Technology	7.915	8.247	5.897
Description: This effort focuses on maturing, integrating and demonstrating personal protective capabilities against ballistic, blast, and directed energy threats as well as the development and demonstration of Soldier worn platform architectures to optimize the integration of personal protective equipment and Soldier lethality enabling technologies. Demonstrates advanced test methods to validate personal protective equipment performance enhancements against current and emerging small arms, fragmentation, and blast threats from anti-personnel munitions. The objective of these technology development efforts is to significantly increase Soldier lethality by enhancing the protective capabilities and reducing sub-system and system-level weight of individual protective equipment to reduce the Soldier burden and increase survivability.			
FY 2024 Plans: Will optimize a standalone multi-threat plate designed to provide protection against multiple small arms threats without increasing the weight of armor material; mature modular and lightweight fragmentation protection garments for vulnerable or under protected regions of the body; ; demonstrate significant weight and bulk reductions of personnel body armor within the			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** AY9 / *Body Armor & Integrated Headborne Advanced Tech*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Soldier ensemble in support of the Combat Protective Ensemble (CAPE) program (PE 0603118A / Soldier Lethality Advanced Technology);demonstrate power and data interface architectures for combat helmets; to develop common interface designs;; Exploit novel and emerging helmet shell pre-forming and molding techniques to improve helmet performance; Improve mechanical and electrical integration of cable-free communication headset subsystems with wireless down links;; provide integrated eye protection with enhanced fragmentation performance and active anti-fog capability. ***FY 2025 Plans:*** Will validate power and data interface architecture for combat helmets and integrated headborne accessories utilizing universal interface designs to enable active technology insertion; exploit novel helmet shell forming techniques and emerging ballistic materials to increase helmet ballistic and blunt impact performance; mature cable-free communication headset subsystems with wireless down links; optimize integrated eye protection with enhanced fragmentation performance and active anti-fog capability; demonstrate eye protection with integrated heads up display to enhance daytime situational awareness. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects administrative realignment to PE 0603118A (Soldier Lethality Advanced Technology)/Project BB3 (Dismounted Soldier Survivability Equip/Tech Integ) in support of the Combat Protective Ensemble Program.			
Accomplishments/Planned Programs Subtotals	7.915	8.247	5.897

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*				Project (Number/Name) AZ6 / *Soldier Signature Management Advanced Technology*			
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**
AZ6: *Soldier Signature Management Advanced Technology*	-	3.005	3.130	-	-	-	-	-	-	-	0.000	6.135
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project optimizes, matures and demonstrates advances in novel materials, technologies, techniques, and applications increasing the capabilities of camouflage, concealment, and deception against known and emerging sensor threats. These technologies will produce proof of concept systems that decrease the probability of detection and targeting by peer and near-peer adversaries, enabling freedom of movement of semi-independent and dispersed formations, and increase protection of high-valued assets. This Project will demonstrate disruptive Camouflage, Concealment and Deception technologies, supporting expeditionary maneuver in the Multi-Domain Battle Environment to open and retain windows of advantage.

Research in this Project supports key Army needs and leverages/complements the technical research of several Program Elements (PEs) and Projects to include PE 0602143A (Soldier Lethality Technology) / BB4 (Dismounted Soldier Survivability Materials), Project AZ5 (Soldier Protection Technology - Vulnerability), Project AZ9 (Soldier Protection Advanced Tech - Detectability); PE 0601102A (Defense Research Sciences; and PE 0602145A (Next Generation Combat Vehicle Technology) / Project BI2 (Sensor Protection Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Soldier Camouflage, Concealment and Decoys Demonstration	3.005	3.130	-
Description: This effort demonstrates innovative camouflage, concealment, and deception technologies for the dismounted Soldier to defeat advanced current and emerging adversary Intelligence, Surveillance and Reconnaissance (ISR) threats and to reduce the probability of detection and identification across the electromagnetic spectrum. Matures physics-based models for material and system performance that support probability of detection metrics in the multi-domain operational environment, assisting to close the capability gap between current camouflage, concealment, and deception technologies and defeating enemy sensorial capabilities in future operating environments.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** AZ6 / *Soldier Signature Management Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Will demonstrate overgarments specifically designed to camouflage a Soldier's signature from battlefield sensors operating in the infrared (thermal) wavelengths in multiple environments to enable Soldiers with greater freedom of movement in close combat; demonstrate optimized topical spray paints for Soldier clothing and individual equipment for improved concealment against SWIR sensor threats; optimize and perform Soldier user assessments of passive ground surveillance radar threat detection devices to provide advanced notice of threat for greater situational awareness and tactical advantage; collect imagery data of Soldiers and squad formations against ground and aerial sensor threats in jungle environments to validate ground-force vulnerabilities in multiple bands of the electromagnetic spectrum against sensor threats to assess high impact camouflage and concealment opportunities; baseline Soldier signature across the threat spectrum obtained in arctic, urban and jungle environments to define Soldier signature capability gaps against ground and air sensor threats. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects administrative realignment to Program Element 0603118A (Soldier Lethality Advanced Technology) / Project BB3 (Dismounted Soldier Survivability Equip/Tech Integ).			
Accomplishments/Planned Programs Subtotals	3.005	3.130	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army												Date: March 2024
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*				Project (Number/Name) BB3 / *Dismounted Soldier Survivability Equip/Tech Integ*			
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**
BB3: *Dismounted Soldier Survivability Equip/Tech Integ*	-	3.338	3.538	11.551	-	11.551	11.482	10.627	10.703	10.810	0.000	62.049
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates Soldier survivability materials and technologies to increase the speed and efficiency of dismounted Soldier movement and maneuver. This Project matures and demonstrates body armor weight reductions and improves the performance of personal protection and survivability equipment. This project optimizes, matures and demonstrates advances in novel materials, technologies, techniques, and applications increasing the capabilities of camouflage, concealment, and deception against known and emerging sensor threats. This Project focuses on reducing Soldier-worn equipment weight, improving Soldier and system integration and reducing the dismounted Soldier's detectability, susceptibility, and vulnerability to operational threats. Operational threats are characterized as combat threats (e.g., flame and thermal, blast and ballistic, multispectral sensors, and laser threats), environmental threats (e.g., cold, heat, wet, vector, water contamination, concealment, etc.), and Soldier system components and system limitations (e.g., size, weight, and bulk). This Project includes the demonstration and validation of integrated technologies, novel subsystems/ systems, and test methods.

This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BB4 (Dismounted Soldier Survivability Materials).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Dismounted Soldier Survivability Equipment and Technology Integration	3.338	3.538	11.551
Description: This effort matures and integrates multifunctional protective materials, sub-components, and systems for field demonstrations to significantly increase the survivability of Soldiers through their multi-functional clothing and individual protective equipment. This effort also demonstrates and validates tradeoff analyses in sub-component and system-level designs of ballistic, blast, signature management and integrated protection clothing and equipment technologies.			
FY 2024 Plans: Will demonstrate optimized, well-integrated uniform and load management system enhancements that provide greater survivability against battlefield threats in (1) temperate to extreme cold environments and (2) temperate to extreme heat and high humidity environments; perform Soldier user assessments of optimized adjustable load frame to better accommodate the range of Soldier statures; mature and demonstrate Soldier and Squad level desalination devices that provide potable water from indigenous			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BB3 / *Dismounted Soldier Survivability Equip/Tech Integ*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
sources, improving maneuverability and reducing logistical burden; validate optimized camouflage and concealment materials from PE 0602143A (Soldier Lethality Technology) and modular ballistic and blast protection from PE 0602143A (Soldier Lethality Technology) against anti-personnel munitions and small arms threats for integration with uniform and load management system architectures matured under the Combat Protective Ensemble (CAPE) program. ***FY 2025 Plans:*** Will demonstrate fully-integrated power/data management in load management system enhancement to provide streamlined form factor and connectivity of electronic devices across the Soldier ensemble platform, reducing snag hazards and increasing Soldier maneuverability and lethality; demonstrate solutions for extreme cold weather protection that complement both existing and future cold weather ensembles to mitigate debilitating injuries and preserve unit strength in extreme cold conditions; perform Soldier user assessments on optimized ensemble system prototypes for Multi-Domain Operations (MDO) Ready Soldier of 2035 cross-domain maneuver temperate-to-hot and temperate-to-cold operating environments to improve performance and demonstrate enhanced technology integration; establish protocol to validate desalination devices for efficacy and durability; validate optimized Soldier and Squad level desalination devices in a relevant environment to demonstrate the ability to obtain drinking water from indigenous sources, reducing logistics; mature and demonstrate standalone multi-threat plate designed to provide protection against emerging small arms threats; optimize a standalone small arms protective insert at varying weights to introduce a family of plate technology; demonstrate an integrated rear plate with load carriage technology for improved systems integration; mature and demonstrate a scalable plate against operational relevant threat; optimize overgarment prototypes designed to camouflage a Soldier's signature from battlefield sensors operating in the infrared (thermal) region of the electromagnetic (EM) spectrum and maintaining protection in other EM spectrum regions; demonstrate integration of overgarment into existing cold weather ensemble system and the MDO 2035 cross-domain maneuver temperate-to-cold ensemble matured under the Combat Protective Ensemble program; validate improved concealment against EM sensor threats versus baseline Soldier signature of optimized MDO 2035 cross-domain maneuver temperate-to-hot and temperate-to-cold ensembles to demonstrate improvement and identify further optimization opportunities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase reflects administrative realignment from PE 0603118A (Soldier Lethality Advanced Technology) / Project AY9 (Body Armor and Integrated Headborne Advanced Tech) and PE 603118A (Soldier Lethality Advanced Technology) / Project AZ6 (Soldier Signature Management Advanced Technology) in support of the Combat Protective Ensemble Program.			
Accomplishments/Planned Programs Subtotals	3.338	3.538	11.551

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BB3 / *Dismounted Soldier Survivability Equip/Tech Integ*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BB8 / *Soldier Centric Advanced Technology*	

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
BB8: *Soldier Centric Advanced Technology*	-	2.317	1.888	-	-	-	-	-	-	-	0.000	4.205
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Project BB8 / Soldier Centric Advanced Technology has no FY 2025 budget request due to the planned life cycle conclusion of this Science and Technology effort.

A. Mission Description and Budget Item Justification

This Project matures and demonstrates an optimized training systems to enable effective training and provide increased levels of Soldier proficiency and readiness. This Project matures and demonstrates Soldier centric technologies for the Soldier/Squad virtual environment to support the Army's Synthetic Training Environment (STE). The STE is the next generation holistic collective training capability that will train units where they will fight, with whom they will fight with, and in complex operational environments to include dense urban and sub-terrain; within the entire range of combined arms maneuver tasks in support of Multi-Domain Operations. The Soldier/ Squad virtual environment combines and integrates several individual Soldier and Squad training capabilities, STE Squad Capability (SSC), Weapon Skill Development (WSD), Joint Fires Training (JFT), and Use of Force (UoF), into a single capability that can be conducted simultaneously or individually and enable physical movement/ exertion related to the execution of Soldier/Marine individual and Squad collective training tasks. The STE will provide the realistic repetitions necessary to fight 25 bloodless battles before the first battle.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: STE Soldier/Squad Virtual Trainer	2.317	1.888	-
Description: This effort matures and demonstrates a common battle drill squad-level mixed reality based system that allows for the rapid conduct and repetition of squad-level training. The training system will make it possible to conduct diverse, repeatable and effective training without extensive training infrastructure. This effort matures and demonstrates novel and realistic training environments that provide increased levels of proficiency and readiness through immersive training scenarios conducted at the point of need.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BB8 / *Soldier Centric Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Will complete maturation of agnostic camera and tracking technologies required for dynamic occlusion to perform in daylight training environments; and optimize individual Soldier position- and orientation-tracking technologies. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding change reflects planned life cycle conclusion of this Science and Technology effort.			
Accomplishments/Planned Programs Subtotals	2.317	1.888	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BC1 / *Human Performance AdvTech for Mobility & Lethality*	

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
BC1: *Human Performance AdvTech for Mobility & Lethality*	-	9.171	7.017	7.230	-	7.230	17.380	24.407	26.113	26.374	0.000	117.692
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures technologies, methodologies, and human performance models to demonstrate increased mobility and lethality of the individual and small unit to achieve overmatch and offset vulnerabilities of maneuvering infantry. It validates and integrates human performance assessment methods and algorithms into training/ education, test and evaluation methodologies, and materiel solutions to optimize the Soldier as a weapons system and the small unit as an integration combat platform. These methods and algorithms have potential to enable the development of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) improvements and efficiencies. This Project also uses Soldier assessments to iteratively improve the performance and integration of technologies to augment Soldier function (e.g. shoot, move, perceive, decide, and communicate) during distributed operations utilizing cross-domain capabilities.

This Project also complements and is fully coordinated with work performed across Army, Navy, and Air Force under the Human Systems Community of Interest: Systems Interfaces & Cognitive Processes and Protection, Sustainment, and Warfighter Performance.

This Project supports key Army needs and complements the technical research of Program Element (PE) 0602143A (Soldier Lethality Technology)/Project BC2 (Next Gen Mobility & Lethality Tech for Warfighters). This research is in partnership with Forces Command (FORSCOM) operational units and the appropriate Training and Doctrine Command (TRADOC) organizations as well as established transition partners, including Program Executive Office-Soldier (PEO-S).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas, the Close Combat Lethality Task Force, and the Army Modernization Strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Operational Unit Partnership and Soldier Touch Point	9.171	7.017	2.800
Description: This effort optimizes innovation through Science and Technology touch points with the Operational force, resulting in rapid iteration, concept maturation, integration, validation of laboratory findings, and transition of technologies and methodologies in response to operational unit demand signal. This effort streamlines demonstration, data collection, and technology maturation for near term DOTMLPF solutions, enabling faster delivery of materiel and non-materiel products/knowledge refined with direct Soldier input. This body of work allows validated, empirical, assessment of any equipment capability or training intervention as part of the Soldier architecture to inform future acquisition investments, training, and operational trade space decisions.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BC1 / *Human Performance AdvTech for Mobility & Lethality*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Will integrate field study data and algorithms into performance prediction models; conduct iterative Soldier Touch Points (STPs) demonstrations with FORSCOM partners to refine prediction models (e.g., prediction outcomes and information portrayal); demonstrate the capabilities and outputs from the Measuring and Advancing Soldier Tactical Readiness and Effectiveness MASTR-E) Program in a culminating event. ***FY 2025 Plans:*** Will mature performance prediction models by integrating expanded model inputs (e.g., physical performance and cognitive and physical interactions) into simulated and field assessments for refinement and validation; conduct user touch points on updated prediction model to inform usability and integration requirements; and mature framework for incorporating real-time Soldier data (e.g., data from wearables) into performance models. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects administrative realignment to task Soldier/Squad Performance Metrics for Lethality within this project.			
Title: Soldier/Squad Performance Metrics for Lethality ***Description:*** This effort validates and matures technologies, methodologies, and human performance models to demonstrate increased Soldier and small unit mobility & lethality to achieve overmatch in maneuverability and tempo to degrade enemy targeting on the transparent battlefield. The effort validates and integrates human performance sensors, models, and design guidance into training/education, test and evaluation, and materiel. The results of this work will allow the Army to develop equipment, systems and training devices that maximize the close combat Soldier and small unit performancein multi-domain operations. ***FY 2025 Plans:*** Will investigate and demonstrate the ability (through methods and metrics) to quantify the effects of a subset of equipment configurations (e.g., body armor levels) on individual and small unit mobility, lethality, and survivability to inform acquisition decisions (resulting data will inform efforts to model the effects of Soldier equipment on performance);demonstrate the integration of wearable physical augmentation technology to determine effects on human-system performance; and mature strategies for optimizing cognitive performance under stress. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase reflects administrative realignment from task Operational Unit Partnership and Soldier Touch Point within this project.	-	-	4.430
Accomplishments/Planned Programs Subtotals	9.171	7.017	7.230

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BC1 / *Human Performance AdvTech for Mobility & Lethality*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BC8 / *Training Advanced Technology (Other than STE)*	

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
BC8: *Training Advanced Technology (Other than STE)*	-	6.826	7.684	8.073	-	8.073	23.316	32.521	32.866	33.194	0.000	144.480
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates advanced training technologies in support of the Army's need for simulations that accurately replicate and realistically represent the effects of current and future weapons systems during live and synthetic training. Integration of the live and synthetic environments into a single synthetic training environment will modernize the current Live Training Environment and allow fair fight engagements across all training environments and training devices.

This Project complements work done in Program Element (PE)0602143A (Soldier Lethality Technology) / Project BC7 (Training Technology (Other than STE).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Advanced Processing Technologies for Live Training	3.828	4.449	2.450
Description: This effort will improve technologies that reduce the computational burden, latency, and power consumption (battery weight) associated with training dismounted Soldiers in live training environments that leverage simulated tactical engagements. Such live training use-cases require virtual ballistic flyout calculations, casualty assessment, and visualization of terminal effects (e.g., munition impacts).			
FY 2024 Plans: Will mature and demonstrate hardware and algorithm benchmarks to validate ballistic flyout calculations and casualty assessments; demonstrate sensor fusion techniques to improve overall computational performance for ballistic flyout and casualty assessment in a distributed environment.			
FY 2025 Plans: Will verify and validate integrated sensor architecture and ballistic flyout model performance in one to two high fidelity live range exercises; verify and validate casualty assessment accuracy and latency performance against live weapon performance.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BC8 / *Training Advanced Technology (Other than STE)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Funding decrease reflects planned additional software development activities and fewer test events.			
Title: Synthetic Cyberspace Effects for Training ***Description:*** This effort matures, demonstrates, and validates a data exchange model for cyberspace effects and a brokering architecture to propagate those cyberspace effects across Live, Virtual and Constructive models and simulations within distributed training environments for collective training. ***FY 2024 Plans:*** Will continue to mature cyberspace data model and effects brokering architecture to incorporate cyber, electronic warfare, and Global Positioning System (GPS) effects for Brigade-level collective training; validate multi-domain use-cases and identify large-scale exercises to leverage for data collection and demonstration. Begin integration of external models to validate overall architecture decisions. ***FY 2025 Plans:*** Will verify and validate cyberspace data models and integrate into brokering effects architecture; validate performance in Cyber, Electronic Warfare (EW) and Global Positioning System (GPS) denied environments specific to Multi-Domain Operations (MDO) use cases; and analyze performance data and begin integration of mature enhancements of brokering architecture. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase reflects planned addition of supporting military hardware for participation in an increased number of Cyber Range events to verify and validate technical solutions.	2.998	3.235	3.506
Title: Advanced Simulation Management Technologies ***Description:*** Develop dynamic automation capability of advanced simulation architecture to enable automatic configuration of small, medium and large scale Live/Virtual/Constructive exercises. ***FY 2025 Plans:*** Will develop hardware acceleration architecture; start implementation/integration of dynamic behavior algorithms for large scale training exercise use cases, integrate configuration and authoring components in relevant planning pre-exercise use cases; and start mature component architecture integration into a single solution for implementation in execution phase of large scale collective simulated exercises. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase reflects administrative realignment from Program Element (PE) 0603118A Soldier Lethality Advanced Technology/Project BE9 (STE Advanced Technology).	-	-	2.117
Accomplishments/Planned Programs Subtotals	6.826	7.684	8.073

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BC8 / *Training Advanced Technology (Other than STE)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BC9 / *Adv Soldier Sensors/Displays AdvTech for Dismounts*	

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
BC9: *Adv Soldier Sensors/ Displays AdvTech for Dismounts*	-	25.302	27.160	24.041	-	24.041	26.106	29.209	29.527	29.823	0.000	191.168
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures, optimizes, and demonstrates fully digital sensor systems, architectures, and interfacing capabilities to fuse sensors, and network situational understanding information and targeting capabilities to enable maintained mounted and dismounted visual advantage, increased situational awareness, decreased fratricide, and decreased response times to all threats in all environments.

Research in this Project supports the Army Science and Technology Soldier Lethality, Next Generation Combat Vehicle, and Future Vertical Lift Army Modernization priorities.

This Project complements work done in Program Element (PE) 0602143A (Soldier Lethality Technology) / BD1 (Advanced Soldier Sensors/Displays Tech for Dismounts).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this Project is performed by the Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Advanced Soldier Sensors/Displays Advanced Technology for Dismounts	25.302	27.160	24.041
Description: This effort will mature and demonstrate low cost Soldier-borne situational understanding systems with greater fidelity for improved maneuver and lethality, as well as integrates automated target cueing to increase probability of recognition/ identification and tracking of threats in all environments.			
FY 2024 Plans: Will optimize improved multi-plane display technologies and demonstrate parallax correction to expand use-cases while minimizing Size, Weight, and Power (SWaP); mature advanced covert depth sensing technologies to enable the next generation of digital sensor and head mounted display capabilities for dismounted Soldier situational awareness and mobility; integrate improved optics detection performance onto reduced pathfinder hardware with reduced SWaP and demonstrate in a field-relevant environment; mature sensor payload processing approaches to enable real-time course of action suggestion and automated cueing capabilities while on smaller aerial platforms for improved situational awareness and targeting against all threats; optimize			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BC9 / *Adv Soldier Sensors/Displays AdvTech for Dismounts*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
sensor configurations on host platform and validate performance of image processing techniques for improved dismounted hostile fire detection; demonstrate trajectory visualization in a representative virtual environment to quantify improvement of target engagement timelines while validating required improved orientation sensing accuracy. ***FY 2025 Plans:*** Will demonstrate next generation heads up display and algorithms with improved performance under more robust tactical operations; demonstrate advanced threat cueing modules for detection of concealed threats and reduced time to acquire; optimize display and control of small aerial platform within heads-up display system for improved situational awareness during unmanned teaming; optimize sensor configurations for small aerial platforms with embedded aided target recognition and autonomy; demonstrate final design concept and performance for optimized dismounted hostile fire detection as validation of User expectations; validate improved head and weapon orientation sensing for covert target engagement; and will validate tracking accuracy of mobile targets on the move at tactical ranges to proliferate accurate situational awareness real-time at all echelons. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease represents elimination of demonstration of improved eye tracking technologies to extend tactical use of augmented reality devices.			
Accomplishments/Planned Programs Subtotals	25.302	27.160	24.041

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BD7 / *Soldier Sys Interfaces/Integration-Sensor AdvTech*	

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
BD7: *Soldier Sys Interfaces/ Integration-Sensor AdvTech*	-	8.254	7.931	7.628	-	7.628	7.432	8.595	8.597	8.692	0.000	57.129
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will integrate and mature technologies for sensing, processing, displaying information, interfacing with users, and cognitive improvement to enhance Soldier & Small Unit situational awareness & understanding. This Project will integrate and demonstrate battlefield, body-worn sensors, and data fusion algorithms to provide the dismounted Small Unit leader with clear, actionable information for making well informed, rapid, tactical decisions. This Project will also mature and integrate advanced dismounted Soldier robotic and autonomous systems technologies to demonstrate autonomous navigation, manned-unmanned teaming, and networked reconnaissance to improve Soldier lethality, situational awareness, and survivability during tactical operations.

Research in this Project complements several Program Elements (PEs) and Projects to include PE 0602143A (Soldier Lethality Technology) / BD6 (Soldier Sys Interfaces/Integration - Sensor Tech), PE 0603118A (Soldier Lethality Advanced Technology) / Project BC1 (Human Performance AdvTech for Mobility & Lethality) and Project BC9 (Adv Soldier Sensors/Displays AdvTech for Dismounts).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Research in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Soldier System Interfaces & Integration (Sensor Advanced Technology)	8.254	7.931	-
Description: This effort will integrate battlefield and body-worn sensors and mature data-fusion algorithms to provide the dismounted Small Unit leader with clear, actionable information to make well informed, rapid, tactical decisions. This effort will mature and integrate advanced dismounted Soldier robotic and autonomous systems technologies to demonstrate autonomous navigation, manned-unmanned teaming, and networked reconnaissance to improve Soldier lethality, situational awareness, and survivability during tactical operations.			
FY 2024 Plans: Will optimize and mature actionable decision tools for the Integrated Visual Augmentation System (IVAS) to enhance remote sensing, equipment sensing, and human performance sensing capabilities for the Small Unit leader; conduct field demonstrations of integrated Soldier situational awareness technologies, sensors, and unmanned systems with IVAS and other networked Army platforms to improve tactical decision making and enhance Soldier Lethality for cross-domain maneuver; mature, integrate			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BD7 / *Soldier Sys Interfaces/Integration-Sensor AdvTech*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
and demonstrate advanced autonomous tactical capabilities for Army SUAS (Soldier Borne Sensor (SBS) and Short Range Reconnaissance (SRR)) during Soldier field events to enhance the Squad and Platoons targeting and situational awareness; integrate and validate additional logistical delivery platforms with the small unit resupply consumption and delivery mission planning tool, for both routine and emergency logistical resupply situations and in support of contested logistics. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects an administrative realignment to task Soldier Situational Awareness Adv Tech within this project and to PE 0602143A (Soldier Lethality Technology) / Project BD6 (Sys Interfaces/ Integration - Sensor Tech)			
Title: Soldier Situational Awareness AdvTech ***FY 2025 Plans:*** Will mature and integrate leader planning and decision tools with the Nett Warrior situational awareness system to guide operational usage of physiological, equipment, and remote sensing hardware and information; mature and integrate multi-domain remote sensing tactical applications with Nett Warrior to provide operational usage and user experience of remote squad sensing status; demonstrate integrated Soldier information portrayal, sensing, and networking technologies during investigations at the Soldier Integration Facility and during field events with Soldiers in operational environments; and mature and demonstrate integrated technologies to enable multi-agent teaming for Army Small-UAS (Unmanned Aerial Systems) (SUAS) and other robotics in the lab and during Soldier operational events to enhance the Squad and Platoons reconnaissance, lethality, and situational understanding. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase reflects administrative realignment from task Soldier System Interfaces & Integration-Sensor (Advanced Technology) within this project.	-	-	7.628
Accomplishments/Planned Programs Subtotals	8.254	7.931	7.628

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*				Project (Number/Name) BD9 / *Soldier & Sm Unit Tactical Energy AdvTech*			
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**
BD9: *Soldier & Sm Unit Tactical Energy AdvTech*	-	4.143	9.310	7.577	-	7.577	6.573	5.064	5.114	5.165	0.000	42.946
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project will demonstrate advanced Power and Energy (P&E) technologies for the dismounted Soldier to lighten equipment load, reduce resupply need, and enhance mobility. This Project will conduct Soldier and Small Unit power and energy technology maturation, integration with clothing and individual equipment, technical analysis, and operational assessment.

Work in this Project complements several Program Elements (PEs) to include PE 0603118A (Soldier Lethality Advanced Technology) / Project BD7 (Soldier Sys Interfaces/ Integration Adv Tech), Project BD8 (Soldier & Small Unit Tactical Energy Tech), and PE 0603118A (Soldier Lethality Advanced Technology) / Project BC9 (Adv Soldier Sensors/Displays Adv Tech for Dismounts).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Research in this Project is performed by the Soldier Center and the Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Dismounted Soldier Power and Energy	4.143	4.269	4.554
Description: This effort matures, integrates, and demonstrates advanced Soldier P&E technologies that are used to power the dismounted Soldier and small unit's command and control, communications, computers, and sensor devices during tactical operations. This work will result in the Army being able to provide the power and energy the future Soldier requires to operate effectively, while doing so at a reduced physical burden.			
FY 2024 Plans: Will demonstrate high energy density Soldier batteries, such as Small Tactical Universal Battery (STUB) and the Conformal Wearable Battery (CWB), powering the Soldier's electronic equipment during Soldier field events; demonstrate advanced Soldier-carried power generators recharging batteries during Soldier field events; demonstrate efficient Soldier- worn power- transfer and management technologies for recharging the Soldier's batteries during Soldier field events.			
FY 2025 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BD9 / *Soldier & Sm Unit Tactical Energy AdvTech*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Will improve energy density and safety of the Conformal Wearable Battery (CWB); mature Soldier power generators to increase their energy efficiency and reduce weight; improve Soldier worn, portable data-acquisition systems to collect and analyze power and energy data during Soldier field assessments; conduct field demonstrations to assess the performance and operation of power and energy technologies with Soldiers during operational demonstrations. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding change reflects planned lifecycle of this effort.			
Title: Supply Resiliency for Soldier Power ***Description:*** This effort addresses battery supply chain security issues by specifically addressing small battery standardization maturity for DoD applications to be more lethal in dismounted operations. ***FY 2024 Plans:*** Will improve and demonstrate affordable small, standardized batteries, such as Small Tactical Universal Battery (STUB), Conformal Wearable Battery (CWB) and BB-2590 that are domestically sourced, to optimize operational runtime and reduce the weight and Soldier burden; optimize system adaptors for use with small, standardized batteries operating within Soldier tactical portable devices, such as Next Generation Squad Weapon (NGSW) and Enhanced Night Vision Goggle-Binocular (ENVG-B); mature Operational Single Cell for Accessory Readiness (OCSAR) to enable safe, single cell operation in enabler devices; characterize and validate operational capabilities at field demonstrations and finalize military standards (MIL-PRF-32383) so these standardized batteries can be readily adopted. ***FY 2025 Plans:*** Will optimize domestically sourced CWB, STUB, BB-2590 and OSCAR batteries and verify and validate performance against military specifications and solve the susceptibility of the current supply chain dependencies on adversarial nations; establish domestic scale up processes to ensure availability of cells for each battery form factor and enable the reduction of battery proliferation in the field as a result of interoperable standardized batteries. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease represents conclusion of validation efforts required for each of the battery products.	-	5.041	3.023
Accomplishments/Planned Programs Subtotals	4.143	9.310	7.577

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BD9 / *Soldier & Sm Unit Tactical Energy AdvTech*

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BE2 / *Joint Service Combat Feeding Advanced Technology*	

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
BE2: *Joint Service Combat Feeding Advanced Technology*	-	1.969	2.673	2.678	-	2.678	2.786	2.140	2.163	2.185	0.000	16.594
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates combat ration and field feeding technologies to optimize Warfighter performance, decrease the risk of exposure to chemical and biological contaminants in foods, and reduce the logistics burden to enable semi-independent operations. The Army serves as the Executive Agent for this Department of Defense (DoD) program, with oversight and coordination provided by the DoD Combat Feeding Research and Engineering Board.

This Project matures and demonstrates research done in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BE3 (Joint Service Combat Feeding Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Research work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Joint Service Combat Feeding Advanced Technology Demonstration	1.969	2.673	2.678
Description: This effort matures and demonstrates combat ration and field feeding technologies to optimize Warfighter performance, decrease risk of exposure to chemical and biological contaminants in foods, and reduce the logistics burden to enable semi-independent operations.			
FY 2024 Plans: Will validate manufacturability of developed phenolic containing products; optimize shelf stable Amino Acid/Protein ration components by completing storage studies and sensory analysis and acceptability; food matrices in support of alternative protein ration components will be down-selected for storage studies and evaluated for food safety, acceptability, and compound stability; mature, develop, assess, and demonstrate Food Additive Manufacturing (FAM) solutions; assess industry readiness for FAM to print nutrient tailored foods; validate the effectiveness of a non-thermal concentration technology to produce a microbiologically safe juice concentrate and subsequent ration components, and conduct a limited technology demonstration to assess user acceptance; demonstrate military packaging reductions technologies and validate results to determine if they meet these critical requirements: integrity, barrier performance, durability, and sensory analysis.			
FY 2025 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BE2 / *Joint Service Combat Feeding Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Will validate and demonstrate ration component formulations containing alternative protein sources against performance parameters for operational rations; validate the effects of consuming polyphenol-containing food products on warfighter performance, inflammation, and muscle recovery; demonstrate reduced volume and weight Close Combat Assault Ration (CCAR) components to support warfighter health and performance, supporting mission goals of 7 days without resupply; and perform validations of reduced packaging technologies against performance parameters or operational ration platforms. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase is an economic adjustment.			
Accomplishments/Planned Programs Subtotals	1.969	2.673	2.678

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*				Project (Number/Name) BE5 / *Personnel & Airdrop Safety Advanced Technology*			
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**
BE5: *Personnel & Airdrop Safety Advanced Technology*	-	6.307	6.632	6.718	-	6.718	7.368	7.372	7.453	7.528	0.000	49.378
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates equipment and innovative techniques for precision aerial delivery of cargo and personnel. Technologies support Army Modernization Priority, Soldier Lethality. Aerial delivery is a key capability for rapid force projection and global precision delivery to support the mission readiness profile for Global Response Force (GRF). These efforts are designed to advance state of the art precision delivery technologies such as parachutes; guidance, navigation, and control (GNC) components and subsystems; tracking sensors; software algorithms; and safety rigging that integrates with currently equipped aircraft, unmanned aerial systems (UAS), and advanced rotary wing aircraft. These efforts provide the Warfighter with highly accurate, timely cargo/payload delivery and resupply in all terrain and weather conditions. Precision delivery/resupply reduces vulnerability of ground Soldiers, aircraft, and aircrew. Precision aerial delivery supports remote warfare with activities such as placement of battlefield sensors and reduction of Soldier load.

Research in this Project supports key Army needs and complements the technical research in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BR9 (Personnel & Airdrop Safety Technology).

This Project also complements research done in the Science & Technology Precision, Navigation and Timing Modernization priority.

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Research work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Personnel & Airdrop Safety Advanced Technology	6.307	6.632	6.718
Description: This effort matures and demonstrates parachute materials and designs, precision guidance, navigation software and hardware, tracking sensors, and safety devices to increase the accuracy of delivering cargo to remote locations and/or complex terrains in global positioning system (GPS) denied environments. This effort also provides technologies that increase safety during personnel insertions into theaters of operation. This effort supports capability demonstrations for mitigating the Army' s challenge of overburdened Soldiers through the use of tactical aerial resupply technologies, as well as supporting Anti-Access/Area Denial (A2/ AD) and manned-unmanned teaming (MUM-T) operational concepts by demonstrating airdrop from non-traditional platforms.			
FY 2024 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BE5 / *Personnel & Airdrop Safety Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Will Integrate personnel infiltration system subcomponents and demonstrate full mission profile in live environment; Integrate and demonstrate preflight mission planning subcomponents into resupply vehicle's mission execution hardware; Validate and mature design of resupply vehicles that enhance autonomy, increase offset distances, and increase cargo weight; Demonstrate next generation static line (NGSL) performance and safety technologies, addressing increased weight capacity and improved weight distribution on the soldier. ***FY 2025 Plans:*** Will demonstrate full-scale technology for autonomous flight of delivery systems to increase offset distance, weight capacity, and autonomy of resupply operations; demonstrate integration of resupply mission planning solutions with selected resupply delivery systems; and develop assistive technologies to improve individual jumper performance and unit/infiltration team mission effectiveness. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding change reflects planned lifecycle of this effort.			
Accomplishments/Planned Programs Subtotals	6.307	6.632	6.718

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*				Project (Number/Name) BE9 / *STE Advanced Technology*			
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**
BE9: *STE Advanced Technology*	-	10.352	8.342	4.976	-	4.976	-	-	-	-	0.000	23.670
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project matures and demonstrates technologies supporting the Army's Synthetic Training Environment (STE). The STE is the next generation holistic collective training capability that will train units where they will fight, with whom they will fight with, and in complex operational environments to include dense urban and sub-terrain; within the entire range of combined arms maneuver tasks in support of Multi- Domain Operations. STE Information Systems (STE-IS) delivers the Common Synthetic Environment consisting of Global Terrain/One World Terrain (OWT), Training Simulation Software (TSS), and Training Management Tools (TMT). The STE will be available where training occurs (home station, combat training centers, armories, institutions, shipboard, deployed) and will include Air and Ground Reconfigurable Virtual Collective Trainers (RVCTs), a Soldier/Squad Virtual Training (S/SVT), and a live training capability. The STE will be cloud-enabled, compatible with the Army Enterprise Network, and service-based through the Common Operating Environment, including Live and Constructive. The STE will provide the realistic repetitions necessary to fight 25 bloodless battles before the first battle.

This Project complements research done in Program Element (PE) 0602143A (Soldier Lethality Technology) / Project BE8 (Synthetic Training Environment (STE) Technology).

The cited research is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas, the Army Modernization Strategy, and supports the STE Cross Functional Team efforts.

Work in this Project is performed by the Soldier Center (SC).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: STE Training Management Tool	2.814	1.705	1.698
Description: This effort matures and demonstrates STE-relevant tools and technologies that automatically adapt training to the learner's skill level, conduct intelligent after action reviews, automate team training assessments, and enable the visualization of and interaction with a Mixed Reality Common Operating Picture of the battlespace.			
FY 2024 Plans: Will validate the integration of automated performance measures from both live and simulated small-unit training events in a team-competency tracking architecture; mature models and algorithms to measure squad-level competencies for integration into the STE; mature dashboards to visualize competency acquisition over time and across multiple training interactions; exploit			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BE9 / *STE Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
competency tracking and visualization technologies for small-unit after-action review and for Multi-Domain Operations mission planning and mission command at higher echelons. ***FY 2025 Plans:*** Will mature competency tracking and visualization technologies for small-unit after-action review and for Multi-Domain Operations (MDO) mission planning and mission command at higher echelons for live, virtual and constructive engagements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects a shift in research focus from the near-term development of the STE capabilities to longer term research supporting training of multi-domain operations on complex, data-intensive battlefields.			
Title: STE One World Terrain ***Description:*** This effort matures and demonstrates tools and methods that improve the speed, fidelity and delivery of synthetic terrain and environmental data needed to support mission rehearsal and training in a representation of the globe, fully accessible through the Army network and usable by all simulation trainers. This effort also matures and develops complex representations (including megacities and subterranean) of the operational environment and the Multi-Domain battlefield in synthetic training environments. ***FY 2024 Plans:*** Will demonstrate processes, tools and software to deliver 3D synthetic content in constrained and unconstrained environments; continue to optimize 3D user interfaces for the identification, classification, and extraction of material and terrain artifacts for usage in collective training. ***FY 2025 Plans:*** Will validate and demonstrate mature terrain pipeline processes, tools and software that enables delivery of 3D synthetic content to support high fidelity live training engagements across 70% of small-unit live range use cases. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decrease reflects an administrative realignment to Program Element 0603118A (Soldier Lethality Advanced technology)/ Project BC8 (Training Advanced Technology (Other than STE).	4.171	6.637	3.278
Title: STE Training Simulation Software ***Description:*** This effort matures and demonstrates technologies that support Multi-Domain Operations modeling and simulation configuration and scalability technologies for collective training. In addition, matures and demonstrates technologies that allow the synthesis of robust military behaviors that enable the scaling of STE collective training configurations and delivery to the Point	3.367	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BE9 / *STE Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
of Need through the exploitation of emerging computing and networking technologies that optimize computing architectures for integrating components (models, behaviors, data, etc.) of the Training Simulation Software (TSS).			
Accomplishments/Planned Programs Subtotals	10.352	8.342	4.976

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603118A / *Soldier Lethality Advanced Technology*	Project (Number/Name) BS8 / *Soldier Lethality Advanced Technology*	

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
BS8: *Soldier Lethality Advanced Technology*	-	51.750	-	-	-	-	-	-	-	-	0.000	51.750
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Congressional Interest Item funding provided for Soldier Lethality Advanced Technology.

A. Mission Description and Budget Item Justification

Congressional Interest Item funding provided for Soldier Lethality Advanced Technology.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
Congressional Add: Program Increase - Small Arms Fire Control Advanced Technology ***FY 2023 Accomplishments:*** Congressional Interest Item funding provided for Small Arms Fire Control Advanced Technology	4.500	-
Congressional Add: Program Increase - ADVANCED TECHNOLOGY DEVELOPMENT FOR MDO TO SUPPORT SOLDIER LETHALITY ***FY 2023 Accomplishments:*** Congressional Interest Item funding provided for ADVANCED TECHNOLOGY DEVELOPMENT FOR MDO TO SUPPORT SOLDIER LETHALITY	15.000	-
Congressional Add: Program Increase - HMD RISK REDUCTION FOR IVAS FUTURES ***FY 2023 Accomplishments:*** Congressional Interest Item funding provided for HMD RISK REDUCTION FOR IVAS FUTURES	5.000	-
Congressional Add: Program Increase - HYPER ENABLED SOLDIER LETHALITY ***FY 2023 Accomplishments:*** Congressional Interest Item funding provided for HYPER ENABLED SOLDIER LETHALITY	10.000	-
Congressional Add: Program Increase - SHOCK ATTENUATION AND BLUNT FORCE TRAUMA IMPROVEMENTS IN HEADBORNE	5.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 3	**R-1 Program Element (Number/Name)** PE 0603118A / *Soldier Lethality Advanced Technology*	**Project (Number/Name)** BS8 / *Soldier Lethality Advanced Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024
FY 2023 Accomplishments: Congressional Interest Item funding provided for SHOCK ATTENUATION AND BLUNT FORCE TRAUMA IMPROVEMENTS IN HEADBORNE		
Congressional Add: Program Increase - SPECTROSCOPY DEVICES FOR CHEM BIO DETECTION AND DEACTIVATION WITH UV-C ***FY 2023 Accomplishments:*** Congressional Interest Item funding provided for SPECTROSCOPY DEVICES FOR CHEM BIO DETECTION AND DEACTIVATION WITH UV-C	11.250	-
Congressional Add: Program Increase - Improvements to Arctic Heaters for Tents and Shelters ***FY 2023 Accomplishments:*** Congressional Interest Item funding provided for Improvements to Arctic Heaters for Tents and Shelters	1.000	-
Congressional Adds Subtotals	51.750	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A