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

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0604715A / Non-System Training Devices - Eng Dev
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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	-	28.605	18.588	21.441	-	21.441	24.778	22.136	21.437	22.901	Continuing	Continuing
241: Nstd Combined Arms	-	28.605	18.588	21.441	-	21.441	24.778	22.136	21.437	22.901	Continuing	Continuing

A. Mission Description and Budget Item Justification

Program Element funds development of Non-System Training Devices to support force-on-force and force-on-target training at the Combat Training Centers (CTC), general military training, and training on more than one item/system, as compared with system devices which are developed in support of a specific item/weapon system. Army training devices and training simulations contribute to the modernization of the forces by enabling readiness and strengthening combat effectiveness through realistic training solutions for the Warfighter. Training devices maximize the transfer of knowledge, skills, and experience from the training situation to a combat situation. Force-on-force training and force-on-target at the National Training Center (NTC), Ft. Irwin, CA; Joint Readiness Training Center (JRTC), Ft. Polk, LA, Joint Multinational Readiness Center (JMRC), Hohenfels, Germany; Home Stations and deployed locations around the world; and battle staff training in Battle Command Training Program (BCTP) provide increased combat readiness through realistic collective training in low, mid, and high intensity scenarios. Project 241, Non-System Training Devices-Combined Arms, develops simulation training devices for Army-wide use, including the CTCs.

FY 2024 Project 241 funds significant development efforts in support of U.S. Army Training and Readiness on the Combat Training Center Instrumentation Systems (CTC-IS), Instrumentable-Multiple Integrated Laser Engagement System (I-MILES), Home Station Instrumentation Training System (HITS), Common Training Instrumentation Architecture (CTIA), Future Army System of Integrated Targets (FASIT), Medical Simulation Training Center (MSTC), Unmanned Aerial Systems (UAS) Swarm, Opposing Forces Mechanized Vehicle Replacement (OMVR), and the Live, Virtual, Constructive Integrating - Architecture (LVC-IA).

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	26.514	18.600	13.146	-	13.146
Current President's Budget	28.605	18.588	21.441	-	21.441
Total Adjustments	2.091	-0.012	8.295	-	8.295
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.091	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	8.295	-	8.295
• FFRDC Transfer	-	-0.012	-	-	-

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<u>Change Summary Explanation</u> FY2024 funding increase will be utilized for requirements analysis, initial prototype development and design, logistics planning and host chassis maintenance associated with the Opposing Forces Mechanized Vehicle Replacement (OMVR) program. Efforts will also include preparation of a contract package that will support the development, design, fabrication and testing and fielding of the OMVR Visual Modifications (VISMODS) to the CTCs. FY2024 Base dollars in the amount of \$6.730 million is in support of the Pacific Deterrence Initiative. This is an increase from the FY2023 funding level, which had no request for PDI funding in program element 0604715A. This funding will be utilized for Low-Cost Threat Emitter (LCTE) Prototypes, integration of Multi-domain training and extension of the Combined Joint Systems Integration Lab (CJSIL) test floor.		

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	Project (Number/Name) 241 / <i>Nstd Combined Arms</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	Total
											Complete	Cost
241: <i>Nstd Combined Arms</i>	-	28.605	18.588	21.441	-	21.441	24.778	22.136	21.437	22.901	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Common Training Instrumentation Architecture (CTIA) program is the foundation architecture of the Live Training Transformation Family of Training Systems (LT2-FTS). The program contains critical core product-line architecture which provides commonality across training instrumentation systems and interoperability across Live, Virtual, Constructive Integrated Training Environment (LVC-ITE) and joint training systems. CTIA includes Army owned software components, architecture services, standards, protocols and governance used by domain-specific Live Training Transformation (LT2) and Live Training Systems (LTS) to include instrumented Force-On-Force (FOF) and Force-On-Target (FOT) training requirements. The CTIA also provides Post Deployment Software Support (PDSS) and technology refresh for the LT2 family of LTS supporting over 22 live instrumented training products which are fielded at over 200 CONUS and OCONUS sites across the Army.

Combat Training Center Instrumentation System (CTC-IS) funds the continued development of the existing Instrumentation Systems (IS) at the National Training Center (NTC), Joint Readiness Training Center (JRTC) and Joint Multinational Readiness Center (JMRC). CTC-IS funds the continued development of the Range Communication System at the NTC and JRTC, to provide high-fidelity live, virtual, and constructive brigade training rotations which prepare Brigade Combat Teams (BCTs), Joint partners, and supporting units to deploy in support of the Army Sustainable Readiness Model (SRM). The CTCs primary goal is to develop agile and adaptive leaders at the tactical, operational and strategic levels while providing BCTs the core training necessary to conduct decisive action in a dynamic operating environment.

The Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) program provides realistic, real-time casualty effects for force-on-force tactical engagement training scenarios. Its ability to integrate into training instrumentation systems provides for high fidelity combined arms combat exercises supporting Readiness and closely aligns with the Modernization priority of Soldier Lethality. I-MILES is required for use at Home Stations, the Combat Training Centers (CTCs) and in theater of operations to meet force-on-force training requirements. I-MILES program funding provides for the Development and Integration of new vehicle and dismount weapon systems meeting the Common Operating Environment (COE) requirements, as well as embedded Tactical Engagement Simulation (TES) development. This includes development efforts of the LTEC / LPAN Development of Legacy software patches that incorporate the Government owned LTEC operating system software. This creates a common architecture that provides the ability to develop new services to adapt to evolving Army requirements (i.e. Changes in weapon platforms, technologies, Pk Table Updates).

The Home Station Instrumentation Training System (HITS) currently provides a high-fidelity deployable instrumented training capability to support platoon thru battalion ground based Soldiers and vehicles in Force-on-Force Training. HITS tracks location of soldiers and vehicles and simulates weapons' effects and engagements, allowing units to "Train as they Fight" against live opponents. HITS provides accurate feedback to training units. HITS consists of light deployable components that can be rapidly assembled/disassembled and transported to support deployed training. HITS is a member of the Live Training Transformation (LT2) product line of training systems implementing hardware and software reuse with other Instrumentation Systems (IS). HITS provides the only Live training component for the large scale Live-

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<p>Virtual-Constructive (LVC) military training exercises. HITS begins US Army aviation vehicle integration with Home Station instrumentation to cover comprehensive training engagements between ground and air forces.</p> <p>The Medical Simulation Training Center (MSTC) provides realistic medical training to both medical and non-medical Soldiers in the Active, Reserve, and National Guard. MSTCs provide hands-on instruction on the latest battlefield trauma and critical care techniques based on Army Medical Center of Excellence (MEDCoE) approved performance oriented Program of Instruction (POI). Medical treatment validation exercises simulate the high stress of performing medical interventions in combat. MSTC supports Unit Medical Readiness by validating Combat Medic (68W) Emergency Medical Technician (EMT) biennial recertification requirements and provides Combat Lifesaver (CLS) training to non-medical Soldiers. The Tactical Combat Casualty Care Exportable (TC3X) Soldier System provides capability to train Soldiers on medical Warrior skills at the individual, leader, and collective levels.</p> <p>The Basic Electronics Maintenance Trainer (BEMT) provides the essential modernized electronic system maintenance training capability for the Army, Army National Guard, and the Army Reserve to achieve Military Occupational Specialty-Qualification (MOS-Q) for 40 Military Occupational Specialties (MOS) at 24 Active, National Guard, and Army Reserve camps, posts, and stations. Soldiers utilizing the BEMT system receive highly realistic training using scenarios which require performing basic electronic tasks in a virtual environment including tests, diagnosis, and repair while saving institutions significant expenses over live training alternatives. The BEMT consists of an Instructor Operator Station (IOS), Student Training Station(s) (STS), associated test equipment, COTS computer, electronics console(s), supporting experiment cards, soldering station, and content server as applicable.</p> <p>The Live, Virtual, Constructive Integrating Architecture (LVC-IA) provides a net-centric linkage that collects, retrieves and exchanges data among LVC Training Aids, Devices, Simulations, and Simulators (TADSS) to include: Aviation Combined Arms Tactical Trainer (AVCATT), Close Combat Tactical Trainer (CCTT), Games For Training (GFT), Home Station Instrumentation Training System (HITS), Joint Land Component Constructive Training Capability (JLCCTC) and Synthetic Environment Core (SE Core), Universal Mission Simulator (UMS) and Mission Command Information Systems. The LVC-IA defines "how" information is exchanged among the different LVC domains and the Mission Command Information Systems. The LVC-IA provides enterprise level tools for exercise control, after action review, and system information assurance. It develops hardware and software to interface the different Live, Virtual, Constructive and Gaming communication protocols and to provide a correlated common operating picture for the training audience on their organic Mission Command equipment. The integration of the LVC TADSS with the Mission Command equipment will enable larger and more robust training events, to better prepare U.S. Soldiers for their missions at an overall reduced cost. The end-state goal is to enable an LVC Integrated Training Environment that can replicate Operational Environments in a cost effective manner to provide a high level of value-added training and mission rehearsal opportunities to Army Commanders and their Soldiers. In FY 2019, the LVC-IA program commence design and developmental activities for Version 4, which allowed for Web-based optimization; inclusion of new simulations to the architecture; and concurrency with core system TADSS and Army Mission Command Information Systems through FY 2022. FY 2024 request will continue developmental and integration activities to ensure concurrency with the Synthetic Training Environment (STE), TADSS, and Mission Command Information Systems. The LVC-IA program supports the modernization and readiness priorities by bringing JLCCTC and HITS to the Synthetic Training Environment enabling an Integrated Training Environment until the STE constructive and live systems are developed integrated with STE.</p> <p>The Army identified an operational gap in the training strategy for the OPFOR Integrated Air Defense System (IADS). It is a collection of enemy air defense weapons systems that engages Army aviation assets. Training Aircraft Survivability Equipment (ASE) Simulation Suite (TASS) is a live training system consisting of aircraft</p>		

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<p>components and ground emitters that replicates current and emerging enemy Air Defense systems. Its fidelity supports individual pilot training as well as the collective training requirements of the Brigade Combat Team to fully plan, prepare, execute and react against an enemy air defense weapons at the Combat Training Centers (CTC).</p> <p>Future Army System of Integrated Targets (FASIT) provides Live Fire training systems and software capable of supporting all Army automated ranges and it's Installations around the world. The FASIT training systems include: A single, universal target control software for all automated ranges (ground and aviation) identified in TC 25-8, providing users a controller with a common look and feel; downrange stationary and moving infantry and armor Presentation Devices (PDs) that interact with the control software to present targets and provide scoring feedback; battlefield/weapons effects devices that simulate combat situations, visuals, and sounds; and targets that provide visual, and thermal representations of friendly/threat engagements. The FASIT systems enable trainers to develop scenarios to simulate wartime mission tasks in a stressful battlefield environment.</p> <p>The Digital Range Training System (DRTS) provides advanced instrumentation specifically required for live fire gunnery training and qualification with the Abrams, Bradley, Stryker/MGS, Apache Aircraft and Unmanned Aerial Systems (UAS) on larger mounted maneuver Instrumented "Digital" Ranges. DRTS provides crew, section, platoon and company training and qualification capabilities above and beyond any other range in the Army inventory. These ranges interface with the tactical vehicles through an Integrated Player Unit Recorder (IPUR) or Smart Onboard Data Interface Module (SMODIM) to provide both real-time feedback to leaders and rapid development of complete After Action Reviews (AARs) and Take Home Packages (THPs). These AAR THPs include synchronized Thru-Sight Video (TSV) from the Commander/Gunner sights, crew camera video from inside the vehicles, thermal field camera video from the range cameras and internal crew audio for a complete evaluation. Nine of these DRTS ranges also incorporate Aerial Weapons Scoring System (AWSS) to interface with Aviation and Unmanned Aerial System gunnery training and qualification in a similar manner. The five standard training ranges utilize all available combat systems capabilities and digitally integrate them to manage all forces undergoing crew through collective live-fire training and qualification: Digital Multi-Purpose Range Complex (DMPRC) supports all gunnery tables and Combined Arms Live Fire Exercise (CALFEX) for Armor, Infantry and Aviation; Digital Multi-Purpose Training Range (DMPTR) supports crew and section qualification for Armor and Infantry; Battle Area Complex (BAX) supports crew through company CALFEX for Stryker & Infantry Brigade Combat Teams (SBCT/IBCT); Digital Air Ground Integration Range (DAGIR) supports all gunnery tables and CALFEX for Armor, Infantry and Aviation platforms; Aerial Gunnery Range (AGR) at Fort Bragg supports crew through Company CALFEX for manned/unmanned aviation platforms.</p> <p>OPFOR Surrogate Wheeled Vehicles (OSWV) provides a collection of wheeled vehicles, used as training aids to portray threat vehicles including tactical vehicles, technical vehicles, and Civilian on the Battlefield vehicles (COB-V). The program supports the CTC OPFOR/COE Pillar capability through technical vehicles, unique VISMODs, and COB-Vs. This capability provides for an accurate replication of OPFOR and COB-Vs environment that rotational units must train against.</p> <p>Unmanned Aerial Systems (UAS) Swarm provides integrated, multi-domain threat representative UAS platforms through custom UAS components and payloads that challenge training communities' execution of UAS Tactics, Techniques and Procedures (TTPs), use of current and evolving UAS technologies (i.e., Drone buster), and gives feedback on their vulnerabilities to UAS-enabled Intelligence, Surveillance, and Reconnaissance, Cyber, Electronic Warfare, Dynamic Targeting and Swarm operations.</p>		

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Opposing Forces Mechanized Vehicle Replacement (OMVR) will consist of a common Army tracked platform that uses modular visual modifications (VISMODs). This capability will allow the Opposing Forces to replicate five of the six warfighting functions. This replication will train Army units to synchronize all Intelligence, Surveillance, and Reconnaissance (ISR) assets available to the Brigade Combat Rotational Training Unit (RTU), present threat representative tracked/mechanized vehicles and formations to the RTU across the depth and breadth of the training area, and provide the OPFOR and the Army with a sustainable system that is safe for Soldiers to operate and maintain.

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

	FY 2022	FY 2023	FY 2024
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Common Training Instrumentation Architecture (CTIA) program.</p> <p>Description: Continue EMD phase contract activities for the CTIA program to provide common architecture capabilities.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$2.598 million will fund the continued development of CTIA to provide the common architecture capabilities that are essential for development, fielding, technology and capability insertion for 22 live training systems at 200+ training locations worldwide, to include the Combat Training Centers-Instrumentation System utilized at the National Training Center, the Joint Readiness Training Center, and at the Joint Multinational Readiness Center; the Home Station Instrumentation System; the Digital Ranges Training System, and future modernization efforts including emerging Army and joint architectures.</p> <p>FY 2024 Plans: FY 2024 Base RDTE dollars in the amount of \$2.740 million will fund the continued development of CTIA to provide the common architecture capabilities that are essential for development, fielding, technology and capability insertion for 22 live training systems at 200+ training locations worldwide, to include the Combat Training Centers-Instrumentation System utilized at the National Training Center, the Joint Readiness Training Center, and at the Joint Multinational Readiness Center; the Home Station Instrumentation System; the Digital Ranges Training System, and future modernization efforts including emerging Army and joint architectures.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase of \$0.142 million from FY 2023 to FY 2024 due to economic assumptions.</p>	2.453	2.598	2.740
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Combat Training Center Instrumentation System (CTC-IS).</p> <p>Description: Continue EMD phase contract activities for the CTC-IS.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$2.582 million will fund the modeling and final design efforts for the NTC Western Training Area extension for the NTC Instrumentation System. Tracking, Observer Controller / Trainer (OC/T) Situational</p>	6.804	2.582	0.520

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Awareness, OC/T Voice. Army Aviation, Voice Tactical Monitoring, Spectrum Monitoring, video and AAR support will be extended into the Western Training area. Network, antenna site, antenna tower, fiber optics and power generation must be designed for this effort; Instrumented Player Unit(IPU) will fund the studies, capability analysis, and initial design for the next generation Combat Training Center IPU, which will be utilized at the three CTC's to provide improvements to increase battery life and reduce data plan usage include decentralized indirect fire, minefields and sleep functions; M SHORAD Integration effort will fund post deployment software support to implementation of software to support improved Air Defense Artillery (ADA) and Multi-Domain Operations (MDO) replication at the CTC's providing more realistic MDO training environment.</p> <p>FY 2024 Plans: FY 2024 Base RDTE dollars in the amount of \$0.520 million will fund Post Deployment Software Support (PDSS), After Action Review (AAR) Artificial Intelligence (AI) Engine Study on the application of Artificial Intelligence (AI) for the development of AAR products to research the opportunity of utilizing AI software to analyze combat Training Center training events for cause and effect, which would provide swifter in-depth awareness to trainers for AAR purposes.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease of \$2.062 million from FY 2023 to FY 2024 is due to a shift in scope of CTC RDTE efforts. The FY 2023 work was completed, and FY 2024 will focus on initiation of After-Action Review (AAR) Artificial Intelligence (AI).</p>				
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES).</p> <p>Description: EMD phase contract activities for the I-MILES program.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$3.080 million RDTE funding will analyze, develop, test and implement the Live Training Engagement Composition (LTEC) through Post Deployment Software Support efforts. Funding will ensure that baseline relevancy is maintained. Funding will also ensure that there is development and integration of new functionality to maintain concurrency. By FY 2023 three of the five I-MILES product lines will be at end of useful live. This work will extend the useful life of the product lines.</p> <p>FY 2024 Plans: FY 2024 Base RDTE dollars in the amount of \$3.608 million will continue to analyze, develop, test and implement the Live Training Engagement Composition (LTEC) through Post Deployment Software Support. Funds will also begin service life extension development efforts to redesign the Tactical Vehicle System (TVS) and Individual Weapon System (IWS) product line key components to extend product life and supportability as a result of them reaching end of useful life.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement:</p>		2.876	3.080	3.608

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
Increase of \$0.528 million from FY 2023 to FY2024 is due to IMILES beginning service life extension development in addition to ongoing LTEC PDSS development.				
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Home Station Instrumentation Training System (HITS) program.</p> <p>Description: EMD phase contract activities for the HITS program.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$1.616 million will continue efforts for Home-Station Instrumentation Training Systems (HITS) Concurrency for new software (either COTS or developmental) that will yield additional capabilities to HITS; as well as HITS Aviation for small UAS (Drones outfitted with tracking devices (radios) that can be picked up by the HITS tracking software). Funding will also allow for Integrating new tactical radios with a particular locations communication architecture. PDSS for new software support (exercise support) will provide expertise and troubleshooting during force on force exercises.</p> <p>FY 2024 Plans: FY 2024 Base RDTE dollars in the amount of \$0.495 million will continue efforts for Home-Station Instrumentation Training Systems (HITS) Concurrency for new software (either COTS or developmental) that will yield additional capabilities to HITS.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease of \$1.121 million from FY 2023 to FY 2024 due to decrease of HITS concurrency requirements.</p>		3.995	1.616	0.495
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Medical Simulation Training Center (MSTC).</p> <p>Description: Contract activities for the MSTC program to develop the Virtual Patient System technologies. The approved MSTC Capability Production Document (CPD), Inc 1, Rev 1, dtd 6 MAR 2019, shows capability has additional unfulfilled requirements. The MSTC CPD requires that ALL GENDERS shall be represented within the medical training simulations and scenarios. The FEMALE GENDER is now under development. The CPD also states that realistic medical scenarios are required, which are also being developed.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$1.165 million will allow the continued development and modification of the Female Trauma Mannequin, developed through a SBIR Phase II contract, utilizing the hardware and software solutions developed by Industry in FY 2021. RDT&E funding for the Female Trauma Mannequin is required for the FY 2023 line for the continued integration and validation of a relevant and realistic GENDER-specific FEMALE mannequin/trauma simulator. RDT&E funding will support the Developmental Test for both mitigation of medical capability gaps and cold weather environment assessment. The Developmental Test will be conducted to assess and obtain feedback from Army medical providers, Combat Medics,</p>		0.484	1.165	0.289

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>and non-medical Soldiers as a touch point in the developmental process of the Female Trauma Simulator. The goal of this Developmental Test is to produce an anatomically-correct severe trauma female mannequin that will enable the Army's 68W Medic the full range of TC8-800 training. Efficacy of material solutions to meet TC3 medical training standards will be assessed including simulated tension pneumothorax, traumatic hemorrhage, nasal pharyngeal airway, and Foley catheter placement, among other interventions. Cold weather immersion and impacts to training performance due to thermal change are key factors in this assessment. Operational Test for the Female Trauma Mannequin will be conducted in 4QFY2023 to determine its operational efficacy of the Tactical Combat Casualty Care material capabilities.</p> <p>FY 2024 Plans: FY 2024 Base RDTE dollars in the amount of \$0.289 million will allow the continuation of the analysis of the test results and Report generation of the Operational Test of the Female Trauma Mannequin. The verification, validation, and accreditation (VV&A) results from the Operational Test of the hardware will allow the productionization of the Female Trauma Mannequin and posture the mannequin for fielding in FY 2024.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease in FY2024 funding due to scale-down from FY2023 Gender Mannequin Research and Development.</p>				
<p>Title: Live, Virtual, Constructive Integrating Architecture (LVC-IA) Engineering and Manufacturing Development (EMD) phase contract activity.</p> <p>Description: Continue EMD phase contract activities for the LVC-IA program.</p> <p>FY 2023 Plans: Live, Virtual, and Constructive-Integrating Architecture (LVC-IA) program will continue system development, integration and demonstration of the LVC-IA capability to ensure concurrency with Synthetic Training Environment (STE), core system Training Aids, Devices, Simulators and Simulations (TADSS) and Army Mission Command Information Systems.</p> <p>FY 2024 Plans: Live, Virtual, and Constructive-Integrating Architecture (LVC-IA) program will continue system development, integration and demonstration of the LVC-IA capability to ensure concurrency with Synthetic Training Environment (STE), core system Training Aids, Devices, Simulations, and Simulators (TADSS), and Army Mission Command Information Systems.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase from FY2023 to FY2024 is due to economic assumptions.</p>		2.748	2.714	2.985
<p>Title: Live, Virtual, Constructive Integrating Architecture (LVC-IA) Program Government System Test and Evaluation.</p> <p>Description: Government System Test and Evaluation for the LVC-IA Program.</p>		0.295	0.372	0.385

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>FY 2023 Plans: LVC-IA will continue integration, testing and evaluation activities in support of LVC-IA interoperability with STE, TADSS and other Mission Command Information Systems.</p> <p>FY 2024 Plans: LVC-IA will continue integration, testing and evaluation activities in support of LVC-IA interoperability with STE, TADSS and Mission Command Information Systems.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase from FY2023 to FY2024 is due to economic assumptions.</p>				
<p>Title: Government Program Management for the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Program.</p> <p>Description: Government Program Management for the LVC-IA Program.</p> <p>FY 2023 Plans: Will provide program management, engineering and technical oversight, contract support, and travel for the LVC-IA Program.</p> <p>FY 2024 Plans: Will provide program management, engineering and technical oversight, contract support, and travel for the LVC-IA Program.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease due to level of engineering and technical oversight required to support program activities.</p>		0.327	0.386	0.338
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Future Army System of Integrated Targets (FASIT).</p> <p>Description: The FASIT program's primary innovation goals are the development of advanced non-contact ballistic hit detection and recognition system, advanced human type targets, non-contact area scoring technology, combat ID targets, electromagnetic/cyber replication, multi domain operations, and augmented reality on live fire ranges; all aimed at increasing training realism, enhancing Soldier resiliency, and lowering life cycle costs.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$1.241 million provides for development of Non-Contact Area Scoring Technology (NCAST). NCAST is a capability that will be developed to replace the mobile Aerial Weapons Scoring System (AWSS) systems as well as the fixed AWSS on select aviation Home Station ranges to support Aviation Gunnery Training. Additionally, the system</p>		5.636	1.241	0.944

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>will provide real-time detection of incoming munitions, location of penetration, and determine the caliber and velocity of incoming rounds. These efforts and solutions will align with the defined OPTEMPO in the FASIT CPD and Army Training Circular 25-8.</p> <p>FY 2024 Plans: FY 2024 Base RDTE dollars in the amount of \$0.944 million provides for the final development and testing of the prototype components for the Non-Contact Area Scoring Technology (NCAST). NCAST is a capability that will be developed to replace the mobile Aerial Weapons Scoring System (AWSS) systems as well as the fixed AWSS on select aviation Home Station ranges to support Aviation Gunnery Training. Additionally, the system will provide real-time detection of incoming munitions, location of penetration, and determine the caliber and velocity of incoming rounds. These efforts and solutions will align with the defined OPTEMPO in the FASIT CPD and Army Training Circular 25-8.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease of \$0.297 million from FY 2023 to FY 2024 is due to completion of NCAST Research and Development (R&D) in FY 2024.</p>				
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Digital Range Training System (DRTS)</p> <p>Description: Conduct development of a government-owned Technical Data Package (TDP) for the DRTS program to enable competitive acquisitions for targets.</p> <p>FY 2023 Plans: FY 2023 Base RDTE dollars in the amount of \$0.997 million will finalize the development, testing and evaluation of a Government-owned and managed Technical Data Package (TDP) for the presentation devices (target lifters) utilized on the DRTS and FASIT ranges. The funding will be used to build prototype and first article units to perform the developmental and environmental testing to validate that the TDP works as required and the presentation devices can be used to support the technology refresh and modernization efforts on all Army ranges. It will also be used to see how the new design works in its operational training environment to establish the Reliability, Availability and Maintainability performance of the devices.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease of \$0.997 million from FY 2023 to FY 2024 is due to completion of Digital Range Training System (DRTS) activities.</p>		1.139	0.997	-
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the OPFOR Integrated Air Defense System (IADS)</p> <p>Description: EMD phase contract activities for the IADS Program</p>		0.554	-	-
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for Basic Electronics Maintenance Trainer (BEMT)</p>		0.295	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023		
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Description: BEMT provides the essential modernized electronic system maintenance training capability for the Army, Army National Guard, and the Army Reserve to achieve Military Occupational Specialty-Qualification (MOS-Q) for 40 MOS at 24 Active, National Guard, and Army Reserve camps, posts, and stations. BEMT will be modernizing the electronics maintenance training. BEMT provides training in basic electronics, while saving institutions significant administrative expenses over live training alternatives.</p>				
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Unmanned Aerial System (UAS) Swarm</p> <p>FY 2023 Plans: FY 2023 RDTE of \$1.158 million provides for the incremental funding for development of UAS Swarm software and integration with 4G/LTE networks, development of payload and integration, initial operational assessments, and will support hardware development for charging stations, tablets, and manual/remote deployment systems.</p> <p>FY 2024 Plans: FY 2024 RDTE of \$0.900 million provides for the incremental funding for continued development of UAS Swarm software and integration with 4G/LTE networks, development of payload and integration, initial operational assessments, and hardware development for charging stations, tablets, and manual/remote deployment systems.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Decrease of \$0.258 million from FY 2023 to FY 2024 due to program reaching FOC and transitioning to sustainment.</p>		0.999	1.158	0.900
<p>Title: SBIR/STTR Transfer</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>		-	0.679	-
<p>Title: Prototype phase contract activity for Opposing Forces Mechanized Vehicle Replacement (OMVR)</p> <p>Description: The Opposing Forces Mechanized Vehicle Replacement (OMVR) will consist of a common Army tracked platform that uses modular visual modifications (VISMODs). This capability will allow the Opposing Forces to replicate five of the six warfighting functions. This replication will train Army units to synchronize all Intelligence, Surveillance, and Reconnaissance (ISR) assets available to the Brigade Combat Rotational Training Unit (RTU) across the depth and breadth of the training area, and provide the Opposing Force (OPFOR) and the Army with a sustainable system that is safe for Soldiers to operate and maintain.</p> <p>FY 2024 Plans:</p>		-	-	1.507

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023		
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>FY2024 funding will be utilized for program management (OTA white paper evaluation, contract package preparation, and technical evaluations), baseline host chassis, conduct host chassis variation analysis to determine and document differences between variants, and begin prototype development.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: FY 2024 funding will be utilized for requirements analysis, initial prototype development and design, logistics planning and host chassis maintenance associated with the OMVR program. Efforts will also include preparation of a contract package that will support the development, design, fabrication and testing and fielding of the OMVR Visual Modifications (VISMOS) to the CTCs. There are 11 variants as part of this effort. OMVR is a new project in this APE in FY 2024.</p>				
<p>Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Joint Pacific Maneuver Readiness Center (JPMRC)</p> <p>FY 2024 Plans: FY2024 Base RDTE dollars in the amount of \$2.511 million will fund the USARPAC Low Cost Threat Emitter (LCTE) Prototypes which supports the Pacific Multi-Domain Training and Experimentation Capability (PMTEC) campaign plan to instrument high end threat replication capabilities, USARPAC conducts spiral development and experimentation with 3 x LCTE prototype systems in partnership with US Army Intel Center of Excellence, Electronic Proving Ground, USAF 56th RMO, and Arizona State University Affiliated Research Center (UARC). The LCTE is a portable system that contributes to the EMS effects toolkit for realistic, Joint training. An LCTE formation can create an Integrated Air Defense System (IADS) threat operating environment that can closely mimic our adversary's A2AD bubble to include radars, vehicle signatures, and unit EMS signatures. By utilizing sophisticated, abundant, integrated, and easily deployable threat emitters during training, the Joint Force can better understand the threat spectrum and how to best operate in a contested environment. With functional integration in a Joint exercise as early as April 2023, the LCTE will enhance MDO training for the MSTF, all service components fixed wing, UAS units, SOF, and other experimental assets.</p> <p>These funds will be executed by USARPAC (Command 820).</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Initiation of JPMRC efforts in FY2024.</p>		-	-	2.511
<p>Title: USARJ Cyberspace Integration</p> <p>FY 2024 Plans: USAR-J is postured to integrate multi-domain training FWD in Japan in FY2022-2026, advancing USARPAC multi-domain land power objectives and experimentation throughout the Pacific Theater. This effort will support cyberspace domain integration into Army exercises in Japan (Orient Shield, Yama Sakura, North Wind). This will be accomplished via a Cyberspace exercise</p>		-	-	2.712

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>integration services contract that will enable realistic cyber training for Joint and Bilateral exercises and support USARPAC MDO experimentation FED in Japan. This effort will transition current USAR-J cyber OALs from notional white card cyber training to practical value-added cyberspace exercise integration providing active cyberspace simulation venues for MDTF/MDEB, US cyber, and JSDF system protection unit (cyber) teams to train on METL and exercise objectives.</p> <p>These funds will be executed by USARPAC (Command 820).</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Initiation of USARJ Cyberspace Integration efforts in FY2024.</p>			
<p>Title: Establish Combined Joint System Integration Laboratory (CJSIL) Nodes</p> <p>FY 2024 Plans: Pilot Program to extend the Combined Joint Systems Integration Lab (CJSIL) test floor using a deployable "forward node" to support USARPAC experimentation. The "How" Small forward node (transit case) connects USARPAC to closed restricted sandbox at the CJSIL, Aberdeen Proving Ground (APG). Majority of test architecture will be deployed at APG, experimental systems can be either connected to the forward node or located at APG. The "Why" First contact / initial testing can be conducted in a lab environment before incurring costs to deploy in live / exercise environment. Provides a clean, instrumented, reproducible environment with experts on hand to assist where needed. Remotely accessible, persistent "sandbox" environment to accommodate rapid execution and flexible evaluation requirements. Lower IA thresholds for System Under Test (SUT) deployment -Insert vendor systems into test architecture in CONUS. The "So What" Cost Savings - Reduces or eliminates travel costs for CIV, MIL, CTR, and Vendors; Architecture blend of Virtual/Real systems provides an efficient, reusable footprint for testing. Time Savings - Reduces experimentation lead time; allows for 'quick looks' at proposed technologies. Risk Mitigation - Reduces Integration risks for formal events / exercises.</p> <p>These funds will be executed by USARPAC (Command 820).</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Initiation of Combined Joint System Integration Laboratory (CJSIL) Nodes effort in FY2024.</p>	-	-	1.507
Accomplishments/Planned Programs Subtotals	28.605	18.588	21.441

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• MA6600: <i>Combat Training Centers Support</i>	94.965	48.046	56.619	-	56.619	65.038	54.415	44.283	44.337	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army	Date: March 2023
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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	Project (Number/Name) 241 / <i>Nstd Combined Arms</i>
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C. Other Program Funding Summary (\$ in Millions)

Line Item	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
• NA0100: <i>Training Devices, Nonsystem</i>	174.644	199.669	226.379	-	226.379	202.061	201.091	220.679	228.516	Continuing	Continuing

Remarks

D. Acquisition Strategy

- Competitive development efforts based on performance specifications.
1. In FY 2019 - 2023, Combat Training Center Instrumentation Systems (CTC-IS) RDTE will be used to fund a Life Cycle Product-line Management (LCPM) contract structured as a 5 year Single Award Indefinite-Delivery/Indefinite-Quantity (IDIQ) for the implementation of a Hardware Product Line (HPL), the contractor was selected. The strategy is to establish a deliberate approach to Life Cycle Management (LCM) of Live Training Family of Systems, providing the framework for future Life Cycle Efforts for the Hardware Product Line Framework.
 2. In FY 2020, a new competitive IDIQ contract with a 1-year base and 7 single-year option periods was awarded to General Dynamics Mission Systems - CTIA will be executed under this contract.
 3. In FY2022, the Live, Virtual, Constructive Integrating Architecture (LVC-IA) program awarded a new competitive IDIQ contract with a 2-year base period, two 2-year option periods and four 1-year option periods was awarded to Dignitas Technologies, LLC. The LVC-IA concurrency and Synthetic Training Environment interoperability will be executed under this contract.
 4. In FY 2024, FASIT will incrementally fund the Small Business Innovative Research Phase III contract for the development of the NCAST capabilities.
 5. In FY 2023, the Digital Range Training System (DRTS) will continue the funding under the Delivery Order (established in FY 2022) under the Life Cycle Product-line Management (LCPM) IDIQ contract, which will finalize the development and testing of the target Technical Data Package (TDP).
 6. In FY 2023-2026, Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) will leverage the General Dynamics contract vehicle and competitive OTA approaches to address EUL / relevancy challenges as product lines reach those trigger points in their life cycle or changes to weapon system configurations drive those actions. By FY23 three of the five I-MILES product lines will be at end of useful live. These efforts will enable a wide range of industry partners to integrate LTEC/LPAN into existing systems and execute Tech Refresh activities as required until Live STE capabilities are introduced.
 8. In FY 2021, Home Station Instrumentation Training System (HITS) awarded a new delivery order on the General Dynamics contract.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Army		Date: March 2023
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<p>9. In FY 2022, OPFOR Integrated Air Defense System (IADS) will start development of weapon processor software, integration with the training instrumentation systems at the Combat Training Centers (CTCs), and validate the solution through testing.</p> <p>10. UAS Swarm will continue to provide the U.S. Army Combined Training Centers with UAS Swarm support utilizing the existing Aviation and Missile Technology Consortium OTA.</p> <p>11. FY 2024, OMVR program will have a full and open competitive contract for the initial prototype development and design, logistics planning and host chassis maintenance for the OMVR program. The contract package will support the development, design, fabrication, testing, and fielding of the OMVR Visual Modifications to the Combat Training Centers.</p>		

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

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	Project (Number/Name) 241 / <i>Nstd Combined Arms</i>
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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			
HITS Program Management	Various	PEO STRI : Orlando, FL	1.348	-		-		-		-		-	0.000	1.348	Continuing
LVC-IA Program Management	Various	PEO STRI : Orlando, FL	11.180	0.327	Feb 2022	0.386	Feb 2023	0.385	Feb 2024	-		0.385	Continuing	Continuing	Continuing
SBIR/STTR Transfer	TBD	Various : Various	-	-		0.679		-		-		-	0.000	0.679	-
Subtotal			12.528	0.327		1.065		0.385		-		0.385	Continuing	Continuing	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			
I-MILES	Option/IDIQ	General Dynamics Mission Systems : Orlando, FL	5.485	2.714	Dec 2021	2.924	Dec 2022	2.123	Dec 2023	-		2.123	Continuing	Continuing	Continuing
I-MILES SLEP Development	C/TBD	TBD : TBD	-	-		-		1.388	Feb 2024	-		1.388	Continuing	Continuing	Continuing
HITS	Option/IDIQ	General Dynamics Mission Systems (GDMS) : Orlando, FL 32826	4.842	3.995	Mar 2022	1.616	Mar 2023	0.495	Mar 2024	-		0.495	Continuing	Continuing	Continuing
MSTC Development	C/FP	Multiple : Various	6.033	0.484	Jul 2022	1.165	May 2023	0.289	Feb 2024	-		0.289	0.000	7.971	8.014
LVC-IA Follow-On Contract	C/CPFF	Dignitas Technologies, LLC : Orlando, FL	-	2.748	Apr 2022	2.714	Apr 2023	2.985	Apr 2024	-		2.985	Continuing	Continuing	Continuing
CTIA	C/CPFF	General Dynamics Mission Systems, Inc (GDMS) : Orlando, FL	4.837	2.453	Jan 2022	2.598	Jan 2023	2.740	Jan 2024	-		2.740	Continuing	Continuing	Continuing
CTC-IS	C/IDIQ	General Dynamics Mission Systems : Orlando, FL	46.678	0.541	May 2022	2.582	May 2023	0.520	May 2024	-		0.520	Continuing	Continuing	Continuing
CTC IS	Option/IDIQ	GENERAL DYNAMICS	-	1.806	Feb 2022	-		-		-		-	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army												Date: March 2023			
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604715A / Non-System Training Devices - Eng Dev					Project (Number/Name) 241 / Nstd Combined Arms					
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		ONE SOURCE : ORLANDO, FL													
Future Army System of Integrated Targets (FASIT) Battlefield Effects Devices	C/CPFF	General Dynamics One Source, LLC : Fairfax, VA	-	1.914	Feb 2022	-		-		-		-	Continuing	Continuing	Continuing
Future Army System of Integrated Targets (FASIT) Dynamic Infrared Projection	SS/CPFF	JRM Technologies : Orlando, FL	-	1.600	Jan 2022	-		-		-		-	Continuing	Continuing	Continuing
Future Army System of Integrated Targets (FASIT) Non-Pyro Effects	SS/CPFF	Digital Solid State Propulsion, Inc. : Reno, NV	-	2.122	Feb 2022	-		-		-		-	Continuing	Continuing	Continuing
Future Army Systems of Integrated Targets (FASIT) Non-Contact Area Scoring Technology	C/CPFF	SensorMetrix : San Diego, CA	-	-		1.241	Jan 2023	0.944	Nov 2023	-		0.944	Continuing	Continuing	Continuing
Digital Range Training System (DRTS)	Option/CPFF	General Dynamics One Source, LLC : Fairfax, VA	1.445	1.139	Jan 2022	0.997	Jan 2023	-		-		-	Continuing	Continuing	Continuing
OPFOR Integrated Air Defense System (IADS) MANPADS	TBD	TBS : Orlando, FL	-	0.554	Dec 2021	-		-		-		-	Continuing	Continuing	Continuing
Unmanned Aerial System Swarm	Option/CPFF	Colsa : Huntsville, AL	-	0.999	Apr 2022	1.158	Jan 2023	0.900	Jan 2024	-		0.900	Continuing	Continuing	Continuing
CTC-IS	C/IDIQ	GENERAL DYNAMICS ONE SOURCE : Orlando, FL	7.820	4.457	Oct 2021	-		-		-		-	Continuing	Continuing	Continuing
Basic Electronics Maintenance Trainer (BEMT)	SS/FFP	Nida Corp : Melbourne, FL	0.402	0.295	Nov 2021	-		-		-		-	0.000	0.697	0.708
OMVR	C/FFP	TBD : Redstone Arsenal, AL	-	-		-		1.507	Jan 2024	-		1.507	Continuing	Continuing	Continuing

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

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / Non-System Training Devices - Eng Dev	Project (Number/Name) 241 / Nstd Combined Arms
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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			
Joint Pacific Maneuver Readiness Center (JPMRC)	C/FFP	USARPAC : PACIFIC REGION	-	-		-		2.511	May 2024	-		2.511	0.000	2.511	-
Combined Joint System Integration Laboratory (CJSIL) Nodes	C/TBD	USARPAC : PACIFIC REGION	-	-		-		1.507	May 2024	-		1.507	0.000	1.507	-
USARJ Cyberspace Integration	C/TBD	USARPAC : PACIFIC REGION	-	-		-		2.712	May 2024	-		2.712	0.000	2.712	-
Subtotal			77.542	27.821		16.995		20.621		-		20.621	Continuing	Continuing	N/A

Remarks

1. The Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) - FY 2022 began the fielding of the LTEC integration into VTESS and TVS. FY 2023 to FY 2026 will be focused on extending the product life of the three I-MILES product lines that are at the end of useful life.

2. The LVC-IA program awarded its follow-on contract on 24 May 2022 to Dignitas Technologies, LLC. This follow-on award will continue their concurrency efforts with the Synthetic Training Environment (STE) and Mission Command Information Systems (MCIS) through program completion slated for FY 2035. FY 2024 Base RDTE will support the award option period 1 on the follow-on contract continue concurrency effort with the STE and MCIS.

Test and Evaluation (\$ 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			
LVC-IA Test Support	Various	Multiple : Orlando, FL	13.640	0.295	Nov 2021	0.372	Nov 2022	0.338	Nov 2023	-		0.338	Continuing	Continuing	Continuing
I-MILES EPG Testing	MIPR	ATEC : FT Huachuca, AZ	0.162	0.162	Mar 2022	0.156	Mar 2023	0.097	Mar 2024	-		0.097	Continuing	Continuing	Continuing
Subtotal			13.802	0.457		0.528		0.435		-		0.435	Continuing	Continuing	N/A

Project Cost Totals	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
	103.872	28.605	18.588	21.441	-	21.441	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / <i>Non-System Training Devi</i> <i>ces - Eng Dev</i>	Project (Number/Name) 241 / <i>Nstd Combined Arms</i>

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
CTIA Development and Architectural Evolution	[Blue bar]																											
CTC IS Development	[Blue bar]																											
I-MILES Development	[Blue bar]																											
I-MILES RELEVANCY	[Blue bar]																											
HITS Development	[Blue bar]																											
MSTC Trainer Developments	[Blue bar]																											
LVC-IA - Version 4 (Development, Integration, Demonstrat...	[Blue bar]																											
LVC-IA - Concurrency with STE, TADSS, and Mission Comman...	[Blue bar]																											
FASIT Battlefield Effects Device	[Blue bar]																											
FASIT Dynamic Infrared Projections	[Blue bar]																											
FASIT Non Pyro Effects	[Blue bar]																											
FASIT Non Contact Area Scoring Tech	[Blue bar]																											
FASIT Combat Identification	[Blue bar]																											

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	Project (Number/Name) 241 / <i>Nstd Combined Arms</i>

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
Digital Range Training System (DRTS) Development	█				█																							
OPFOR Integrated Air Defense System (IADS)	█				█																							
Unmanned Aerial Systems (UAS) Swarm Development	█				█				█				█				█				█							
OPFOR Attack Aircraft Shoot-back Capability (OA2SBC)	█				█																							
BEMT Army Enterprise Network Server Development		█			█																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	Project (Number/Name) 241 / <i>Nstd Combined Arms</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CTIA Development and Architectural Evolution	1	2012	4	2027
CTC IS Development	1	2010	4	2027
I-MILES Development	2	2017	3	2027
I-MILES RELEVANCY	2	2018	4	2027
HITS Development	3	2012	4	2024
MSTC Trainer Developments	2	2017	4	2024
LVC-IA - Version 3 (Development, Integration, Demonstration and Testing)	4	2016	3	2018
LVC-IA - Version 4 (Development, Integration, Demonstration and Testing)	4	2018	4	2023
LVC-IA - Concurrency with STE, TADSS, and Mission Command Systems	1	2024	4	2032
FASIT Battlefield Effects Device	2	2022	2	2023
FASIT Dynamic Infrared Projections	2	2022	2	2023
FASIT Non Pyro Effects	4	2021	4	2023
FASIT Non Contact Area Scoring Tech	4	2022	4	2024
FASIT Combat Identification	1	2025	4	2027
Digital Range Training System (DRTS) Development	2	2018	4	2023
Integrated Military Operations in Urban Terrain (MOUT) Training System (IMTS)	2	2020	4	2021
OPFOR Integrated Air Defense System (IADS)	4	2017	4	2022
Unmanned Aerial Systems (UAS) Swarm Development	1	2022	4	2026
OPFOR Surrogate Wheeled Vehicles (OSWV)	2	2019	4	2021
OPFOR Attack Aircraft Shoot-back Capability (OA2SBC)	2	2021	2	2022
S/SVT - Development	3	2019	3	2020
BEMT Army Enterprise Network Server Development	1	2020	1	2023