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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army										Date: May 2017		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604715A I Non-System Training Devices - Eng Dev							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	26.768	35.807	43.575	-	43.575	46.260	26.354	25.792	21.712	Continuing	Continuing
241: Nstd Combined Arms	-	23.833	32.769	43.575	-	43.575	46.112	26.214	25.653	21.712	Continuing	Continuing
573: Program Executive Office Simulation, Training Spt	-	2.935	3.038	0.000	-	0.000	0.148	0.140	0.139	0.000	0.000	6.400

**A. Mission Description and Budget Item Justification**

Program Element funds development of Non-System Training Devices to support force-on-force 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 at the National Training Center (NTC), Ft. Irwin, CA; Joint Readiness Training Center (JRTC), Ft. Polk, LA, and Joint Multinational Readiness Center (JMRC), formerly the Combat Maneuver Training Center (CMTC), Hohenfels, Germany; 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. Project 573 funds key organizational support to Army/DoD Transformation via innovative simulation and training device efforts. Program Executive Office (PEO) Simulation, Training and Instrumentation (STRI's) unique geographic co-location with other services facilitates joint training solutions in a common environment.

FY 2018 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), Target Modernization, Medical Simulation Training Center (MSTC), Live, Virtual, Constructive Integrating Architecture (LVC-IA), OPFOR Integrated Air Defense System (IADS), Soldier Virtual Trainer Program (SVT) New Start, Digital Range Training System (DRTS) New Start, and Soldier Fitness and Suicide Prevention.

FY 2018 Project 573 is the first year that realigns Government authorizations and associated funding to an Army Management Headquarter Account (AMHA), which zeroed out the funding in FY 2018. This was done in accordance with a Program Decision Memorandum.

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2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)		PE 0604715A / Non-System Training Devices - Eng Dev			
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	27.155	30.807	31.084	-	31.084
Current President's Budget	26.768	35.807	43.575	-	43.575
Total Adjustments	-0.387	5.000	12.491	-	12.491
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.887	-			
• Adjustments to Budget Years	0.500	0.000	12.491	-	12.491
• FY17 Request for Additional Appropriations	0.000	5.000	0.000	-	0.000
<b>Change Summary Explanation</b>					
The FY 2017 Request for Additional Appropriations included an increase of \$5.000M to meet urgent requirements to develop, produce, procure, and integrate critical Combat Training Center (CTC) Opposing Forces (OPFOR) Integrated Air Defense System (IADS) capabilities to replicate threats in accordance with the Army Operating Concept (AOC). This is a NEW START.					
The FY 2018 delta is due to increases in Project 241 for OPFOR Integrated Air Defense System (IADS) and Digital Range Training System (DRTS) from Modernize the Army Package A, and Project 573 was zeroed out to realign the Government authorizations and associated funding to an Army Management Headquarter Account.					

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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
241: Nstd Combined Arms	-	23.833	32.769	43.575	-	43.575	46.112	26.214	25.653	21.712	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 and its ability to integrate into training instrumentation systems provide for high fidelity combined arms combat exercises supporting the 39th Chief of the Staff of the Army #1 priority of "Readiness". Due to their modular design, I-MILES is required for use at the Home Station, the Combat Training Centers (CTCs) and in theater of operations to meet force-on-force training requirements. I-MILES program funding provides 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 new development efforts of the Live Training Engagement Composition (LTEC), increasing simulation of Probability of Kill (Pk) for training realism and improving integration on new weapon platforms (i.e. Joint Light Tactical Vehicle (JLTV), Armored Multi-Purpose Vehicle (AMPV), M4A2 Plus Rifle and Stryker Engineering Change Proposal (ECP) with 30mm Gun).

The Home Station Instrumentation Training System (HITS) provides a high-fidelity deployable instrumented training capability to support platoon thru battalion level Live 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 integrates with future and legacy MILES. HITS is a member of the Live Training Transformation (LT2) family of training systems and shares several hardware and software components with the Instrumentation Systems (IS). HITS provides the Live domain for Live-Virtual-Constructive (LVC) training integration.

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<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 Department (AMEDD) 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.</p> <p>The Engagement Skills Trainer (EST) is the unit/institutional, indoor, multipurpose, multi-lane, small arms, crew-served and individual anti-tank training simulation that enables training across three different modes: individual marksmanship; small unit (collective) gunnery and tactical training; and judgmental use of force (shoot/don't shoot), which includes escalation of force/graduated response scenarios.</p> <p>The Call for Fire Trainer (CFFT) family of systems is a lightweight, rapidly deployable, observed fire training system that provides simulated battlefield training for Fire Support Specialists (FSS), Joint Fires Observers (JFO), and Soldiers. The system provides simulated battlefield training to conduct Indirect Fires, Close Air Support, Close Combat Attack, and Naval Surface Fire Support. The CFFT Immersive System provides the capability for Army, Joint, Multinational and Special Operations Forces to conduct advanced, complex and realistic fires training at the FIRES Center of Excellence, Ft Sill, OK. CFFT is a critical training enabler to support Warfighters in applying precision fires on target to prevent fratricide and minimize collateral damage.</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: AVCATT, CCTT, GFT, HITS, JLCCTC and SE Core) and Mission Command Systems. The LVC-IA defines "how" information is exchanged among the different LVC domains and the Mission Command 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 FY17, program will continue Version 3 development activities; FY18 request will commence Version 3 testing and validation, concurrency with mission command systems and initiate Version 4 development activities.</p> <p>The Target Modernization program provides a common open architectural framework, standards, specifications, and interfaces for live fire target devices, a common target control system for all range types, and innovative technologies to enhance training realism and reduce life cycle costs on the ranges. The Target Modernization primary goal is the development of trackless target systems, high fidelity dynamic infrared representations, non-contact ballistic hit detections, and augmented reality on live fire ranges; increasing training realism and lowering life cycle costs.</p> <p>The Army identified an operational gap in the training strategy for the OPFOR Integrated Air Defense System (IADS). It's a collection of enemy weapons systems that engage Army aviation assets. Training Aircraft Survivability Equipment (ASE) Stimulation Suite (TASS) is a live training system consisting of aircraft components</p>		

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and ground emitters that replicate 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).						
The Digital Range Training System (DRTS) provides new and modern ranges capable of training, evaluating and stressing Soldiers and their modern equipment with a realistic train-as-you-fight environment. Four standard training ranges Digital Multi-Purpose Range Complex (DMPRC), Digital Multi-Purpose Training Range (DMPTR), Battle Area Complex (BAX) and Digital Air Ground Integrated Range (DAGIR) will utilize all available combat systems capabilities, and digitally integrate them to manage all forces undergoing individual and collective live-fire training and qualification. These Training Systems replace obsolete, inadequate training methods and equipment in order to simulate new weapon systems, challenge Soldiers, incorporate the Digitized Force, and provide enhanced training data collection and After Action Review (AAR) capabilities. They incorporate digital system training as well as integrate multiple ranges and training environments for the training units.						
The Army identified a requirement for a Soldier Virtual Trainer (SVT) to replace the Engagement Skills Trainer (EST) II and Call for Fire Trainer (CFFT) III. The SVT Program (new start) will enable Army Readiness through dismounted collective maneuver capability; will provide individual and crew-served weapons skill development, and will enable Joint fires training, and will exercise Use of Force decision making.						
Comprehensive Soldier & Family Fitness (CSF2) is research and development efforts that include Future Soldier Assessment Tool (DASH-R) Project, Global Assessment Tool (GAT) 3.0 Project, and Program Evaluation (PE) Project.						
FY 2018 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), Target Modernization, Medical Simulation Training Center (MSTC), Live, Virtual, Constructive Integrating Architecture (LVC-IA), OPFOR Integrated Air Defense System (IADS), Soldier Virtual Trainer Program (SVT) New Start, Digital Range Training System (DRTS) New Start, and Soldier Fitness and Suicide Prevention.						
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Common Training Instrumentation Architecture (CTIA) program.		4.118	2.550	2.910	-	2.910
Description: Continue EMD phase contract activities for the CTIA program to provide common architecture capabilities.						
FY 2016 Accomplishments: Provided essential common architecture capabilities essential to the development, fielding, technology and capability of Live Training Systems (LTS) which included the Combat Training Centers-Instrumentation Systems (CTC-IS), Integrated Military Operations in Urbanized Terrain Training System (IMTS),Home Station						

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Instrumentation Systems (HITS), Digital Ranges Training System (DRTS) training instrumentation programs and the Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) interoperability initiatives. <b>FY 2017 Plans:</b> Continue development of CTIA to provide the common architecture capabilities that are essential for development, fielding, technology and capability insertion for Live Training Systems (LTS) to include: the Combat Training Centers-Instrumentation Systems (CTC-IS), Integrated Military Operations in Urbanized Terrain Training System (IMTS),Home Station Instrumentation Systems (HITS), Digital Ranges Training System (DRTS) training instrumentation programs and the Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) interoperability initiatives. <b>FY 2018 Base Plans:</b> Continue development of CTIA to provide the common architecture capabilities that are essential for development, fielding, technology and capability insertion for Live Training Systems (LTS) to include: the Combat Training Centers-Instrumentation Systems (CTC-IS), Integrated Military Operations in Urbanized Terrain Training System (IMTS),Home Station Instrumentation Systems (HITS), Digital Ranges Training System (DRTS) training instrumentation programs and the Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) interoperability initiatives.						
<b>Title:</b> Government Program Management for the Common Training Instrumentation Architecture (CTIA) program. <b>Description:</b> Government Program Management for the CTIA program. <b>FY 2016 Accomplishments:</b> Completed various efforts pertaining to Program Management for the Common Training Instrumentation Architecture (CTIA) program such as guidance and oversight, project coordination, meetings/site visits, etc. <b>FY 2017 Plans:</b> Program Management for the Common Training Instrumentation Architecture (CTIA) program. <b>FY 2018 Base Plans:</b> Program Management for the Common Training Instrumentation Architecture (CTIA) program.		0.364	0.334	0.283	-	0.283
<b>Title:</b> Engineering and Manufacturing Development (EMD) phase contract activity for the Combat Training Center Instrumentation System (CTC-IS).		2.665	5.554	3.362	-	3.362

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Description: Continue EMD phase contract activities for the CTC-IS.						
FY 2016 Accomplishments: Combat Training Center Instrumentation System (CTC-IS) funded 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). Funding will be used to develop a common Range Communications System (RCS) that can be implemented at all both NTC and JRTC for increased entity tracking coverage and accuracy in order to increase After Action Review fidelity for Brigade Combat Team rotations to better prepare units for deployment.						
FY 2017 Plans: Combat Training Center Instrumentation System RDTE funding will focus on both architectures to support future instrumentation systems such as the Common Domain Solution (CDS) and IS Preparation; RDTE will provide up front analysis of new technologies and efficiencies needed to make Continuous Technology Refresh decisions that will reduce the Total logistical footprint of the system, improve reliability and performance and reduce cost of the system over its Total Life Cycle. These analysis will also focus on pre-positioning needed architectures and design to support the future IS.						
FY 2018 Base Plans: Combat Training Center Instrumentation System (CTC-IS) will fund 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). Funding will also be used 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.						
Title: Government Program Management for the Combat Training Center Instrumentation System (CTC-IS) program.		0.974	1.546	1.440	-	1.440
Description: Government Program Management for the CTC IS program.						
FY 2016 Accomplishments: Program Management for the Combat Training Center Instrumentation System (CTC-IS) program.						
FY 2017 Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Program Management for the Combat Training Center Instrumentation System (CTC-IS) program; providing support of program office management and administrative processes. <b>FY 2018 Base Plans:</b> Program Management for the Combat Training Center Instrumentation System (CTC-IS) program.						
<b>Title:</b> Government Program Management for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) Program. <b>Description:</b> Government Program Management for the I-MILES program. <b>FY 2017 Plans:</b> Government Program Management cost for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) Program. This is the first year of RDTE for the I-MILES program. <b>FY 2018 Base Plans:</b> Government Program Management cost for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) Program. This is the second year of RDTE for the I-MILES program.		-	0.304	0.319	-	0.319
<b>Title:</b> Engineering and Manufacturing Development (EMD) phase contract activity for the Instrumentable-Multiple Integrated Laser Engagement System (I-MILES). <b>Description:</b> EMD phase contract activities for the I-MILES program. <b>FY 2017 Plans:</b> RDTE funding will assist in analyzing, developing and testing the Live Training Engagement Composition (LTEC) and integration of the Tactical Engagement Simulation (TES) Componentized Architecture into existing and new I-MILES capabilities to improve training realism during Force on Force (FoF) training increasing performance and reducing overall lifecycle costs. RDTE reduces the risk of integration into vehicle weapon platforms and Vehicular Integration for C4ISR/EW Interoperability (VICTORY) Architecture while maintaining relevancy into emerging Weapon Systems (Joint Lite Tactical Vehicle (JLTV), Armored Multi-Purpose Vehicle (AMPV), Stryker Engineering Change Proposal (ECP) with 30mm Gun). RDTE will assist in maintaining I-MILES relevancy as the Army premier Live Force-on-Force training system. This is the first year of RDTE for the I-MILES program. <b>FY 2018 Base Plans:</b> RDTE funding will assist in analyzing, developing and testing the Live Training Engagement Composition (LTEC) and integration of the Tactical Engagement Simulation (TES) Componentized Architecture into existing and new		-	1.041	2.611	-	2.611



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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
I-MILES capabilities to improve training realism during Force on Force (FoF) training increasing performance and reducing overall lifecycle costs. RDTE reduces the risk of integration into vehicle weapon platforms and Vehicular Integration for C4ISR/EW Interoperability (VICTORY) Architecture while maintaining relevancy into emerging Weapon Systems (Joint Lite Tactical Vehicle (JLTV), Armored Multi-Purpose Vehicle (AMPV), Stryker Engineering Change Proposal (ECP) with 30mm Gun). RDTE will assist in maintaining I-MILES relevancy as the Army premier Live Force-on-Force training system. This is the second year of RDTE for the I-MILES program.						
<b>Title:</b> Engineering and Manufacturing Development (EMD) phase contract activity for the Home Station Instrumentation Training System (HITS) program.  <b>Description:</b> EMD phase contract activities for the HITS program.  <b>FY 2016 Accomplishments:</b> Integrated and tested the interface between HITS (v3 and v4) and the latest versions of the Live, Virtual, and Constructive Integrating Architecture (LVC-IA v2.0) to sustain the Integrated Training Environment (ITE) at Home Stations.  <b>FY 2017 Plans:</b> Develop, integrate, and test the HITS interfaces with new versions of the Tactical Engagement Simulation System (TESS) (ex. VTESS) and provide upgrades to existing fielded Instrumentable-Multiple Laser Engagement System (I-MILES).  <b>FY 2018 Base Plans:</b> Integrate and test the interface between HITS (v3 and V4) and the latest versions of the Live, Virtual and Constructive Integrating Architecture (LVC-IA 3.0) to sustain the Integrated Training Environment (ITE) at Home Stations.		1.484	1.683	1.646	-	1.646
<b>Title:</b> Government Program Management for the Home Station Instrumentation System (HITS) program.  <b>Description:</b> Government Program Management for the Home Station Instrumentation System (HITS) program.  <b>FY 2016 Accomplishments:</b> Program Management for the Home Station Instrumentation System (HITS) program.  <b>FY 2017 Plans:</b>		0.300	0.307	0.316	-	0.316

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Program Management for the Home Station Instrumentation System (HITS) program.						
FY 2018 Base Plans: Program Management for the Home Station Instrumentation System (HITS) program.						
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Medical Simulation Training Center (MSTC).  Description: EMD phase contract activities for the MSTC program.		1.405	0.530	0.200	-	0.200
FY 2016 Accomplishments: Tactical Combat Casualty Care (TC3) contract awarded for the Rapid Equipping Force TC3 initiative to integrate and field the TC3 packages to 8 deploying Brigades. This is part of the EMD effort to evaluate the correct configuration of equipment and training support package for a follow-on Tactical Combat Casualty Care - Exportable (TC3-X) Package. Medical Training Command & Control (MT-C2) developmental contract awarded; seeks to automate the heavily weighted manually controlled MSTC control center and provide a standardized design and training methodology providing a framework fitted to reconfigurable enabling technology and supporting training devices that maximize training effectiveness for both classroom and full tactical training capabilities.						
FY 2017 Plans: Enhancement of Birthing Simulator by developing realistic simulated tissue and sensors that will gather objective metrics regarding pressure, fetal position, etc. Enhancement of Intraosseous Fluid Resuscitation Training by including anatomical accuracy, tissue properties, and rapid refresh of the system to support high training OPTEMPO.						
FY 2018 Base Plans: Enhancement of the Instructor Support System (ISS) by improving the combat training environments to enhance the Soldier's training experience through more realistic training scenarios.						
Title: Government Program Management for the Medical Simulation Training Center (MSTC) program.  Description: Government Program Management for the MSTC program.		0.177	0.167	0.167	-	0.167
FY 2016 Accomplishments: Government Program Management for the Medical Simulation Training Center (MSTC) program.						
FY 2017 Plans:						

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Government Program Management for the Medical Simulation Training Center (MSTC) program.						
FY 2018 Base Plans: Government Program Management for the Medical Simulation Training Center (MSTC) program.						
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Engagement Skills Trainer (EST) program.  Description: EMD phase contract activities for the Engagement Skills Trainer (EST) program.		1.143	1.002	-	-	-
FY 2016 Accomplishments: Developed EST Dynamic Terrain to accurately portray all battlefield effects, in accordance with the Contemporary Operating Environment (COE), across the full range of military operations including: friendly and enemy forces and their doctrine, tactics, techniques and procedures; all military recognized terrain; atmospheric and weather conditions; specific enemy and friendly vehicles and equipment; dynamic, correlated terrain; the effects of munitions on personnel, vehicles, structures; and develop prior years efforts (weapons, optics, etc). Developed enhanced capabilities in accordance with the capability manager's priorities.						
FY 2017 Plans: Will continue to develop EST Dynamic Terrain to accurately portray all battlefield effects, in accordance with the Contemporary Operating Environment (COE), across the full range of military operations including: friendly and enemy forces and their doctrine, tactics, techniques and procedures; all military recognized terrain; atmospheric and weather conditions; specific enemy and friendly vehicles and equipment; dynamic, correlated terrain; the effects of munitions on personnel, vehicles, structures; and develop prior years efforts (weapons, optics, etc). Develop enhanced capabilities in accordance with the capability manager's priorities.						
Title: Call For fire Trainer (CFFT) Program Government System Test and Evaluation.  Description: Government System Test and Evaluation for the Call For fire Trainer (CFFT) Program.		-	1.314	-	-	-
FY 2017 Plans: Develop updates to maintain currency of the CFFT in order to meet the needs of the operational and institutional force, informed by the Modernization of Force initiative including precision engagement and tactical software interoperability.						
Title: Live, Virtual, Constructive Integrating Architecture (LVC-IA) Engineering and Manufacturing Development (EMD) phase contract activity.		5.706	4.429	2.762	-	2.762

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<b>Description:</b> Continue EMD phase contract activities for the LVC-IA program.								
<b>FY 2016 Accomplishments:</b> Live, Virtual, and Constructive - Integrating Architecture (LVC-IA) program successfully completed system integration and testing to include Government Acceptance Testing (GAT) and First User Assessment (FUA) of Version 2 capability. The program began design and development of LVC-IA Version 3 capability.								
<b>FY 2017 Plans:</b> Continue system development, integration and demonstration of the LVC-IA Version 3 capability.								
<b>FY 2018 Base Plans:</b> Live, Virtual, and Constructive – Integrating Architecture (LVC-IA) program will complete system development, integration and demonstration of the LVC-IA Version 3 capability. Additionally, LVC-IA will perform concurrency activities in support of LVC-IA interoperability with TADSS and other Mission Command Systems. The program will begin design and development of LVC-IA Version 4 capability.								
<b>Title:</b> Government Program Management for the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Program.				1.181	1.782	1.679	-	1.679
<b>Description:</b> Government Program Management for the LVC-IA Program.								
<b>FY 2016 Accomplishments:</b> Provided program management, engineering and technical oversight, contract support, and travel for the LVC-IA Program.								
<b>FY 2017 Plans:</b> Will provide program management, engineering and technical oversight, contract support, and travel for the LVC-IA Program.								
<b>FY 2018 Base Plans:</b> Will provide program management, engineering and technical oversight, contract support, and travel for the LVC-IA Program.								
<b>Title:</b> Live, Virtual, Constructive Integrating Architecture (LVC-IA) Program Government System Test and Evaluation.				1.133	2.199	2.372	-	2.372
<b>Description:</b> Government System Test and Evaluation for the LVC-IA Program.								

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Army				Date: May 2017		
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		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<p><b>FY 2016 Accomplishments:</b> LVC-IA continued integration testing support on developed components for LVC-IA for interoperability with TADSS and other Mission Command Systems. LVC-IA conducted Federation Integration, Functional Verification and System Measurement of Performance (SMP) events, completed Test Readiness Review (TRR) and Government Acceptance Testing for Version 2. The program began efforts for Version 3 in FY16 upon the completion of Version 2.</p> <p><b>FY 2017 Plans:</b> LVC-IA will continue integration testing and evaluation activities in support of LVC-IA interoperability with TADSS and other Mission Command Systems. LVC-IA will conduct Federation Integration Events in preparation for final test activities for Version 3.</p> <p><b>FY 2018 Base Plans:</b> LVC-IA will finalize Federation Integration, Functional Verification and System Measurement of Performance (SMP) events, complete Test Readiness Review (TRR) and Government Acceptance Testing for Version 3; the program will begin efforts for Version 4 in FY18 once Version 3 efforts are completed. Additionally, LVC-IA will continue integration testing and evaluation activities in support of LVC-IA interoperability with TADSS and other Mission Command Systems.</p>						
<p><b>Title:</b> Engineering and Manufacturing Development (EMD) phase contract activity for the Target Modernization program.</p> <p><b>Description:</b> EMD phase contract activities for the Target Modernization program.</p> <p><b>FY 2016 Accomplishments:</b> Developed and integrated trackless moving type targets with behavioral capabilities into the Government owned target control system Targetry Range Automated Control and Recording (TRACR). The design includes a trackless target that can be utilized on unimproved terrain, and is capable of independent behaviors based on training doctrine, skills, readiness and style of learning to enhance realism and feedback for the Soldier. Bridge technology transition from an on-going SBIR effort that began in FY13.</p> <p><b>FY 2017 Plans:</b></p>		1.929	2.054	2.237	-	2.237

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Army			Date: May 2017			
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				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Continuation of FY16 efforts to develop and integrate autonomous trackless moving type targets with behavioral capabilities into the Government owned target control system Targetry Range Automated Control and Recording (TRACR). Transition technology to the Future Army System of Integrated Targets (FASIT) Program.  <b>FY 2018 Base Plans:</b> Finalization of the trackless moving type target effort initiated in FY16 via development and testing of Technology Readiness Level (TRL) 9 prototype systems. Prepare system for transition into low rate initial production, and eventual transition to various programs of record. Start the design and development of a dynamic infrared representation capability to display real-time posture based, high fidelity IR/thermal images on target silhouettes. Advance thermal threat images to match thermal sight capabilities. Removes thermal generation systems from line of fire on ranges. Bridge technology transition from an on-going SBIR effort that began in FY15.						
<b>Title:</b> Comprehensive Soldier & Family Fitness (CSF2)  <b>Description:</b> Comprehensive Soldier & Family Fitness (CSF2), the Army community's premier resilience and health training program.  <b>FY 2016 Accomplishments:</b> Developed, tested, and implemented a variety of psychometric instruments administered on an electronic world-wide delivery platform; evaluation of CSF2 training effectiveness at influencing objective outcomes in the health and work performance domains; applying advanced statistical analysis techniques to emerging human subjects problems identified by the Army senior leadership (e.g., suicide, violent crime, sexual assault / harassment, etc).		1.254	-	-	-	-
<b>Title:</b> Soldier Fitness Program  <b>Description:</b> Dollars belong to the Soldier Fitness Program.  <b>FY 2017 Plans:</b> Dollars belong to Soldier Fitness Program.  <b>FY 2018 Base Plans:</b> Dollars belong to the Soldier Fitness Program.		-	0.973	0.892	-	0.892
<b>Title:</b> Suicide Prevention Program  <b>FY 2018 Base Plans:</b> Dollars belong to the Suicide Prevention Program.		-	-	2.228	-	2.228
<b>Title:</b> Government Program Management for the Soldier Virtual Trainer Program (SVT)		-	-	0.051	-	0.051

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Army				Date: May 2017		
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		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Description: New start - Government program management for SVT in FY18.						
FY 2018 Base Plans: Government Program Management costs for the Soldier Virtual Trainer (SVT) Program which is a new start in FY18.						
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Digital Range Training System (DRTS) Description: EMD Phase for the DRTS Program		-	-	1.600	-	1.600
FY 2018 Base Plans: RDTE funding will be used to begin the development of a prototype for the Digital Range Training System (DRTS) at Ft. Benning of the Service Oriented Architecture (SOA) based Common Training Instrumentation Architecture (CTIA) version 4 software product line. Effort will focus on prototyping and validating the new software on IT equipment and demonstrating that the DRTS capabilities are still supported. In addition, funding will be used to develop a prototype Integrated Player Unit (IPU) for the DRTS system that combines the multiple boxes used today into one unit, makes the IPU more rugged to withstand the operational environment, and makes the system easier and faster to install. This will make the DRTS more usable by the training units and easier to support. This is the first year of RDTE for the DRTS program.						
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the OPFOR Integrated Air Defense System (IADS) Description: EMD phase contract activities for the IADS Program		-	4.812	15.946	-	15.946
FY 2017 Plans: Begin development of the modification of the Apache Helicopter capability to train against the OPFOR Integrated Air Defense System (IADS). Funding will also support the addition of embedded software to model the Aircraft Survivability Equipment (ASE) and stimulate the helicopter display to inform pilots of opposing threats. Modification efforts will improve capability and integrate the inserted software into the Combat Training Centers (CTC), to support force on force collective training exercises. This is the first year of RDTE for the IADS program.						
FY 2018 Base Plans:						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Army										Date: May 2017		
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				
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
RDTE funding will support the ongoing modification of the Apache Helicopter capability to train against the OPFOR Integrated Air Defense System (IADS). Funding will also support the addition of embedded software to model the Aircraft Survivability Equipment (ASE) and stimulate the helicopter display to inform pilots of opposing threats. Modification efforts will also expand the capability to the Blackhawk and Chinook Helicopters while integrating the software into the Combat Training Centers (CTC), to support force on force collective training exercises.												
Title: Government Program Management for the OPFOR Integrated Air Defense System (IADS) Program								-	0.188	0.554	-	0.554
FY 2017 Plans: Will provide program management, engineering and technical oversight, contract support, and travel for the IADS Program. This is the first year of RDTE for the IADS Program.												
FY 2018 Base Plans: Will provide program management, engineering and technical oversight, contract support, and travel for the IADS Program.												
Accomplishments/Planned Programs Subtotals								23.833	32.769	43.575	-	43.575
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• Training Devices, Non-System (OPA): Training Devices, Non-System (OPA)	278.141	253.050	262.989	2.700	265.689	245.769	199.757	188.341	186.199	Continuing	Continuing	
• CTC Support (OPA): CTC Support (OPA)	74.916	80.708	88.888	-	88.888	80.941	112.049	105.120	97.824	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
Competitive development efforts based on performance specifications.												
1. In FY17, Combat Training Center Instrumentation Systems (CTC-IS) System RDTE funding will be used for development of a Cross Domain Solution (CDS) needed due to new IA requirements; will award a new delivery order (DO) to General Dynamics Missions Systems under the Live Training Transformation Consolidated Product-line Management Next (LT2 CPM Next) contract. CPM Next was completed as a Competitive 5 year Single Award Indefinite-Delivery/Indefinite-Quantity (IDIQ) Contract, the DO will have a one-year base and four single-year option period. In FY18, CTC-IS System RDTE funding will be used to fund a Life Cycle Product-line Management												



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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Army		<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	<b>Project (Number/Name)</b> 241 / <i>Nstd Combined Arms</i>
<p>(LCPM) contract structured as a 5 year Single Award Indefinite-Delivery/Indefinite-Quantity (IDIQ) Contract for the implementation of a Hardware Product Line (HPL), the contractor is to be 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.</p> <p>2. In FY17, Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) will award a new delivery order (DO) to General Dynamics Mission Systems on the Live Training Transformation Consolidated Product-line Management Next (LT2 CPM Next) contract which will provide flexibility for unknown requirements and will address the known requirements that fall within multiple categories: Architecture Maturation; Common Operating Environment (COE); Embedded Training; System level testing of existing and future Live Training Engagement Composition (LTEC) services for dismount and vehicle use cases; Architecture Verification/Validation of LTEC and a componentized architecture; Retrofitting I-MILES systems (Individual Weapons System 1 &amp; 2 (IWS), Tactical Vehicle System (TVS), Combat Vehicle Tactical Engagement Simulation System (CVTESS)) with LTEC and Live Player Area Network (LPAN); Development, Integration, Form, Fit &amp; Function for new vehicles/systems platforms. In FY18, I-MILES will award a new Competitive 5 year Single Award Indefinite-Delivery/Indefinite-Quantity (IDIQ) Contract for relevancy.</p> <p>3. In FY16, the Home Station Instrumentation Training System (HITS) program awarded a delivery order (DO) to General Dynamics Missions Systems under the LT2 CPM Next contract. The DO has a one-year base and four single-year option periods beginning in January 2016.</p> <p>4. In FY15, the Common Training Instrumentation Architecture (CTIA) program awarded a contract to General Dynamics Mission Systems which has a one-year base and four single-year option periods through FY20.</p> <p>5. In FY17, the Target Modernization (Target Mod) program will incrementally fund the Phase III SBIR contract to Pratt and Miller Engineering Trackless Moving Target (TMT) contract which has a one year base and two year options periods. The contract provides for the continued product development (from TRL 7 to TRL 9). The original effort was initiated under a Small Business Innovation Research (SBIR) contract. In FY18, Target Mod will award a Phase III SBIR to JRM Enterprises to initiate the maturation of the Dynamic Infrared Representation system (TRL 7 to TRL 9).</p> <p>6. In FY10, the Live, Virtual, Constructive Integrating Architecture (LVC-IA) program awarded a contract to Cole Engineering and Science, Inc. (CESI) which had a two-year base and three single-year option periods beginning in June 2010. The contract provided for the development, fielding and training of each version capability to the designated Basis of Issue Plan (BOIP) sites and provided Post-Deployment Software Support (PDSS) for all currently fielded versions. The LVC-IA Enhanced Capability contract is the competitively awarded follow-on effort awarded in 3rd Quarter FY16. This contract has a two-year base and four single-year option periods to provide the additional capabilities for Version 3 and beyond.</p> <p>7. Soldier Virtual Trainer (SVT) is a new start in FY18 and program will competitively award an IDIQ contract with five option years in FY19. The contract will be a firm fixed price contract.</p> <p>8. Digital Range Training System (DRTS) will award two standalone delivery orders (DO) to General Dynamics Mission Systems which will be 12-month prototyping efforts. This is the first year of RDTE for this program.</p> <p>9. In FY17, OPFOR Integrated Air Defense System (IADS) will award a new standalone contract with a base, plus 4 option year periods.</p> <p>10. In FY16 Medical Training Command and Control (MTC2) development Cost-Plus-Fixed Fee contract awarded to General Dynamics with 3 options for the Medical Simulation Training Centers (MSTC) program. In FY17 MTC2 options exercised, Partial Medical Training Evaluation System (MTES) contract will be exercised.</p> <p><b>E. Performance Metrics</b> N/A</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Army												Date: May 2017			
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					
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
OneTESS Program Management	Various	PEO STRI : Orlando, FL	8.046	-		-		-		-		-	0.000	8.046	8.046
OneTESS Program Management	Various	PEO STRI, : Orlando, FL	2.040	-		-		-		-		-	0.000	2.040	2.040
HITS Program Management	Various	PEO STRI : Orlando, FL	0.500	0.300	Nov 2015	0.307	Jan 2017	0.316	Nov 2017	-		0.316	Continuing	Continuing	Continuing
CTC-IS Program Management	Various	PEO STRI : Orlando, FL	5.251	0.974	Nov 2015	1.546	Dec 2016	1.440	Nov 2017	-		1.440	Continuing	Continuing	Continuing
MSTC Program Management	Various	PEO STRI : Orlando, FL	0.455	0.177	Nov 2015	0.167	Mar 2017	0.167	Nov 2017	-		0.167	Continuing	Continuing	Continuing
I-MILES Program Management	Various	PEO STRI : Orlando, FL	0.000	-		0.304	Dec 2016	0.319	Oct 2017	-		0.319	Continuing	Continuing	Continuing
EST Program Management	Various	PEO STRI : Orlando, FL	0.214	-		-		-		-		-	0.000	0.214	0.214
LVC-IA Program Management	Various	PEO STRI : Orlando, FL	5.824	1.181	Nov 2015	1.782	Dec 2016	1.679	Nov 2017	-		1.679	Continuing	Continuing	Continuing
Target Modernization	Various	PEO STRI : Orlando, FL	0.614	-		-		-		-		-	0.000	0.614	0.614
ETC-IS Program Management	Various	PEO STRI : Orlando, FL	0.164	-		-		-		-		-	0.000	0.164	0.164
CTIA	Various	PEO STRI : ORLANDO, FL	0.000	0.364	Oct 2015	0.334	Oct 2016	0.283	Oct 2017	-		0.283	Continuing	Continuing	Continuing
Soldier Fitness Program	TBD	Multiple : Various	0.000	1.254		0.973		0.892	Jun 2018	-		0.892	0.000	3.119	3.119
Suicide Prevention	TBD	Multiple : Various	0.000	-		-		2.228	Jun 2018	-		2.228	0.000	2.228	2.228
SVT Program Management	Various	PEO STRI : Orlando, FL	0.000	-		-		0.051	Oct 2017	-		0.051	Continuing	Continuing	Continuing
OPFOR Integrated Air Defense System (IADS) Program Management	Various	PEO STRI : Orlando, FL	0.000	-		0.188	Aug 2017	0.554	Oct 2017	-		0.554	Continuing	Continuing	Continuing
Subtotal			23.108	4.250		5.601		7.929		-		7.929	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Army</b>												<b>Date: May 2017</b>			
<b>Appropriation/Budget Activity</b> 2040 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>						<b>Project (Number/Name)</b> 241 / <i>Nstd Combined Arms</i>			
<b>Product Development (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
OneTESS	SS/CPFF	General Dynamics : Fairfax, VA	124.769	-		-		-		-		-	0.000	124.769	124.769
OneTESS	SS/CPFF	General Dynamics C4 Systems : Orlando, FL 32826	10.430	-		-		-		-		-	0.000	10.430	10.430
CTIA	Option/ IDIQ	General Dynamics Mission Systems : Orlando, FL	9.371	4.118	May 2016	2.550	Jan 2017	2.910	Jan 2018	-		2.910	Continuing	Continuing	Continuing
CTIA	C/CPFF	Lockheed Martin Inc. : Orlando, FL	57.091	-		-		-		-		-	0.000	57.091	57.091
I-MILES	Option/ IDIQ	General Dynamics Mission Systems : Orlando, FL	0.000	-		1.041	Mar 2017	-		-		-	0.000	1.041	1.041
I-MILES RELAVANCY	SS/IDIQ	TBD : TBD	0.000	-		-		2.611	May 2018	-		2.611	Continuing	Continuing	Continuing
CTC-IS	C/IDIQ	General Dynamics Mission Systems : Orlando, FL	32.481	2.665	Mar 2016	2.232	Jan 2017	-		-		-	0.000	37.378	37.041
CTC-IS	C/IDIQ	TBS : TBS	0.000	-		3.322	Jul 2017	3.362	Jul 2018	-		3.362	Continuing	Continuing	Continuing
HITS	C/FFP	Riptide : Orlando, FL	1.379	-		-		-		-		-	0.000	1.379	1.379
HITS	C/IDIQ	General Dynamics Mission Systems : Orlando, FL 32826	1.625	1.484	Jan 2016	-		-		-		-	0.000	3.109	3.109
HITS	Option/ IDIQ	General Dynamics Mission Systems (GDMS) : Orlando, FL 32826	0.000	-		1.683	Jan 2017	1.646	Jan 2018	-		1.646	Continuing	Continuing	Continuing
MSTC Development	C/FP	Multiple : Various	3.034	1.405	Sep 2016	0.530	Mar 2017	0.200	Mar 2018	-		0.200	Continuing	Continuing	Continuing
EST Development	C/FP	Cubic Simulation Systems, Inc. : Orlando, FL 32809-3813	1.528	-		-		-		-		-	0.000	1.528	1.528

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Army												Date: May 2017			
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 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
EST	C/FP	Nova Technologies : Panama City, FL 32404-6747	0.609	-		-		-		-		-	0.000	0.609	0.609
EST Enhanced Capabilities	C/FFP	Meggitt Training Systems, Inc. : Suwanee, GA 30024-1247	0.000	1.143	Apr 2016	1.002	Mar 2017	-		-		-	0.000	2.145	2.145
EST Enhanced Capabilities Adaptive Marksmanship and Intelligent Tutoring	C/FFP	Dignitas Technologies : Orlando, FL 32817	0.776	-		-		-		-		-	0.000	0.776	0.776
CFFT Enhanced Joint Fires Observer (JFO) Training and Certification Requirements	C/IDIQ	Nova Technologies : Panama City, FL 32404-6747	0.000	-		1.314	Apr 2017	-		-		-	0.000	1.314	1.314
LVC-IA Development	C/CPFF	Cole Engineering Services, Inc : Orlando, FL	29.822	-		-		-		-		-	0.000	29.822	29.822
LVC-IA Enhanced Capability	C/CPFF	Cole Engineering Services, Inc (CESI) : Orlando, FL	0.000	5.706	Jun 2016	-		-		-		-	0.000	5.706	5.706
LVC-IA Enhanced Capability	Option/ CPFF	Cole Engineering Services, Inc (CESI) : Orlando, FL	0.000	-		4.429	Feb 2017	2.762	Nov 2017	-		2.762	Continuing	Continuing	Continuing
Target Modernization	C/IDIQ	Pratt and Miller Engineering : Orlando, FL	4.671	1.929	Nov 2016	-		-		-		-	0.000	6.600	6.600
Target Modernization	Option/ IDIQ	Pratt and Miller Engineering (P&M) : Orlando, FL	0.000	-		2.054	Feb 2017	1.000	Feb 2018	-		1.000	Continuing	Continuing	Continuing
Target Modernization	C/CPFF	JRM Enterprises : Fredericksburg, VA	0.000	-		-		1.237	Jul 2018	-		1.237	Continuing	Continuing	Continuing
Congressional Add Center of Excellence for Military	C/FP	Multiple : Various	2.996	-		-		-		-		-	0.000	2.996	2.996

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Army</b>												<b>Date: May 2017</b>			
<b>Appropriation/Budget Activity</b> 2040 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>						<b>Project (Number/Name)</b> 241 / <i>Nstd Combined Arms</i>			
<b>Product Development (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Operations in Urban Terrain and Cultural Trn															
ETC-IS	SS/CPFF	General Dynamics C4 Systems : Orlando, FL 32826	4.836	-		-		-		-		-	0.000	4.836	4.836
Digital Range Training System (DRTS)	C/FFP	General Dynamics Mission Systems : Orlando, FL	0.000	-		-		1.600	Mar 2018	-		1.600	Continuing	Continuing	Continuing
OPFOR Integrated Air Defense System (IADS)	C/TBD	To Be Determined : Orlando, FL	0.000	-		4.812	Sep 2017	14.346	Jan 2018	-		14.346	Continuing	Continuing	Continuing
<b>Subtotal</b>			285.418	18.450		24.969		31.674		-		31.674	-	-	-
<b>Support (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
OneTESS	Various	Various : Orlando, FL	6.596	-		-		-		-		-	0.000	6.596	6.596
OneTESS	Various	Various : Various	0.262	-		-		-		-		-	0.000	0.262	0.262
CTIA	Various	Various : Various	12.844	-		-		-		-		-	0.000	12.844	12.844
Target Modernization	Various	Various : Various	0.192	-		-		-		-		-	0.000	0.192	0.192
<b>Subtotal</b>			19.894	-		-		-		-		-	0.000	19.894	19.894
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
OneTESS Development & Test	Various	Multiple : Orlando, FL	4.162	-		-		-		-		-	0.000	4.162	4.162
OneTESS Test Support	Various	Multiple : Orlando, FL	1.280	-		-		-		-		-	0.000	1.280	1.280
HITS	Various	Various : Orlando, FL	0.740	-		-		-		-		-	0.000	0.740	0.740

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Army												Date: May 2017			
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					
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
LVC-IA Test Support	Various	Multiple : Orlando, FL	4.169	1.133	Jun 2016	2.199	Feb 2017	2.372	Nov 2017	-		2.372	Continuing	Continuing	Continuing
IEDES	Various	Multiple : Orlando, FL	0.519	-		-		-		-		-	0.000	0.519	0.519
OPFOR Integrated Air Defense System (IADS)	Various	Multiple : Orlando, FL	0.000	-		-		1.600	Jul 2018	-		1.600	Continuing	Continuing	Continuing
Subtotal			10.870	1.133		2.199		3.972		-		3.972	-	-	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			339.290	23.833		32.769		43.575		-		43.575	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Army																				Date: May 2017								
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										
Event Name	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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																												
CTC IS Development																												
I-MILES Development																												
I-MILES RELAVANCY																												
HITS Development																												
MSTC MT-C2 Development																												
MSTC Trainer Developments																												
EST Enhanced Capabilities Adaptive Marksmanship and Intelligent Tutoring																												
EST Enhanced Capabilities																												
CFFT Enhanced Joint Fires Observer (JFO) Training and Certification Requirements																												
LVC-IA - Version 2 (Development, Integration, Demonstration and Testing)																												
LVC-IA - Version 3 (Development, Integration, Demonstration and Testing)																												
LVC-IA - Version 4 (Development, Integration, Demonstration and Testing)																												

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**Exhibit R-4, RDT&E Schedule Profile: FY 2018 Army**

**Date:** May 2017

### 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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<b>Exhibit R-4A, RDT&amp;E Schedule Details: FY 2018 Army</b>			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604715A / <i>Non-System Training Devices - Eng Dev</i>	<b>Project (Number/Name)</b> 241 / <i>Nstd Combined Arms</i>	

**Schedule Details**

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
CTIA Development and Architectural Evolution	1	2012	4	2023
CTC IS Development	1	2010	4	2022
I-MILES Development	2	2017	2	2018
I-MILES RELAVANCY	2	2018	4	2022
HITS Development	3	2012	4	2023
MSTC MT-C2 Development	2	2016	1	2018
MSTC Trainer Developments	2	2017	4	2021
EST Enhanced Capabilities Adaptive Marksmanship and Intelligent Tutoring	3	2015	2	2016
EST Enhanced Capabilities	3	2016	2	2018
CFFT Enhanced Joint Fires Observer (JFO) Training and Certification Requirements	2	2017	3	2018
LVC-IA - Version 2 (Development, Integration, Demonstration and Testing)	1	2014	3	2016
LVC-IA - Version 3 (Development, Integration, Demonstration and Testing)	4	2016	3	2018
LVC-IA - Version 4 (Development, Integration, Demonstration and Testing)	4	2018	2	2020
Target Modernization Development	1	2016	4	2022
CSF2	1	2015	4	2016
SVT - Development	3	2018	4	2021
Digital Range Training System (DRTS)	2	2018	4	2019
OPFOR Integrated Air Defense System (IADS)	4	2017	4	2021

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### Note

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### A. Mission Description and Budget Item Justification

In support of Non-System Training Devices (NSTD), this project funds the US Army Program Executive Officer Simulation, Training and Instrumentation (PEO STRI) core operations supporting development of Army training devices and simulations by PEO STRI project managers (PM TRADE, PM ITTS, and PM ITE).

FY 2018, per Program Decision Memorandum (PDM) directed Major Army Headquarters Realignment, is the first year that realigns Government authorizations and associated funding to an Army Management Headquarter Account (AMHA), which zeroed out the funding in FY 2018.

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

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<p><b>Title:</b> Government Program Management to support PEO STRI.</p> <p><b>Description:</b> Government Program Management to support PEO STRI.</p> <p><b>FY 2016 Accomplishments:</b> Government Program Management supported PEO STRI labor for project managers in PM TRADE, PM ITTS, and PM ITE.</p> <p><b>FY 2017 Plans:</b> Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, and PM ITE.</p>	2.935	3.038	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	2.935	3.038	-	-	-

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

N/A

### Remarks

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604715A / Non-System Training Devices - Eng Dev	Project (Number/Name) 573 / Program Executive Office Simulation, Training Spt
D. Acquisition Strategy N/A		
E. Performance Metrics N/A		