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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army	Date: February 2015
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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 6: RDT&E Management Support	R-1 Program Element (Number/Name) PE 0604759A / Major T&E Investment											
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	38.534	56.285	62.580	-	62.580	55.243	67.568	66.023	68.707	-	-
983: Reagan Test Site (RTS) T&E Investments	-	7.500	5.912	7.529	-	7.529	7.222	7.287	7.467	7.507	-	-
984: Major Developmental Testing Instrumentation	-	25.544	47.849	48.093	-	48.093	36.863	48.101	49.748	52.207	-	-
986: Major Operational Test Instrumentation	-	5.490	2.524	6.958	-	6.958	11.158	12.180	8.808	8.993	-	-

Note

FY 2016 Resource Management Decision (RMD) to preserve Test Capability.

A. Mission Description and Budget Item Justification

This program funds the development and acquisition of major developmental test instrumentation for the U.S. Army Test and Evaluation Command's (ATEC) test activities: White Sands Test Center (WSTC), NM; Yuma Test Center, (YTC), AZ; Aberdeen Test Center (ATC), MD; Electronic Proving Ground (EPG), AZ; Redstone Test Center (RTC), AL; and for the Reagan Test Site (RTS) at the U.S. Army Kwajalein Atoll (USAKA), which is managed by the Space and Missile Defense Command. The program also funds development and acquisition of Operational Test Command's (OTC) major field instrumentation. Requirements for instrumentation are identified through a long range survey of project managers, Research Development and Engineering Centers (RDECs), and Battle Laboratories developing future weapon systems and the test programs that support these systems. Army testing facilities are also surveyed to determine major testing capability shortfalls.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	46.647	60.317	39.531	-	39.531
Current President's Budget	38.534	56.285	62.580	-	62.580
Total Adjustments	-8.113	-4.032	23.049	-	23.049
• Congressional General Reductions	-	-0.028			
• Congressional Directed Reductions	-	-4.004			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-6.697	-			
• SBIR/STTR Transfer	-1.416	-			
• Adjustments to Budget Years	-	-	23.049	-	23.049

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0604759A / Major T&E Investment				Project (Number/Name) 983 / Reagan Test Site (RTS) T&E Investments			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
983: Reagan Test Site (RTS) T&E Investments	-	7.500	5.912	7.529	-	7.529	7.222	7.287	7.467	7.507	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Range in a box - simulation over live study - ends in FY 2015.

A. Mission Description and Budget Item Justification

This activity funds improvement and modernization (I&M) for the Ronald Reagan Ballistic Missile Defense Test Site (RTS). Funding upgrades and combats parts obsolescence of the radars, telemetry, optics, range safety, communications, command/control and other equipment essential to meet requirements of the Services and DoD agencies and are crucial for investment protection of the sensor suite. These upgrades are critical both to maintain the required instrumentation suite and to allow successful collection of required data supporting test and evaluation assessments and operational decisions for the Army; Navy; Air Force; U.S. Strategic Command (STRATCOM); Missile Defense Agency (MDA); Defense Advanced Research Projects Agency (DARPA); National Aeronautics and Space Administration (NASA); and other customers. Reagan Test Site (RTS) located in the Republic of the Marshall Islands, is a remote, secure activity of the Major Range and Test Facility Base (MRTFB).

FY 2016 funding will enable RTS to continue to meet customer objectives and sustain the required instrumentation suite.

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

	FY 2014	FY 2015	FY 2016
Title: Radar Open Systems Architecture Refresh	0.050	0.100	0.500
Description: Funding is provided for the following effort.			
FY 2014 Accomplishments: Ensures the continued operation of Kiernan Reentry Measurement System (KREMS) radar sites by refreshing the design of the subsystems and replaces stale components with modern replacements.			
FY 2015 Plans: Continues operation of Kiernan Reentry Measurement System (KREMS) radar sites by refreshing the design of the subsystems and replaces stale components with modern replacements.			
FY 2016 Plans:			

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Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604759A / Major T&E Investment	Project (Number/Name) 983 / Reagan Test Site (RTS) T&E Investments		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Will continue operation of Kiernan Reentry Measurement System (KREMS) radar sites by refreshing the design of the subsystems and replaces stale components with modern replacements.				
Title: RTS Optics Modernization Program (ROMP) Description: Funding is provided for the following effort FY 2014 Accomplishments: Completed the deployment of the ROMP program		0.200	-	-
Title: Radar Reliability Improvement Program (RRI). Description: Funding is provided for the following effort FY 2015 Plans: Address critical RADAR issues related to component obsolescence and sustainment that require significant re-design to incorporate commercially available options. FY 2016 Plans: Will continue to address critical RADAR issues related to component obsolescence and sustainment that require significant re-design to incorporate commercially available options.		-	0.337	0.300
Title: Radar Computer and Software Refresh Description: Funding is provided for the following effort FY 2014 Accomplishments: Completed the deployment and testing of the MRCR program.		0.100	-	-
Title: Telemetry (TM) Modernization Study. Description: Funding is provided for the following effort FY 2014 Accomplishments: Continued extended software radio approach. FY 2015 Plans: Continues extended software radio approach. FY 2016 Plans:		0.510	2.050	2.840

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016
Will continue extended software radio approach.					
Title: Multiple Simultaneous Engagement (MSE) Flight Safety. Description: Funding is provided for the following effort FY 2014 Accomplishments: Started designing and implementing Range Safety Systems (RSS) upgrade of safety control system replacement. FY 2015 Plans: Continues design and implement RSS upgrade of safety control system replacement. FY 2016 Plans: Will continue design and implement RSS upgrade of safety control system replacement.			0.610	0.600	0.200
Title: Legacy Servo Upgrade Program. Description: Funding is provided for the following effort FY 2014 Accomplishments: Continued to replace and upgrade obsolete antenna serves and interlock systems at the RTS radars. FY 2015 Plans: Continues to replace and upgrade obsolete antenna serves and interlock systems at the RTS radars. FY 2016 Plans: Will continue to replace and upgrade obsolete antenna serves and interlock systems at the RTS radars			1.255	0.100	1.048
Title: Mission Data Network (MDN) Modernization. Description: MDN Modernization. FY 2014 Accomplishments: Continued new network architecture changes to improve on-toll bandwidth to support increasing custom requirements. FY 2015 Plans: Continues new network architecture changes to improve on-toll bandwidth to support increasing custom requirements. FY 2016 Plans: Will continue new network architecture changes to improve on-toll bandwidth to support increasing custom requirements.			0.906	0.350	0.500
Title: RTS Automation and Decision Support.			1.475	0.997	0.500

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Description: Funding is provided for the following effort FY 2014 Accomplishments: Continued addition of automation measures and more sophisticated algorithms to improve operator efficiency. FY 2015 Plans: Continues addition of automation measures and more sophisticated algorithms to improve operator efficiency. FY 2016 Plans: Will continue addition of automation measures and more sophisticated algorithms to improve operator efficiency.				
Title: TRADEX L-Band Modulator Description: Funding is provided for the following effort FY 2014 Accomplishments: Continued replacement tube-based modulator and legacy high-voltage power supply with a commercial solid-state unit. FY 2015 Plans: Continues replacement tube-based modulator and legacy high-voltage power supply with a commercial solid-state unit. FY 2016 Plans: Will continue replacement tube-based modulator and legacy high-voltage power supply with a commercial solid-state unit.		2.044	0.703	0.075
Title: Net Centric Operations Upgrade Description: Funding is provided for the following effort FY 2014 Accomplishments: Started development of a Program Management Plan for the upgrade of Net Centric Operations. FY 2015 Plans: Continues development of a Program Management Plan for the upgrade of Net Centric Operations. FY 2016 Plans: Start implementation of the Net Centric Operations upgrade per the program plan.		0.100	0.100	0.366
Title: Transmitter Reliability Improvements Description: Funding is provided for the following effort.		0.050	0.075	0.100

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
FY 2014 Accomplishments: Develops a Program Management Plan for the upgrade of Transmitter Reliability Improvements.				
FY 2015 Plans: Will continue to develop a Program Management Plan for the upgrade of Transmitter Reliability Improvements.				
FY 2016 Plans: Will continue implementation of the upgrade of Transmitter Reliability Improvements.				
Title: Optics Focal Plane Technology Replacement Study Description: Funding is provided for the following effort		0.200	0.200	0.400
FY 2014 Accomplishments: Condcut study into the use of a digital-pixel Focal Plane Array (DFPA) based cameras providing the potential to extend the wavelength coverage of RTS optics and provide an order of magnitude increase in integrated target signal when compared to existing COTS cameras.				
FY 2015 Plans: Will continue the study and prototype effort into the use of DFPA based cameras.				
FY 2016 Plans: Will continue the study and prototype effort into the use of DFPA based cameras.				
Title: Legacy Radar Replacement Study Description: Funding is provided for the following effort		-	0.100	0.100
FY 2015 Plans: Design and prototype a multi-static system and an approach that would be used to replace the legacy radars at the Range.				
FY 2016 Plans: Will continue design and prototype of a multi-static system and an approach that would be used to replace the legacy radars at the Range.				
Title: Self healing software and algorithms Description: Funding is provided for the following efforts		-	0.100	0.600
FY 2015 Plans:				

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
Provide automatic software algorithms and hardware healing approach to the range sensor subsystems.			
FY 2016 Plans: Will continue to provide automatic software algorithms and hardware healing approach to the range sensor subsystems.			
Title: Range in a box - simulation over live study		-	0.100
Description: Funding is provided for the following effort			-
FY 2015 Plans: Conduct studies into the improvement of the current deployed simulation system capability and providing the necessary interface layer allowing the testing of asset software, hardware models, and simulation.			
Accomplishments/Planned Programs Subtotals		7.500	5.912
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			
E. Performance Metrics			
N/A			

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Appropriation/Budget Activity 2040 / 6					R-1 Program Element (Number/Name) PE 0604759A / Major T&E Investment				Project (Number/Name) 984 / Major Developmental Testing Instrumentation			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
984: Major Developmental Testing Instrumentation	-	25.544	47.849	48.093	-	48.093	36.863	48.101	49.748	52.207	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The following programs are New Starts for FY16: Test Network Modernization, Applied Environments Modernization Program, Telemetry Systems Modernization and Future Wireless Network Program.

The Systems Test and Integration Laboratory (STIL) program completes in FY15.

A. Mission Description and Budget Item Justification

This project develops and acquires major test instrumentation to perform developmental testing of weapon systems at U. S. Army Test and Evaluation Command's (ATEC) activities which include: Yuma Test Center (YTC), AZ; Aberdeen Test Center (ATC), MD; Electronic Proving Ground (EPG), AZ; White Sands Test Center (WSTC), NM; Redstone Test Center (RTC), AL.

Projects are designated as a major test program based on their visibility, assessed relative technical risk (medium-high), schedule risk, cost (greater than \$1.5 Million per year or \$7.5 Million for the total project) and applicability to other mission areas or services. These projects are technically demanding, state-of-the-art, unique instrumentation assets or suites to meet the technology shortfalls, and generally result from development programs managed by a professional project management team.

Range Radar Replacement Program (RRRP) will replace obsolete tracking radars at Redstone Test Center (RTC), Aberdeen Test Center (ATC), White Sands Missile Range (WSMR) and Yuma Proving Ground (YPG) with modern instrumentation radars. Electromagnetic Environmental Effects (E3) Electromagnetic Radiation Effects (EMRE) Systems Modernization will upgrade equipment at the WSMR EMRE site where E3 testing is performed to evaluate survivability and vulnerability of military systems. Project will upgrade and replace signal transmitters, refurbish an anechoic test chamber, replace data acquisition equipment and install a new turntable to support test items. Nuclear Effects Test Capability Modernization upgrades nuclear facilities at White Sands Missile Range (WSMR). These upgrades include the Relativistic Electron Beam Accelerator (REBA), Fast Burn Reactor, Gamma Range Facility, Linear Electron Accelerator (LINAC), Electromagnetic Pulse and the Solar Furnace. Common Range Integrated Instrumentation System (CRIIS) Objective Program provides precision location instrumentation which will significantly increase the T&E ranges' capability to meet the test instrumentation needs of the tri-service range users. Test Network Modernization will upgrade existing test data networks to ensure infrastructures are capable of providing reliable and secure transport of data and communications for ATEC test activities. Applied Environments Modernization program will upgrade antiquated Environmental labs for climatic and dynamic testing with new cascade refrigeration units, climatic chambers, vibration test systems, x-ray cameras, a real-time radiography system and full spectrum solar lights. Telemetry Systems Modernization program will upgrade/replace mobile and fixed site telemetry equipment and telemetry data processing equipment at Redstone Test Center (RTC), Aberdeen Test Center (ATC), White Sands Missile Range (WSMR) and Yuma Proving Ground (YPG). Future Wireless Network program will procure and integrate wireless network technologies across ATEC test activities which will provide

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near real-time data collection support for Developmental Test and Operational Test events. Systems Test and Integration Laboratory (STIL) is the development of a systems integration and test lab for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of army aircraft.					
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Range Radar Replacement Program (RRRP). Description: EMD phase contract activities for the RRRP. FY 2014 Accomplishments: Continued Engineering Manufacturing Development (EMD) for the RRRP for the Fly-out and Close-in Radars systems in preparation for replacement of equipment at Aberdeen Test Center (ATC), Redstone Test Center (RTC), White Sands Test Center (WSTC) and Yuma Test Center (YTC). FY 2015 Plans: Continues Engineering Manufacturing Development (EMD) for the RRRP for the Fly-out and Close-in Radars systems in preparation for replacement of equipment at Aberdeen Test Center (ATC), Redstone Test Center (RTC), White Sands Test Center (WSTC) and Yuma Test Center (YTC). FY 2016 Plans: Will continue Engineering Manufacturing Development (EMD) for the RRRP for the Fly-out and Close-in Radars systems in preparation for replacement of equipment at Aberdeen Test Center (ATC), Redstone Test Center (RTC), White Sands Test Center (WSTC) and Yuma Test Center (YTC).			16.846	30.979	17.411
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the E3 Systems Modernization (EMRE) project. Description: EMD phase contract activities for the E3 Systems Modernization (EMRE) project. FY 2014 Accomplishments: EMD for the E3 Systems Modernization (EMRE) T2 and T3 transmitter systems. Project upgraded and replaced signal transmitters, refurbished an anechoic test chamber, replaced data acquisition equipment and installed a new turntable to support test items. FY 2015 Plans:			2.687	5.317	17.740

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Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604759A / Major T&E Investment	Project (Number/Name) 984 / Major Developmental Testing Instrumentation	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
Continues the EMD for the E3 Systems Modernization (EMRE) T2 and T3 transmitter systems. Project continues to upgrade and replace signal transmitters, refurbishes an anechoic test chamber, replaces data acquisition equipment and installs a new turntable to support test items. FY 2016 Plans: Will continue the EMD for the E3 Systems Modernization (EMRE) T2 and T3 transmitter systems. Project will continue to upgrade and replace signal transmitters, will refurbish an anechoic test chamber, will replace data acquisition equipment and will install a new turntable to support test items.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. Description: EMD phase contract activity for the Nuclear Effects Test Capability Modernization. FY 2014 Accomplishments: Started the Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. This program upgraded nuclear facilities at White Sands Missile Range (WSMR). FY 2015 Plans: Continues the Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. Program upgrades nuclear facilities at White Sands Missile Range (WSMR). FY 2016 Plans: Will continue the Engineering and Manufacturing Development (EMD) phase contract activity for the Nuclear Effects Test Capability Modernization. This program will upgrade nuclear facilities at White Sands Missile Range (WSMR).		0.802	1.976
Title: Engineering and Manufacturing Development (EMD) phase contract activity of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. Description: EMD phase contract activities of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. FY 2014 Accomplishments: Started EMD phase of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. This will be a replacement system for the Advanced Range Data System (ARDS). This system will meet the critical need for measuring the precision location of units under test within the Time-Space domain. It will provide a significant increase to the Test & Evaluation ranges' capability to meet the test instrumentation needs of the tri-service range users. The improvements will be the data link, Time Space Position Information (TSPI) accuracy, miniaturization, standard interfaces, and system encryption. FY 2015 Plans:		0.230	4.514
			1.366

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
Continues EMD of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. This is a replacement system for the Advanced Range Data System (ARDS). This system will meet the critical need for measuring the precision location of units under test within the Time-Space domain. It provides a significant increase to the Test & Evaluation ranges' capability to meet the test instrumentation needs of the tri-service range users. The improvements are the data link, TSPI accuracy, miniaturization, standard interfaces, and system encryption.			
FY 2016 Plans: Will continue EMD of the Common Range Integrated Instrumentation System (CRIIS) Objective Program. This will be a replacement system for the Advanced Range Data System (ARDS). This system will meet the critical need for measuring the precision location of units under test within the Time-Space domain. It will provide a significant increase to the Test & Evaluation ranges' capability to meet the test instrumentation needs of the tri-service range users. The improvements will be the data link, TSPI accuracy, miniaturization, standard interfaces, and system encryption.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Systems Test and Integration Laboratory (STIL).		4.979	5.063
Description: Continue EMD phase contract activities for the Systems Test and Integration Laboratory (STIL).			-
FY 2014 Accomplishments: Continued EMD for the Systems Test and Integration Laboratory (STIL) for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of Army aircraft.			
FY 2015 Plans: Completes EMD for the Systems Test and Integration Laboratory (STIL) for use in developmental testing and integration engineering, including a virtual test environment to support integration testing of aviation electronic systems as a part of modernization of Army aircraft. Planned Full Operational Capability in 4 Qtr.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity of the Test Network Modernization Program.		-	0.500
Description: EMD phase contract activity for the Test Network Modernization.		-	
FY 2016 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
Will start the Engineering and Manufacturing Development (EMD) phase contract activity for the Test Network Modernization. This program will provide a modern test infrastructure capable of reliable, secure transport of test data and test communications for all ATEC developmental test ranges.			
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Applied Environments Modernization program. Description: EMD phase contract activity for the Applied Environments Modernization program FY 2016 Plans: Will start the Engineering and Manufacturing Development (EMD) phase contract activity for the Applied Environments Modernization program. This program will upgrade antiquated Environmental labs for climatic and dynamic testing with new cascade refrigeration units, climatic chambers, vibration test systems, x-ray cameras, a real-time radiography system and full spectrum solar lights.		-	0.300
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Telemetry Systems Modernization program Description: EMD phase contract activity for the Telemetry Systems Modernization program FY 2016 Plans: Will start the Engineering and Manufacturing Development (EMD) phase contract activity for the Telemetry Systems Modernization program. This program will upgrade/replace mobile and fixed site telemetry equipment and telemetry data processing equipment Redstone Test Center (RTC), Aberdeen Test Center (ATC), White Sands Missile Range (WSMR) and Yuma Proving Ground (YPG) .		-	0.300
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Future Wireless Network program. Description: EMD phase contract activity for the Future Wireless Network program. FY 2016 Plans: Will start the Engineering and Manufacturing Development (EMD) phase contract activity for the Future Wireless Network program. This program will procure and integrate wireless network technologies across ATEC test activities which will provide near real-time data collection support for developmental test and operational test events.		-	0.300
Accomplishments/Planned Programs Subtotals		25.544	47.849
C. Other Program Funding Summary (\$ in Millions)			
N/A			

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C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		
E. Performance Metrics		
N/A		

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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
986: Major Operational Test Instrumentation	-	5.490	2.524	6.958	-	6.958	11.158	12.180	8.808	8.993	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Major Operational, Instrumentation and Modeling and Simulation (M&S) in support of Army Test and Evaluation Command (ATEC).

Analysis and development for Real-Time Casualty Assessment and instrumentation suite (RTCA) that delivers a high fidelity, realistic, real-time capability to measure hardware and personnel performance in modern combat environments. RTCA enables testing under tactical conditions for small and large-scale operations while integrating network operations and effects in support of the Army Equipment Modernization Plan. RTCA also allows the U.S. Army to test all Current-to-Future, weapon systems in a realistic operational environment. RTCA Research, Development, Test and Evaluation (RDTE) develops performance enhancements and technology upgrades to the operational test command, control, and communications , communications network, weapons system interfaces, vehicle and dismounted-troop kits and peripherals, Global Positioning Systems (GPS), encryption components, and integrates operational realistic digital battlefield data collection and analysis tools. These tools will collect, store and analyze data from the digital battlefield. Improvements will enable the RTCA system to measure and record accrued damage, levels of exposure, effects of countermeasures, evasive action, and instrument threat vehicles. This capability is required by the operational test community to integrate digital battlefield data collection and analysis tools into the Network Integration Evaluation (NIE), M1, M2, Stryker, Armored Multi Purpose Vehicle (AMPV), 64E, Gray Eagle and other operational tests.

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

	FY 2014	FY 2015	FY 2016
Title: Real-Time Casualty Assessment and Instrumentation Suite (RTCA)	2.616	2.524	6.958
Description: Develop technology initiatives in support of common Army test and training capability gaps.			
FY 2014 Accomplishments: Continued to support Trade-Off Studies, Analysis of Trade-Off Studies, Analysis of Alternatives, Cost Benefit Analyses, Test Technology Demonstrations or Technology Readiness Events to ensure the requirements and performance specifications for emerging/future instrumentation and tactical engagement simulation systems meet the needs of the operational test and evaluation community. The initiative helped develop and sustain an Army Test and Training Instrumentation Test Bed, as well as increased the rigor of testing and ensure that proposed solutions fulfill those requirements and thus reduced risk.			
FY 2015 Plans: Funds the development of hardware, software, interfaces, and new capabilities to ensure RTCA requirements for upcoming operational tests are satisfied. Develops efforts that will initially be directed toward RTCA. Funds will also be allocated for RTCA instrumentation and simulation systems to be used to support Force-on-Force Operational Tests. Development efforts include:			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016
integration with new tactical systems under test, integration with Live, Virtual, and Constructive (LVC) simulation environments, RTCA capabilities for active protection systems and countermeasures, RTCA capabilities for communications/sensor kills and degradations, development, integration, and testing of mission command effects and degradations, communications upgrade, new communications sub-systems, new encryption and RTCA capabilities for electronic warfare and countermeasures.					
FY 2016 Plans: Will continue to fund the development of hardware, software, interfaces, and new capabilities to ensure RTCA requirements for upcoming operational tests are satisfied. Will develop efforts that will initially be directed toward RTCA. Funds will also be allocated for RTCA instrumentation and simulation systems to be used to support Force-on-Force Operational Tests. Development efforts will include: integration with new tactical systems under test, integration with Live, Virtual, and Constructive simulation environments, RTCA capabilities for active protection systems and countermeasures, RTCA capabilities for communications/sensor kills and degradations, development, integration, and testing of mission command effects and degradations, communications upgrade, new communications sub-systems, new encryption and RTCA capabilities for electronic warfare and countermeasures.					
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Operational Test Command (OTC) Advanced Simulation and Instrumentation System (OASIS) Enterprise Integration Solution. Description: EMD phase contract activities for the OASIS Enterprise Integration System (EIS) to include initial research and planning to achieve an Advanced Test and evaluation Enterprise Architecture (ATEA) to deliver a more comprehensive and sustainable operational test environment within current fiscal constraints. FY 2014 Accomplishments: Continued EMD into Army Test and Evaluation Command (ATEC) Test and evaluation Enterprise Architecture (ATEA). Funding supports integration of Federation members by ATEA into the larger ATEC community and supports an enterprise into a LVC environment to support testing requirements for Operational Testing and Network Integration Events (NIEs) in support of the Army Equipment Modernization Plan high priority weapon systems such as the Distributed Common Ground System-Army (DCGS-A), Warfighter Information Network (WIN-T) – Tactical and RTCA.			2.874	-	-
Accomplishments/Planned Programs Subtotals			5.490	2.524	6.958
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0604759A / Major T&E Investment	Project (Number/Name) 986 / Major Operational Test Instrumentation
D. Acquisition Strategy N/A		
E. Performance Metrics N/A		