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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Army **Date:** February 2016

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 6: RDT&amp;E Management Support</i>	<b>R-1 Program Element (Number/Name)</b> PE 0605601A / <i>Army Test Ranges and Facilities</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	271.377	279.896	293.748	-	293.748	295.388	296.602	293.180	300.977	-	-
F30: <i>Army Test Ranges &amp; Facilities</i>	-	271.377	279.896	293.748	-	293.748	295.388	296.602	293.180	300.977	-	-

**Note**

Beginning in FY17, this project will fund labor for physical security civilian guards and equipment as well as the UH-60 helicopters.

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

This project provides the institutional funding required to operate test activities, in accordance with Section 232 of the FY2003 National Defense Authorization Act (NDAA FY03), required by Department of Defense (DOD) Program Executive Officers, Program and Product Managers, and Research, Development, and Engineering Centers. Resources provided by this project operate seven elements of the DOD Major Range and Test Facility Base (MRTFB): White Sands Test Center (WSTC), White Sands Missile Range, New Mexico; Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; and Yuma Test Center (YTC), Yuma Proving Ground, Arizona, Cold Regions Test Center (CRTC) Fort Greely, Alaska and Tropic Regions Test Center (TRTC) at various locations. This project also funds the Army's test capability at Redstone Test Center (RTC), Redstone Arsenal, Alabama.

This project finances the overhead (institutional) test operating costs not billable to DOD test customers per DODI 3200.18 and DODFMR 7000.14-R, which include recurring test infrastructure/capability sustainment requirements, replacement of test equipment, test operating procedures, and test revitalization/upgrade projects to maintain current testing capabilities and improvements to safety, environmental protection, efficiency of test operations, and technological advances. The test capabilities at these ranges have been uniquely established, are in place to support test and evaluation (T&E) requirements of funded weapons programs, and are required to assure technical performance, adherence to safety requirements, reliability, logistics supportability, Title 10 Live Fire Test and Evaluation, transportability, environmental effects, electromagnetic effects, and quality of materiel in development and in production.

Beginning in FY17, this project will fund labor for physical security civilian guards and equipment, as well as the UH-60 helicopters. The UH-60 is part of the Aviation Restructure Initiative endorsed by the SECDEF.

This project sustains the T&E capability required to support Army as well as Joint Service or Other Service systems, materiel, and technologies. Types of systems scheduled for testing include: Aircraft, Air Delivery, Unmanned Aerial Systems, Unmanned Ground Vehicles, Air and Missile Defense Systems, Engineering Equipment, Direct fire, Indirect fire, Nonlethal weapons, Ammunition, Automotive Systems, Intelligence Surveillance and Reconnaissance, Ground Soldier System, Missiles, Rockets, Mission Command Network, and Tactical Command, Control, and Communication.

Specific systems supported in FY16 with continued support in FY17 include: Network Integration Evaluation (NIE), Joint Light Tactical Vehicle (JLTV), Rifleman Radio, Joint Assault Bridge, Warfighter Information Network Tactical (WIN-T Inc 2/3), AN/TPQ53 Radar, Distributed Common Ground Sensor - Army (DCGS-A), missile

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defense (PAC-3), Army Integrated Air and Missile Defense (AIAMD), Nett Warrior, XM25 Counter Defilade Target Engagement (CDTE), Gray Eagle, Joint Tactical Radio System (JTRS), Soldier Protective System M829E4, 120MM Advanced Kinetic Energy, Precision Guidance Kit (PGK), Mid-tier Networking Vehicular Radios (MNVR).

Direct costs are borne by materiel developers in accordance with DoD Directive 3200.11 and DOD Financial Management Regulation 7000.14R.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	274.980	277.646	258.464	-	258.464
Current President's Budget	271.377	279.896	293.748	-	293.748
Total Adjustments	-3.603	2.250	35.284	-	35.284
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.603	-			
• Adjustments to Budget Years	-	2.250	35.284	-	35.284

**Change Summary Explanation**

FY 2017 increase in funding to support labor for physical security civilian guards and equipment,UH60 aircraft, the UH-60 is part of the Aviation Restructure Initiative endorsed by the SECDEF and for test capability capacity at the developmental test ranges.

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Army										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 2040 / 6					<b>R-1 Program Element (Number/Name)</b> PE 0605601A / Army Test Ranges and Facilities				<b>Project (Number/Name)</b> F30 / Army Test Ranges & Facilities			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
F30: Army Test Ranges & Facilities	-	271.377	279.896	293.748	-	293.748	295.388	296.602	293.180	300.977	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Beginning in FY17, this project will fund labor for physical security civilian guards and equipment, as well as the UH-60 helicopters.

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

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Beginning in FY17, this project will fund labor for physical security civilian guards and equipment, as well as the UH-60 aircraft. The UH-60 is part of the Aviation Restructure Initiative endorsed by the SECDEF.

This project sustains the T&E capability required to support Army as well as Joint Service or Other Service systems, materiel, and technologies. Types of systems scheduled for testing include: Aircraft, Air Delivery, Unmanned Aerial Systems, Unmanned Ground Vehicles, Air and Missile Defense Systems, Engineering Equipment, Direct fire, Indirect fire, Nonlethal weapons, Ammunition, Automotive Systems, Intelligence Surveillance and Reconnaissance, Ground Soldier System, Missiles, Rockets, Mission Command Network, and Tactical Command, Control, and Communication.

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<b>Appropriation/Budget Activity</b> 2040 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0605601A / Army Test Ranges and Facilities	<b>Project (Number/Name)</b> F30 / Army Test Ranges & Facilities
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defense (PAC-3), Army Integrated Air and Missile Defense (AIAMD), Nett Warrior, XM25 Counter Defilade Target Engagement (CDTE), Gray Eagle, Joint Tactical Radio System (JTRS), Soldier Protective System M829E4, 120MM Advanced Kinetic Energy, Precision Guidance Kit (PGK), Mid-tier Networking Vehicular Radios (MNVR).

Direct costs are borne by materiel developers in accordance with DoD Directive 3200.11 and DOD Financial Management Regulation 7000.14R.

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p><b>Title:</b> Mission Support</p> <p><b>Description:</b> Funds support test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supports indirect costs for MRTFB Activities (ATC, EPG, WSTC, YTC (including CRTC &amp; TRTC)) in accordance with DODI 3200.18 and DODFMR 7000.14-R.</p> <p><b>FY 2015 Accomplishments:</b> Funds supported test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supports indirect costs for MRTFB Activities (ATC, EPG, WSTC, YTC (including CRTC &amp; TRTC)) in accordance with DODI 3200.18 and DODFMR 7000.14-R.</p> <p><b>FY 2016 Plans:</b> Funds support test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supports indirect costs for MRTFB Activities (ATC, EPG, WSTC, YTC (including CRTC &amp; TRTC)) in accordance with DODI 3200.18 and DODFMR 7000.14-R.</p> <p><b>FY 2017 Plans:</b> Funds will continue to support test equipment upgrades and maintenance; test facility maintenance; routine calibration; handling and disposal of hazardous materials, transportation, postage, administrative supplies; tools; software; spare parts; test support vehicle maintenance; mission unique installation costs; temporary duty/training of civilian and contractor personnel; printing and reproduction; communications; land leases; and range road maintenance. Funding supports indirect costs for MRTFB Activities (ATC, EPG, WSTC, YTC (including CRTC &amp; TRTC)) in accordance with DODI 3200.18 and DODFMR 7000.14-R.</p>	94.452	100.593	81.694
<p><b>Title:</b> T&amp;E Civilian Pay</p> <p><b>Description:</b> This funding supports the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance is customer funded. The test customer pays all direct costs that are directly attributable to the use of a test facility or</p>	128.880	130.176	143.739

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p>resource for testing of a particular program. Funding is essential to maintain core T&amp;E skills as part of the Government civilian workforce.</p> <p><b>FY 2015 Accomplishments:</b> Funds supported the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance was customer funded. The test customers paid all direct costs directly attributable to the use of a test facility or resource for testing of a particular program. Funding was essential to maintaining the core T&amp;E skills as part of the Government civilian workforce.</p> <p><b>FY 2016 Plans:</b> Funds support the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance will be customer funded. The test customer will pay all direct costs directly attributable to the use of a test facility or resource for testing of a particular program. Funding will be essential to maintain core T&amp;E skills as part of the Government civilian workforce.</p> <p><b>FY 2017 Plans:</b> Funds will continue to support the overhead costs of the civilian labor for Program Budget Guidance (PBG) authorizations. The balance will be customer funded. The test customer will pay all direct costs directly attributable to the use of a test facility or resource for testing of a particular program. Funding will be essential to maintain core T&amp;E skills as part of the Government civilian workforce.</p>				
<p><b>Title:</b> Contractor Support</p> <p><b>Description:</b> This funding supports contractor labor costs not billable to the customer. Contract labor is essential to augment core civilian T&amp;E personnel. Functions performed include range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support.</p> <p><b>FY 2015 Accomplishments:</b> Funds supported contractor labor costs not billable to the customer. Contract labor is essential to augment core civilian T&amp;E personnel. Functions performed include range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support.</p> <p><b>FY 2016 Plans:</b> Funds support contractor labor costs not billable to the customer. Contract labor will be essential to augment core civilian T&amp;E personnel. Functions performed will include range operations, automotive test support, radar maintenance, warehousing support,</p>		43.045	44.127	44.169

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p>project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support</p> <p><b>FY 2017 Plans:</b> Funds will continue to support contractor labor costs not billable to the customer. Contract labor will be essential to augment core civilian T&amp;E personnel. Functions performed will include range operations, automotive test support, radar maintenance, warehousing support, project management, maintenance of support fleet aircraft, recurring/general maintenance to test facilities and data acquisition support.</p>				
<p><b>Title:</b> Revitalization/Upgrade</p> <p><b>Description:</b> Funds support the revitalization/upgrade of test infrastructure and capabilities. MRTFB elements are required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding will be focused on improving test and evaluation capabilities for the highest priority Army programs.</p> <p><b>FY 2015 Accomplishments:</b> Funds supported the revitalization/upgrade of test infrastructure and capabilities. MRTFB elements will be required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding will be focused on improving test and evaluation capabilities for the highest priority Army programs.</p> <p><b>FY 2016 Plans:</b> Funds support the revitalization/upgrade of test infrastructure and capabilities. MRTFB elements will be required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding will be focused on improving test and evaluation capabilities for the highest priority Army programs.</p> <p><b>FY 2017 Plans:</b> Funds will continue to support the revitalization/upgrade of test infrastructure and capabilities. MRTFB elements will be required to use institutional funding to sustain, upgrade or create capabilities that support multiple customers. Funding will be focused on improving test and evaluation capabilities for the highest priority Army programs.</p>		5.000	5.000	5.000
<p><b>Title:</b> Physical Security Guards and Equipment</p> <p><b>Description:</b> This funding supports physical security guards mandated by regulation to guard ATEC's Fast Burst Nuclear Reactor (FBR) at White Sands Missile Range (WSMR) IAW AR 190-54 and Chemical Biological (CB) facilities located at Dugway Proving Ground (DPG) IAW AR 190-50 and AR 190-17. These surety facilities maintain nuclear, biological, and chemical (NBC) materials and agents in order to test the effects and effectiveness of defensive or protective equipment and measures. The physical security equipment consists of concrete barriers, security fencing around test sites, cameras, gate controllers, access and intrusion detection systems, alarms, and maintenance contracts for equipment. This equipment is necessary to secure arms rooms,</p>		-	-	12.279

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
ammunition storage facilities, The Fast Burst Nuclear Reactor and chemical biological surety sites. Physical security equipment is critical to maintain current security requirements as outlined in AR 190-17, AR 190-59, AR 190-51, and AR 190-13.				
<b>FY 2017 Plans:</b> Funds will support the physical security guards and equipment for the FBR at WSMR and CB facilities at DPG.				
<b>Title:</b> UH-60 Aircraft		-	-	6.867
<b>Description:</b> This funding supports the Aviation Restructure Initiative endorsed by the SECDEF. Funding supports aircraft maintenance, aircrew labor, mandatory training, and aircraft flying hours. In accordance with DODI 3200.18 and DODFMR 7000.14-R, these costs are not billable to the test customers. UH-60 helicopters are used to provide essential logistical, sensor platform and aerial photo/video documentation support for developmental testing.				
<b>FY 2017 Plans:</b> Funds will support UH-60 helicopter maintenance, aircrew labor, mandatory training and aircraft flying hours.				
<b>Accomplishments/Planned Programs Subtotals</b>		271.377	279.896	293.748
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				
<b>E. Performance Metrics</b>				
N/A				

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