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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Army **Date:** May 2021

<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 0606002A / <i>Ronald Reagan Ballistic Missile Defense Test Site</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	-	64.311	68.911	80.952	-	80.952	-	-	-	-	-	-
XW9: <i>Reagan Test Site</i>	-	64.311	68.911	80.952	-	80.952	-	-	-	-	-	-

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

The Ronald Reagan Ballistic Missile Defense Test Site (RTS), with its remote location and one-of-a-kind instrumentation systems, provides a valuable strategic test environment that cannot be replicated. Its function is to: 1) support test and evaluation of major Army and Department of Defense (DOD) acquisition programs of strategic importance to the national defense; and 2) provide space operations and intelligence data (Space Situational Awareness, object tracking & identification) in support of United States Strategic Command (USSTRATCOM), acting as a high value contributing sensor to the United States (U.S.) Space Surveillance Network. Due to its unique geography and instrumentation, RTS is able to provide unmatched data collection capabilities that provide critical test data for programs of national interest to include: Army Missile Defense; Defense Advanced Research Projects Agency hypersonic Boost-Glide developmental tests; Air Force and Navy Intercontinental Ballistic Missile (ICBM) developmental and operational tests; Army, Air Force, Navy, and Missile Defense Agency (MDA) operational, demonstration, and validation tests; National Aeronautics and Space Administration (NASA) scientific and unique space programs; NASA ionospheric studies; space debris tracking; and data collection in support of space experiments.

Funding in this Program Element (PE) covers management and contracting personnel support (salaries and travel) to enable the management of the test and evaluation of major Army and DoD missile systems for the RTS. Funds also provide contracting support for end item procurement, life cycle acquisition planning, and solicitation, negotiation, award, execution and management for weapon systems contracts. This PE provides contractors to accomplish key operations and maintenance functions for RTS instrumentation suites and also provides mission essential bandwidth via a fiber optic cable system. Funds provide the expertise required for operating and maintaining a number of one-of-a-kind radar, optical, telemetry, command/control/communications, safety, and data reduction systems. These systems include: the four unique radars of the Kiernan Reentry Measurement Site; Super Recording Automatic Digital Optical Tracker long range video-metric tracking systems; high density data recorders for high data-rate telemetry collected by ten antennas; an underwater acoustic impact location system; and data analysis/reduction hardware/software and Continental United States (CONUS) based mission control center. The Advanced Research Project Agency Long-Range Tracking and Instrumentation Radar and the Target Resolution Discrimination Experiment radars located at RTS are the only radars in this area of operation that have deep-space tracking capability. The Millimeter Wave Radar is one of the highest resolution imaging radars in the world, providing critical intelligence data. Funding also enables weapon system assessment of operational effectiveness and suitability for the Army, Air Force, Navy and MDA, which all have programs planned that have significant test and data gathering requirements at RTS. This test data cannot be obtained except through the use of technical facilities available on and in the vicinity of RTS. Program supports Army's PATRIOT air defense system; Air Force's Minuteman III ICBM and the Space and Missile Center's associated programs; MDA's Ballistic Missile Defense System, ICBM Targets, and Layered Ballistic Missile Defense operational tests (including: PATRIOT, Terminal High-Altitude Area Defense, and Aegis Weapon System), and NASA's space experiments.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	62.069	71.306	61.451	-	61.451
Current President's Budget	64.311	68.911	80.952	-	80.952
Total Adjustments	2.242	-2.395	19.501	-	19.501
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	4.575	-			
• SBIR/STTR Transfer	-2.333	-2.395			
• Adjustments to Budget Years	-	-	19.501	-	19.501

**Change Summary Explanation**

Additional increase for Cyber Compliance Refresh and Instrumentation Maintenance to improve Radar Availability.

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<b>Appropriation/Budget Activity</b> 2040 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0606002A / <i>Ronald Reagan Ballistic Missile Defense Test Site</i>	<b>Project (Number/Name)</b> XW9 / <i>Reagan Test Site</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

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

This Project covers operations and mission support functions at the Ronald Reagan Ballistic Missile Defense Test Site and is managed by the United States (U.S.) Army Space and Missile Defense Command (USASMDC) Technical Center.

The Ronald Reagan Ballistic Missile Defense Test Site (RTS), with its remote location and one-of-a-kind instrumentation systems, provides a valuable strategic test environment that cannot be replicated. Its function is to: 1) support test and evaluation of major Army and Department of Defense (DOD) acquisition programs of strategic importance to the national defense; and 2) provide space operations and intelligence data (Space Situational Awareness, object tracking & identification) in support of United States Strategic Command (USSTRATCOM), acting as a high value contributing sensor to the U.S. Space Surveillance Network. Due to its unique geography and instrumentation, RTS is able to provide unmatched data collection capabilities that provide critical test data for programs of national interest to include: Army Missile Defense; Defense Advanced Research Projects Agency hypersonic Boost-Glide developmental tests; Air Force and Navy Intercontinental Ballistic Missile (ICBM) developmental and operational tests; Army, Air Force, Navy, and Missile Defense Agency (MDA) operational, demonstration, and validation tests; National Aeronautics and Space Administration (NASA) scientific and unique space programs; NASA ionospheric studies; space debris tracking; and data collection in support of space experiments.

Funding in this Project covers management and contracting personnel support (salaries and travel) to enable the management of the test and evaluation of major Army and DoD missile systems for the RTS. Funds also provide contracting support for end item procurement, life cycle acquisition planning, and solicitation, negotiation, award, execution and management for weapon systems contracts. This PE provides contractors to accomplish key operations and maintenance functions for RTS instrumentation suites and also provides mission essential bandwidth via a fiber optic cable system. Funds provide the expertise required for operating and maintaining a number of one-of-a-kind radar, optical, telemetry, command/control/communications, safety, and data reduction systems. These systems include the four unique radars of the Kiernan Reentry Measurement Site; Super Recording Automatic Digital Optical Tracker long range video-metric tracking systems; high density data recorders for high data-rate telemetry collected by ten antennas; an underwater acoustic impact location system; and data analysis/reduction hardware/software and Continental United States (CONUS) based mission control center. The Advanced Research Project Agency Long-Range Tracking and Instrumentation Radar and the Target Resolution Discrimination Experiment radars located at RTS are the only radars in this area of operation that have deep-space tracking capability. The Millimeter Wave Radar is one of the highest resolution imaging radars in the world, providing critical intelligence data. Funding also enables weapon system assessment of operational effectiveness and suitability for the Army, Air Force, Navy and MDA, which all have programs planned that have significant test and data gathering requirements at RTS. This test data cannot be obtained except through the use of technical facilities available on and in the vicinity of RTS. Program supports Army's PATRIOT air defense system; Air Force's Minuteman III ICBM and the Space and Missile Center's associated programs; MDA's Ballistic Missile Defense System, ICBM Targets, and Layered Ballistic Missile Defense operational tests (including: PATRIOT, Terminal High-Altitude Area Defense , and Aegis Weapon System), and NASA's space experiments.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Army		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 2040 / 6	<b>R-1 Program Element (Number/Name)</b> PE 0606002A / <i>Ronald Reagan Ballistic Mi ssile Defense Test Site</i>	<b>Project (Number/Name)</b> XW9 / <i>Reagan Test Site</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Title:</b> Civilian Pay</p> <p><b>Description:</b> This effort covers operations and mission support functions at the RTS and is managed by USASMDC.</p> <p><b>FY 2021 Plans:</b> Provides government personnel support (salaries) to enable the management of the test and evaluation of major Army and DoD missile systems.</p> <p><b>FY 2022 Plans:</b> Will continue to provide government personnel support (salaries) to enable the management of the test and evaluation of major Army and DoD missile systems.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 includes an inflation factor.</p>		5.818	6.017	6.544
<p><b>Title:</b> Temporary Duty (TDY)/Training/Supplies - Military and Civilian</p> <p><b>Description:</b> Funding will provide for travel and training for civilians and military to assist in the testing of the Army and DoD Missile system Programs.</p> <p><b>FY 2021 Plans:</b> Provides government personnel support (training and travel) to enable the management of the test and evaluation of major Army and DoD missile systems.</p> <p><b>FY 2022 Plans:</b> Will continue to provide government personnel support (training and travel) to enable the management of the test and evaluation of major Army and DoD missile systems.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 includes an inflation factor.</p>		0.741	1.052	1.056
<p><b>Title:</b> Outside Obligations/Other Government Agencies (OGAs)</p> <p><b>Description:</b> Funding provided to other Government Agencies for reimbursable-type work efforts.</p> <p><b>FY 2021 Plans:</b> Provides support to test and evaluation of major Army and DoD missile systems.</p> <p><b>FY 2022 Plans:</b></p>		3.314	9.171	10.875

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Will continue to provide support to test and evaluation of major Army and DoD missile systems. <b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 is due to inflation factor and expected increase in requirements for support from other government agency giving the increase in funding RTS received for range and cyber improvements and upgrades.				
<b>Title:</b> Fiber Optic Cable (Kwajalein Cable System (KCS))/Inner Ring Submarine <b>Description:</b> Fiber Optic Cable is Provides lease cost for Fiber Optic Cable between Kwajalein and Guam. <b>FY 2021 Plans:</b> Provides funding for lease of the KCS fiber optic cable between Kwajalein Island and Guam, and for backup satellite. Funding annual fiber maintenance agreement. <b>FY 2022 Plans:</b> Will continue to provide funding for lease of the KCS fiber optic cable between Kwajalein Island and Guam. Will fund annual cable maintenance agreement. <b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease from FY21 to FY22 is the payoff schedule balance for the life cycle of the cable will decrease annually until it reaches the sustainment phase.		7.257	9.102	6.305
<b>Title:</b> RTS Contractor Labor <b>Description:</b> Provide funding for Prime contractor and other contract support to perform technical Operation and Maintenance support to support test and space missions. <b>FY 2021 Plans:</b> Provides technical O&M support (test planning, instrumentation operations and maintenance, systems engineering, flight safety, and launch ordnance) to assure the capability of the Range to support test and space missions. <b>FY 2022 Plans:</b> Will continue to provide technical O&M support (test planning, instrumentation operations and maintenance, systems engineering, flight safety, and launch ordnance) to assure the capability of the Range to support test and space missions. <b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 is due to inflation factor and expected increase in requirements for support from the prime contractor giving the increase in funding RTS received for range and cyber improvements and upgrades.		27.578	29.158	35.279
<b>Title:</b> Contractor Material		12.848	6.837	13.407

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p><b>Description:</b> Provide for materials to maintain range capabilities and support test operations.</p> <p><b>FY 2021 Plans:</b> Provides critical non-labor materials to maintain critical range capabilities and prevent obsolescence in support of test operations. Continues the buy-down of critical maintenance backlog.</p> <p><b>FY 2022 Plans:</b> Will continue to provide critical non-labor materials to maintain critical range capabilities and prevent obsolescence in support of test operations.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 is due to inflation factor and expected increase in requirements for support from the prime contractor giving the increase in funding RTS received for range and cyber improvements and upgrades.</p>				
<p><b>Title:</b> Federally Funded Research and Development Centers (FFRDC) Contractor Pay</p> <p><b>Description:</b> Provide for technical expertise to RTS leadership for the overall performance of Range Operations.</p> <p><b>FY 2021 Plans:</b> Provides technical advice to RTS leadership in support of Range operations, strategic planning, and technical execution of critical technology.</p> <p><b>FY 2022 Plans:</b> Will continue to provide technical advice to RTS leadership in support of Range operations, strategic planning, and technical execution of critical technology.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease from FY21 to FY22 is based on the projected funding need from the XW9 program provided by the FFRDC contractor.</p>		3.800	4.056	4.013
<p><b>Title:</b> Contractor Meteorological</p> <p><b>Description:</b> Provide capability for weather sensing capability which allows for test planning and execution of the program.</p> <p><b>FY 2021 Plans:</b> Provides support for sustained weather sensing capabilities, including weather reporting via radar data. This capability provides critical data to test planning and execution.</p> <p><b>FY 2022 Plans:</b></p>		2.089	2.299	2.247

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
Will continue to provide support for sustained weather sensing capabilities, including weather reporting via radar data. This capability provides critical data to test planning and execution. <b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease from FY21 to FY22 is based on the value of the new contract award for a 12 month effort.				
<b>Title:</b> Ground Transportation <b>Description:</b> Provide transportation of material and passenger between Kwajalein and continental U.S. (CONUS). <b>FY 2021 Plans:</b> Provides mission specific material and passenger transportation via air (Air Mobility Command) and sea (Surface Deployment and Distribution Command) between Kwajalein Atoll and CONUS. <b>FY 2022 Plans:</b> Continuing to provide mission specific material and passenger transportation via air (Air Mobility Command) and sea (Surface Deployment and Distribution Command) between Kwajalein Atoll and CONUS. <b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 is based on an inflation factor.		0.394	0.651	0.652
<b>Title:</b> Mission Specific Environmental <b>Description:</b> Ensures Range Readiness and all regulatory environmental requirements are compliant with range and test requirements. <b>FY 2021 Plans:</b> Provides the capability to assess and maintain the Range Readiness and compliance with environmental requirements. <b>FY 2022 Plans:</b> Will continue to provide the capability to assess and maintain the Range Readiness and compliance with environmental requirements. <b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY21 to FY22 is based on increased travel required for environment board meeting to be held.		0.472	0.568	0.574
<b>Accomplishments/Planned Programs Subtotals</b>		64.311	68.911	80.952
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				

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

**Remarks**

**D. Acquisition Strategy**

N/A