Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	3,417.255	1,258.077	833.792	782.643	-	782.643	545.731	453.740	462.820	472.075	-	-
940: *Central Test and Evaluation Investment Program (CTEIP)*	3,417.255	1,258.077	833.792	782.643	-	782.643	545.731	453.740	462.820	472.075	-	-

Note

New Start (Y/N): No

A. Mission Description and Budget Item Justification

This program supports the Department's initiatives to defend the homeland, deter strategic attacks and aggression while prevailing in conflict, building enduring advantage, and building a resilient Joint Force and defense ecosystem. Since its inception in FY 1990, Central Test and Evaluation Investment Program (CTEIP) provides the development of the most needed, high-priority Test and Evaluation (T&E) capabilities for joint/multi-Service requirements. CTEIP investments address strategic requirements related to Hypersonics, Directed Energy, Cyber, Electronic Warfare, Nuclear Effects, Space, Autonomy, and Multi-Domain Operations. Other Investments in test infrastructure align with objectives in the Strategic Plan for DoD T&E Resources for high priority test needs and common range Infrastructure. The CTEIP uses a corporate investment approach to combine T&E needs from Service, Defense, and other Government agencies in order to maximize opportunities for joint efforts and avoid unwarranted duplication of test capabilities. CTEIP evaluates and selects for execution, proposals that align to the NDS and USD(R&E) priorities, provide the greatest return on investment, make efficient use of limited test resources, leverage Service investment, and promote joint solutions to fill test capability gaps. CTEIP provides enterprise solutions that benefit the whole Department. These investments are needed so test capabilities keep pace with U.S. and adversary technical advances as well as, with quickly changing threats.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1,267.535	833.792	788.960	-	788.960
Current President's Budget	1,258.077	833.792	782.643	-	782.643
Total Adjustments	-9.458	0.000	-6.317	-	-6.317
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.313	-			
• Below Threshold Reduction	-7.014	-	-	-	-
• Cancelled Accounts	-0.131	-	-	-	-
• Program Adjustments	-	-	-6.317	-	-6.317

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0604940D8Z *I Central Test and Evaluation Investment Program (CTEIP)*

Congressional Add Details ($ in Millions, and Includes General Reductions)

	FY 2023	FY 2024
Project: 940: *Central Test and Evaluation Investment Program (CTEIP)*		
Congressional Add: *Central Test and Evaluation Investment Development (CTEIP)*	448.577	-
Congressional Add Subtotals for Project: 940	448.577	-
Congressional Add Totals for all Projects	448.577	-

Change Summary Explanation

Changes in FY 2023 are the result of SBIR/STTR, cancelled accounts, and a Below Threshold Reduction.

FY 2025 - A reduction of $6.317 was applied to meet DoD overall funding reductions, which was spread to mitigate impact. $7.890 was the topline reduction and an inflation adjustment of +$1.573.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	Project (Number/Name) 940 / *Central Test and Evaluation Investment Program (CTEIP)*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
940: *Central Test and Evaluation Investment Program (CTEIP)*	3,417.255	1,258.077	833.792	782.643	-	782.643	545.731	453.740	462.820	472.075	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Central Test and Evaluation Investment Program (CTEIP) develops needed, high-priority Test and Evaluation (T&E) capabilities for joint/multi-Service requirements. CTEIP efforts include Hypersonics, Directed Energy, Cyber, Electronic Warfare, Nuclear Effects, Space, Autonomy and Multi-Domain Operations. Other Investments in test infrastructure align with objectives in the Strategic Plan for DoD T&E Resources for high priority test needs and common range Infrastructure.

The CTEIP uses a corporate investment approach to combine T&E needs from Service, Defense, and other Government agencies in order to maximize opportunities for joint efforts and avoid unwarranted duplication of test capabilities. CTEIP evaluates and selects for execution, proposals that align to the NDS and USD(R&E) priorities, provide the greatest return on investment, make efficient use of limited test resources, leverage Service investment; and promote joint solutions to fill test capability gaps. CTEIP provides enterprise solutions that benefit the Department as a whole.

The CTEIP provides needed T&E investments which align to USD(R&E) priorities and the Strategic Plan for DoD T&E Resources. These investments are needed so that test capabilities keep pace with U.S. and adversary technical advances as well as with quickly changing threats. The CTEIP includes special studies, analyses, project improvements, quick reaction efforts and strategic planning related to test capabilities and infrastructure. CTEIP investments increase efficiency and reduce the cost of testing on DoD's major ranges and test facilities. CTEIP continues to serve as the focal point for fostering common architectures throughout the test and training communities to enhance the sharing of resources and linkages between test and training ranges.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Central Test and Evaluation Investment Program	809.500	833.792	782.643
Description: -Develop autonomous systems test capability to provide digital robotic and autonomous systems integrated virtual environment for testing DoD autonomous ground vehicle systems and an open-air range environment capability to test full scale autonomous vehicles. -Develop autonomous teaming for a suite of capabilities furthering Unmanned Aircraft Systems (UAS) systems integration into controlled airspace and the test tools for integrating manned-unmanned teaming between ranges. Demonstration at Pax River, MD has been successful. Initial capabilities will be delivered to Naval Air Station Pax River, MD, Redstone Arsenal, AL and Edwards AFB, CA.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Develop counter Unmanned Aircraft Systems (cUAS) lethality diagnostics to provide a shielded enclosure for flight controllers, lethality and HPM diagnostics for cUAS operations. -Develop an open-air capability for creating a mission relevant RF test environment for testing cUAS systems at Naval Air Warfare Center (NAWCAD) Webster Field, MD. -Develop Naval autonomous systems test capabilities to establish a Modeling and Simulation (M&S) capability to test the performance of Naval surface ship autonomous systems software. -Develop advanced next-gen optical range tracking systems to increase performance, reduce costs and establish secure reliable optical tracking capability on DoD open-air ranges. -Develop short-wave infrared zoom capability to be mounted on multiple DoD tracking systems to track, determine effects phenomenology, and Time Space Positioning Information (TSPI) of aerial directed energy targets at night and in obscuration. -Vehicle real-time test instrumentation will reduce the size, weight and power for vehicle test data collection by replacing three unique data collectors with one modular, scalable data collector with increased storage capacity. This capability supported Abrams M1A2 System Enhancement Package (SEP) V3 and Bradley M2/M3A4 Follow on Test and Evaluation (FOT&E) and will support future vehicle tests. -A hybrid tracking system will develop a modular system of sensors to provide a range of capabilities for providing time, space position information, in Global Positioning System (GPS) denied environments, for aircraft and weapon testing. -Upgrade missile attitude instrument suite used to capture 6-DOF TSPI and validate RF and IR missile models, while meeting requirements associated with OCONUS transport and operation. -Implement littoral electromagnetic range will establish a secure, well-instrumented coastal test environment at Naval Information Warfare Center (NIWC), San Diego to validate emerging commercial and government electromagnetic systems and tactics. -A maritime tomahawk upgrade provides an additional telemetry frequency to Block V Tomahawk test assets enabling range safety control and telemetry in support of stream raid/simultaneous engagements.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Multi-spectral data collection develops a test capability for T&E of integrated multi-spectral threat warning receivers and infrared countermeasures against complex multi-spectral threats. This effort will field co-located Radio Frequency (RF) and Infra-red (IR) mobile threat simulators and a portable C2 node for realistic threat presentation to engage the System Under Test (SUT). -Develop open ocean weapons impact scoring system to provide persistent, relocatable range capability for beyond line of sight, high precision weapon scoring and range surveillance. -Directed Energy efforts include a high speed data recorder which develops a ruggedized, shielded, man-portable high-speed data recording system for High Power Microwave (HPM) directed energy testing; a radiometrically-device Instrument for Laser Evaluation develops a diagnostic system for confirming performance of current and future High Energy Laser (HEL) systems; a remote target sensor which develops a system capable of measuring HPM effects on internal components attacked by HPM systems; an S-Band threat source which develops a frequency agile S-band High Power Microwave threat source for Military Standard 464C vulnerability testing; a tethered HPM recorder and electronic attack target effort which accelerates development of instrumentation necessary for testing UAS vulnerabilities in an HPM threat environment; and a system placement analysis capability which upgrades existing capability to provide 3D outdoor effects test planning needed to support testing of Counter UAS HPM systems. -HPM capabilities being developed include a portable electronic field sensors to cover a wide area measurement system to characterize the HPM E-field and test blue HPM effectiveness against airborne threats; a Very High Frequency (VHF) threat simulator which develops a test source to support wideband VHF MIL STD 464C testing of a full-sized target such as an aircraft. -Closed loop Passive Electronic Scanned Array (PESA) simulator develops two transportable, closed-loop threat radar systems replicating the performance of a classified, widely fielded long-range surface-to-air missile system. -Direct injection of electro optical, infrared project will develop test capability in which Electro Optical/Infrared (EO/IR) imagery is directly injected into the systems' core computer via sensor emulators. -Provide an attack drone for Army T&E develops an electronic attack package for BQM-167 drone target that can target multiple radar systems under test (SUT)s at multiple frequency bands. -Develop Integrated Air Defense System (IADS) enhancements with networked threat emulation to provide a comprehensive threat-representative IADS capability at Electronic Combat Range, China Lake and other facilities providing four threat-representative Command Posts to existing Electronic Warfare (EW) capabilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Interactive Communication Navigation & Identification Radio Frequency (CNI RF) environment simulator will address Installed System Test Facility (ISTF) shortfalls in CNI RF testing on modern aircrafts by expanding upon current ISTF capability to provide an operationally relevant ground test environment. -An electronic warfare cyber techniques, effects and characteristics project development provides an RF and cyber effects test environment for Electromagnetic Maneuver Warfare. -Joint EW Digital Integrated Air Defense System (DIADS) integration effort upgrades DIADS M&S capacities to support expansion of EW testing across western test ranges. -Electronic warfare effort for open air battle shaping will establish an enterprise architecture and approach to implement multi-range aircraft instrumentation interoperability and network connectivity to meet test and training needs for air warfare missions. -Air-to-Ground radar environment will develop capabilities for testing high-density air-to-air, air-to-ground, and advanced signals in an ISTF environment. The radar environment simulator will provide digital RF memory devices that capture, store, delay, scale, and return radar signals to the radar under test. -A reconfigurable closed-loop threat simulator will provide a means for quickly evaluating single and multi-aircraft EA/EP effectiveness and survivability against a dense RF environment of emergent threat systems. Integrated closed loop radar simulators of modern threats are required to fully stress the SUTs in a threat representative environment. -Hypersonic test capability improvement to develop a clean air, variable Mach ground test capability for Developmental Test & Evaluation (DT&E) of full-scale hypersonic boost glide and scramjet weapon systems. -Develop a mid-pressure arc heaters to expand the DoD H2 Hypersonic Test Facility to provide higher enthalpy at the mid-pressure altitudes to enable ground testing of Prompt Global Strike, Maneuvering Reentry Vehicles, and SCRamJet components such as nose cones, fins, and other leading-edge surfaces. -Develop a next generation aeroshell test capability arc heater facility that increases DoD’s capacity to conduct aerothermal materials testing in support of hypersonic missiles, ballistic missiles, and other high altitude ballistic/maneuvering munitions. -Weather effects upgrades provide the current test track the ability to provide a small-scale rain and snow erosion test capability to validate vehicle structural design.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Develop 6 DoD vibration tables for HEL systems mounted on ships, ground vehicles, and aircraft. -Develop an improved sled track rockets that provides a new modular rocket propulsion system for the three DoD high speed test tracks including an improved capability to ground test full scale components at hypersonic speeds. -Provide a scoring system motion compensation table to develop a radar pedestal motion compensation mechanism and test and verification system to support weapon lethality testing in broad open ocean environments. -A Mach 7 test capability at the Arnold Engineering Development Center (AEDC) tunnel 9 will be returned to service to provide a full-scale aerothermal structural capability for seeker aperture development. -Modeling & Simulation (M&S) effort to support boost glide Thermal analysis software upgrades, provides a tool set for improving capabilities for predicting aerothermal and ablation response to high speed, high temperature flow in ground and flight test environments. -M&S enhancements for weather effects develops advanced material response models validated with ground test data to predict weather erosion in flight. -Implement non-ballistic radar tracking algorithms and the supporting infrastructure to track non-ballistic hypersonic vehicles for Reagan Test Site. -Reagan Test Site Kiernan Reentry Measurements Site Technology Refresh will refresh Kiernan Reentry Measurement System (KREMS) Radar hardware and software systems to increase system functionality and system capability. -Develop a multi-axle vehicle chassis simulator and a drive train simulator to test heavy 4 and 5 axle vehicle performance and reliability. -Provide upgraded and new Radar Cross Section (RCS) measurement capabilities to measure and evaluate advanced low observable technologies in increasingly complex and cluttered environments. -A scene projector effort will improve high fidelity, high temperature scene protectors for installed system and hardware in the loop laboratory testing of sensors and seekers for high speed weapons and missile engagements.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Develop a dense plasma focus capability to provide an ultra-short pulse simulation capability to test the vulnerability of missile components to very short, intense bursts of neutrons from a fusion-based nuclear weapon. -Fast burst reactor upgrade develops new high purity, high enriched uranium rings and safety blocks for the fast burst reactor at White Sands Missile Range, NM to conduct neutron vulnerability testing of missile and other components. -Heavy ion test facility upgrade for Single Event Effects (SEE) testing. A Single Event Effects (SEE) adds an additional SEE Beamline to increase capacity of testing natural space radiation. -Upgrade a survivability and vulnerability rarefaction waveform eliminator to provide an improved louver system for the large blast simulator to prevent debris hitting the test object. -Upgrade a survivability and vulnerability Xenon lamp facility to provide an improved control system and subsonic wind capability for this system. -Upgrade an X-Ray simulator for test of nuclear survivability and replaces three DoD X-ray simulators that measure the susceptibility of missile components to damage from high dose warm and cold x-rays experienced in space. -Develop an advanced communication threat testing uplink capability that provides EW threat representative uplink jamming system for T&E of satellite system responsiveness against threat systems. -Provide a maritime survivability library and threat M&S tool which evaluates the lethality of emerging anti-ship weapons, using artificial intelligence/machine learning techniques. -Multispectral target simulator and emitter upgrades modernize IR missile plume simulator emitters to meet current and future systems' fidelity requirements, as well as improve the simulators' availability and sustainability replacing obsolete equipment and augmenting the available standby emitters. -Provide a dual laser threat simulation capability to evaluate space-based Intelligence, Surveillance and Reconnaissance (ISR) sensors against surrogate ground and air based laser threats. -Develop a threat representative multi-modal global navigation satellite system jammer to provide denial and deception jamming of Position Navigation and Timing information during operational test and training.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Provide an airborne towed plume simulator that will provide an infrared threat missile plume-simulator to support rotary wing Aircraft Survivability. - Develop an avionics test bed providing a common framework to allow embedded avionics components to engage in an error-free state while component level cybersecurity T&E is performed. - Network system integration and test environment for Cyber Test Capabilities expands an existing application to include cyber capabilities to monitor, check for, alert on, identify messaging, and identify the source of the messaging that is modified, or indicates a modification “tip-off” capability. - Test tool for unencrypted datalinks develops a wideband RF Cybersecurity test tool for exploiting unencrypted Radio Frequency datalinks by capturing datalink information and generating RF messages in real time. ***FY 2024 Plans:*** -Continuing development and implementation of multiple threat-representative wideband radars to adequately test and assess our fifth-generation aircraft in a contested environment. -Continue development of nuclear environment chambers to test hardening our next generation of microelectronics for survivability against nuclear effects (neutrons, x-ray, gamma, etc.) on the battlefield, and accelerate the testing of microelectronics used in strategic systems and space systems. -Continue development and begin fielding of Flight Test Instrumentation and Terminal Area Scoring for broad ocean area precision scoring capabilities to test lethality and impact location of nuclear modernization systems (Ground Based Strategic Deterrent, Trident, etc.). -Continue to upgrade High Speed Test Track capabilities to realistically test end-game missile lethality (seeker, warhead detonation, intercept effectiveness, etc.) at DoD high speed test tracks which are located at Holloman, China Lake, and Eglin. -Continue to develop Secure Telemetry and High Bandwidth Data Processing thru improvement of cybersecurity and the acceleration of test analysis capability at numerous long-range missile test ranges to support faster acquisition of hypersonic and nuclear modernization systems.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Develop Test Capability to provide ground development and test capabilities to validate complex physics-based models and evaluate Hardware, Software, and emerging threats into severable capabilities that can be networked with the National Space Test and Training Complex (NSTTC). -Develop new physical carts and new antennas to represent threat environment with pulse-to-pulse full spectrum coverage and polarization Agility/Diversity/Stability, co-located threats / multi-radar threat systems, and beam width agility/diversity for dynamic change in SUT illumination and multi-beam threat at one location with representative power and improved test efficiency and effectiveness at the Benefield Anechoic Facility. -Capability to track, autonomously direct/point imagers, and measure multiple airborne objects simultaneously. Objects operate across a wide range of altitudes, approach azimuths, and airspeeds, and swarms of Small Unmanned Aircraft Systems (sUAS). -Capability to model high-fidelity air-to-air (A/A) targets and electronic attack environments at sufficient fidelity, in a repeatable lab environment, necessary to test advanced 5th and 6th generation aircraft radar A/A modes. -Refurbishing one of a kind full scale, subsonic wind tunnel to allow testing of future vertical lift capabilities at speeds consistent with planned designed criteria. -Develops large scale (high fidelity) supersonic/supersonic aerodynamic test capability by developing and integrating new capability into Arnold Engineering Development Center's 16S wind tunnel. -Develop capability for real-time Multispectral Sensor Scene Projection/Injection weapon system T&E and testing of advanced multispectral weapons in dense Anti-Access Aerial Denial (A2AD) environments. -Provide capabilities to fully test current and future landing gear, wheels, brake, and tire systems and components. The fully commissioned dynamometer test machine will be integrated into the Landing Gear Test Facility (LGTF) at Wright-Patterson AFB in Ohio. -Provide Ground Test Power and Thermal Loads for Advanced Engine Propulsion Systems T&E. Will develop: a capability for increased power extraction; a capability for increased thermal management system loads; and the needed capacity (threshold requirement of two altitude test cells) for T&E of competing engine development programs.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0604940D8Z / *Central Test and Evaluation Investment Program (CTEIP)*	**Project (Number/Name)** 940 / *Central Test and Evaluation Investment Program (CTEIP)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Provide capability to improve the quality and accuracy of an object's state vector by fusing radar and optical data in real-time for tracking fast moving, non-ballistic, low altitude targets.			
FY 2025 Plans: -Develop ground-based space test capability to validate complex physics-based models and evaluate hardware/software emulations of emerging threats in a distributed environment. -Develop complex RF emitters to provide pulse -to pulse full spectrum coverage and polarization representative of multi-radar threat systems at the Benefield Anechoic Facility. -Develop high-fidelity, low clutter tracking (TSPI) capability of small Radar Cross Section (RCS) vehicles to support CUAS and swarming sUAS testing. -Develop the capability to model high-fidelity air-to-air (A/A) targets and associated electronic attack environments in a repeatable lab environment to test advanced 5th and 6th generation aircraft radar A/A modes. -Restore a full-scale subsonic wind tunnel to allow testing of Future Vertical Lift platforms and other rotary wing aircraft. -Develop large scale (high fidelity) supersonic and hypersonic aerodynamic test capability at Arnold Engineering Development Center 16S wind tunnel to support NGAD and hypersonic weapon separation. -Develop real-time Multispectral Sensor Scene Projection/Injection capability to test multi-mode seekers and advanced multispectral weapons in dense A2AD environments. -Develop and upgrade capabilities at the Landing Gear Test Facility (LGTF) at Wright-Patterson AFB to fully test current and future landing gear systems. -Develop Advanced Engine Propulsion Systems test capability to evaluate higher thermal loads and power extraction driven by Next Generation Adaptive Propulsion (NGAP) systems.			
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 is the due to the anticipated completion of several ongoing, high-cost projects. Included in these efforts are the fielding of EW open air threat emitters to represent dense, realistic threat environments, fast burst reactor			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
nuclear effects upgrades to test strategic weapon systems, multiple directed energy (HEL and HPM) efforts to characterize blue and red system effects, and several ground-based hypersonic capabilities to test strategic weapons and blue hypersonic systems.			
Accomplishments/Planned Programs Subtotals	809.500	833.792	782.643

	FY 2023	FY 2024
Congressional Add: Central Test and Evaluation Investment Development (CTEIP) ***FY 2023 Accomplishments:*** Details are classified.	448.577	-
Congressional Adds Subtotals	448.577	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A