
U.S. ARMY TEST AND EVALUATION COMMAND
ATEC
Army Proven
Battle Ready

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ATEC
Army Proven
Battle Ready

# Introduction

## Army Testing and Evaluation: *"Army Proven…Battle Ready"*

The U.S. Army Test and Evaluation Command (ATEC), currently headquartered in Alexandria, Virginia, is the only organization within the Department of Defense to provide full spectrum testing by overseeing both developmental and operational testing as well as evaluation of the test data.

Complying with the findings of the 2005 Base Realignment and Closure Commission, the ATEC Headquarters has begun its move to Aberdeen Proving Ground as well as several other elements of ATEC re-locating across the nation. However, there has been only minimal impact on testing and evaluation processes and reports in large part due to the professionalism and dedication of the ATEC workforce.

ATEC continues to have as its first priority the testing and evaluation support to Soldiers engaged in combat. As combat operations shift to Afghanistan, ATEC's Forward Operational Assessment (FOA) team remains fully engaged to meet test demands by providing critical, timely feedback on numerous systems and technologies to senior military decision makers. ATEC continues to be an integral part of system development in current timeframe such as body armor, M-ATV, double-V hull STRYKER as well as participating in detailed test planning for future efforts such as network integration.

James J. Streilein
Executive Director, ATEC

# History

On November 18, 1998, the Vice Chief of Staff of the Army approved consolidation of developmental and operational testing. That decision led to the re-designation, on Oct. 1, 1999, of the Operational Test and Evaluation Command (OPTEC) to the Army Test and Evaluation Command (ATEC).

Central to the consolidation was ATEC assuming overall responsibility for all Army developmental and operational testing. The Test and Evaluation Command (TECOM) became a major subordinate command of ATEC and was re-designated the U.S. Army Developmental Test Command (DTC), with DTC Headquarters remaining at Aberdeen Proving Ground, Maryland. Also, the Test and Experimentation Command (TEXCOM) was re-designated the U.S. Army Operational Test Command (OTC), with OTC headquarters remaining at Fort Hood, Texas. The third ATEC subordinate command that was re-designated encompassed both the Operational Evaluation Command and the Evaluation Analysis Center, which were combined to form the new U.S. Army Evaluation Center (AEC), completing the earlier decision to move developmental and operational evaluation into a single, integrated command.

Under the consolidation, ATEC also received responsibility for installation management of White Sands Missile Range, New Mexico; Dugway Proving Ground, Utah; and Yuma Proving Ground, Arizona. On Oct 1, 2002, the respective Installation Management Activity regional office assumed that responsibility.

ATEC also took command of Aberdeen Test Center (ATC) at Aberdeen Proving Ground, Maryland; Aviation Technical Test Center (ATTC) at Fort Rucker, Alabama; Redstone Technical Test Center (RTTC) at Redstone Arsenal, Alabama; Electronic Proving Ground (EPG), Fort Huachuca, Arizona; Cold Regions Test Center (CRTC), at Fort Greely, Alaska; and the Tropics Regions Test Center (TRTC), headquartered at Yuma Proving Ground, Arizona, with testing in Hawaii and other locations.

ATEC continues to develop and mature to better posture the Command to respond to customer requirements. Under the mandate of the 2005 Base Realignment and Closure, the Aviation Technical Test Center at Fort Rucker, Alabama consolidated with Redstone Technical Test Center to form the Redstone Test Center (RTC) at Redstone Arsenal, Alabama. To further streamline the Command, the Army Evaluation Center has been incorporated into ATEC HQ as part of the reorganization of ATEC to achieve efficiencies as required by BRAC. And to be in compliance of relocation completion by the Summer of 2011, ATEC Headquarters is in the process of moving from Alexandria, Virginia to Aberdeen Proving Ground, Maryland.

## ATEC's Wide Range of Customers

- The American Soldier
- Congress
- Chief of Staff and Vice Chief of Staff, U.S. Army
- Joint Chiefs of Staff
- Army Deputy Chief of Staff for Operations and Planning
- Assistant Secretary of the Army for Acquisition, Logistics and Technology
- Program Executive Officer or Program Manager
- Director of Operational Test and Evaluation
- Under Secretary of Defense for Acquisition, Technology and Logistics
- Director of Information Systems for Command, Control, Communications and Computers
- Training and Doctrine Command
- Army Materiel Command
- U.S. Navy
- U.S. Air Force
- U.S. Marine Corps
- Missile Defense Agency
- Deputy Under Secretary of the Army for Operations Research
- Defense Threat Reduction Agency
- Allied Foreign Countries
- Commercial Developers and Academia
- Manufacturers
- National Security Agency

## Mission

ATEC plans, integrates and conducts experiments, developmental testing, independent operational testing and independent evaluations and assessments to provide essential information to acquisition decision makers and commanders.

## Vision

Remain the Nation's preeminent Test and Evaluation Command with a world-class, highly professional military and civilian workforce that focuses on the acquisition of capabilities supporting Warfighters engaged in support of the Overseas Contingency Operations and traditional acquisition. Also serve as the Army's "Strategic Mirror" ensuring the Army fields capabilities to our Soldiers as quickly as possible without rushing to failure.

## Crest

The grid lines represent scientific method and verification in the testing programs conducted by the Command. Black and silver denote the precision and clarity required in carrying out these programs. The wreath stands for high ideals. The balance scale denotes objectivity and represents the testing and evaluation mission of the Command. Blue stands for truth, and gold for excellence.

## Patch

The Command's mission, to seek truth through testing and experimentation, is symbolized by the triangle, or fulcrum, balancing a bar and sun. The bar and triangle represent a scale; the sun signifies the search for knowledge, enlightenment, and high ideals. Yellow indicates the precious metal gold and represents "the worth of quality assurance of tested products." Dark blue alludes to the sky and space, suggesting the possibilities and discoveries of the future. The red sword characterizes the individual Soldier, whose combat preparedness is aided by the data and information products the organization provides. The white expresses the Command's search for the truth and sterling quality of the products produced.

# Organization

| | |
|---|---|
| ABNSOTD | Airborne and Special Operations Test Directorate |
| AEC | Army Evaluation Center |
| AMSCA | ATEC Mission Support Contracting Activity |
| ATC | Aberdeen Test Center |
| AVTD | Aviation Test Directorate |
| BCCTD | Battle Command and Communications Test Directorate |
| BMDED | Ballistic Missile Defense Evaluations Directorate |
| C2ED | Command and Control Evaluation Directorate |
| CRTC | Cold Regions Test Center |
| DTC | Developmental Test Command |
| EPG | Electronic Proving Ground |
| FITD | Futures Integration Test Directorate |
| FOA | Forward Operational Assessment Team |
| FED | Fires Evaluation Directorate Team |
| FTD | Fires Test Directorate |
| IED | Intelligence Evaluation Directorate |
| IEWTD | Intelligence and Electronic Warfare Test Directorate |
| ILS | Integrated Logistics Support |
| JTB | Joint Test Board |
| JT&E/QRT | Joint Test and Evaluation/ Quick Reactions Tests |
| MAED | Maneuver Air Evaluation Directorate |
| MGED | Maneuver Ground Evaluation Directorate |
| MS2TD | Maneuver Support and Sustainment Test Directorate |
| MTD | Maneuver Test Directorate |
| NTD | Network Test Directorate |
| OTC | Operational Test Command |
| RAM | Reliability and Maintainability Directorate |
| RTC | Redstone Test Center |
| SED | Sustainment Evaluation Directorate |
| SVED | Survivability Evaluation Directorate |
| TRTC | Tropic Regions Test Center |
| WDTC | West Desert Test Center |
| WSTC | White Sands Test Center |
| YTC | Yuma Test Center |

The U.S. Army Test and Evaluation Command (ATEC) was established Oct. 1, 1999, by the Vice Chief of Staff with the primary function of ensuring that our Soldiers go to war with weapons that work. ATEC has overall responsibility for all Army developmental and operational testing, operating from three fully integrated major subordinate commands: the U.S. Army Developmental Test Command (DTC), U.S. Army Operational Test Command (OTC), and the U.S. Army Evaluation Center (AEC).

# ATEC Liaison Officers

As part of our early involvement initiative, ATEC reaches out to acquisition organizations through Liaison Officers. ATEC Liaison Officers establish an important link with external agencies such as Program Executive Offices (PEO), Program Managers (PM), Training and Doctrine Command (TRADOC) and rapid acquisition organizations. Liaison Officers are embedded within these agencies to ensure information exchange remains constant throughout the life cycle – from requirements documentation through the Test and Evaluation (T&E) process and beyond. Early involvement with Liaison Officers translates directly into cost savings by avoiding the rising cost of change within the system design life cycle.

## ATEC Liaison Officers (LNO)

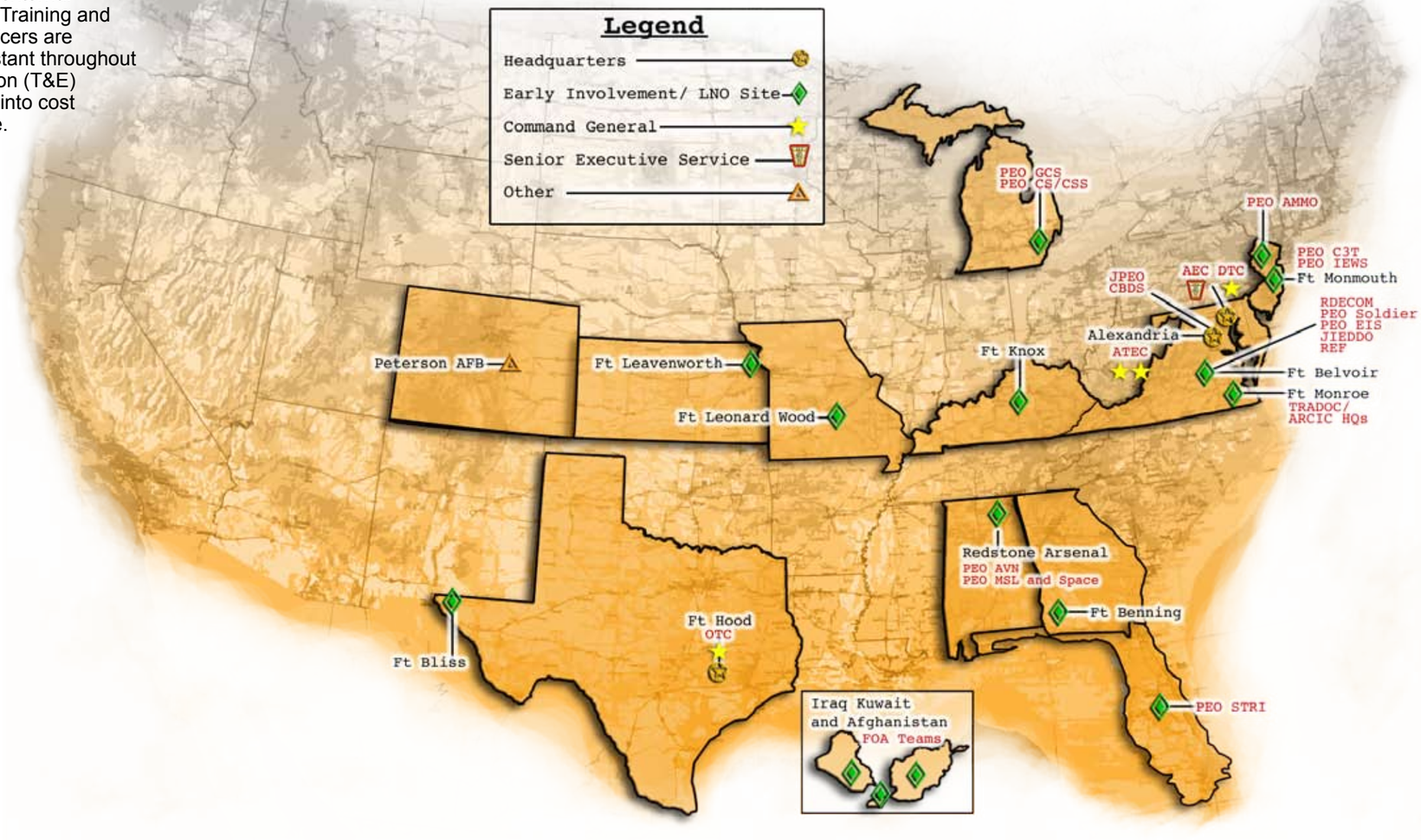
| | |
|---|---|
| LNO Branch Chief | (703) 681-7809 |

## TRADOC

| | |
|---|---|
| CAC LNO, Fort Leavenworth, KS | (913) 684-4280 |
| Maneuver Ctr of Excellence, Fort Knox, KY | (502) 624-4782 |
| TRADOC HQ LNO, Fort Monroe, VA | (757) 788-3056 |
| Infantry Support Cell, Fort Benning, GA | (706) 545-7952<br>DSN: 835-7952 |

## Program Executive Offices (PEO)

| | |
|---|---|
| PEO Ammo LNO, Picatinny Arsenal, NJ | (973) 724-0521 |
| PEO AVN LNO, Redstone Arsenal, AL | (256) 876-6413 |
| PEO C3T LNO , Fort Monmouth, NJ | (732) 427-4251 |
| PEO CS&CSS LNO, Warren, MI | (586) 574-5275<br>DSN: 786-5275 |
| PEO CBDS LNO, Falls Church, VA | (703) 681-6444 |
| PEO EIS LNO, Fort Belvoir, VA | (703) 806-3662 |
| PEO GCS LNO, Warren, MI | (586) 574-6769 |
| PEO IEW&S LNO, Fort Monmouth, NJ | (732) 427-0054<br>DSN: 987-0054 |
| PEO Soldier LNO, Fort Belvoir, VA | (703) 704-1297<br>DSN: 654-1297 |
| PEO STRI LNO, Orlando, FL | (407) 384-5353 |
| PEO Missiles and Space LNO, Redstone Arsenal, AL | (256) 876-6413 |
| JIEDDO, Alexandria, VA | (703) 602-5022 |
| Rapid Equipping Force (REF), Fort Belvoir, VA | (703) 704-4244<br>DSN: 654-4244<br>(703) 704-2319<br>DSN: 654-2319 |




## Mission

ATEC provides experienced T&E Liaison Officers to:

- Provide early involvement and facilitate a direct communication link between ATEC and TRADOC/PEO.
- Provide advice and assistance in developing T&E strategies.
- Coordinate a T&E cost estimating process between ATEC and PEO/PMs, and ensure adequate funding is budgeted for T&E in the Program Objective Memorandum (POM).
- Provide assistance in resolving conflicts on T&E program-related matters.
- Improve PEO/PM understanding of ATEC's mission and understanding of the ATEC System Team (AST) member mission.
- Work with ATEC/PM Integrated Product Teams (IPT) to improve T&E planning, execution and evaluation.

## ATEC Teams Assess System Effectiveness in Theater

By Mike Cast
Developmental Test Command Public Affairs

Since the onset of wars in Afghanistan and Iraq, U.S. military forces have had to rely on weapon systems that either had never been fielded before or that needed modifications to keep pace with a war that continues to evolve. The Army Test and Evaluation Command has responded to this challenge by deploying forward operational assessment (FOA) teams to the combat theater to evaluate the effectiveness of a wide array of weapon systems.

The first such team deployed to Kuwait in the early stages of the war in Iraq to assess the performance of Army vehicles that Soldiers were driving much faster in theater, to avoid becoming easy targets for their enemies, than had been predicted when tested. Since then, more than a dozen ATEC FOA teams have deployed to the area of operations for both Afghanistan and Iraq, with the mission of assessing everything from counter-threat technologies to unmanned aerial and ground systems that gather intelligence on enemy activities.

Deployed teams stay in theater for several months, although some team members have stayed for as long as a year. Their mission requires them to work at least six days a week, with workdays as long as 14 hours or more.

A large number of these forward-deployed personnel have been ATEC Soldiers, but many of ATEC's civilian employees have volunteered to participate in the deployments. Coming from ATEC's three primary test-and-evaluation organizations: the Army Evaluation Center, the Developmental Test Command and the Operational Test Command, these employees were willing to volunteer because they knew how crucial this mission was to supporting Soldiers, who face the threat of serious injury and death, day in and day out.

ATEC's FOA team members have obtained critical feedback from Soldiers and Army units that has led to weapon-systems improvements; changes to tactics, techniques and procedures; and adjustments to test-and-evaluation procedures at ATEC's various test facilities and ranges in the United States. One result of the teams' deployment is a stateside test-and-evaluation program that as closely as possible mirrors the realities of operations in theater.

Soldiers on the receiving end of ATEC's forward support appreciate what the command is doing for them, said Capt. Brian Hartigan of the 37th Engineer Battalion, 20th Engineer Brigade, a unit that normally is stationed at Fort Bragg, N.C.

"I was impressed on a daily basis with the level of commitment that these guys showed, not just for their specific project, but to supporting the guys on the ground," he said of FOA Team Speicher. "Not only were they willing to go outside the wire and put themselves in harm's way, they were hungry for the real-time data that our Soldiers were providing them."

"The ATEC forward operational assessment team here in support of OIF is essential to (determining) what works in theater and what does not," said Command Sgt. Maj. Robert Liles of the 49th Military Police Brigade, a unit assigned to Camp Liberty. "It allows decision makers at the highest level to capture what the maneuver commanders see as a relevant force enabler and what is not. Ultimately, it's the Soldiers that pay the price of the good- idea guy with no experience of ever being on the ground."

Some of the systems under assessment during ATEC's 13th FOA team rotation (2009 – 2010) include mini-robots for clearing explosive ordnance; systems designed to protect Soldiers or to support intelligence, surveillance and reconnaissance operations; enhanced armor protection for various heavy wheeled vehicles used regularly in the combat theater; and a variety of unmanned aerial systems.

The data FOA team members have collected from Soldiers includes written feedback, face-to-face recorded interviews, telephone interviews and PowerPoint presentations. Some participants in the forward operational assessment program have gone on missions with units in their area to get a real-time look at how systems are operating.

"We were providing data no less than on a weekly basis as part of an assessment," said Sgt. 1st Class Dedrick Waterford, a FOA team member assigned to ATEC's Operational Test Command. "Our efforts there directly affect the test-and-evaluation process by gathering additional information that maybe was omitted during rapid fielding initiatives that brought new equipment to Soldiers sooner."

As America continues to combat its enemies, ATEC will continue to deploy personnel to the war theater to meet the needs of Soldiers.

MAJ Melinda Kalainoff, (left), a member of FOA XIII in Bragram, Afghanistan, discusses the Mini-Explosive Ordnance Disposal (EOD) robot with a EOD technician from the Air Force 755th Flight Detachment.

COL Brian Dosa, FOA Team XIII Commander, presents a FOA Commander's coin to a Route Clearance Soldier from 4th Brigade Combat Team, 82nd Airborne Division, for improvising a way to transport the Talon Robot.

# Evaluations

## U.S. Army Evaluation Center

Aberdeen Proving Ground, Maryland
Alexandria, Virginia

*Understanding Through Evaluation*

## Who We Are

The Army's premier evaluation organization affecting all Army modernization and transformation research, development and acquisition programs.

A nearly 550 member civilian and military team that plans, programs, coordinates and executes integrated evaluations in 10 directorates:

- Ballistic Missile Defense Evaluation Directorate (BMDED) – Army operational test and evaluation arm of the Ballistic Missile Defense System (BMDS) Combined Test Force (CTF), and lead service member of the BMDS Operational Test Agency Team.
- Maneuver Air Evaluation Directorate (MAED) – Aviation (aircraft, air traffic control, munitions and Soldier support) systems operational effectiveness, suitability and survivability.
- Maneuver Ground Evaluation Directorate (MGED) – Infantry/Soldier systems, wheeled and tracked combat platforms, sensors and target acquisition systems, battle command systems, combat training simulators and lethal and nonlethal weapons/munitions programs.
- Sustainment Evaluation Directorate (SED) – Sustainment, mobility, maneuver support, quartermaster, ordnance, transportation, military police, engineer and chemical-biological systems.
- Command and Control Evaluation Directorate (C2ED) – Army and joint command, control, and communications, business information and medical information systems.
- Fires Evaluation Directorate (FED) – Army Fire Support (rockets and missiles, cannons, command and control) and Air and Missile Defense systems.
- Intelligence Evaluation Directorate (IED) – Intelligence-related acquisition programs, surveillance and reconnaissance, electronic and information warfare, covering national, theater, coalition and commercial space.
- Integrated Logistics Support (ILS) Directorate – Logistics supportability (to include MANPRINT) evaluation of a system and its impact on suitability, and independent logistics supportability assessments reported to the Assistant Secretary of the Army for Acquisition, Logistics and Technology.
- Reliability and Maintainability Directorate (RAM) – Reliability, Availability and Maintainability (RAM) system characteristics for major defense acquisition programs.
- Survivability Evaluation Directorate (SVED) – Survivability, ballistic and nonballistic battlefield threats, live-fire evaluations and reports, and vulnerability and lethality of Army and designated joint systems. Also leads ATEC's Information Assurance Task Force for the Combatant Commanders.

## Major Test Programs

Army Battle Command Systems (ABCS) planning.

Ballistic Missile Defense System (BMDS) Limited Deployment Capability (LDC) assessment.

Brigade Combat Team Modernization.

Stryker reliability and Stryker variants, including Mobile Gun System (MGS).

Mine Resistant Ambush Protection (MRAP) Armored Vehicles and variants.

Up-Armor Wheeled Vehicles.

Counter-Threat measures.

## What We Do

Plan and conduct independent evaluations and assessments of acquisition programs.

Develop the evaluation strategy, test design and evaluations addressing operational effectiveness, suitability and survivability.

Conduct continuous evaluation throughout the acquisition life cycle of systems.

Provide evaluation information to key Department of Defense decision makers.

Work in harmony with the materiel acquisition community to best achieve our evaluation mission.

Provide rapid response analysis for hundreds of Rapid Equipping Force and Rapid Acquisition initiatives.

Satisfy Warfighter and Overseas Contingency Operations (OCO) requirements.

Provide military utility assessments for the Warfighter's urgent needs in Iraq and Afganistan.

Chair over 95 percent of Army Test and Evaluation Command (ATEC) Systems Teams (AST), which guide the initial test and evaluation effort.

Combatant Command (COCOM) major training exercises in assessing information assurance.

The M109A6 Paladin 155mm howitzer is expected to remain an integral part of the Army for decades to come, and continues to undergo extensive testing at ATEC. This program is one of many that is evaluated by the U.S. Army Evaluation Center.

## Contact Us

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Web site: www.atec.army.mil/aec

# Developmental Testing

## U.S. Army Developmental Test Command

Aberdeen Proving Ground, Maryland

*Supporting Soldiers Through Rigorous, Realistic Testing*

## Who We Are

The Army's premier developmental tester.

Department of Defense's (DoD's) largest, most diverse array of testing capabilities.

Eight test centers providing the full spectrum of arctic, tropic, desert and other environments under natural or precisely controlled conditions:

Aberdeen Test Center (ATC),
Aberdeen Proving Ground, Maryland.

Cold Regions Test Center (CRTC),
Fort Greely, Alaska.

Electronic Proving Ground (EPG),
Fort Huachuca, Arizona.

Redstone Test Center (RTC),
Redstone Arsenal, Alabama.

Tropic Regions Test Center (TRTC),
Schofield Barracks, Hawaii, and Panama.

West Desert Test Center (WDTC),
Dugway Proving Ground, Utah.

White Sands Test Center (WSTC),
White Sands Missile Range, New Mexico.

Yuma Test Center (YTC),
Yuma Proving Ground, Arizona.

## What We Do

Provide a full range of technical support, including:

- Conducting test planning, execution and reporting
- Collecting unbiased test data on the technical feasibility of early concepts.
- Collecting data to assess technical risks during system development.
- Evaluating the safety of Army systems and conducting performance testing.
- Maturing designs to lower technical risks.
- Validating manufacturers' design and performance at both the system and component level.

Fully engaged in Overseas Contingency Operations (OCO) from in-theater support to development of armor protection and Counter-Threat solutions to testing.

Support developmental, rapid initiatives, production and live-fire tests.

Develop and procure new test technology, test instrumentation and selected models and simulation.

Test across the full spectrum of physical and electromagnetic environments.

Provide technical expertise to DoD organizations; other Federal agencies; local, state and foreign governments; academia; and private industry.

Support development of acquisition strategy, statement of work, performance specification and test/simulation execution strategy.

Test equipment and systems under a variety of conditions and possible uses to ensure the safety of Soldiers and operators from earliest training and testing through fielding.

## Contact Us

Phone: (410) 278-1417  DSN: 298-1417
E-mail: tedt-tmb@conus.army.mil
Web site: www.dtc.army.mil

# Aberdeen Test Center

Aberdeen Proving Ground, Maryland

*The Defense Department's Most Diverse Test Facilities*

## Who We Are

A Department of Defense (DoD) Major Range and Test Facility Base (MRTFB) Activity whose primary mission is to support test and evaluation requirements.

The Army's Center of Excellence for Congressionally-mandated live-fire vulnerability and lethality testing.

The Army's primary test center for Command, Control, Communications, and Computers (C4).

The Defense Department's lead test center for automotive, direct-fire, non-lethal weapons, unmanned ground vehicles, littoral warfare, Soldier systems, transportability, survivability and lethality testing.

An accredited Federal laboratory and leading center for technology transfer and dual-use partnerships with industry, academia and other DoD components.

A center that supports testing worldwide using extensive mobile instrumentation, satellite communications and leading-edge technologies.

## What We Do

Conduct test and evaluation on rapid materiel equipping initiatives.

The Army's lead automotive testing facility.

Perform live-fire vulnerability/lethality testing.

Test military firepower systems including guns and munitions (direct fire and small arms).

Test Soldier systems and support equipment.

Provide data and analysis supporting safety releases, safety confirmations, capabilities and limitations of material solutions, so Soldiers can safely use systems.

Perform testing for federal, state and local governments, academia, private industry and foreign governments.

Vehicle-in-the-loop simulations supporting vehicle dynamics and ride characteristics.

## Major Programs

Warfighter Information Network-Tactical (WIN-T).

In-theater Black Box systems for automotive and ballistic data.

Automotive and ballistic testing of Mine Resistant Ambush Protected (MRAP) systems, including the MRAP All-terrain Vehicle (M-ATV).

Ballistic testing of Soldier helmets and body armor.

Expedient armor and up-armor kit testing for light, medium and heavy tactical vehicles.

Threat survivability testing.

Automotive and ballistic testing of Stryker variants including the Mobile Gun System (MGS).

Mine/Wire Detection Systems.

Armor plate acceptance testing.

Large-caliber ammunition lot acceptance testing.

Homeland Security.

Modeling and simulation capabilities to support Interim Brigade Combat Team Modernization.

System of Systems distributed test events and experimentation.

The U.S. Army Aberdeen Test Center, the Army's Center for Excellence for Congressionally-mandated live-fire vulnerability and lethality testing, tests an MRAP vehicle.

A Soldier engages an E-Silhouette target with the M110 7.62mm Semi-Automatic Sniper System (SASS) as part of an operational assessment.

## Contact Us

Phone: (410) 278-4639  DSN: 298-4639
E-mail: apgr-atc-business@conus.army.mil
Web site: www.atc.army.mil

# Cold Regions Test Center

Ft. Greely, Alaska

*The Defense Department's Natural Cold Environment Tester*

*A Yuma Proving Ground subordinate test center*

## Who We Are

Defense Department's premier tester for winter warfare, with longstanding expertise in cold-weather testing and more than 670,000 acres of impact area and maneuver space.

A test environment combining the varied and synergistic effects of terrain, temperature, wind, and snow over a large area.

Owner of a 3.2-mile paved mobility test complex, with skid pad and test slopes, including the capability to produce large-scale ice and snowfields.

Site of 800-foot unmanned aerial system airfield within 30 kilometers of Afghanistan-like mountains reaching 13,000 feet.

Designated user of airspace over test ranges at Donnelly Training Area, Fort Wainwright, Alaska.

## What We Do

Test military tracked and wheeled vehicles.

Test manned and unmanned ground and aerial systems, and unmanned ground sensors.

Test weapon systems (direct and indirect fire), munitions and small arms.

Test Soldier systems and support equipment.

Test individual Soldier clothing and equipment.

Test mines, explosives, and demolitions.

Provide access to numerous paved, secondary, and cross-country roads and trails for vehicle mobility, reliability, and durability testing.

Provide commercial customers with brake, suspension, traction, and handling test courses.

Provide access to assault strips, drop zones, and a Military Operations in Urban Terrain (MOUT) site.

## Major Programs

All Stryker configurations.

Support for fielding of Mine Resistant Ambush Protected (MRAP) training vehicles to U.S. Army Alaska through cold weather testing and cold weather environmental performance upgrades.

Testing of indirect fire weapons such as Non-Line of Site (NLOS) Launch System, Excalibur projectile, and Marine Corps Expeditionary Fire Support System (EFSS).

Support for operational tests and joint service tests such as the Marine Corps Expeditionary Fighting Vehicle (EFV) and Marine Corps Logistics Vehicle System Replacement (LVSR).

On-going, yearly, natural environment storage tests for both Marine Corps and Army customers.

Soldier equipment to include Lightweight Laser Designator Rangefinder (LLDR), Thermal Weapon Site (TWS), and Laser Target Locator Module (LTLM).

Individual Soldier equipment to include Individual Cold Weather Stove, Improved ACU combat trouser, and Modular Boot System.

A hook-up crew prepares to attach the slingload cable to a CH-47. CRTC uses slingloading to stage connexes and other equipment across the Delta River to support testing.

## Contact Us

Phone: (907) 873-2116 DSN: 317-873-2116
Toll Free: 1-888-822-1930
E-mail: crtc@conus.army.mil
Web site: www.crtc.army.mil

The M1A2 Abrams SEP v2 performs boresight retention checks at CRTC.

# Dugway Proving Ground & West Desert Test Center

Dugway, Utah

*Rendering Danger from Chem/Bio Agents Irrelevant*

## Who We Are

Department of Defense lead tester for:
- US and allied chemical and biological (CB) defense equipment.
- NBC contamination survivability of defense materiel.

Program Manager for Operational Meteorology for Army Research Development Test and Evaluation.

A Department of Defense (DoD) Major Range and Test Facility Base (MRTFB) Activity whose test facilities and ranges comprise approximately 800,000 acres. DPG and Utah Test and Training Range maintain a team relationship to serve customers and utilize the many resources available.

Center of Excellence for Program Manager, Unmanned Aerial Systems, Rapid Integration and Acceptance Center.

Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) systems integration and primary test site.

## What We Do

Conduct CB collective and individual protection, detection, contamination avoidance and decontamination testing for joint services, combatant commands and other agencies:
- Developmental and operational outdoor field testing using CB simulants.
- Developmental chamber testing using CB agents.

Meteorological technology development.

Smoke and obscurants:
- Smoke and obscurants effectiveness.
- Smoke generation.

Support the CB weapons conventions.

Manage the development of CB defense models and validation tests.

Act as the primary CB defense test center under the Reliance Program.

Host full-scale field exercises that enable emergency response organizations to validate their tactics, techniques and procedures for use during CB weapons incidents.

Provide test and training ranges with nine drop zones, 91 artillery firing points and four major impact areas (231,000 acres).

Maintain capability to handle all Army and Air Force aircraft with fully lighted 11,000 foot runway.

Determine the reliability and survivability of all types of military equipment in a CB environment.

## Major Programs

Chemical:
- Stryker Nuclear Biological and Chemical Reconnaissance Vehicle.
- Joint Service Lightweight Suit Technology.
- Joint Protective Aircrew Ensemble.
- Joint Service Chemical Environmental Survivability Mask.
- Joint Service Family of Decontamination Systems.
- Joint Service Lightweight Standoff Chemical Agent Detector.
- Joint Chemical Agent Detector.
- Future Combat System.

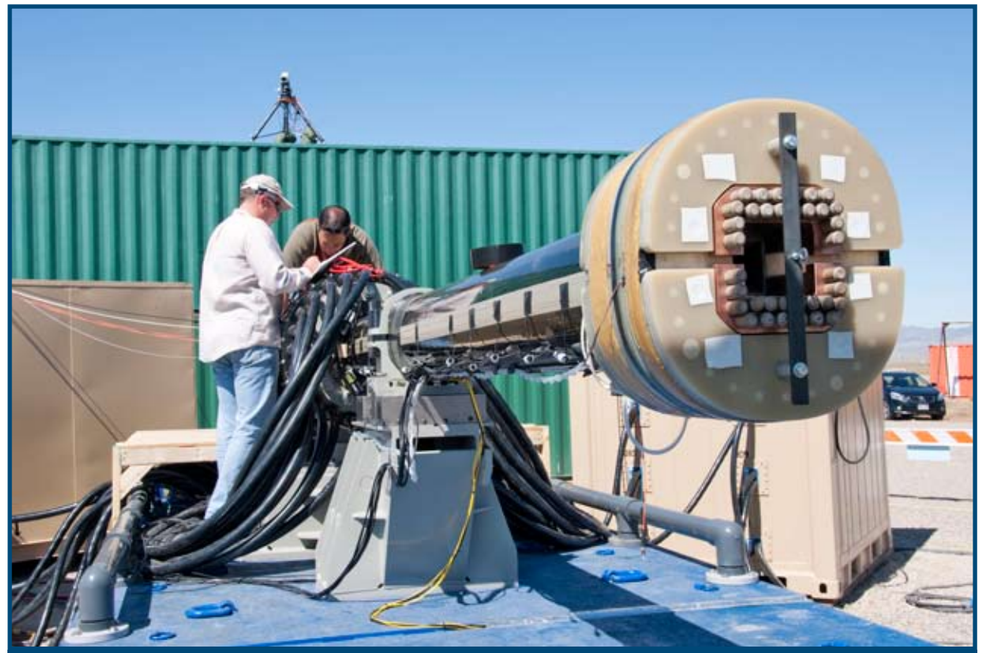
Biological:
- Joint Biological Point Detection System.
- Joint Biological Tactical Detection System.
- Joint Biological Agent Identification and Detection System.
- Joint Biological Standoff Detection System.
- Critical Reagent Program.
- Whole System Live Agent Test.
- Department of Homeland Security (DHS) Bio Watch.
- Support of FBI and EPA regarding anthrax investigation/decontamination.
- Homeland Security support for Center for Disease Control/National Institute for Occupational Safety and Health pathogen sampling.

Meteorological:
- Joint Science and Technology Office Sensor Data Fusion Program.
- Four-Dimensional Weather System Development.
- Defense Threat Reduction Agency Modeling Program.
- Joint Urban 2003.
- Defense Advanced Research Projects Agency Pentagon Shield.

Unmanned Aerial Systems:
- Rapid Integration and Acceptance Center.
- Integrating New Technologies for the Warfighter.
- Abundant Airspace and Expanding Infrastructure.

Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System:
- Surveillance Radar.
- FireControl Radar.
- Mobile Mooring Station/Communication Packages.

The testing of repaired or modified Unmanned Aerial Systems at the newly created Rapid Integration & Acceptance Center at Dugway Proving Ground, Utah, helps to ensure that troops get reliable, durable "eyes in the sky." Here, AAI Corporation's rail-launched Shadow takes flight. Dugway was chosen because its climate and geography are so much like Afghanistan.



Testing of the prototype Blitzer electromagnetic rail gun takes place at Dugway Proving Ground, Utah. Created by General Atomics Electromagnetic Systems, under a contract with the U.S. Navy's Office of Naval Research, the gun uses electricity, and not propellant, to launch large projectiles at more than twice the velocity of conventional systems.

## Contact Us

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Web site: www.dugway.army.mil

# Electronic Proving Ground

Ft. Huachuca, Arizona

*The Army's Center of Expertise for Intelligence, Surveillance and Reconnaissance (ISR) and Networks Testing*

## Who We Are

DTC's network and ISR tester at Fort Huachuca, Arizona, providing test support for a full range of ISR systems, system of systems, and networks.

Electromagnetically quiet ranges, controlled environment for open air testing.

A cost reimbursable, government test range with extensive laboratory facilities, controlled air space, and test sites.

A Department of Defense (DoD) Major Range and Test Facility Base (MRTFB) Activity comprised of test ranges and air space that total some 70,000 acres at Fort Huachuca; 23,000 acres at Wilcox Dry Lake; more than 100,000 acres at Gila Bend; with additional acreage that can be coordinated to accommodate tests requiring additional acreage.

Experts in testing distributed networks and in "System of Systems" testing.

DTC's information assurance (IA) tester and the Army's TEMPEST tester.

ATEC's Lead for Defense Homeland Security's Secure Boarder Initiative.

## What We Do

Plan and conduct technical tests to determine capability, limitations and vulnerabilities of complex electronic equipment and systems, including:

- Surveillance and reconnaissance.
- Intelligence & electronic warfare.
- Global positioning & navigation, and
- The Global Information Grid.

Conduct electromagnetic effects testing of electronics, ISR, networks, and information processing systems.

- Conduct EMI/EMC, mutual interference, co-site interference, and TEMPEST tests.
- Conduct antenna pattern tests, unmounted on host platforms.

Analyze data and the results of technical tests.

Develop innovative advanced technology solutions via instrumentation, stimulations and simulations to enhance test planning, situational awareness, data collection and reduction, and test after-action review.

Provide quick-reaction support to real world missions and homeland defense.

Provide test support to other service branches, government agencies, and civilian corporations.

Support ISR systems and network test aspects of commodity areas as they are tested by other DTC Test Centers.

Test Program Management.

Test unmanned aerial system ISR payloads.

## Major Programs

Threat electronic counter systems.

Force XXI Battle Command Brigade-and-Below (FBCB2) & Blue Force Tracker (BFT) Joint Capabilities Release (JCR).

Joint Tactical Radio System (JTRS).

Stryker Family of Vehicles.

Rapid Equipping Force (REF) programs.

Prophet.

Compass Call.

Joint Warning And Reporting Network (JWARN).

Global Positioning System (GPS).

Beacon Tester.

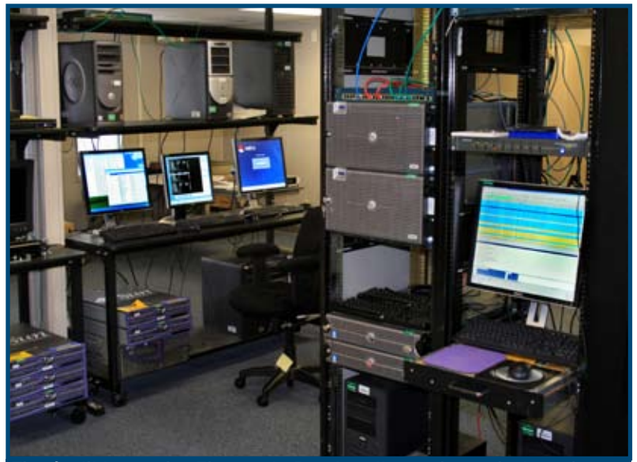
Land Warrior.

Joint Network Management System (JNMS).

The distributed network and information grid that supports Future Combat Systems.

Army Battle Command & Enablers. (ABC&E) Systems of Systems (SOS).

Homeland Security's Secure Border Initiatives.



The facilities at the Electronic Proving Ground are designed to conduct a variety of tests of Army systems that provide command and control, communications, computer operations, intelligences, surveillance and reconnaissance.

The Developmental Test Command's Electronic Proving Ground conducts tests during the development of systems such as Stryker Commander's Vehicle in Chamber 4, being prepared to perform emissions testing.

## Contact Us

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Web site: www.epg.army.mil

# Redstone Test Center

Redstone Arsenal, Alabama

*An Army Leader in Aviation and Missile Testing*

## Who We Are

The premier Army agency for testing military aircraft throughout the acquisition, modernization and sustainment life cycle in support of America's warfighters.

The Army's tester of small rockets, missiles and weapon components and subsystems as well as unmanned and remotely operated weapon and sensor systems.

A cadre of military and civilian experimental test pilots, flight test engineers and technicians who conduct developmental testing of manned and unmanned aircraft and aviation systems.

A center of Army aviation and missile expertise whose test facilities provide workspace for the modification, maintenance, modeling and support of test systems.

The Army's technical testers for aviation and missile subsystems and components, and primary electromagnetic environmental effects tester for Army aviation systems.

A center of expertise for testing lightning's effects on explosive and hazardous materials.

A lead developer of distributed testing technologies.

## What We Do

Test the flight performance of aviation systems and aircraft handling qualities, and conduct airworthiness qualifications of Army aircraft.

Provide complete test capabilities for small rocket and missile systems, including flight, warhead and motor performance.

Perform safety, qualification and reliability testing of Army aircraft components and systems in support of Air Worthiness Qualification.

Conduct environmental and electromagnetic environmental effects testing of components, subsystems and systems.

Test sensors/seekers/designators for weapon systems and homeland defense systems.

Test Counter-Threat technologies including ground and aerial intelligence, surveillance and reconnaissance sensor systems and electronic countermeasure systems.

Test under simulated battlefield conditions that include obscurants and countermeasures.

Test the integration of aviation systems into aircraft, including human factors engineering and system safety.

Test aircraft handling under icing and rain conditions, both natural and artificial .

Instrument aircraft, conduct aircraft modifications and perform maintenance.

Collect and process test data, and conduct test-flight simulations and flight-test engineering.

Conduct static and dynamic testing of warheads and fuses including urban targets.

Perform Insensitive Munitions testing.

Test digital communications systems.

## Major Programs

Javelin Anti-Armor Missile System.

Hellfire Missile System.

Multiple Launch Rocket System (MLRS).

Terminal High Altitude Area Defense (THAAD).

Unmanned Aerial Systems (UAS).

Common Missile Warning System Upgrades and System Performance Testing; Multiple Platforms.

Active Protection Systems (APS).

Non-Line of Sight Launch System (NLOS-LS).

Advanced Threat Infrared Counter Measure Testing (ATIRCM); Multiple Platforms.

AH-64D Longbow Apache Block III Testing.

UH-60M Modernization Testing.

UH-60M Upturned Exhaust and EDECU (Common ECU).

C-27 Joint Cargo Aircraft (JCA).

OH-58 Kiowa Cockpit and Sensor Upgrade Program (CASUP) Testing (Sept'10).

CH-47F Chinook CAAS (Common Avionics Architecture System) Testing.

MH-60M Black Hawk Systems Qualification Testing.

Test pilots check out the survivability of the upgraded Blackhawk helicopter.

## Contact Us

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Web site: www.rtc.army.mil

Flight Testing of the TOW2B off the Stryker platform.

# Tropic Regions Test Center

Yuma Proving Ground, Arizona

*Giving the Department of Defense Firm Answers on Jungle Warfare*

*A Yuma Proving Ground subordinate test center*

## Who We Are

Department of Defense (DoD) lead tester for materiel and systems in the tropic environment.

Primary test facilities and ranges are located in Panama along with mothballed test facilities located in Hawaii, Suriname, and Honduras which are available as required.

## What We Do

Test all types of systems and materiel in a tropical environment to provide the warfighter with the best equipment possible to fight, win and survive in any jungle environment.

Conduct tests of Army and joint program systems in natural tropic environments.

Maintain an array of micro-environmental test areas in diverse tropic forests, open lands, and coastal regions.

Challenge weapons and other systems in extreme real-world tropic environments under complex test parameters that cannot be duplicated in a chamber, including:
- Insects.
- Destructive fungi.
- Bacteria.
- Heavy rains.
- Solar loading.
- High temperatures with high humidity levels.

Test Soldier systems in tropic environments, assessing:
- Durability.
- Performance.
- Reliability.
- Human factors.

Conduct portability and mobility tests to evaluate tropic issues, including:
- System ruggedness.
- Component analysis.
- Small team effectiveness.
- System analysis.

Use standardized test sites, courses and written procedures to determine system performance and reliability, and interpret the results.

Combine the realism of operational test principles with the control of developmental testing techniques to produce objective results.

Evaluate Soldiers system materiel through human factors engineering.

Test Soldier system support equipment performance and reliability.

Test environmental military technologies.

Provide test support to other service branches, government agencies, and private industry.

## Major programs

Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) variant of Stryker vehicle and M-56 Smoke Generation System (SGS).

Joint Soldier system programs/chemical biological defense systems: Joint Service Lightweight Integrated Suit Technology; Joint Chemical Agent Detector; Joint Lightweight Stand-off Chemical Agent Detector.

Sensor and communications systems: Airborne Multi-Sensor programs; ground sensors; air and ground communications systems.

Collaborating with industry to develop heavy vehicle tropic testing capabilities.

Tropic Regions Test Center personnel drove a Stryker test vehicle over 2,000 miles of challenging jungle terrain, including this flooded road.


Insects are omnipresent in a jungle environment, a fact that should be kept in mind when evaluating equipment necessary to Soldiers. An ox beetle like this can lift objects up to 100 times its own weight, and carry objects 30 times its weight for long distances.

## Contact Us

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# White Sands Missile Range & White Sands Test Center

White Sands, New Mexico

*DoD's Extensive All Overland Test Range*

## Who We Are

A Department of Defense (DoD) Major Range and Test Facility Base Activity comprising of test and evaluation ranges supporting joint, interagency and multi-national tests.

Department of Defense's largest overland Test Range (2.2 million acres).

Expert in complex and multi-mission command and control.

Inter-Range Control Center for distributed testing.

Manager of DoD zero to infinity restricted air space, with full command and control authority.

Provider of high quality services for experimentation, test, research, assessment, development, and training for warfighters and customers in support of the Nation at war.

## What We Do

Plan, conduct, analyze, and report the results of developmental tests, production tests, and other tests in the following areas:

Air/missile defense systems.

Aircraft systems - aircraft armaments fixed-wing and aircraft survivability equipment.

Command, control, communications, and computers (C4):
- Missile systems.
- Navigation systems.
- System components.

Directed energy weapons.

Electromagnetic environmental effects (E3), electromagnetic interference (EMI), electromagnetic compatibility (EMC), external electromagnetic environment.
- Ground systems.
- Electromagnetic pulse.
- Aviation safety of flight (ADS-37).

Intelligence, surveillance and reconnaissance systems (ISR) – Target acquisition architectures (infrared electro-optical sensors, radar).

Missiles/rockets:
- Line-of-sight and Nonline-of-sight missiles.
- Missile/rocket - Propulsion systems.
- Components/subsystems (warheads, fusing, guidance/seeker, etc.).

Nuclear weapons effects.

Standard Operation and Maintenance Army Research and Development System (SOMARDS) Financial Information Management System (SOFIMS).

Systems of systems integration.
- Distributed testing - Inter-Range Control Center (IRCC).

## Major Programs

Advanced Medium Range Air-to-Air Missile.

Army Tactical Missile System Multiple Launch Rocket System.

Bradley A3.

Defense Threat Reduction Agency Programs-Deeply Buried Hardened Targets.

Extended Range Gun Munitions.

High Mobility Artillery Rocket System.

Japan ChuSam.

Japan PATRIOT.

Joint Air-to-Surface Standoff Missile.

Joint Direct Attack Munitions.

M1A1 Abrams Integrated Management Tank.

Multiple Launch Rocket System.

Non-Line-of-Sight Launch System.

Orion Crew Exploration Vehicle.

PATRIOT and PATRIOT Advanced Capability 3 Missile.

The Multiple Launch Rocket System (MLRS), formerly known as the General Support Rocket System (GSRS), is designed to supplement cannon weapons available to U.S. Army division and corps commanders for the delivery of a large volume of firepower in a very short time against critical, time sensitive targets.

Small Diameter Bomb.

Standard Missile.

Stryker.

Terminal High Altitude Area Defense (THAAD).

Unmanned Aerial Systems (Aerostar; Extended Range Multi-Purpose; Global Hawk; Hunter; Predator; Raven; and Shadow) System-of-Systems distributed test events and experimentation.

## Contact Us

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The PAC-3 (Patriot Advanced Capability) Missile is the world's most advanced, capable and powerful theater air defense missile.

# Yuma Proving Ground & Yuma Test Center

Yuma, Arizona

*The Army's most extensive weapons & munitions test facility and extreme desert environment tester*

## Who We Are

Yuma Proving Ground is a Department of Defense (DoD) Major Range and Test Facility Base (MRTFB) Activity comprising the Cold Regions Test Center at Fort Greely, Alaska.; the Tropic Regions Test Center located in Panama, and other tropic locations; and the Yuma Test Center at Yuma Proving Ground, Arizona.

The proving ground is one of the Defense Department's largest land holders, (1,300 square miles of terrain and 2,000 square miles of restricted airspace).

The three test centers represent the Army's primary desert, arctic and tropic environment test experts.

Yuma Test Center is the Army's primary artillery and mortar tester.

The test center is the Army's primary personnel and cargo parachute tester.

Yuma Test Center's National Counterterrorism/ Counterinsurgency Integrated Test and Evaluation Center (NACCITEC) boasts proven expertise in testing electronic countermeasures to defeat improvised explosive devices – the number one threat to Warfighters in Iraq and Afghanistan.

The test center features America's most highly instrumented helicopter test facility and ranges.

Robust and grueling mobility test courses amid extreme temperatures at the test center challenge personnel and equipment amid a realistic environment.

Diversified ranges at the center test nearly every commodity in the Army ground and air combat arsenal.

Yuma Test Center firing ranges feature coveted remoteness, with minimal noise problems and no encroachment.

Range facilities at the test center and the region's sunny climate add up to almost perfect test and training conditions. Training capabilities include a military working dog complex, convoy lanes, spacious terrain, and small arms, crew-served and grenade weapons ranges.

Yuma Test Center's expansive ranges feature instantaneous connectivity over more than 600 miles of fiber-optic cable.

## What We Do

Yuma Test Center is the primary tester of:

- Air delivery systems/airdrops.
- Aircraft systems.
- Ground combat systems.
- Indirect-fire weapon and ammunition systems.
- Engineering equipment.
- Direct-fire systems (non-missile/rocket).
- Electronic threat countermeasures.
- Unmanned aircraft systems.

Support numerous ground and air reinforcement and supplemental capabilities.

## Major Programs

Mine Resistant Ambush Protected (MRAP) vehicles.

Threat countermeasures system.

M777A2 Lightweight Howitzer Acceptance Testing.

M119A2 Howitzer Acceptance Testing.

Precision Guidance Kit (PGK).

M109A6 Self-Propelled Howitzer Reconditioning and Product Improvement.

Accelerated Precision Guided Mortar Initiative (APMI).

Excalibur 155mm artillery projectile.

Advanced Tactical Parachute System.

All Stryker armored vehicle variants tested since April 2002.

Joint Precision Aerial Delivery Systems.

Desert training (many subsequent overseas deployments).

Husky.

Vehicle Mounted Mine Detection System.

Yuma Proving Ground's Ground Combat Systems Test Directorate puts military vehicles through a grueling reliability and performance regimen amid pristine desert terrain. When not racing across scores of miles of hot, treacherous desert road courses, vehicles like this M1 Abrams are put through other stresses, such as climbing this awing 60% grade. In comparison, the steepest grade on an American interstate highway is 6%.

## Contact Us

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The remarkable similarity of Yuma Proving Ground's terrain to both Iraq and Afghanistan makes it ideal for testing equipment and for training Soldiers. Though the test mission claims the vast majority of the proving ground's effort, time is always found to train troops such as this squadron from Fort Drum, New York , that later deployed to Afghanistan.

# Operational Testing

## U.S. Army Operational Test Command

Fort Hood, Texas

*Truth in Testing*

### Who We Are

The United States Army Operational Test Command (USAOTC), the Army's independent operational tester, tests and assesses systems in a realistic operational environment using typical Soldiers to determine whether systems are effective, suitable and survivable in varying environments. OTC remains true to its ultimate customer - the American Soldier, our sons and daughters who answer the call to duty and serve our nation.

The Army's independent operational tester meeting the operational test requirements of public law (Title 10, US Code, Section139).

Readily deployable test teams supporting the Army's Rapid Acquisition Initiatives.

Forward Operational Assessment (FOA) teams supporting the forces in Afghanistan, Iraq, and Kuwait.

OTC Headquarters Command and Staff, four test directorates, three forward test directorates, a Test and Evaluation Coordination Office (TECO) at Fort Leonard Wood, Missouri, and an Infantry Support Cell at Fort Benning, Georgia:

Directorates:

Airborne and Special Operations Test Directorate (ABNOSTD),
Fort Bragg, North Carolina.

Aviation Test Directorate (AVTD),
Fort Hood, Texas.

Battle Command and Communications Test Directorate (BCCTD),
Fort Hood, Texas.

Intelligence Electronic Warfare Test Directorate (IEWTD),
Fort Huachuca, Arizona.

Maneuver Test Directorate (MTD),
Fort Hood, Texas.

Maneuver Support and Sustainment Test Directorate (MS2TD),
Fort Hood, Texas.

Fires Test Directorate (FTD)
Fort Bliss, Texas
Fort Sill, Oklahoma.

### What We Do

Plan, conduct and report operational tests and experiments for the Army aquisition decision making process.

Test and/ or assess systems in a realistic operational environment using Soldiers to determine whether systems are effective, suitable and survivable.

Capitalize on synergy with units and acquisition organizations at Fort Hood and the installations at which OTC's forward directorates and TECO are located.

Deploy test teams worldwide to accomplish operational testing missions at Soldier locations.

Deploy FOA teams into combat and operational contingency theaters to collect data on weapons and systems used in the operational environment, including systems recently fielded through the Army's Rapid Acquisition Initiatives.

### Contact Us

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## Airborne and Special Operations Test Directorate

Fort Bragg, North Carolina

*Home of the Airborne Soldier*

### Who We Are

As the Army's independent operational testers for airborne contingency and Joint Special Operations Forces, we plan, conduct, and report on the Army's airborne systems and techniques in support of the acquisition decision-making process.

### What We Do

Test every Army combat system the Soldier needs that can be transported in, airdropped from, or transported outside Army or Air Force aircraft.

Test Joint Service equipment and aerial methods of delivery for supporting the global war on terrorism that include:

- New parachute systems or airdrop techniques.
- Air delivery of new or modified combat equipment.
- Individual weapons or equipment.
- Equipment used by other government agencies.

Conduct airdrop certification for delivering equipment loads and personnel to combat zones to include:

- Internal loads using fixed-wing aircraft and helicopters.
- External loads using helicopters.
- Static Line parachute procedures.
- Military Free-Fall parachute procedures.
- New cargo delivery techniques and equipment.

Record data on the aircraft, between aircraft exit and ground impact, and during post-drop operations for validating airdrop events by using state-of-the-art instrumentation such as:

- Ground-based Video Tracking Systems.
- Aerial photography from T-34 chase aircraft or paratrooper's helmet-mounted cameras.
- Global Positioning System (GPS)-based instrumentation attached to jumpers and equipment loads.
- High-speed videography and digital still photography.

### Major Programs

Initial Operational Test of the T-11 Advanced Tactical Parachute System (T-11 ATPS).

Joint Developmental/Operational Test of the 2,200-lb Joint Precision Airdrop System (JPADS 2K).

Joint Developmental/Operational Test of the 10,000-lb Joint Precision Airdrop System (JPADS 10K).

Joint Developmental/Operational Test of the Joint Cargo Aircraft (JCA).

Initial Operational Test and Evaluation for Military Free-Fall of the Parachutist Oxygen Mask (POM).

Limited User Test of the M-240B Machine Gun and the M-240L Machine Gun.

Limited User Test of the Laser Target Locator Module (LTLM).

Limited User Test of the Enhanced M2 Machine Gun (M2E2).

Limited User Test of the XM-26 Modular Accessory Shotgun System (MASS).

Limited User Test for the Raytheon Thermal Weapon Sight (TWS) II.

Rapid Acquisition Initiative (RAI) of the Improved Container Delivery System (ICDS).

Customer Test for Helicopter Sling Load (HSL) of the T-250 Bobcat with Bucket Loader.

Customer Test of Simulated Airdrop Impact Testing for Six Variants of the Expanded Capacity Vehicle 2 (ECV2).

Customer Test of the Improved Outer Tactical Vest (IOTV) with front and rear Enhanced Small Arms Protective Insert (ESAPI).

Customer Test for the Parachutist Oxygen Mask (POM) when worn with the Advanced Combat Helmet (ACH) and Skull Cap Assembly.

Customer Test of the Tactical Floatation Support System-5326 (TFSS-5326) Increased Capacity Life Preserver Unit (ICLPU).

Customer Test of Five Plate Carrier System (PCS) Models.

After exiting from either a C-130 or C-17 aircraft, a Joint Precision Airdrop System (JPADS) 2,200-pound supply load descends to the planned point of impact on the drop zone.

In preparation for Helicopter Sling Load testing, operational Soldiers use the Cargo Hook Reach Pendant to hook the T-250 Bobcat with Bucket Loader to the CH-47D helicopter.

### Contact Us

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## Aviation Test Directorate

Fort Hood, Texas

### Who We Are

The Army's Aviation Test Directorate plans, conducts and reports on manned and unmanned aviation - related operational test and field experiments.

Unmanned Aviation Systems Test Division - Plans and conducts testing to include joint tests on unmanned aircraft/aerial systems.

Manned Aviation Systems Test Division - Plans and conducts testing on attack, reconnaissance, cargo and lift helicopters, fixed wing aircraft, tactical trainers, ground support equipment, and aviation countermeasure systems.

### What We Do

Test aviation doctrine, training, organization and equipment systems to ensure they meet Soldiers' needs in an operational environment.

Place Soldiers and equipment under the most realistic test conditions possible that closely approximate the anticipated aviation environment.

Test new aviation concepts, materiel and systems to consider their effects on the total force.

Equip aviators and test equipment in theater without negatively impacting tactical missions.

Balance support to the Warfighter with traditional acquisition efforts.

### Major Programs

Apache Block III (AB3).

Extended Range/Multipurpose Unmanned Aircraft System (ER/MP UAS).

Mobile Tower System (MOTS).

Unmanned Aircraft System Tactical Laser Designator (UAS-TLD).

Joint Cargo Aircraft (JCA).

Standard Aircraft Towing System (SATS).

Airborne Paratroopers performing High Altitude Low Opening operations are just one of the various capabilities of the JCA Aircraft.

### Contact Us

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The Tactical Communications Node (TCN) with the Satellite Tactical Terminal (STT+).

## Battle Command and Communications Test Directorate

Fort Hood, Texas

### Who We Are

Communication – Electronics Test Division
Command and Control Test Division
Enterprise and Information Systems Test Division.

### What We Do

Test systems for a Net-centric environment that will process and transmit voice, data, messaging and video information through networks at the tactical, operational, strategic and sustaining base levels.

Assure that information storage and transmission are secure, available and protected from hostile or accidental destruction or release.

Lead directorate for the Army LANDWARNET/Battle Command (LWN/BC) and System of Systems testing.

Conduct Forward Operational Assessments (FOA) of LWN/BC systems.

### Major Programs

Warfighter Information Network-Tactical (WIN-T).

Force XXI Battle Command Brigade and Below (FBCB2).

Joint Tactical Radio Systems (JTRS).

General Fund Enterprise Business Systems (GFEBS).

Capability Set 11-12 (CS 11-12).

Global Combat Support System - Army (GCSS-A).

Integrated Personnel and Pay System - Army (IPPS-A).

Distributed Learning System (DLS).

### Contact Us

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## Fires Test Directorate

Fort Bliss, Texas

### Who We Are

The Army's premier air and missile defense operational tester.

Plan, conduct and report on operational testing of systems from other battlefield functional areas (Close Combat and Engineering and Combat Services).

Deploy test teams worldwide to accomplish test missions at the customer's locations.

Conduct Rapid Acquisition Initiative (RAI) programs in support of the Overseas Contingency Operations (OCO).

Total combat arms tester.

### What We Do

Conduct Initial Operational Tests for major Air Defense Artillery (ADA) systems.

Conduct Limited User Tests for ADA.

Conduct customer tests.

Advanced war fighting experiments.

Conduct joint testing.

Support OTC's Forward Operational Assessments with experienced capable personnel in operational testing.

Robust and state of the art instrumentation with high resolution GPS capabilities.

Provide a full complement of data reduction and analysis capabilities for large operational tests.

The Terminal High Altitude Area Defense (THAAD) ballistic missile defense system is an easily transportable defensive weapon system to protect against hostile incoming threats.

### Major Programs

Terminal High Altitude Area Defense (THAAD).

Counter-Rocket, Artillery, Mortar (C-RAM).

Patriot Advanced Capability 3 (PAC3) Post Deployment Build (PDB) 6.0.

Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS).

Surface-Launched Advanced Medium Range Air-to-Air Missile (SLAMRAAM).

Medium Engagement Area Defense System (MEADS).

Integrated Air & Missile Defense (IAMD) System of Systems (SoS).

Sentinel ETRAC.

### Contact Us

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### Major Programs

Excalibur Block 1a-2 Precision Engagement Artillery Projectile.

Advanced Field Artillery Tactical Data System (AFATDS).

Artillery Systems Cooperation Activities (ASCA).

Non Line of Sight (NLOS) Launch System.

Extensible Command, Control, Communications, Computers and Intelligence (C4I) Instrumentation Suite (ExCIS) Fire Support Application (FSA).

Lightweight Counter Mortar Radar (LCMR).

M109 family of Vehicles (M109 FoV).

Precision Guidance Kit (PGK), Increment 1 (PGK Inc 1).

Enhanced AN/TPQ-36 (EQ-36) Counterfire Target Acquisition Radar.

Bradley Fire Support Team (BFIST).

Gun Display Unit- Replacement (GDU-R).

A 155 mm artillery shell hurtles out of the barrel of an 11th Marine Regiment M-198 howitzer during live fire and maneuver training on Nov. 20, 2000, at the Al Hamra Training Area in the United Arab Emirates.

### Contact Us

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## Fires Test Directorate

Fort Sill, Oklahoma

### Who We Are

The longest standing test directorate within OTC; testing since 1902.

Consists of the Office of the Director (Fort Sill), Support Division, Artillery Test Division, Field Artillery Branch, Battle Command Branch, and Missile Test Division (Fort Bliss).

### What We Do

Design and conduct operational tests of Field Artillery and Air Defense Systems.

Assess Rapid Acquisition Initiatives (RAIs).

Conduct customer tests.

Conduct joint testing.

Support OTC's Forward Operational Assessments with experienced capable personnel in operational testing.

Provide instrumentation and modeling and simulation support of operational tests.

Represent ATEC at the Fires Center of Excellence.

## Intelligence Electronic Warfare Test Directorate

Fort Huachuca, Arizona

### Who We Are

The Army's operational tester of Intelligence, Surveillance, Reconnaissance (ISR); Electronic Warfare (EW); Biometrics (BM); and Counter-Threat systems.

The developers and implementers of the Intelligence Modeling and Simulation for Evaluation (IMASE) capability — a robust modeling and simulation tool of a collaborative virtual, constructive, and distributed simulated threat used against systems under test.

The Intelligence Systems Integration Laboratory (ISIL) – a state-of-the-art 3,500 square foot facility to support ISR, EW, BM, and threat system testing, experimentation, training, and related activities in a secure, collaborative environment.

The Test Division and the Technical Support Division conduct test planning, support, execution, and reporting of assigned tests and related events.

### What We Do

Provide robust synthetic environments to portray realistic, operationally relevant battlefield conditions for testing ISR, EW, BM, and threat systems.

Develop and use advanced ISR/EW and threat modeling and simulation capabilities (IMASE).

Provide robust instrumented and validated threat systems and simulations, realistic and dynamic mission-based operational scenarios, and advanced automated data extraction capabilities to measure systems during a test.

Test the operational effectiveness, suitability, survivability, and performance of ISR, EW, BM, and threat systems in live, virtual, constructive mission-based operational environments.

Provide test support to the U.S. Army Intelligence and Security Command (INSCOM), U.S. Special Operations Command (USSOCOM), JIEDDO, National Security Agency (NSA), National Reconnaissance Office (NRO), U.S. Air Force, U.S. Navy, U.S. Marine Corps, and other government agencies.

### Major Programs

Distributed Common Ground System–Army (DCGS-A).

Prophet – [Signals Intelligence/Electronic Warfare (SIGINT/EW)].

Counter Radio Controlled Threat EW (CREW) systems.

JIEDDO CIED Detect and Defeat systems and Test Board support.

National Polar-Orbiting Operational Environment Satellite (NPOESS).

Biometrics and Foreign language translation.

Integrated Broadcast Service (IBS) and TROJAN SPIRIT.

Manned and Unmanned Aerial System (UAS) ISR and EW payloads.

Secure Border Initiative Network (SBInet).

Soldiers testing the Counter Radio-Controlled Threat Electronic Warfare (CREW) System at Yuma Proving Ground, Arizona.

### Contact Us

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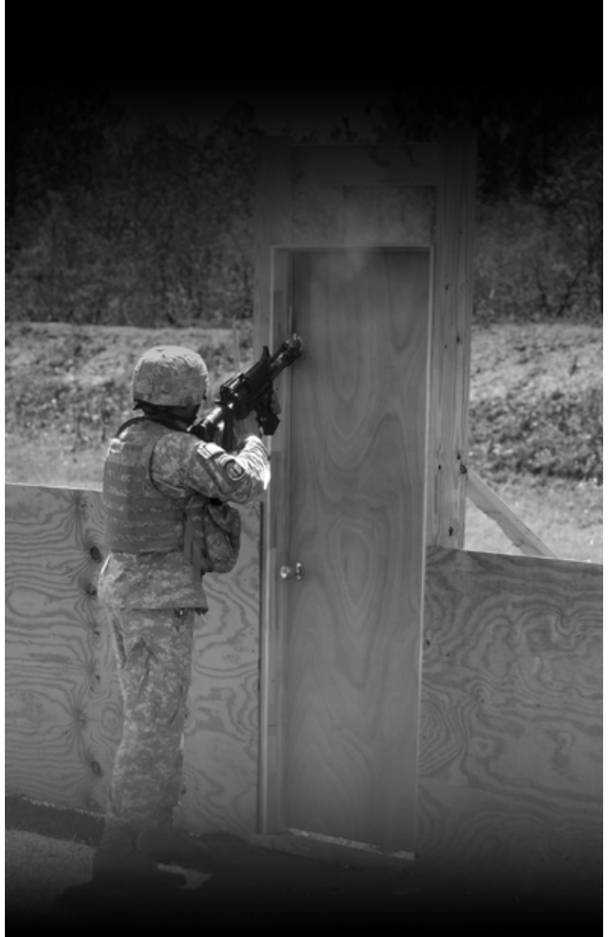
Soldier uses M26 MASS to engage targets on the shotgun range during Operational testing.



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## Maneuver Test Directorate

Fort Hood, Texas

### Who We Are

The Maneuver Test Directorate (MTD) is the lead operational test directorate for armor and infantry weapons systems and equipment. MTD is comprised of the Mounted Test Division, the Dismounted Test Division, the Advanced Test Division, and the Maneuver Support Cell (Fort Benning, GA). MTD's cadre of highly experienced and motivated military and DA civilians remains true to ensuring our Army's Warfighters have the right capabilities for success across the entire spectrum of operations.

### What We Do

Plan, conduct, and report on independent operational tests, assessments, and experiments for U.S. Army armor and infantry (light and mechanized) acquisition programs, Rapid Fielding Initiatives (RFI), and Rapid Equipping Force (REF) programs.

Provide a full complement of data collection, data reduction, and data management capabilities in support of the Army Evaluation Center's analysis of armor and infantry system equipment effectiveness, suitability, and survivability.

Provide LNO support to the Maneuver Center of Excellence in order to facilitate equipment procurement and fielding decisions through ATEC testing and analysis.

Support OTC's Forward Operational Assessments (FOA) with experienced capable personnel in operational testing.

### Major Programs

Stryker Mobile Gun System (MGS).

Ground Soldier System (GSS).

Infantry Brigade Combat Team (E-IBCT).

Mounted Soldier System (MSS).

Thermal Weapons Sight II 17 Micron (TWSII).

XM 806 Lightweight .50 Cal Machine Gun.

Enhanced Combat Helmet (ECH).

Threat Detection Fire Control System (CROSSHAIRS RI).

## Maneuver Support and Sustainment Test Directorate

Fort Hood, Texas

### Who We Are

The most versatile OTC directorate, conducting operational tests in the areas of combat engineer, chemical, transportation, military police, quartermaster, ordnance, and medical service.

### What We Do

Conduct operational testing for the Army and other joint forces.

### Major Programs

Maneuver Support Programs:
- Spider Command Network Munitions.
- MV-4B Mechanical Antipersonnel Mine Clearing System (MAPMCS).
- Common Remotely Operated Weapons Station (CROWS).
- Medium Mine Protected Vehicle (MMPV).
- Route Clearance Vehicle-Panther (RCV-Panther).
- Stryker NBC Reconnaissance Vehicle (NBCRV).
- Chemical, Biological, Radiological, and Nuclear Dismounted Recon SKO (CBRN DR-SKO).

Sustainment Programs:
- Mine Resistant Ambush Protected Vehicle (MRAP).
- MRAP Ambulance Joint Light Tactical Vehicle (JLTV).
- Heavy Equipment Transporter A1 (HETS-A1).
- MRAP All Terrain Vehicle (M-ATV).
- Modular Fuel System Tank Rack Module System (MFSTRM).
- M915A3 Truck Tractor Add on Armor (M915A3 AoA).
- Expanded Capability Vehicle-2 (ECV-2).

Fort Leonard Wood, MO -
Test and Evaluation Coordination Office (TECO)
Programs:
- Skeleton, Portable Real Time X-Ray Imaging Device.
- M56P1 Smoke Generator System (M56P1 SGS).
- Mobile Expeditionary Laboratory-Heavy Variant (MEL-HV).

MRAP All Terrain Vehicle (M-ATV) advancing on a raid mission.

Litter Team loading casualty into MaxxPro+ MRAP Ambulance Variant during a Limited User Test at Fort Hood, TX.

M915A5's conducting urban convoy operations in Colorado Springs, CO.

### Contact Us

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