



New Mexico Tech: National Security Work

August 11, 2026

Who are your briefers today?

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Overview

National Security Research, Training and Testing Centers and Institutes

Defense - National and Homeland Security Mission



Energetic Materials
Research and Testing
Center



Institute for Complex
Additive Systems Analysis



Playas Research
and Training Center

Faculty in multiple Engineering
departments (joint appointments)

Research in departments, and at
Research Centers and Institutes

Workforce development:
Explosives Engineering

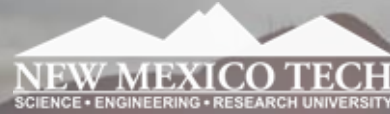
Plutonium workforce
development initiative (LANL)

Overview

ICASA and PRTC

Research, Training, and Solutions for a Data-Rich World

- Institute for Complex Additive Systems Analysis (**ICASA**)
- **Established:** Created by New Mexico legislative act (§21-11-8.1) in 2001 as a research center at New Mexico Tech.
- **Mission:** Advance research, science, and technology to protect critical infrastructure.
- **Vision:** Develop the next generation of critical thinkers to address complex, data-rich challenges.
- **Strategic Focus:** Leverage state investment to advance analytics for noisy, incomplete, and cross-domain data through interdisciplinary research and collaboration.
- Playas Research and Training Center (**PRTC**)
- **Location:** Remote, semi-arid high-desert environment in southwestern New Mexico.
- **Capabilities:** 640-acre townsite with ~3,200 surrounding acres, residential neighborhoods, classrooms, community facilities, and diverse suburban and rural training environments.
- **Vision:** Create the premier multi-domain environment for integrated teams to train, innovate, experiment, and research simultaneously.
- **Mission:** PRTC is accelerating research and training through a personalized customer experience.



Playas Electronic Attack and Cyber Environment

\$93 million U.S. Air Force Contract

PEACE Project Executive Summary

CHALLENGE

Persistent training shortfalls limit the ability to replicate complex, cyber-kinetic combat conditions.

RESPONSE

Develop and operate a realistic, reconfigurable combat environment at Playas for research, training, and evaluation.

MISSION

Provide a responsive research and training environment that supports warfighter readiness through realistic, data-rich, and reconfigurable scenarios.

VISION

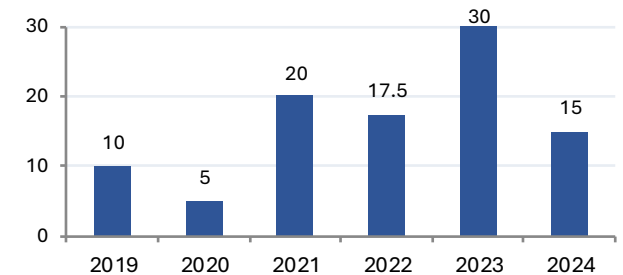
Enable multi-service, joint, and coalition information dominance through integrated cyber-kinetic training and experimentation.

Legislative relevance: New Mexico Tech converts state-supported infrastructure into federally leveraged research, training, and readiness outcomes.

Congressional Appropriations

\$97.5M

Annual Congressional Appropriations



Funding on Contract

\$86.8M

Congressional adds: \$65.8M | Other sources: \$21.0M

The Cyber Kinetic Combat Environment



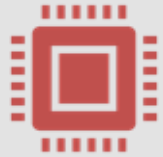
What is PEACE?



Wireless Hub at Playas

\$9 million in funding from the State of NM (FY2027)

Southwest Wireless Innovation & Future Technology (SWIFT) Hub



A real-world, instrumented test range and laboratory for emerging wireless technologies



A place where academia, government, and industry can conduct RDT&E



A neutral platform to validate performance, interoperability, resilience, and deployment readiness



A bridge from research and prototypes to fielded capability

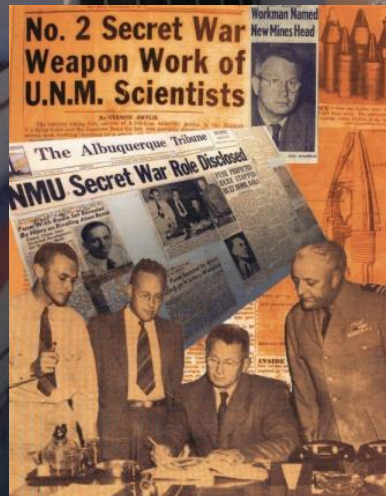
Establish New Mexico as a nationally relevant place to test, evaluate, and transition next-generation wireless technologies

SWIFT Hub at Playas → Turning FutureG into Reality

- State of NM \$9M investment
 - Establishes the start of a real-world wireless proving ground at Playas
- DoW-directed transition of FutureG testbed
 - Creates immediate national relevance
- Provides large-scale, controlled, instrumented RF + cyber environment
- Enables real-world testing of FutureG (5g/6g) capabilities (aligns with SWIFT strategy):
 - Spectrum dominance, autonomy, tactical communications
 - real-world validation, ground truth data, modular architectures
- Outcome: converts national FutureG strategy into operational capability + economic impact for NM

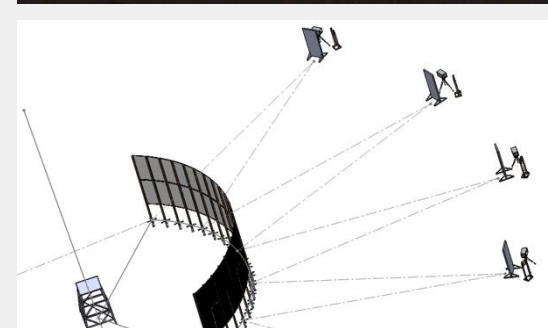
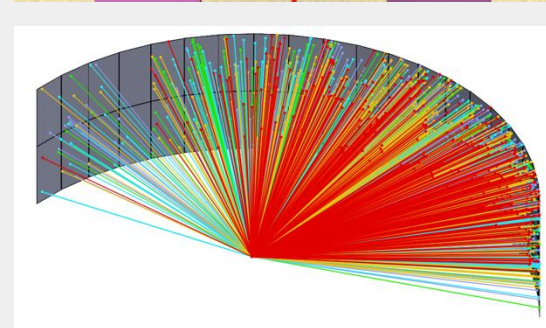
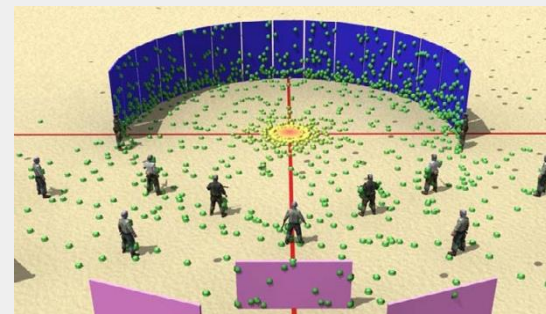
Energetic Materials Research and Testing Center

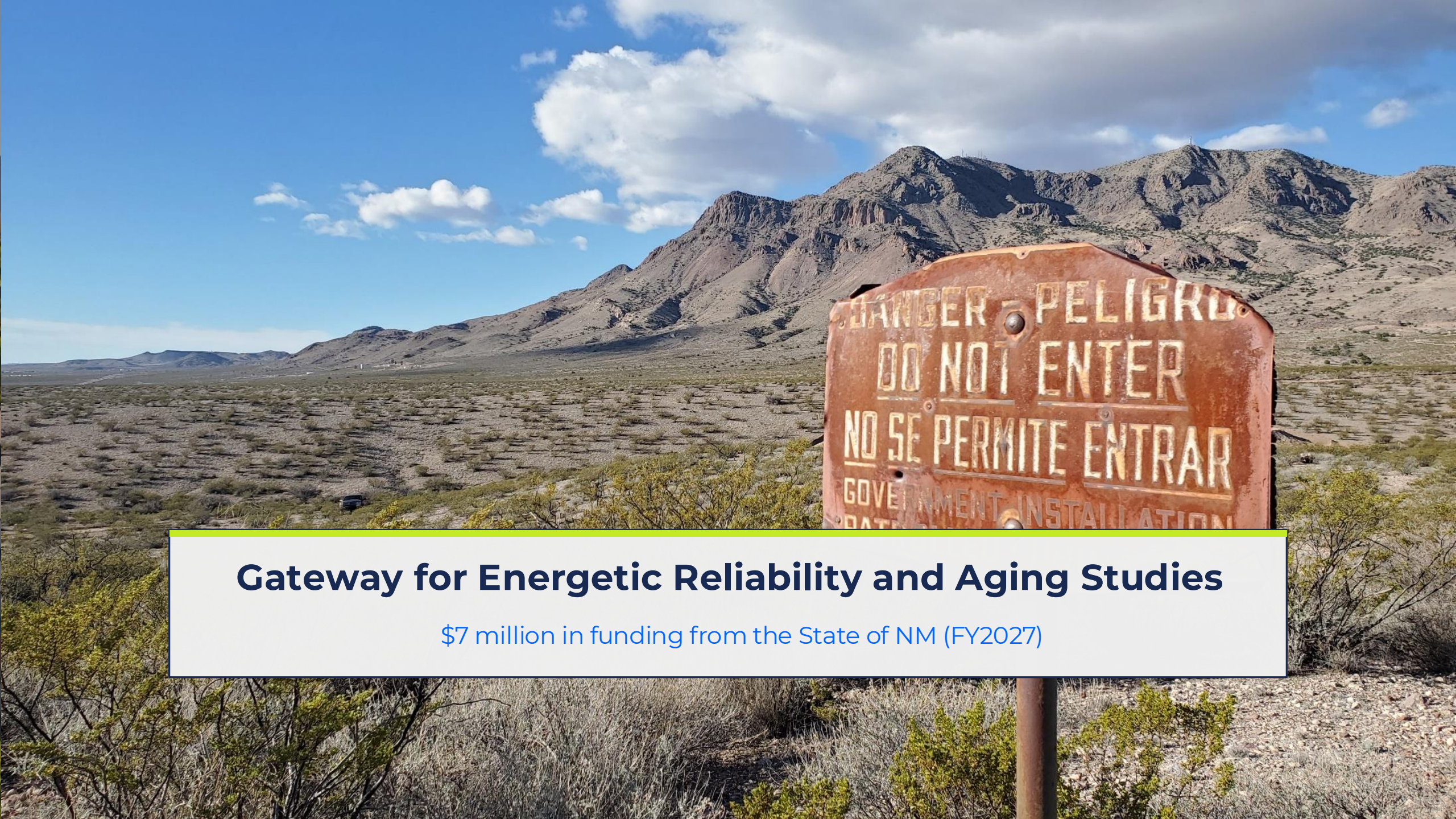
First established in 1946 and renamed in 1992



EMRTC Capabilities

- 40-square-mile field laboratory adjacent to the New Mexico Tech campus in Socorro, New Mexico.
- Largest university owned testing facility in the United States.
- Contains 30+ test sites, gun ranges, research facilities, and munition storage sites.
- Training Services for DOW, Federal, State, and Local Agencies and Organizations
- Research & Development, Testing & Evaluation (>30 unique capabilities)
- Specialized Equipment and Facilities
- Computer Analyses (AI)



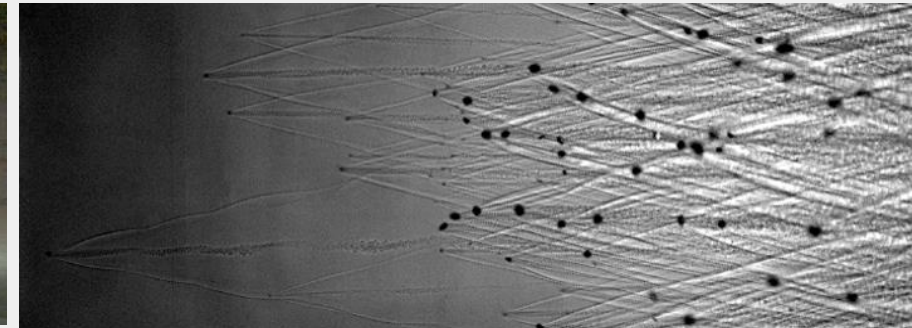


Gateway for Energetic Reliability and Aging Studies

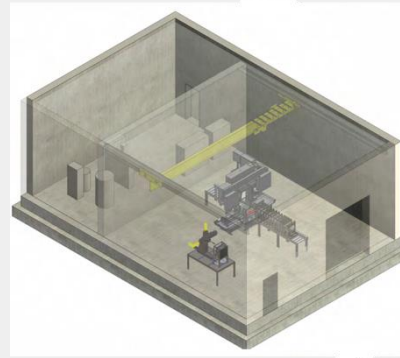
\$7 million in funding from the State of NM (FY2027)

Aging and Surveillance

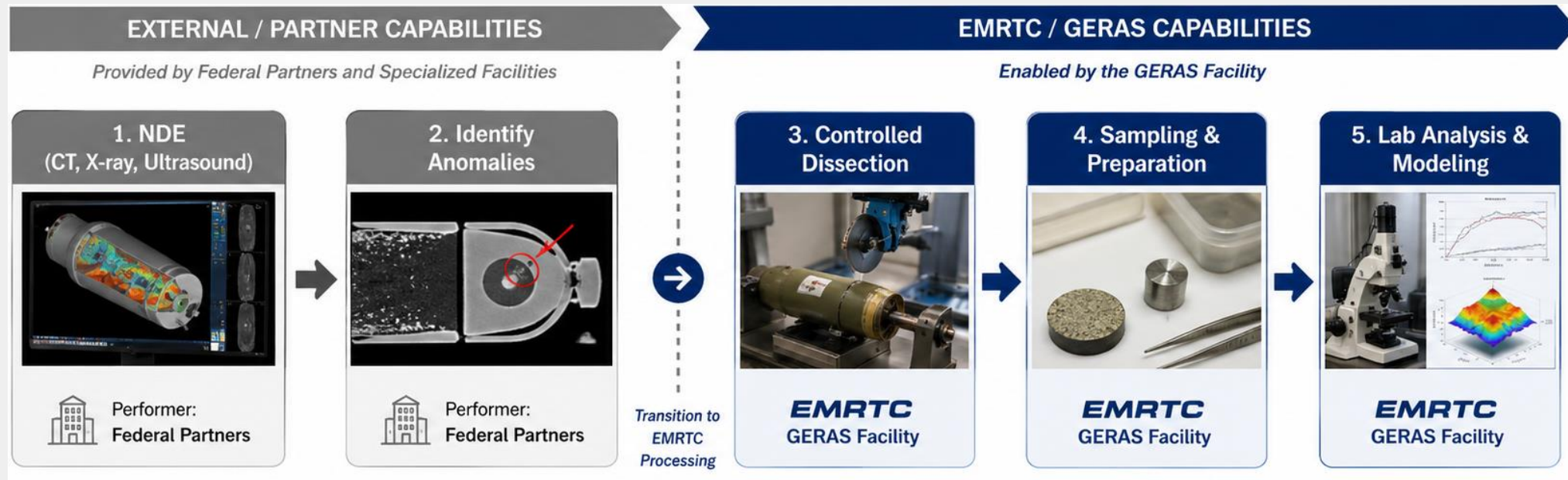
- **Long-term degradation** of explosives and materials
- Driven by:
 - Temperature cycling
 - Chemical breakdown
 - Material incompatibility
- **Impacts:** Performance reliability and Safety margins
- The U.S. maintains a large inventory of aging munitions.
- Must remain: Reliable, Safe, Operationally effective
- Without surveillance: Increased safety risks, Reduced reliability, High replacement costs
- Today: Strong full-scale testing, but Limited dissection & internal diagnostics
- Result: Gap between performance data and internal condition



Gateway for Energetic Reliability and Aging Studies



- Dedicated dissection and analysis facility
- Integrates NDE-informed targeting
- Enables safe, controlled sampling
- Generates actionable aging data





First Responder Training

National Domestic Preparedness Consortium

First Responder Training at EMRTC and PRTC (FEMA/DHS)

637K+

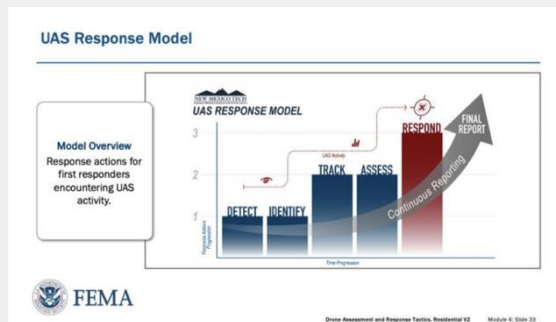
First responders trained
to date

- NMT/EMRTC has trained more than 637,000 participants through resident, mobile, indirect, virtual, and web-based training.
- Participants have represented every state and U.S. territory and include law enforcement officers, firefighters, emergency medical personnel, bomb technicians, emergency managers, public officials, and other personnel responsible for community preparedness and emergency response.
- *These figures reflect NMT/EMRTC's established national reach and its continuing role in strengthening state, local, tribal, and territorial preparedness.*



2,033

Train-the-trainer
graduates extending
reach



90

Resident courses / year
Target throughput per PoP

235

Mobile courses / year
Delivered in requesting
jurisdictions

10,605

First responders / year
Total trained annually





Thank you - Questions

New Mexico Tech – Defense and National Security Science and Technology, Training
and Workforce Development