

United States Army  
**Redstone Technical Test Center (RTTC)**

## What We Do

### Mobile Test Capabilities

While most of the work conducted by the Redstone Technical Test Center (RTTC) is still conducted at Redstone Arsenal (RSA), a growing area of test service is support of tests conducted offsite. Historically, RTTC has supported domestic and overseas test as part of programs such as the U.S. Army Aviation and Missile Command (AMCOM) Stockpile Reliability and Shelf Life Programs. In a typical year, RTTC mobile test teams will visit sites in Germany, Korea, and Alaska and other sites where military stockpiles of weapons are stored.

In keeping with the current Army "Transformation" focus of "lighter/ faster/ more capable," RTTC has developed an extensive infrastructure of advanced test equipment, vehicles, and data acquisition instrumentation that operate as effectively at remote sites as they do at the ranges and laboratories at the Center. We can provide either all required range and lab data acquisition and collection services or just supplement existing needs at the remote test site. RTTC is now able to rapidly deploy many of our state-of-the-art laboratory and range capabilities to sites throughout the world. This valuable service/capability is being expanded and enhanced daily. **See graphic below.**

### Primary Remote Services and Capabilities (Highly deployable instrumentation capabilities)

- Data acquisition and data analysis
  - Concept, design, modification, procurement, fabrication, test, and integration of instrumentation systems for R&D and fielded weapon systems – including the building of flight termination kits and Telemetry (TM) packages
  - Concept, design, modification, procurement, and fabrication of test vans for the remote

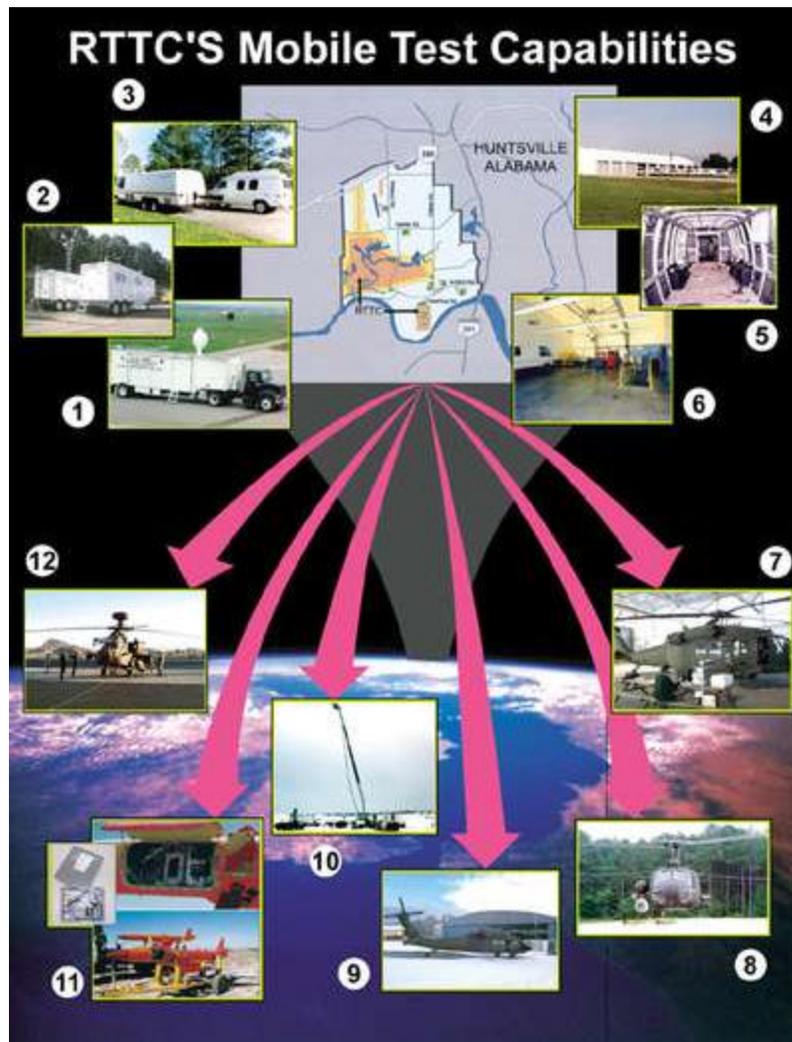
- collection and recording of field data
- Data analysis
- Time, Space, & Position Information (TSPI) collection [i.e. using Low Cost Airborne Interim Tracking System (LOCAITS), radars, laser tracker, etc.]
- Captive carry flight tests
- Aircraft electromagnetic testing (i.e. noise floor measurements)
- Stockpile reliability and surveillance testing
- Capability of real-time data to simulation organizations
- Distributed testing
- Multi-Spectral terrain target Infrared (IR) signature measurement for high-resolution reconnaissance, target acquisition, and weapon systems
- Insertion of real-time simulations into test control
- Virtual prototyping of weapon systems
- Infrared (IR) truth data collection for numerous programs that depend on high-resolution IR missile seekers
- Range and lab creation and operation in remote areas throughout the world
- Synthetic environment creation and insertion

## **Specialized Facilities, Vehicles, and Equipment**

- Mobile data acquisition/analysis vans
- Mobile photographic instrumentation
- Mobile Weible radar
- High-resolution infrared cameras
- RTTC airborne stabilized platform
- RTTC's Real-time Acquisition Virtual Instrumentation Network (RAVIN)
- Subminiature telemetry and sensor system

## **Specialized test instrumentation for these programs...**

- A data acquisition system for the Close Combat Missile System/Kinetic Energy Missile Programs
- Low-cost infrared and acoustic surrogate targets for the Army Tactical Missile System Project manager's Office
- Numerous telemetry (TM) and flight termination kits for numerous DoD programs



1. Mobile receiving station
2. Mobile telemetry ground station
3. Hellfire surveillance test van (left) and personnel (right)
4. Van maintenance and build-up facility and several surveillance vans
5. Van ready for build-up by RTTC personnel
6. Van maintenance and build-up area
7. EMC/spectrum analysis, Chievers Airbase in Chievers, Belgium
8. Captive carry flight test
9. EMC testing, Giebelstadt Army Airfield, Giebelstadt, Germany
10. Obtaining signature measurements of several targets
11. MQM-107 Drone with LOCAITS GPS box installed-- box shown on left
12. Data acquisition and analysis of weapon system integration at contractor site in Arizona

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