



# Redstone Test Center



## Warhead Testing

Warhead Testing at RTC evaluates lethality and performance through various means such as dynamic and static warhead component level testing. Two monorail sled tracks of 1,000 ft and 2,000 ft are used to conduct dynamic warhead tests against armor or target walls of various construction. Static testing includes penetration tests against rolled homogenous armor plates and arena tests to evaluate fragment velocity & dispersion properties. Additional specialized test equipment and facilities include an 8-in Air Gun delivery system and Supersonic Rocket-on-a-Rope for warhead assessments. Each of these facilities provides a controlled and repeatable delivery method at known angle-of-attacks and acceleration/velocities. All testing is supported by state-of-the-art instrumentation including high speed digital imagery, flash radiography, and digital instrumentation.

### Core Competencies

- Warhead Lethality & Performance via Dynamic Monorail Sled Tracks
- Static Warhead Penetration
- Static Warhead Arena Testing
- Air Gun Warhead Effects
- Supersonic Rocket-on-a-Rope for S&A/Fuze and Sensor Testing
- Reverse Ballistics Testing
- Behind Armor Debris Tests
- Advanced Instrumentation Design & Development
- High Speed Videography
- Custom Targets to Include Brick, Masonry, & Adobe Target Walls and RHA Armor Plates
- Meteorological Data & Forecasting

### Rocket-on-a Rope

A new capability being developed by RTC is the implementation of a controlled-trajectory delivery method utilizing high-strength dual ropes and air-breathing, mini turbo-jet engines. This new delivery method propels a 50-lb payload at controlled speeds up to 100 m/sec along a range of up to 600-m. The system can be used to effectively evaluate warhead components and sensors.

## Warhead Tests per Year

