

United States Army
Redstone Technical Test Center (RTTC)

What We Do

Flight

Flight testing is conducted primarily at Test Areas 1 and 6. Test Area 1 is dedicated to Research & Development (R&D) testing for advanced technology hardware and project-managed systems. Test Area 1 includes a warhead facility and a small rockets range optimized to perform the testing of missiles, slugs, and rockets. Tests conducted include missile flight [R&D and Test and Evaluation (T&E)], obscurants, static and dynamic warhead testing against armor or urban terrain targets, flash X-ray, safe and arm (S&A) testing, launch signatures, environmentally conditioned testing, and other hazardous testing. Test data collected include velocity, trajectory, launcher recoil, noise, sound pressure, pitch, roll, altitude, multi-warhead firing interval, penetration, and behind-target penetration. Other necessary data can be collected by the branch, or arrangements can be made with other agencies as needed.

The main function of Test Area 6 is to perform acceptance-flight testing of antitank missiles. Firing positions are sheltered and can be conditioned over a range of temperatures. Also performed at Test Area 6 are laser, gun, and launcher tests.

Primary Services and Capabilities

- Flight testing with live warheads
- Live-fire testing, remote and manned firings
- "Fire from enclosure" test
- Launch signature characterization
- Prototype production and shelf-life testing
- Helicopter/missile initial integration testing/flights
- Creating of obscurants (i.e., fog oil, diesel, and phosphorus) and other countermeasures
- Supplying of a wide variety of moving and stationary targets

- Environmental testing (i.e., temperature, wind, rain, sand, and dust)
- Fully instrumented small rockets range (500 meter maximum)



Javelin fired at tank target at Test Area 1



Airgun used for projectile and penetrator testing



TOW Bradley fighting vehicle firing at Test Area 6



AT-4 firing at elevated target at Small Rockets Range



AT-4 firing at night at Small Rockets Range



Mortar firing at Test Area 6

Supplementary Services

- Telemetry package/instrumentation design and production
- Full data reduction/evaluation
- Online distributed database service (ground truth database)
- Extensive photographic and video services with coverage including high-speed digital video and high-resolution digital stills
- Aircraft availability for test support
- Global Positioning System (GPS) data availability
- Infrared (IR) signature measurement support
- Bunkers, berms, and wall target fabrication and shipment

Specialized Facilities and Equipment

- Three primary flight-test ranges from 500 meters to 8 kilometers
- Two fully instrumented blockhouses with numerous

- firing positions
- Tactical, simulated, and other targets (i.e., domestic and foreign, manned, and remote control)
 - Fixed film and Cinetheodolite tracking cameras
 - Full-video editing facility
 - Laser and Doppler radar for tracking
 - Telemetry reception and hard-line instrumentation
 - Secure explosive storage facility
 - Environmental conditioning chambers, both lab and field (portable)



Aerial of Test Area 1



Aerial of Test Area 6



Control room at Warhead Test Facility at Test Area 1



Portable low temperature chamber at Test Area 1 Flight Range

[Click here for a printable version of this page.](#)
[Adobe Acrobat Reader](#) is required.

[Back to Top](#)

Please read this
Privacy & Security Notice

Last updated January 2, 2002

Please send questions or comments about
this page to webmaster@rttc.army.mil