



Redstone Test Center



E³ Testing

RTC has a comprehensive Electromagnetic Environmental Effects test capability for aviation and missile systems. This test capability includes: Electromagnetic Radiation Operational; Electromagnetic Interference MIL-STD-461F; High Intensity Radiated Fields; Hazards of Electromagnetic Radiation to Ordnance, Personnel & Fuel; Electromagnetic Vulnerability, Compatibility & Pulse; Helicopter and Personnel borne Electrostatic Discharge; Direct and Near Strike lightning effects; Precipitation Static; DO-160E (pin-injection lightning, bulk-cable injection); MIL-STD-704A-F (power quality/compatibility); and Emissions Control. Our engineers also know how to provide antenna pattern measurements and evaluate shielding effectiveness. Other services we provide include: electromagnetic engineering expertise/support; aircraft ground station support; and telemetry ground station support. Specialized capabilities include high fidelity instrumentation design, development and fabrication; DoD unique live ordnance lightning effects and ESD testing; transportable lightning effects and ESD testing; full MIL-STD-464A and ADS-37A-PRF RF test levels; large reverberation chamber; counter IED test and evaluation; and Radiation Hazards surveys and assessments.

Core Competencies

- Electromagnetic Interference Radiated Emissions
 - Radiated Susceptibility
 - Conducted Emissions
 - Conducted Susceptibility
- Transients
 - Personnel ESD
 - Helicopter ESD
 - Direct / Near Strike Lightning
 - Electromagnetic Pulse
- Electromagnetic Compatibility
 - Source / Victim
 - Noise Floor
 - Power Quality
 - EEDs
- Electromagnetic Vulnerability External RF EME
 - EMRO
 - HERO

Capability Highlight

The USAF 96th Test Wing's partnership with RTC combines Army and Air Force test expertise to provide critical E3 testing to meet military and commercial needs. The Joint Preflight Integration of Munitions and Electronic Systems (JPRIMES) anechoic chamber, as an installed systems test facility, provides testing of air-to-air and air-to-surface munitions and electronics systems on full-scale aircraft and land vehicles prior to open air testing. Through simulation and modeling, vast amounts of performance data can be obtained at a fraction of the time and cost of conventional flight test programs alone.

Shielded Anechoic Chambers

	Small Chambers (x3) 12' x 12' x 8'
	High Performance 22' x 18' x 11'
	Reverb 42' x 20' x 14'
	Large Chamber 63' x 30' x 17'
	JPRIMES 104' x 74' x 26'

Length & width shown to scale