

Technical Services facts

Calibration Capabilities

The **White Sands Test Facility (WSTF)** Calibration Laboratory ensures that instruments used to make measurements are accurate by calibrating them against recognized standards.

Calibration Management and Logistics

- Maintenance of instruments at peak performance
- Recall notification
- Interval analysis (batch or individual)
- Database management system
 - Standards managed with out-of-tolerance escalation notification
- Quality system
 - All labs are currently working toward Z-540.3 compliance and are ISO 9001 certified
- In-place calibration
- Delivery and scheduling services

Equipment

- Multiple standard levels: Reference, working, & transfer standards
- Wide range of equipment calibration including oscilloscopes, multimeters, power meters, attenuators, spectrum analyzers, signal generators, gage blocks, mass sets and balances, linear measuring equipment, temperature and humidity devices, gas and water flow meters, pressure transducers and pressure gauges, load cells, and torque wrenches

Scope

The WSTF calibration scope includes:

- Force: 0 to 50,000 lbf
- Pressure: 0.05 to 40,000 psi
- Vacuum: Atmospheric to 10⁻⁷ torr
- Torque: 3 oz-in to 2100 lb-ft
- Flow
 - Gas: 0.0008 to 200 scfm
 - Liquid: 0.4 to 400
- Temperature: 197 to +500 °C
- Humidity: 20 to 90%
- Length: 0.01 to 36 in.
- Mass: 1 µg to 30 kg
- Voltage, DC: 100 µV to 10 kV
- Voltage, AC: 0.1 to 1000 V at 5 to 50,000 Hz
- Resistance: 10 mΩ to 1GΩ
- Current, DC: 0 to 100 A
- Current, AC: 0 to 20 A at 10 to 5000 Hz
- Frequency: 0.01 Hz to 26.5 GHz
- Phase Modulation: 200 to 20,000 Hz at up to 26.5 GHz
- Power: +30 to -120 dBm up to 26.5 GHz
- Noise Figure: 0 to 30 dB up to 18 GHz
- Automatic Network Analysis: 0.045 Hz to 18 GHz
- Microwave Attenuation: 0 to 120 dB
- Vibration: 0 Hz to 20 kHz
 - Resonant search to 40 kHz

Experience

The Calibration Laboratory has experience supporting NASA, other government agencies, and private industry. Current customers include Goddard Space Flight Center, the U.S. Air Force, the U.S. Army, and NASA Headquarters. Laboratory procedures meet MIL-STD-45662A requirements.

