



# ENVIRONMENTAL TEST LAB

The Environmental Test Laboratories provide the equipment and technical expertise needed to meet environmental standards regulated by the FAA technical standard orders using RTCA DO-160 certification standards. Our personnel have many decades of combined experience in the field of environmental testing for aviation and other industries.

## DO-160 CERTIFICATION CAPABILITIES:

- Section 4 - Temperature and Altitude
- Section 5 - Temperature Variation
- Section 6 - Humidity
- Section 7 - Operational Shocks and Crash Safety
- Section 8 - Vibration
- Section 9 - Explosion Proofness
- Section 14 - Salt Fog
- Section 15 - Magnetic Effect
- Section 16 - Power Input
- Section 17 - Voltage Spike
- Section 18 - Audio Frequency Conducted Susceptibility/ Power Inputs
- Section 19 - Induced Signal Susceptibility
- Section 20 - Radio Frequency Susceptibility
- Section 21 - Emission of Radio Frequency Energy
- Section 22 - Lightning Induced Transient Susceptibility
- Section 23 - Direct Effects of Lightning
- Section 24 - Icing
- Section 25 - Electrostatic Discharge

## ADDITIONAL CAPABILITIES:

- RF Cable Insertion Loss and VSWR Testing
- Radome Transmissivity Testing
- Panel Shielding Effectiveness Testing
- Saturated Fuel Testing
- 60kV and 100kV P-Static Testing Systems
- In-Flight Antenna Patterns
- Aircraft Test Hangar 100x100x30ft, Door 75ft X 25ft. (Integral Foam Fire Suppression System for Fueled Aircraft Testing)
- Aircraft Hot Fuel Testing - Portable
- Ballistic and High Energy Impacts
- Hydraulic and Pneumatic Testing
- Endurance and Repetitive Motion Testing

- Proof and Burst
- Drop Testing up to 35 ft.
- Material Burn Testing
- Structural Fire Resistance and Fire Proof Testing (FAA-EASA)

## EQUIPMENT

- 20 ft. x 20 ft. Semi-Anechoic Chamber
- 30 ft. x 50 ft. x 25 ft. Fully Anechoic Chamber
- 6x8x6 ft Reverb Chamber (up to CAT L)
- 17x20x11 ft Reverb Chamber
- 20x25x15 ft Reverb Chamber
- 12,000 lb. Vibration Table
- Rate Table Capability of 50 lbs.
  - max Rate: 1000°/sec
  - max Accel: 200°/sec<sup>2</sup>
- Indirect Effects of Lightning
- Direct Effects of Lightning (SAE ARP 5416)
- 40 kW AC/DC Power Input Test System
- Temperature/Humidity/Altitude Chambers (Capability up to 100,000 ft.)
- Large Environmental Chamber - 12'Wx10'Hx48'L (-40° to +160° F)
- Salt Fog Chambers
- Explosive Decompression Chambers
- Full Aircraft Lightning Transient Analysis (SAE ARP-5416)
- Full Aircraft Level HIRF Shielding Evaluation (SAE ARP-5583)
- 25 ft. x 25 ft. x 35 ft H Ballistic Test Building
- Fire Test Block House
- Explosion Proofness Chamber

## CLIENTS

- Aerospace
- US Military
- Construction Equipment
- FAA
- Medical
- Electrical
- Automotive
- Mechanical
- Rail Road
- Pneumatic
- Nautical
- Hydraulic
- Metallic/Non-Metallic
- Computer
- Material Suppliers
- Fuels

## CONTACT

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