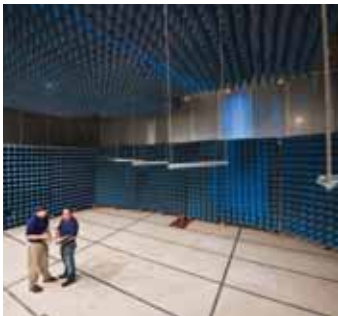


NTS Facility Spotlight: Fullerton, California

Specialists in Testing and Engineering Services



Multiple shielded and anechoic chambers



Mix Flowing Gas (MFG) testing environment



Performance testing with temperature humidity conditioning

About NTS Fullerton

NTS Fullerton is part of the largest worldwide networks of independent testing laboratories providing expert engineering and testing services to a wide range of industries in both the commercial and military sectors.

Telecommunications

NTS Fullerton is a Verizon ITL approved facility. NTS certifies telecommunications products to network equipment building systems requirements (NEBS) as well as to international standards. Capabilities cover Fire Spread, Earthquake, Wind Driven Rain, Mixed Flowing Gas and EMC.

Environmental and Dynamics

NTS Engineers and technicians are recognized experts in the performance of a wide array of environmental simulations including Thermal Shock, HALT, Salt Fog, Explosive Atmosphere, Dust Seismic/Earthquake, Sine/Random Vibration, Solar Radiation, Rapid Decompression, Simulated Pyro Shock and Windmilling. Capabilities include numerous climatic chambers, electrodynamic shakers which include a UD T4000 and a UD T2000, drop towers and a 28-foot centrifuge.

Mechanical, Hydraulic/Pneumatics

NTS' Mechanical Laboratory and its engineers routinely design and perform challenging test programs on all types of equipment and components. NTS engineers accurately reproduce various flow, stress, fatigue and load conditions on test specimens that simulate actual operating conditions.

Fiber Optics

NTS' advanced Optics Lab is one of the few with the equipment and knowledge base to conduct testing on Passive Fiber Optic Components and Optical Cable.

With multiple switch systems capable of both Single-Mode and Multi-Mode, NTS can perform physical and environmental tests while monitoring the test parts for Insertion and Return Loss, PMD, PDL, and Change in Transmittance at wavelengths from 850 to 1625 nm.

EMC, HIRF and Electrical

NTS Fullerton offers extensive capabilities and experience for conducting Electromagnetic Compatibility Testing (EMC/EMI), HIRF, Lightning and Electrical testing to military, aerospace, ITE, telecommunications, USB cable and other industry specifications.

Radiated Susceptibility capabilities include up to 7200 V/m to 18GHz and 200 V/m to 40GHz. Lightning Transients testing includes multiple-burst, multiple-stroke and pin injection up to level 5 of RTCA/DO-160. NTS is NIST designated, U.S. Conformity Assessment Body for EMC. NTS Fullerton has seven fully anechoic and one three meter semi-anechoic FCC-listed chambers.

Materials

NTS Fullerton is able to test metal, plastic, composite, rubber and other materials to a broad range of specifications. Capabilities include Tension, Compression, Hardness, Shear and Bending, Peel and Tear Strength, and Flexural Strength. Analytical methods such as metallurgical and chemical analysis, FTIR, SEM, ICP and Gas Chromatography are outsourced to a trusted laboratory and are conveniently managed through NTS Fullerton.

About NTS

NTS is a world leader in assisting organizations to access domestic and international markets. We are a single source for a full range of integrated engineering solutions, product testing, standards compliance, project management staffing solutions, engineering and managed services. Globally accredited by leading regulatory agencies, NTS can provide cost-effective programs to meet your requirements at one of our many U.S. or international facilities, or we can provide on-site solutions. NTS is the nation's largest independent standards compliance and product testing company serving companies within the aerospace, defense, automotive, telecommunications, electronics, power, medical device, computer, software and financial markets.



Brand new Mechanical building with independent test stations



28-foot Centrifuge Acceleration up to 500g



Environmental Testing Chamber



National Technical Systems
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Fullerton, CA 92831

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Highlights and Primary Test Specifications

EMI/EMC

- ▶ Radiated Susceptibility (RS) to 200 V/m 10kHz – 40GHz CW meets MIL-STD-461 and DO-160
- ▶ Lightning-Multi-stroke, Multi-burst, Single Stroke, & Pin to Level 5 of DO-160
- ▶ RF Emissions and Immunity, AC Power Fault, Surge, ESD and EFT
- ▶ 3 Meter FCC listed and 40' x 40' Semi-Anechoic
- ▶ Radiated Susceptibility Pulsed levels up to 7200 V/m meet Category L of DO-160

Primary Specifications

MIL-STD-461/462, MIL-STD-1275, MIL-STD-704A, RTCA/DO-160, Boeing, Airbus, GR-1089-CORE and RBOC Supplements, FCC Part 15, FCC Part 18, EN 300386, EN 55024, EN 55022, EN 61000-6-x, VCCI and BSMI

Telecommunications

- ▶ Full in-house Network Equipment Building Systems (NEBS) capabilities
- ▶ Verizon Approved

Primary Specifications

GR-63-CORE, GR-1089-CORE, ETSI 300-019, GR-2834-CORE, GR-950-CORE, GR-487-CORE, ATT-TP-76200, FCC 47CFR (ICES-003)

Dynamics

- ▶ Shakers up to 3.0" stroke, 35,000 lbs force, 4-3,000Hz
- ▶ Seismic system with 10.5" stroke, 14,000 lbs force, 0.6 Hz to 500 Hz
- ▶ Acceleration up to 500g, 14' radius, up to 70 channels
- ▶ Windmilling

Primary Specifications

MIL-STD-810, MIL-STD-202, MIL-STD-883, MIL-STD-167, MIL-S-901, RTCA/DO-160, ISTA, ASTM, UL 50, GR-63-CORE, GR-487-CORE, ETSI 300-019-xx, IEC 60068-2-xx, MIL-STD-740-2

Environmental

- ▶ Multiple Temperature / Humidity Chambers from 2'x 2' 2' to 10' x 12' x 8'
- ▶ Explosive Atmosphere / Rapid Decompression
- ▶ Highly Accelerated Life Testing
- ▶ Salt Fog, Sand/Dust, Solar Radiation, Mix Flowing Gas (MFG)
- ▶ Temperature / Altitude / R.H.
- ▶ Icing

Primary Specifications

MIL-STD-810, MIL-STD-202, MIL-STD-740-1, RTCA/DO-160, ISTA, ASTM, GR-63-CORE, GR-487-CORE, GR-1209-CORE, GR-1221-CORE, GR-13-CORE, ETSI 300-019-xx, IEC 60068-2-xx, IEC 60529, UL 50, MIL-STD-883

Mechanical

- ▶ Fire Resistance, Fire Spread, Needleflame
- ▶ Hydraulic/Pneumatics Pressure Impulse, Flow, Proof, Burst
- ▶ Tensile Fatigue, Flexural Testing, Inclination, Acceleration
- ▶ Fluids tested include but not limited to: MIL-PRF-83282, MIL-PRF-5606, Skydrol, MIL-L-7808 and various fuels

Primary Specifications

FAA AC20-135, ISO 2685, SAE ARP 1383, SAE ARP 603, SAE AS 4265, ISO 6772, SAE AS 18280