

NTS Facility Spotlight: Northeast

Specialists in EMI | Environmental | Dynamics



NTS preparing a solar-load test set-up



Testing in new 10-meter EMI chamber



The Dynamic Testing floor at NTS Boxborough is equipped to monitor and record equipment performance with on-site instrumentation.

About NTS Northeast

The technical personnel at NTS Northeast have extensive experience in electromagnetic radiation and susceptibility testing, dynamics, fire and environmental testing. NTS has the expertise to accurately monitor equipment response and performance during the most severe test environments. Our extensive knowledge of current test and conformity requirements, both domestic and international, can assist you in your product assessment and defining the proper requirements for your test program to achieve maximum customer acceptance.

NTS offers Lab Insight, a free offering that allows for live witnessing via Hi Def cameras for test setups and test witnessing. Lab Insight also provides live test data and is ITAR compliant.

EMI / EMC / ESD / NEBS

NTS Northeast, part of the NTS EMI/EMC service offering, that includes six other NTS laboratories, provides EMC/EMI/ESD to a multitude of industries with expertise in testing to military, aerospace, telecommunications, electronics, nuclear, and other global industry specifications. Military and aerospace capabilities include Immunity testing up to 200 V/m from 10kHz to 40GHz, as well as Electrical Power Characteristics testing for ground, aircraft, shipboard, and submarine applications. Additional capabilities include lightning simulation indirect effects, and ESD up to 30kV. NTS certifies telecommunications products to network equipment building systems requirements (NEBS) as well as international standards. NTS also provides complete certification of information technology, industrial and other commercial/electronic products to global EMC and product safety regulatory standards.

NTS Northeast has six shielded chambers, including a three-meter and 10-meter FCC listed chambers.

Environmental / Dynamic

NTS is the largest independent company for environmental/dynamics testing with 14 facilities located world wide. NTS Northeast Operations is a full service environmental test facility capable of managing your environmental test programs in the commercial, military, defense, telecom and medical markets. Our technicians and engineers are recognized experts in the performance of a wide array of environmental simulations including thermal, shock, seismic, hydraulics and vibration fixture design. Capabilities include an array of different chambers, seven shakers, drop test tower platforms and two seismic tables including an independent triax.

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 onsite 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.



Lightning Induced Transient Susceptibility



Walk-in chambers can accommodate large equipment and heat load



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Highlights and Primary Test Specifications

EMI / EMC / ESD

- ▶ Radiated Susceptibility ~ 200V/m, frequency range 10kHz to 40GHz
- ▶ Radiated Emissions ~ 30Hz to 40GHz
- ▶ Lightning-multiple stroke, multiple burst, Level 5 D0-160 D/E/F capability
- ▶ 3M semi-anechoic chambers and multiple shielded chambers (16'x20', 18'x20')
- ▶ Electrical power characteristics for aircraft, shipboard, ground, and submarine
- ▶ Airborne and structure-borne noise
- ▶ Electrostatic discharge up to 30kV
- ▶ AC powercross

Primary Specifications

MIL-STD 461/462, RTCA DO 160, Boeing D6-36440, Boeing D6-44588, Boeing D6-16050, MIL-STD 704A, MIL-STD 1275, IEEE C37.90.1, IEEE C37.90.2, IEEE 1613 GR 1089-CORE, GR 57-CORE, GR 487-CORE, FCC part 15, FCC part 18 EN 61000-6-2, EN61000-6-3, EN 300386, EN55024, EN 55022, EN 55011, EN 61000-4-xx, EN 61000-3-xx, K20, K21. MIL-STD 704, MIL-STD 1399 section 300A, MIL-STD 740-1

Dynamics

Electro-Dynamic Shaker Systems

- ▶ T1000 (4 Systems) 1" Stroke, 90"/Second, Velocity 19,000 force lbs.
- ▶ T4000 1.75" Stroke, 120"/Second, Velocity 40,000 force lbs.
- ▶ Ling A340 1" Stroke, 60"/Second, Velocity 28,000 force lbs.
- ▶ V-895 2.5" Stroke, 65"/Second, Velocity 13,000 force lbs.

Seismic Systems

- ▶ 35 KIP 10" Stroke, 65"/Second, 5' Square Tables
- ▶ 21 KIP 24" Stroke 65"/Second, 5' Square Tables
- ▶ Tri-axial, 8" Stroke, 16 kip, 60"/Second

Acceleration System

- ▶ 40" Arm, 100g's

Static & Dynamic Loading

Primary Specifications

MIL-STD 810, MIL-STD 202, MIL-STD-883, MIL-STD-740, MIL-STD-167, RTCA D0160, ISTA, ASTM, GR 63-CORE, ATIS, GR 487-CORE, GR 13-CORE, ETSI 300-019-xx, IEC 60068-2-xx

Environmental

Large selection of temperature/ humidity chambers from 2'x2'x2' to 8.5'x9.5'x12' walk-in chambers. Temperature/altitude chamber up to 80,000ft. Acoustic noise, salt fog chambers, wind-driven rain up to 100mph, fire resistance, explosive atmosphere, sand and dust chamber, solar load test, thermal shock, thermal vacuum, icing/freezing rain, HALT/HASS testing from -100°C to 200°C and up to 50Grms (5-5000Hz). Flow testing both pneumatic and hydraulic up to 20gpm (500 SCFM) and up to 300°F.

Primary Specifications

MIL-STD 810, MIL-STD 202, RTCA D0160, ISTA, ASTM, NEMA, GR 63-CORE, GR 487-CORE, GR 13-CORE, UL 50, ETSI 300-019-xx, IEC 60068-2-xx

Fixtures

Performance, vibration, shock and custom fabrication as required.