

NTS FACILITY SPOTLIGHT

ROCKFORD, ILLINOIS

ABOUT NTS ROCKFORD

NTS Rockford has military, aerospace, commercial electronic, telecommunication and medical test facilities equipped with the latest tools. The laboratory is staffed by test engineers with years of experience and the most up-to-date training to help you with your testing needs. The combination of experience and high-end test systems gives NTS Rockford the ability to assist your company in bringing military, aerospace, commercial electronic, telecommunication and medical products to market with speed and efficiency.

HIGHLIGHTS AND PRIMARY TEST SPECIFICATIONS

EMI, EMC, ESD

NTS Rockford provides EMI/EMC/ESD testing services to a wide variety of industries, including military and aerospace capabilities that cover RS103, 200 V/m, 10 kHz to 40 GHz, as well as indirect lightning effects and multiple burst/multiple stroke lightning up to Level 5 of DO-160, Airbus, and Boeing.

EMI/EMC/ESD Capabilities include:

- Radiated susceptibility
- Radiated emissions
- Conducted susceptibility
- Conducted emissions
- Power quality
- Indirect effects lightning
- Electrostatic discharge (ESD)
- Radiated susceptibility exceeding 200 V/m, frequency range 10 kHz to 40 Ghz for defense test programs
- Lightning including multiple burst, multiple stroke, indirect effects, Level 5 capabilities (meets Boeing and Airbus requirements)
 - » Indirect effects lightning including: Multiple burst, Multiple stroke and Pin injection to Level 5
- DO-160 indirect lightning in-facility or mobile on-site at customer facility
- HIRF category G capabilities in-facility or mobile on-site at customer facility for aerospace test programs
- Three ground plane test locations
- Absorber-lined semi-anechoic rooms
- Twelve EMI test chambers
 - » Seven semi-anechoic chambers (four 26' x 36' x 18', interconnected in pairs)
 - » 10-meter chamber with: 3-meter turntable and 10 foot door
- Suited for Heavy Vehicles up to 80,000 lbs.
- Pre-qualification chamber with 1-meter turntable
- 50-cubic meter test volume reverberation chamber, Two shielded rooms
- Two 500 HP 4-quadrant drives for motor/generator testing
- One 150 HP 4-quadrant drive for motor/generator testing
- AC power to 480 VAC and DC power to 600 VDC, 400 kW
- Four 75 kVA, 115V, 400 Hz +/-20 Hz motor generators



Our state-of-the-art laboratory is located just outside Chicago, IL



NTS Rockford has the equipment to service a variety of industries



High end test systems with experienced engineers



www.nts.com
800.270.2516
sales@nts.com

Dynamics Capabilities

- (3) T1000 Unholtz-Dickie Corporation© shakers rated at 15,000 force pounds. All three shakers are positioned to provide room for auxiliary equipment that may be required during the vibration test.
- (1) 8 foot diameter, 300 rpm centrifuge for acceleration testing.
- (1) Drop shock machine capable of producing high G levels with digital waveform capture for post-test analysis.

Environmental Capabilities

- Temperature/humidity testing on rotating equipment with 300 HP drive, up to 20,000 RPM and stop/start, endurance, and accel/decel testing
- 4 ft. diameter x 12 ft. altitude chamber with 100,000 ft. capability
- 4 ft. diameter x 6 ft. altitude chamber with 200,000 ft. capability and quipped with liquid nitrogen cold plate and shroud
- Rapid decompression
- Thermal shock
- Walk-in temperature/humidity chamber size 8 ft. x 9 ft. x 10 ft. with 40° to 90°C, up to 10°C/minute ramp rate and 0 to over 90% RH
- 4 ft. x 4 ft. x 4 ft. temperature/humidity/altitude chamber
- Several 4 ft. x 4 ft. thermal chambers, humidity available
- Simulated space altitude with temperature
- Salt-fog
- Shipboard voltages available

Unique Capabilities

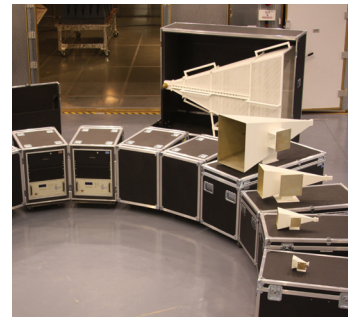
- HIRF. NTS Rockford is accredited for DO-160 radiated susceptibility testing both in-house and mobile at customer facilities. Packed in custom cases for easy transport, our state-of-the art equipment achieves category G, pulse modulation levels from 400 MHz to 18 GHz.
- Power Systems. NTS Rockford offers unique capabilities for testing power systems, producing up to 300 kVA and more. Seven chambers (including a 10-meter and reverberation chamber) are configured with drive stand ports and load rooms. Two 500 HP drive stands and one 150 HP drive stand are available on-site; each drive is four-quadrant capable allowing for both generator set and motor testing. Drives can be transferred between chambers as-needed to give the best possible match between facility capability and test article configuration.
- Reverberation. Our newly-added second reverberation chamber, couple with state-of-the-art amplifiers, achieves greater than DO-160 Category L levels from 100 MHz to 40 GHz. This 12' x 20' x 10' chamber has a test volume of over 438 cubic feet (12.42 cubic meters) and a 4' x 7' door.
- Lightning. We are accredited for DO-160 lightning induced transient susceptibility testing both in-house and at customer facilities. Our easily transportable rack-mounted equipment achieves level 5 for both pin injection and cable injection testing, multiple stroke and multiple burst.
- 10-Meter Chamber. We also offer a state-of-the-art 10-meter chamber for EMC measurements. The 10-meter chamber is suitable for testing to most international emissions and susceptibility standards such as CISPR, IEC, VCCI, ANSI, FCC, SAE, and more. The 10-meter chamber operates from 26 MHz to 40 GHz.

ABOUT NTS

As one of the largest commercial test laboratory networks in North America, NTS offers test, inspection and certification services for environmental, dynamics, EMC, wireless, product safety, materials, ballistics and much more. Our client partners rely on NTS to bring quality products to market quickly and efficiently, and so can you.



Our reverberation chamber can achieve test frequencies as high as 40 GHz



Our HIRF testing equipment is easily transportable



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