



DEDICATED WINTER TEST

FACILITIES



NATC has used West Yellowstone, Montana as a primary winter test area since 1957. This capability has grown to include use of the Yellowstone Airport as a dedicated and exclusive Vehicle Dynamics Area.

NATC conducts snow and ice tests including:

- * Virgin-Fresh Snow 3 to 6 inches deep and Soft Pack (CTI 50 - 70)
- * Moderate Pack (CTI 70-80)
- * Hard Pack (CTI 80-90)
- * Ice - Frozen or Melting, Indoor and Outdoor
- * Dynamic Driving/Lateral Traction
- * Snow Packing
- * Peak and Slide Braking
- * Two and Four Wheel Braking
- * Serpentine/Slalom Handling
- * ABS Braking
- * Acceleration
- * Spit Coefficient
- * Traction Control Systems (TCS)
- * Vehicle Stability

Instrumented Vehicles

Dynamic Force Measurement Vehicles (DFMVs) are specially built by NATC to quantify forces acting on tires and drivetrain components during driving traction and handling maneuvers. Each DFMV is equipped with on-board instrumentation for data acquisition and with a fully selectable drive system to allow μ -slip measurements on a single tire or on multiple wheel positions. NATC's five DFMVs provide a range of capabilities from 13-inch to 24.5-inch rim sizes and 470-pound to 10,000-pound triaxial load and slip measurements.

NATC offers complete winter testing solutions

- * Vehicle preparation and maintenance area
- * Tire mounting and changing area
- * Course preparation to customer requirements
- * On site instrumentation technicians and equipment for test support
- * Dynamic longitudinal and lateral traction testing vehicles on site
- * Complete on-board data acquisition equipment
- * Testing of snow removal apparatus, snow mobiles and other snow related equipment
- * NATC tests ASTM, SAE, ISO, GM, Ford and RMA "snowflake" standards
- * NATC conducts complete snow removal equipment testing and evaluation

At NATC's main proving ground in Nevada, winter-like conditions can be created throughout the year in NATC's environmental chambers for component test and low temperature storage evaluations.

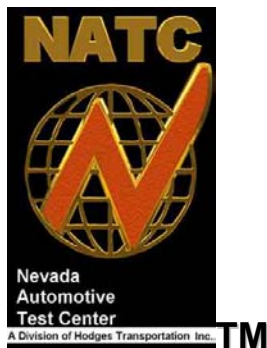




Yellowstone Winter Testing Areas:

- * **Terminal Apron** **250 X 2200 ft.**
 - * **Taxiway** **75 X 8400 ft.**
 - * **Runway** **150 X 8400 ft.**
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- * **Support:**
 - Shops** **2000 sq. ft.**
 - Office** **300 sq. ft.**
 - Additional Storage** **Van Trailers as Required**
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- * **Security:** **8 foot high chain link fence protects NATC's exclusive use of the facility.**

NATC, Providing "One-Stop" Testing Solutions in the Real World



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Real Time, Real World Solutions™