

**GS ENGINEERING OFFERS EXTENSIVE VEHICLE TESTING AND VALIDATION SERVICES.**

We support development and performance testing of vehicles and vehicle sub-systems at a variety of facilities including private and on-site government test facilities. Our test support can include turnkey tests from the initial planning stage, through logistical planning to full vehicle instrumentation, test execution and reporting.

**VEHICLE TYPES TESTED**

- Military Wheeled Vehicles
- Military Tracked Vehicles
- Light , Medium, & Heavy Duty Trucks
- All-terrain Vehicles
- Trailers
- Multi-purpose Vehicles
- Off - Highway Equipment
- Specialty Vehicles



**VEHICLE TEST CAPABILITIES**



**TEST TYPES OFFERED**

- Development Testing
- Performance Testing
- Endurance/Durability Testing
- Suspension Testing & Tuning
- Noise, Vibration, & Ride Quality
- Vehicle Stability
- Tire & Runflat Evaluation
- Powertrain Development
- Brake System Testing
- Strain & Torque Measurement
- Thermal Signature & Imaging

**TEST SERVICES**

- Test Planning
- Test Execution per ISO, SAE, NATO or TOPs
- Real-time Data Acquisition & Analysis
- Test Correlation to FEA & Dynamic Simulation
- Mobile Test Trailer with Wireless Vehicle Connectivity
- Vehicle Ballasting & Weight Distribution
- Vehicle Maintenance & Repair
- Full Test Reporting
- Test Incident Reports (TIRs)
- Test Facility Rental Options
- Course Terrain Profiling

# DATA ACQUISITION & ANALYSIS SERVICES

## DATA ACQUISITION SYSTEMS

8, 16, 32, 48 and 64 channel systems and ruggedized laptops configured for real-time wireless data acquisition and analysis are available.

### TECHNOLOGY

- Accelerometers
- Strain Gages
- Attitude Heading Reference System
- Speed & Distance
- Environmental
- Load Cells
- Lasers
- Displacement Sensors
- Pressure Transducers
- Voltage
- Thermocouples & RTDs
- Differential GPS
- CAN Bus

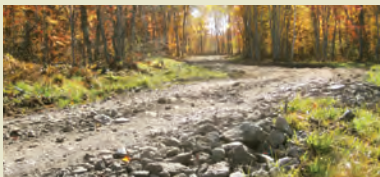


# GS ENGINEERING TEST FACILITIES

## OFF-ROAD COURSE & OBSTACLES

Private off-road vehicle test course features a low visibility location, ideal for private vehicle development and performance testing.

- Paved 1" & 2" RMS Courses: 500' length
- Paved Half Rounds: 4", 6", 8", 10", & 12"
- Paved Side Slopes: 20%, 30%, & 40%
- Gravel & Paved Slopes: 15% - 40%, 60%
- Vertical Steps: 18", 24", & 36"
- Stability Tilt Table: 45,000 lbs & 50% slope
- Multiple Secondary Road Endurance Areas
- Multiple Off-Road Endurance Areas
- Gravel Frame Twist & Urban Rubble Course
- Many Other Customizable Terrain Options



## PAVED VEHICLE DYNAMICS AREA

GS Engineering provides paved vehicle dynamics testing. We have expertise with the following vehicle dynamics tests:

- NATO Lane Change
- Sinusoidal Steer
- Constant Radius Circular Steer
- Ramp Steer & J-Turn
- Braking
- Maximum Speed
- Acceleration & Dash Speed
- Vibration Testing
- Fuel Economy
- Turning Diameter
- Suspension Tuning
- Correlation to Dynamic Simulation

CONTACT US

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