



# Redstone Test Center

# Component & Surveillance Component

## Functional and Structural Testing

- New Source Testing for Aviation/Missile Components
- Customized Dynamic Structural Load Component Test Stands
- Fatigue/Endurance Testing of Critical Aviation Components
- Engineering Analysis Multi-Physics FEA Integrated into Testing
- Transportability Testing: Lift/Tie Down/Sling Load Tests
- High Pressure & Flow Testing Missile/Aviation Components
- MTS Fatigue Test Tables: 220KIPS Axial / 100K in-lb Torsion
- Missile Launcher Rail Test Fixture
- Tinius Olsen 400,000 lbf Load Frame
- Rotational Loading Dynamometer System

## Instrumentation

- Portable Data Acquisition Capability
- Strain Gage Installation & Calibration

## Hydraulics Testing

- Hydraulic & Transmission Filter Test Stand Machines
- Hydraulic Pump Test Stand

## Aviation QDR/CBM

- Gearbox, Swashplate, Transmission Teardown & Inspection
- Tooling and Test Stand Design and Fabrication
- Engineering Investigations of Component Failures

## Aviation PLT/CIP

- Inspection of Components with Proprietary Data Rights
- Complete In-House Dimensional Metrology/Functional Testing
- Partnership with AMF for Material Analysis

## Dimensional Metrology and NDI Testing

- 8 High Accuracy CMMs, Portable CMM (Contact and non-Contact)
- Complex 3-D Geometry Inspection (i.e., Turbine/Compressor Blades)
- Analytical gear inspection (Spiral Bevel/Spur/Splines)
- Specialized Equipment (3-D Laser, Roundness, Surface Profile, etc)
- Visual, Eddy Current, Dye Penetrant, Magnetic Particle, Ultrasonic

## Electronics and Cable Testing

- Engineering Evaluation of Electronic Components /Cable Assemblies
- Wide Range of Diagnostic Instruments and Test Stations
- Component Adaptable Station Test Lab Electronic (CASTLE)
- High Voltage Test Station/Cable Insulation Resistance/Voltage Break-Down

## Missile Stockpile Reliability Testing

- Gyro/ Battery/Coolant/Accumulator/Squib Tests
- Missile System Shelf-Life Testing

## Missile Surveillance Testing

- State-of-the-Art Vehicles for World Wide Test Capability
- Evaluation of Long-term Storage Effects
- Non-Destructive Functional Testing
- Electrical/Mechanical/Optical/Physical Inspection

## Missile System Optical Component Testing

- Quality Verification, First Article, and Engineering Evaluations of Optical Components and Small Optical Subassemblies

