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AVIATION  
TESTING SOLUTIONS

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150,000 LBF  
CERTIFICATION TEST FACILITY

## *CUSTOMER*

Rolls-Royce  
Mississippi, USA



**Rolls-Royce**

## *FACILITY TYPE*

150,000 lbf Turbofan Outdoor Gas  
Turbine Engine Certification Test Facility

## *ENGINE TYPES*

Trent Series (1700, 1000, 900, 800, etc.)  
Rolls-Royce Deutschland BR 700 Series



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## DESCRIPTION

MDS was responsible for all aspects of this turnkey project, including supply of test systems, project management, architectural design, facility construction, dismantling and refurbishment of existing Rolls-Royce equipment.

Located in the NASA complex, the Rolls-Royce Outdoor Jet Engine Test Facility is recognized as a globally-unique self-contained facility. As Rolls-Royce's Gold Standard engine test certification site, the facility is capable of a wide range of tests, and provides for the outdoor location of the development testing of Rolls-Royce's latest family of high thrust jet engines.

## SCOPE OF WORK

- ▶ 150,000 lbf Test Stand
- ▶ Thrust Measurement System
- ▶ Ground Plane Simulation
- ▶ Acoustic Certification: Noise Arena, Turbulence Control Structure, and Noise Measurement System
- ▶ Performance Testing: Cross-wind Certification, Ground Plane Simulation, Reverse Thrust and Anti-Reingestion
- ▶ Static and Dynamic Data Acquisition System (above 5000 channels)
- ▶ Engine Handling
- ▶ Engine Adapters and Transportation Carts
- ▶ Mechanical Support Systems (Fuel, Air Start)
- ▶ Cross Wind Blower
- ▶ Modular Ground Plane & Re-Ingestion Screens



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