



Combined Tests

Experience

One of our most highly valued capabilities is specific tests of aeronautical components combining different loading methods (loads, displacement, pressure, vacuum, temperature, humidity, vibration, etc.), all integrated in the same customised test bench. Examples include our test benches for the A380 NLG Door, the A400M NLG Door, the JSF F35 Roll Post, A350XWB Continuous Rib and non-specific bulkhead developments.

Know-How

CTA has developed its own load application system for components such as horizontal stabilizers and elevators. This system has been validated for use on Airbus and Embraer test campaigns and uses rubber pads and load distribution whiffletrees to optimise test frequency and enable multi-actuator synchronisation.

Our company has extensive experience designing modular technical floors to optimise test rig functionality and reduce costs, along with positioning and assembly of test rigs for multi-hinge components (sliding/enforced displacement).

CTA uses validated instrument interfaces (links, rods, lugs, etc.) to ensure accurate and reliable measurement.

Capacities

1500 m2 testing area (2 buildings) and special steel tracks for test rig assembly

12 MTS Control systems work stations

2000+ strain gage data acquisition channels

Load cells, Torque transducers, LVDT's, Pressure Transducers and Temperature Sensors.

Hydraulic actuators from 25kN up to 5000 kN.

Temperature generators and Humidity Chambers

3D non-contact displacement measurement, High Speed Video camera, Ultrasonic Inspection Equipment