

Aircraft SEAT TESTING

AEROSPACE • VIBRATION • WINDMILING • DURABILITY

- Most experienced dynamic test facility in Europe
- Full accreditation by the CAA / Fully approved by FAA and Boeing
- Temperature and humidity controlled areas
- Very repeatable dynamic test pulse
- Vibration and Cyclic testing for response and durability

Millbrook Proving Ground has been at the forefront of dynamic aircraft seat testing since 1988. In this time Millbrook has conducted in excess of 1,000 aircraft seat tests for both development and certification test programs. While the majority of these programs have been for Part 25, we also have significant recent experience of Parts 23 and 29.

Technical SPECIFICATIONS

Aerospace Test Equipment

ATD

- Hybrid II and Hybrid III dummies instrumented for HIC, femur and pelvic/lumber measurement (plus EuroSID, USSID and BIOSID dummies for side impact testing)

Transducers

- Tri-axial load cells for floor interface load measurement
- Seat belt load transducers
- Many other transducers and strain gauge measurement

Imaging

- Filming on-board and off-board
- NAC Memrecam fx RX5 digital high speed colour video system
- Up to 1280 x 1024 pixel resolution at 1,000fps; recording rate up to 10,000fps
- NAC Memrecam Micro miniature camera head for filming in confined locations
- MOVIAS Pro film analysis software (approved to Boeing Standard D401W370)

Measurement

- FARO 3D measuring arm for film analysis and permanent deformation Measurement

Technical SPECIFICATIONS

Test Equipment

- "Universal" passenger seat rig to increase the flexibility and reduce the test time of passenger seat test service
- Pitch & Roll Rig for floor distortion representation

Approvals

- Civil Aviation Authority Reference No. AI/9237/89

Vibration & Cyclic Testing

- Seat and interior fitting structure frequency response tests
- Seat multi-axial vibration for response to engine "Windmilling" vibration
- Seat multi-axial vibration for durability under engine "Windmilling" vibration

Millbrook OVERVIEW

Millbrook is one of Europe's leading locations for the development and demonstration of every type of land vehicle, from motorcycles and passenger cars to heavy commercial, military and off-road vehicles. Located at the geographical centre of the UK automotive and fuels industry and situated centrally in the strategic Oxford to Cambridge Arc just 65 kilometres to the north of London, our custom-built facility provides virtually every test, validation and homologation service necessary for today's demanding programmes, complemented by a worldwide reputation for confidentiality, service and competitiveness.

Although significant work has been done commercially on behalf of many research organisations, Millbrook has always focused on real world applications and understand the constraints, limitations and budgetary controls that affect our customers. Our staff have experience and expertise from backgrounds in test work within vehicle manufacturers' engineering departments, so they know what their customers expect from a test. Putting working relationships first, and seeing things from the customer's point of view, means Millbrook's support will survive the test of time.