



INTERIORS STRUCTURAL DESIGN

SUPPORTING GALLEY, STOW-BIN, SEAT & EQUIPMENT SUPPORT
DESIGN, FROM CONCEPT TO CERTIFICATION

06

CAPABILITY STATEMENT

OUR CAPABILITY

Structural analysis provision during design, development and certification for all aircraft interiors and associated equipment.

- Provide advice to customers on the appropriate analyses; materials and lay-ups; testing & structural optimisation.
- Conduct load case development and analysis for Design, Development & Certification.
- Definition of all Metallic, Monolithic Carbon, Glass, Kevlar or Boron in numerous epoxy resin systems.
- Development of Honeycomb panels with Nomex or Aluminium cores.
- Test & Gauge location definition, Correlation and Reporting.



DELEGATED SIGNATORIES

- Composite Approval for A350 Fixed Trailing Edge, A400M & Boeing Wide Body Stow Bins.
- Metallic, F&DT and FEA Approval for A350 Fixed Trailing Edge.
- QinetiQ GmbH Structural CVE for Pilatus PC-12 Modifications.



EXPERIENCE AT A GLANCE

CASE STUDIES

AIM AVIATION - 747-8 INTERCONTINENTAL - LUFTHANSA GALLEY

- Developed FE analysis models for all Galleys.
- Conducted Structural Analysis of Panels, Fixings, Top Steadies & Struts.
- Developed Interface Loading Reports.
- Supported Work Query Notes through manufacture.
- Supported post delivery activities with end client.

EQUIPMENT SUPPORT

- Load case development of mounted equipment.
- Vibration assessment of Equipment mounting systems.
- Flight control mechanism & support structure certification analysis.
- Structural Analysis of Equipment Racks & Trays on Fast Jets, Business & Large Commercial aircraft.

BOEING INTERIORS

- Led client teams during development of the Wide Body Stow-bins for 777-200/300 and approval of other wide body programme Stow-bins.
- Certification of Monuments - Galleys, Toilets, Purser Workstations & Closets for 737/757NG.
- Cargo Floor design and analysis for 777 rollers, lock downs and underlying floor structure.

SOFTWARE & ANALYSIS TECHNIQUES

- Development of Analysis Techniques in conjunction with clients.
- FEA using MSC or Hyperworks products – other packages available.
- Traditional analysis for all metallic & composite structures: including joints, strength, buckling and sandwich region wrinkling or core shear.
- Design Development using CATIA V5 or SolidWorks.

AIRCRAFT SEATING

- Checking of Structural Design Concepts.

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INTERIORS CAPABILITY STATEMENT



CASCADE
ENGINEERING

DEPENDABLE ENGINEERING,
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