

CURRICULUM VITAE

| | |
|-------------------------|---|
| NAME: | Jerrod Hartley |
| TELEPHONE: | Mobile 07962 400 320 |
| E-mail | <u>hartley@airframedesigns.com</u> |
| DISCIPLINE : | Consultant Stress Engineer |
| DATE OF BIRTH : | 19 January 1972 |
| NATIONALITY : | British |
| QUALIFICATIONS : | B.Eng. Mechanical Engineering C.Eng, Institute of Mechanical Engineers |

| | |
|--------------------------|---|
| WORK EXPERIENCE : | <p>14 years of varied experience in stress analysis / design of aircraft structures using both manual and computer aided techniques.</p> <p>Specialist experience in the definition, execution and analysis of full-scale and component level structural tests.</p> <p>Extensive experience of design definition in both metal and CFC constructions.</p> <p>Widespread application of FEA including preparation, execution of FE models and results post-processing.</p> |
|--------------------------|---|



Experience in Date Order

Nov 05 – Present
AFD Consultant Engineer
Various Clients

Founding Director of Airframe Designs Limited.
Involved with establishing and developing the company to secure work packages from numerous European clients in the Aerospace and Rail industries. WP's have covered projects such as the Boeing 787 Dream Liner, Airbus A400M, C27J military Transport programmes.

Aug 02-Nov 05
Stork/Fokker AESP
Papendrecht, The Netherlands

NH90 Military Helicopter, Fokker Design Team
Appointed focal point for the full-scale static & dedicated fatigue testing activities. Provided support to the tail module element including build standard, rig lay-out, test loading, instrumentation, defect/damage, rig interface and overall test programme definitions. Responsible for the FEM validation of the NH90 NASTRAN model using strain gauge results from the tests.

Jan 02-July 02
Stork/Fokker AESP
Papendrecht, The Netherlands

NH90 Military Helicopter, Fokker Design Team
Performed design stressing for the horizontal stabiliser composite ribs, spars and skins for material strength, stability and joint strength. This initially involved the building of a fine mesh FEM model for integration with the Tail Module FEM.

May 01-Dec 01
Boeing Commercial Aircraft
Seattle, USA

Boeing 777-200LR & 300ER Wing TE Design Team
Performed static stressing and fatigue analysis of various wing TE detail parts. Structure included panel support beams, tie-rods and aileron fittings that required EBT, joint, stability and durability analyses. Used the ELFINI FE code to extract beam loads for the stressing of various trailing edge structure items.

Oct 99-April 01
BAESYSTEMS
Warton, UK

Eurofighter Structures, Airframe Qualification IPT
Appointed section leader and signature for the structural testing of the composite inboard flaperon, SPF/DB foreplane, Acrylic windscreen / canopy and composite cabin side skin. Testing encompassed static, fatigue, birdstrike and thermal cyclic qualification and involved test definition and support through to final report writing.



Experience in Date Order – cont'd

July 97-Sept 99
BAESYSTEMS
Samlesbury, UK

Eurofighter Structures, Production Flying Surfaces IPT
Performed static stressing of the fin bending fitting.
Prepared FE NASTRAN model of a monolithic CFC flaperon and subsequently performed skin/rib stability analyses. Conducted design optimisation of a flaperon actuator fitting for improved lug strength and durability using the Pro-Mechanica FE rapid analysis program.

July 96-June 97
BAe Military Aircraft
Brough, UK

Hawk Structures, 100 Series Fuselage Re-Design IPT
Prepared NASTRAN FE model of forward fuselage using CATIA interface for geometry definition.
Performed static stressing and fatigue analysis of fuselage quadrant frames, equipment mountings and longerons.

Nov 95-June 96
BAe Military Aircraft
Warton, UK

Eurofighter Structures, Structural Health Monitoring
Assisted with the definition and subsequent monitoring of a full-scale aircraft response test for the purpose of validating SHM gauges. Performed FEM validation analyses and compiled qualification report for the twin seat variant of the aircraft.

Sept 94-Oct 95
BAe Military Aircraft
Warton, UK

R&D Structures, CFC Repair and Battle Damage
Conducted analysis of data from a wide variety of CFC coupon tests in support of government funded R&D contract. Conducted analysis of test data from a number of classified battle damage tests aimed at examining the effect of hydraulic ram on fuel filled CFC structures.

Jan 94-Aug 94
BAe Military Aircraft
Warton, UK

Tornado Structures, In-Service Fatigue and MAFT
Provided support to in-service fatigue problems and provided support to the ADV major airframe fatigue test. Conducted an investigation in to damage observed on the airbrake back-up structure using regression techniques for correlation to known damage.

July 93 – Dec 93
BAe Military Aircraft
Warton, UK

Eurofighter Structures, Qualification and Testing
Re-worked check stress calculations to evaluate the impact of introducing a new type of panel fastener. Also provided support to various component level structural tests.