

Resume of James D. Brown

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SUMMARY

- FAA DER, DAS - ODA AR - Structures & Interiors, 14 CFR Parts 23, 25, Car 3, & Car 4b – since 1995;
Chart A Authorized Areas / Delegated Functions:
A1, A4, K4, K9, L4, L9
Chart A Special Areas / Delegated Functions (P)
P1, P4, (Major Repairs / Major Alterations for Authorized Area of A)
Authorized to approve data for repairs and alterations.
- Commercial Pilot with Instrument and Multi-Engine ratings;
- Project Management including creating Certification Plans, Similarity reports, Compliance Reports, Request for Conformity (RFC), review & approve reports for monument assemblies & installations. Coordinating with other areas such as Engineering and Production to ensure activities such as conformities and testing are done on time using FAA Order 8110.4, 14 CFR Parts 21, 23, 25.
- Extensive experience in certifying aircraft structural modifications, which involves writing certification plans, analysis reports, compliance reports, test plans, and supervising other DERs, stress, designers, and liaison personnel;
- Extensive experience in certifying aircraft interior modifications including seating arrangements, flammability certification, cabinets, closets, galleys', cabin entertainment systems, and window shades.
- Extensive experience in designing and analyzing aircraft structural repairs and modifications;
- Involvement with all aspects of STC certification;
- Extensive experience with Hawker, Cessna, Gulfstream, Lockheed, Boeing, and Douglas aircraft;
- Twenty+ years Stress Analysis experience in Static, Fatigue, and Damage Tolerance Analysis;
- Computer Aided Engineering; Proficient in and own AutoCAD 2000 & MathCAD.
- Excellence computer skills. Proficient in AutoCAD, MathCAD, WordPerfect, MS Word, Excel;
- Developed many technical computer programs to calculate the following: crippling analysis, shear center, moment of inertia, black box analysis, fastener pattern analysis, curved beam, and lug analysis.
- BS Mechanical Engineering with graduate level courses;

AIRCRAFT ENGINEERING EXPERIENCE

- Supervising other DERs, designers, stress analysts, and liaison personnel in certification of aircraft modifications.
- Writing stress reports, compliance reports, certification plans, compliance checklists, weight and balance reports.
- Writing fatigue and damage tolerance test reports in support of the development of the Cessna Citation.
- Damage Tolerance Analysis and Maintenance Manual Supplements of Antenna Installations.
- Fatigue and static analysis of Cessna Citation fuselage and wings for repairs.
- Fatigue and static analysis of Boeing 707 wings and fuselage for repairs and modifications.
- Stress analysis of aircraft structural modifications, which include using hand analysis and finite element analysis, to convert aircraft from a passenger to a freighter, installing retractable antennas, blade antennas, slot antenna installations, avionics installations, interior installations and workstation installations;
- Design, stress analysis, and damage tolerance analysis of major and minor aircraft repairs and modifications;
- Performed stress analysis on lugs, fittings, spars, joints, crippling, buckling, and beam bending;
- Writing stress reports to substantiate aircraft modifications and other technical reports required to obtain supplemental type certificates and FAA approvals;
- Evaluated, supervised, & troubleshot aircraft modifications, resulting in modifications being done properly, safely, and on time;
- Supporting structural designers in aircraft design and liaison engineers in production support.
- Extensive daily use of the following computer programs: MathCAD, AutoCAD, & Excel, to assist in stress analysis.

EDUCATION AND TRAINING

Graduate level courses in Mechanical Engineering, Wright State University, Dayton, Ohio, USA.

- Special Emphasis in Computational Solid Mechanics.
- Classes in Finite Element Methods, Non-Linear FEM, and Aircraft Structures.

B. S. Mechanical Engineering, Utah State University, Logan, Utah, USA. 1987.

Emphasis in engineering mechanics.

- Passed Engineer in Training (EIT) Exam (10/86).
- Numerous Classes in Advanced Mechanics of Solids, Advanced Dynamics, and Finite Element Analysis.

General Dynamics, USA

- Effective Presentation (20 hours).
- Basic Statistical Process Control (12 hours).

Douglas Aircraft Company, USA

- Geometric Dimensioning and Tolerancing - ANSI Y14.5M-1982 (80 hours).
- Aircraft Structural Repair School (40 hours).

Other Skills / Courses

- Multi-Engine & Instrument Rated Commercial Pilot.
- AutoCAD computer aided drafting (AutoCAD).
- Spreadsheets: Excel.
- Word processors: MSWord, WordPerfect.
- Microcomputers: PC & Mac.

EMPLOYMENT HISTORY

AVIATION ENGINEERING CONSULTANTS OF USA, INC., USA. Continuing Consulting
DER – Structures & Interiors. Interior and structural modifications to DC-10, B707, B727, B737, B747, B757, B767, Gulfstream II, III, IV, Jetstar, Cessna 172, 182, 550, DC-9, DC-8, Dassault 900 & 2000, Hawker Beechcraft 4000 aircraft. Writing certification plans, weight and balance reports, stress, fatigue, and damage tolerance reports, Requests for Conformities, flammability certifications, and Interior Compliance reports.

FEDERAL EXPRESS CORPORATION, Memphis, TN 2010 – 2010
Contract Stress / Airworthiness Engineer – Certification of Animal Charter STC for the MD-11 aircraft. Changes involved certifying new pallets for use in Animal Charters. Certification Plans, Similarity reports, Compliance Reports, Request for Conformity (RFC), review & approve reports for monument assemblies & installations. Ensured on time completion of activities such as conformities and testing using FAA Order 8110.4 by coordinating with other areas such as Engineering and Production.

DASSAULT FALCON JET, Little Rock, AR 2008 - 2009
Contract FAA DER, DAS AR Structures & Interiors – Certification of the interior for the Dassault 900 & 2000. Project Management including creating Certification Plans, Similarity reports, Compliance Reports, Request for Conformity (RFC), review & approve reports for monument assemblies & installations. Ensured on time completion of activities such as conformities and testing using FAA Order 8110.4 by coordinating with other areas such as Engineering and Production. Provide guidance for less experienced engineers. Review and approve drawings & reports. Wrote procedures for creating monument reports.

HAWKER BEECHCRAFT, Little Rock, AR 2008 - 2009
Contract FAA DER Structures & Interiors – Certification of the interior for the Hawker 4000. Creating Certification Plans, Similarity reports, Compliance Reports, Request for Conformity (RFC), review & approve

stress reports for monument assemblies & installations. Provide guidance for less experienced engineers. Review and approve drawings. Developed material allowables for insert – panel combinations.

PIPER AIRCRAFT, INC., Vero Beach, FL, USA 2005 – 2007

Contract Stress Analyst. Stress analysis for modifications and structural deviations to the PA-46, PA-32, PA-28 aircraft fuselage, and wings. Writing test plans & conducting tests to determine compliance with the FAR's.

PATS, LLC, Georgetown, DE, USA. 2005 – 2005

Contract DER & DAS AR - Structures & Interiors. Supervising stress, design, and liaison engineers. Interior and structural modifications to Boeing 737, 757, & CRJ aircraft. Wrote certification plans, weight and balance reports, stress reports, Requests for Conformities, flammability certifications.

NORTHROP-GRUMMAN, Bethpage, NY, USA. 2004-2004

Contract Stress Analyst. Crack Growth Analysis of the A-10 Warthog. Various wing, fuselage, and pylon modifications and life extension program. Utilized Afgrow and other Crack Growth programs.

HAWKER BEECHCRAFT AIRCRAFT SERVICES (formally Raytheon), Wichita, KS, USA. 1998 - 1998

Contract DER - Structures & Interiors. Supervising other DERs, designers, and liaison personnel. Interior and structural modifications to Hawker 800XP and Beech B300 aircraft. Wrote certification plans, weight and balance reports, stress reports, Requests for Conformities, flammability certifications.

CESSNA AIRCRAFT COMPANY, Wichita, KS, USA. 1997 - 1997

Contract Stress Analyst. Fatigue and damage tolerance test reports for the Cessna Citation 560 XL fuselage and tail. Static and fatigue analysis for airframe repairs for other Citation Models. Utilized MSC/Nastran for Windows to determine stress concentration factors.

BOEING DEFENSE AND SPACE PSD, Wichita, KS, USA. 1995 - 1997

Contract Stress Analyst. JSTARS (707) wing corrosion stress and fatigue safe life analysis. Modifications to KC-135 and Air Force One. Utilized MSC/Nastran for Windows.

MAEAAS, Inc., Mobile, AL, USA. 1995 - 1995

Contract DER - Structures & Interiors. ValuJet (Altran) DC-9 interior modifications and airframe repairs. AUTOCAD, FRAME MAKER, EXCEL, MATHCAD.

West Virginia Air Center, Bridgeport, WV, USA. 1994 - 1995

Contract Stress Analyst. ARL (DASH 7) structural modifications. AUTOCAD, MATHCAD, EXCEL.

Airborne Express, Wilmington, OH, USA. 1991 - 1994

Aircraft Stress Engineer. Aircraft modifications and airframe repairs.

General Dynamics, Fort Worth, TX, USA. 1989 - 1991

Senior Engineer. Design liaison.

American Airlines, Tulsa, OK, USA. 1988 - 1989

Aircraft Engineer. Developed structural repairs & evaluated services bulletins for the MD-80 aircraft.

Douglas Aircraft Company, Long Beach, CA, USA. 1987 - 1988

Engineer / Scientist. Stress liaison. MRB.

U.S. Navy 1975 - 1980

Aircraft Mechanic.

