Resume - David M Johnson
San Diego, CA Email dj@davemjohnson.com

Position Desired: **Aeronautical Engineering Position –Contract Stress Engineer**

Education:

1977 - 1981 **Bachelor of Science in Mechanical Engineering**
First Class Honors, (equivalent to GPA 4.0) at Huddersfield Polytechnic, Huddersfield, England.

Summary of Experience:

Key Skills	Fixed Wing	Rotary Wing	Other Projects	Materials (Composite)	Computer Software
Static Analysis	T45A Goshawk	SeaKing CH124A	SKS Airship	Carbon Fiber	Nastran V70.7
Composite Specialist	CP140 Aurora	EH101	US Navy NASP	Kevlar	Patran
Finite Element	Jetstream 31	Bell 206B/L	Wind Turbine	Glass Fiber	FEMAP
Loads Analysis	T67 Firefly	Bell 412	AtlasV Launch Vh.	Epoxy Matrix	NE Nastran
Hand Analysis	Gulfstream GIII		Spacecraft Adapters	BMI Matrix	Excel
FAA Certification	Airbus A330,A350		Spacecraft Solar Array		Mathcad 2002
Structural Repairs	Embraer 190				Nasgro V4
Full Scale Testing	Boeing 737				IDAT
Fatigue Analysis	JSF (CTOL&STOVL)				Hypersizer

Employment History:

July04 – May 05 **Goodrich Arostructures** (Sandiego, CA)
Oct05 - Present **Contact Stess Engineer**

A350 – Stress engineer responsible for analysis and structural configuration of Graphite AS4/8552 inner fixed structure on the A350 Nacelle. Task included composite certification plans, damage tolerance approach, test plans and a definition of composite analysis methods within Goodrich. Interfaced with software vendor to customize Hypersizer composite and optimization software to meet the Goodrich analysis and certification approach. Priimary software tools included Nastran and Patran.

Embraer 190 – Responsible for compilation of FAR certification static stress & damage tolerance reports for the Embraer 190 nacelle structure (CF34-10 P&W Engine).

June 05 – Oct 05 **D3 Technologies** (San Diego CA)
Contract Lead Stress Engineer

JSF – Lead stress engineer for the JSF forward fuselage. This task included static & damage tolerance analysis of the CTOL and STOVL forward fuselage bulkhead and floor components. Software includes IMAT, IDAT, Patran, Nastran, Slim and Vision tools.

Jan 04 – July 04 **BAE Systems** (Mojave, CA)
Contract Lead Stress Engineer

Boeing 737 Modification –Lead stress engineer for the JSF CATB program. The task included the installation, ,structural design, FEM, and hand analysis of nose sensor components, a graphite carnard, fuselage reinforcement, interior reconfiguration, and installation of electronic sensor components on the fuselage. Also responsible for the derivation of detailed technical specifications. The certification basis was FAR Part 25.

Feb 01 – Jan 2004 **Euro Technologies / Really Quiet / MLS Technologies** (CA)
Contract Stress Engineer

Gulfstream GIII - Responsible for creation of finite element models (FEMAP, NE Nastran, Nastran), and certification stress reports for a GII/GIII Hush kit, titanium Thrust Reverser and Sliding Nacelle. Also comiled the stress analysis and finite element model reports for the aft fuselage reinforcement, pylon, nacelle, mixer and thrust reverser. This assignment also included detail design and production support for the Really Quiet and Stage III Hush Kit.

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Apr 94 – Feb 01 **Lockheed Martin** (Astronautics Division) Denver, CO & (Aeronautical Division) Baltimore, MD
Staff Aeronautical Engineer

Satellite Adapters - Lead stress engineer for payload adapter design on the Atlas V launch vehicle upper stage. Task includes analysis, design support, composite and graphite specialist, internal loads derivation, and finite element modeling (Nastran, Patran & IDEAS) of payload adapters

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Satellite Solar Array – Stess engineer responsible for detail stress analysis, finite element modeling (Msc Nastran), and certification structural testing of a large composite solar array on a military program.

Atlas III Launch Vh. - Design, development and certification of the fuel ducts for the Atlas III rocket engines. Developed Nastran finite element model for the static and dynamic analysis.

P&W Reverser - Responsible for developing repair techniques on the BMI composite P&W 4168 Thrust Reverser for the Airbus A330 program. This task involved derivation of composite structural test programs, including detail analysis test predictions and supervision of certification testing.

Dec 90 - Apr 94: **BELL Helicopter (Textron)**, Montreal, Quebec, Canada
Staff Technical Specialist

412 Helicopter - Lead Stress Engineer to develop a **composite (Carbon)** tailboom for the 412 helicopter. This task involved design development, loads & stress analysis, FAA certification, coupon testing, sub component, full-scale static and repeated loads testing.

206B&L Helicopter - Lead Stress Engineer to upgrade the 206L. This task involved upgrading the Nastran FEM, recalculate the flight and ground loads; conducting a preliminary static stress check; providing structural design modifications; and compilation of FAA stress reports.

Lead Engineer of all light models, (MRB signature & **DAR Structures**), for engineering production support, product improvements, and kits for the airframe structural components.

Mar 89 - Nov 90: **IMP GROUP LTD**, Aerospace Division, Halifax, Nova Scotia, Canada
Senior Aeronautical Engineer.: responsible to the Engineering Manager for the following :

CP-140 Aurora - Derivation of flight loads for the Nastran CP-140 (Lockheed P3) wing finite element model and verification of the CP140 (Lockheed P3) wing FEM.

Seaking CH124A - Detail static stress analysis for the Recovery Assist, Secure and Transverse System .

Aug 87 - Mar 89: **SLINGSBY AVIATION LTD,** Kirkbymoorside, England
Contract Stress Engineer: Provided the preliminary design study for a new 60-seat composite commuter hovercraft.

Hovercraft - Modeling components using Pafec and Pigs finite element pre and post processor packages. Certification requirements to BHSR. Conduct all preliminary static analysis for the structure. Derivation of hovercraft internal & external loading from BHSR. Assist with structural design including main hull superstructure, propeller and skirt design. Liaison with consultants and major component manufacturers. Derivation of the performance includes thrust and drag calculation.

Wind Turbine - Preliminary structural analysis and design study for a composite 20m vertical axis wind turbine.

US Navy Airship - Preliminary structural analysis & design study for a composite tailfin for the US Navy NASP .

Oct 86 - Aug 87 **BRITISH AEROSPACE PLC**, Commercial Division, PRESTWICK, England
Contract Stress Engineer

Jetstream 31- Design stress reports for the upper wing skins, main undercarriage rib and the fuselage frame supporting the aft wing mounting.

Remodeling the wing for check stress calculations using Fiesta and post processor Patran.
Deriving the theoretical fatigue spectrum and damage analysis for the wing to compile a report specifying the applied loading on the wing fatigue test.

Apr 86 - Oct 86: **BRITISH AEROSPACE PLC**, Military Division, WEYBRIDGE, England
Contract Stress Engineer: responsible to the Chief Stress Engineer for preparation of stress reports for McDonnell Douglas on the US Navy version of the T45 Hawk.

T45 Goshawk - Stress reports were written for the center fuselage skins, engine support frame and flight test equipment. Experience of post processor Patran and Nastran was gained during this period.

Jul 81 - Apr 86: **SLINGSBY AVIATION LTD**, Kirkbymoorside, England
Stress Engineer - 1981; **Senior Stress Engineer** - 1983; **Principal Stress Engineer** - 1984.

Fokker 50 - Check stress of the aft main wing spar.

T67 Firefly - Involved with all structural aspects, i.e. preliminary design, detail design, structures reports, coupon testing, sub component testing, full scale testing, and CAA certification.

Conducted Design stress calculations and stress reports for the T67 engine frame, fuselage skins and stringers, fuselage frames, longerons and tailplane.

Derivation of the fatigue spectrum, fatigue test load application and stress calculations for the structural integrity of the fatigue rig.

SKS 600 Airships - Subcontract work for A.I. including detail structural design modifications and shop support. Conducted a full-scale static test on a nose cone and the fwd portion of the helium envelope. This task also included the design of the test assembly.

EH101 Helicopter - Carry out a design proposal for a lifting beam on the EH101.

SAH 1500 Hovercraft - A new 20-seat hovercraft was developed at Slingsby Aviation. Assisted with the structural design, and compiled the detail stress calculations for all major structural items; including the main hull, longitudinal bulkheads, lateral bulkheads, propeller duct, and superstructure.

References: Available upon request.