# **Tim McKeaveney**

## **Experience**

January 2020 to present Airbus Group Australia Pacific (Edinburgh)

#### Aeronautical Engineer (DE1, Structural Deviations)

- DE1, Structures
- NV1 Australian Security clearance
- P3 Orion support
  - o ADS-B Installation
  - Disk Crusher Installation
  - Lean R3 Servicing
  - o J-rack Installation.

### June 2015 to December 2019

#### Aeronautical Engineer (DE1, Structural Deviations)

- DE1, Structures
- Structural Engineer for Litening Pod installation onto the C-130J-30
- Various mid-level servicing repair support.
- C-130J-30 DM tasks, This involves extensive liaison with maintenance (AMO) to develop engineering solutions (repair / replace / remake) to ensure Time-madeserviceable targets are met.
- Refurbishment work for Ex-RAAF C-130H, prior to delivery to Indonesia.
  - Technical Information review of TCTO documents for airworthiness applicability to the specific aircraft that were issued after the aircraft was retired.
  - Determination of structural repair solutions via concession, development of repairs where the SRM repair was not appropriate.
  - Preparation of ASTI's.
- Repairs to repstock item such as compartment doors and exhaust ducts.

#### March 2011 to May 2015 Aguila Engineer (Perth)

### Aeronautical Engineer (Full Time)

- Engineering Design tasks include developing and providing structural justification for Authorised Maintenance Data (AMD) and Instructions for Continued Airworthiness (ICA) for design deviations, modifications and AAP supplements.
- Technical investigation, liaison and issue of airworthiness advice to TASPO and the AMO.
- Continuation training to include regulatory compliance with TAREGs and Pilatus EASA obligations.
- Damage tolerance analysis using (Dr Crack / Structcode).
- Fatigue evaluations include crack initiation and crack growth analysis with recommendations to maintenance policy.
- Extensive experience with FEA (Femap with NX NASTRAN), including non-linear, linear contact, stress intensity (CRAC2D element), buckling and vibration analysis of aircraft structures.
- Basic (read-only) exposure to Teamcenter and introduction to NX drafting.
- Design review of CAR 21.009 projects (mostly repairs).

Jul 2009 to March 2011 Formsteel (Perth)

Part Time Work for both Aquila Engineering (2 days) and Formsteel (3 days).

Feb 2008 to July 2009 Formsteel (Perth)

### Structural Draftee / Engineering Technician

- Structural detail drafting of steel frame roofs, wall frames and floor beams.
- Updates of quants calculations (excel spreadsheet).
- Programming Python (for quants) and Vectorscript (Vectorworks scripting language to improve drafting productivity).
- Calculation of light steel cold-formed section in accordance with the direct strength method in accordance with AS4600.
- Project to develop automatic design, detailing and structural justification of LSB Sheds to meet AS1170. Required Windows Com interop programming between excel and Multiframe.

Nov 2002 to Feb 2008 Thomson Design (Perth)

#### Aeronautical Engineer

- Work for Walter Thomson, CAR 35 delegate.
- Preparation and checking of approved data such as Engineering Orders, Flight Manual Supplements and Reports.
- Liaison with customers and maintenance organizations, e.g. Paspaley Pearling, Network Aviation, Skippers, Hawker Pacific, RACWA, Premiair, Fugro, Heliwest, etc.
- Job types includes, structural repairs, avionics installations, flight testing and analysis, role equipment installations (survey work, external mirrors, power-line washer, etc), weight and balance, simple electrical load analysis (single engine aircraft), preparation of minimum equipment lists for charter operators, manufacture of replacement parts, approval of commercial parts in aircraft.

### **Education**

#### 1992-1996 Kent St Senior High School

Aviation Scholarship Years 8 to 12.

#### 1997-2001 University of Sydney

Bachelor of Aeronautical Engineering

Thesis topic, "An Aeroelasticity program in MATLAB".

## Professional Short Courses (typically 3 to 5 days full time)

- Catia Basics (October 2017)
- Patran Introduction (August 2016)
- Aerodynamic Design of Transport Aircraft (April 2014)
- Aircraft Structural Loads: Requirements, Analysis, Testing and Certification (February 2011)
- Composite Design Workshop VIII (Stanford online)
- 7x7 Repair of Advanced Composite Structures Airplane Preliminary Design (March 2012)
- Fundamentals of DTA & Applications Alteon (Boeing)
- Structural Repair courses (I, II and III).
- Hydraulics Certification course (Wayne Stout, now part of Kansas

## University)

- 3 day training course in NX.
- 3 day training course in AutoCAD (3D).
- 3 day training in FEMAP (introduction)
- 3 day training in FEMAP (non-linear analysis)
- 3 day training fatigue and damage tolerance (Structlife), introduction
- 3 day training fatigue (Structlife), advanced and welding

## **Professional Seminars (1 day)**

- CASA APMA course and CAR35 seminar. CASA MCANTO (engines) seminar.
- Cold Formed Steel Sections Strength (Greg Hancock)

### Self-directed or part-time courses

- MIT Systems Engineering (2020 2021)
- Short Courses in Excel VBA macros, Project, Access (Canning College)
- Short course in Hobby Welding (TAFE)
- MIT Aerodynamics Course (online)
- Stanford Machine Learning (online)
- Bioinformatics (online)