

ABBOTT AEROSPACE INC. COMPETENCIES LIST

- General
 - Part 23 and Part 25 Aircraft metallic and composite structures development and certification experience.
 - Piston Engine Aircraft and Jet Aircraft Experience
 - Structural Substantiation: Military, Business, Very Light Jets and General Aviation Aircraft.
 - Primary Structures and Interiors Development, Analysis and Certification
 - Project Management, Stress and Structures Group Leadership
- Certification (Structures):
 - Compliance planning and reporting
 - Liaison with TCCA (Canadian) certification Agencies
 - Certification Stress Report Authoring, Military Type Record and Check Stress Report Authoring.
 - Certification/Qualification Test Planning and Reporting
- Stress Analysis
 - Initial development sizing of metallic and composite aircraft structures
 - Detailed analysis of metallic and composite aircraft structures
 - FE modeling – Airframe load models to local fine mesh metallic and composite models: NASTRAN/PATRAN, FEMAP, ELFINI, SAMCEF
 - Weight optimization
 - Hand analysis of metallic and composite structures
 - Laminate strain analysis and lamina stress failure criteria
- Composites
 - Compliance with 23.573/25.573 – Damage tolerance design philosophy and validation by small scale test
 - Development of composite stress and strain methodologies – correlation and validation by test
 - Composite repair validation by analysis and test
- Composite Material and Process
 - Experience of 2 part and 1 part Wet Lay-up Resin systems
 - Experience of commercial pre-preg material systems

Aircraft Structures Experience:

- Metallic and composite primary airframe development and certification, mechanical systems development and certification. Composite and metallic repair and liaison work
- Development of qualification and compliance programs for primary aircraft structures

Projects worked on:

BAe Hawk, MDC T45, SAAB Gripen, BAe Nimrod, Diamond D-Jet, DA40 and DA42, Sino Swearingen SJ-30, Bombardier CRJ-700 and Global Express, Dassault F7X, Airbus Custom Interiors Experience

Clients:

Diamond Aircraft, Applied Aerodynamics, Aerosciences, Gore Design, SONACA SA, Sino Swearingen Aircraft Corporation