



CAPABILITY STATEMENT

OVERVIEW

TLG Aerospace has the capability to support the entire iterative aircraft or spacecraft design cycle from product development to certification. Our full-service, in-house, multidisciplinary team of engineers offer engineering services in loads, dynamics, and flutter; structural stress and design; aerodynamic design and computational fluid dynamics (CFD); and performance and handling qualities.

Our team includes five Designated Engineering Representatives (DERs) who have the experience and tools to make decisions at the beginning of a program, providing engineering to optimize your product during development and to generate the certification plans, analysis, testing, and documentation needed to get your product to market.

ENGINEERING EXPERTISE

- Loads & Flutter
- Dynamics & Vibration
- Aerodynamic Design & CFD Analysis
- Stability & Control Analysis
- Metallic & Composite Analysis & Design
- Static, Fatigue, & Damage Tolerance Analysis
- Bird Strike & Rotor Burst Impact Simulation
- Finite Element Analysis
- Industry Standard Design with CATIA V5
- Continued Airworthiness Documentation
- Support In-Service Major Repairs & Alterations
- Ground & Flight Test Planning, Support, & Analysis

AIRCRAFT EXPERIENCE

- Large Transport Airplanes
- Fire Tanker Conversions
- Business & Commuter Aircraft
- General Aviation
- Space Launch Vehicles
- Satellites
- Advanced Air Mobility (eVTOL/VTOL)
- UAV/Drone
- New Space Industry
- Military Aircraft and IS&R
- Subsonic/Transonic/Supersonic/Hypersonic
- Agricultural



TLG AEROSPACE, LLC

1700 Westlake Avenue North, Suite 430
Seattle, WA 98109 USA
(206) 859-5061

info@tlgaerospace.com | sales@tlgaerospace.com

UEI: E233UAKS6E25 | CAGE: 5LNN4
NAICS: 541330, 541715
EAR & ITAR Compliant & Space Qualified

CERTIFICATION EXPERIENCE

FAA (US) | EASA (Europe)
CAAC (China) | JCAB (Japan)
TCCA (Canada) | CASA (Australia)
ANAC (Brazil, Chile, Argentina)
FAA Loads DER (14 CFR Part 23 & 25)
FAA Flutter DER (14 CFR Part 23 & 25)
FAA Structures DER (14 CFR Part 23 & 25)
FAA Flight Analyst DER (14 CFR Part 23 & 25)

CONTACTS

Steve Muenzberg
President & Chief Engineer
FAA Loads DER (14 CFR Part 23 & 25)
Steve.Muenzberg@tlgaerospace.com

Robert Lind
Director of Engineering
FAA Flutter DER (14 CFR Part 23 & 25)
Flight Analyst DER (14 CFR Part 23)
Robert.Lind@tlgaerospace.com

N. Scott Dickson
Director of Finance & Administration
Scott.Dickson@tlgaerospace.com

Tommy Gantz
Director of Business Development
Tommy.Gantz@tlgaerospace.com

Andrew McComas
Chief Aerodynamicist & Engineering Manager
Andrew.McComas@tlgaerospace.com

Dr. Josh Sementi
Engineering Manager - Loads, Dynamics, & Flutter
FAA Loads DER (14 CFR Part 23 & 25)
Josh.Sementi@tlgaerospace.com

Allen Foulstone
Engineering Manager - Loads, Dynamics, & Flutter
Allen.Foulstone@tlgaerospace.com

Ian Draycott
Engineering Manager - Stress
FAA Structures DER (14 CFR Part 23 & 25)
Ian.Draycott@tlgaerospace.com

Jeff Barnes
Engineering Manager - Structural Design
Jeff.Barnes@tlgaerospace.com

Dr. Peter Burns
Advanced Simulation & CFD Lead
Peter.Burns@tlgaerospace.com

Reid McCaul
Flight Sciences Lead Engineer
FAA Flight Analyst DER (14 CFR Part 23 & 25)
Reid.McCaul@tlgaerospace.com

ENGINEERING SERVICES

AIRCRAFT LOADS, FLUTTER, & VIBRATION

- Loads & Flutter
- Dynamics & Vibration
- Aerodynamic Design & CFD Analysis
- Stability & Control Analysis
- Metallic & Composite Analysis & Design
- Static, Fatigue, & Damage Tolerance Analysis
- Bird Strike & Rotor Burst Impact Simulation
- Finite Element Analysis
- Industry Standard Design with CATIA V5
- Continued Airworthiness Documentation
- Support In-Service Major Repairs & Alterations
- Ground & Flight Test Planning, Support, & Analysis

STRUCTURAL STRESS & DESIGN

- Senior Stress & Design Engineers
- Metallic & Composite Analysis & Design
- Static, Fatigue, & Damage Tolerance Analysis
- Bird Strike & Rotor Burst Impact Simulation
- Industry Standard Analysis Tools (PATRAN/NASTRAN/APEX)
- Finite Element Analysis Experience Includes Industry Standard Design Using CATIA V5
- Continued Airworthiness Documentation
- Support In-Service Major Repairs & Alteration
- Ground Test Planning, Support, & Analysis

AERODYNAMIC DESIGN & CFD ANALYSIS

- Senior Experts in Applied Aerodynamics
- Full CFD Capability, Panel Methods to Navier-Stokes
- Concept Exploration, Aircraft Sizing, & Preliminary Design
- Internal & External Flows (Subsonic, Transonic, Supersonic, & Hypersonic) including Chemical Reacting Non-Equilibrium Flows
- Design of Airfoils, Wings, Control Surfaces, High Lift Devices, Fairings, Antennae, Nacelles, Struts, Inlets, Ducts, etc.
- Powerplant Integration
- Thermodynamic & Heat Rejection Analysis
- Scalable Analysis using On-site & Cloud-Based Computing Clusters
- Wind Tunnel Testing, Low Speed & Transonic, Developmental & Production

PERFORMANCE, STABILITY & CONTROL, & HANDLING QUALITIES

- Performance Prediction, Measurement, & Validation
- Mission Analysis & Optimization
- AFM-based Performance Modeling
- Classical & Non-Linear Stability & Control Analysis
- Flight Dynamics Simulation
- Aeroelastic & Closed Loop Handling Qualities
- Flight & Ground Test Planning, Support, & Analysis

FAA CERTIFICATION

- Certification Plans
- Agency Certification Coordination
- STC & TC Certification Documentation
- Test Witnessing
- FAA DER Approvals

