

DARcorporation News

September 2017

Featured Service

Loads Analysis

DARcorporation is capable of performing detailed loads analysis on any vehicle in the air or water using analytical/numerical methods. Results and deliverables include critical load cases, V-n diagrams, surface pressure distribution and resultants of lift, drag and moment.

We can develop V-n diagrams that give load factors and their corresponding speeds in compliance with FAR 23, FAR 25 and MIL A 8861 (ASG) certified requirements using our [Advanced Aircraft Analysis \(AAA\)](#) software.

We can also quickly identify critical load cases per FAR 23 regulations, which include compressibility and altitude effects, with [FAR 23 LOADS](#) software. Loads reports can be generated in support of FAR 23 Type Certification (TC) and Supplementary Type Certification (STC).

For conventional/unconventional aircraft and propellers, we can calculate surface pressure loads over a wide range of flight conditions with advanced panel code software such as [FlightStream](#)[®].

To capture loads due to high lift devices, flow separation or boundary layer interaction, we use Siemens STAR-CCM+ Computational Fluid Dynamics (CFD) software.

Our engineering tools and expertise enable us to conduct load analyses on unique aircraft, propellers and wind turbine designs to meet the customer's needs.

The DARcorporation Advantage

Experience in the design, detailed analysis and building of prototypes gives DARcorporation a unique advantage over other companies, since we can go from initial design all the way through full size prototype manufacturing. We will work with you to design and optimize your aircraft for performance, manufacturability and cost. Let us know how we can support your projects!

Contact Us

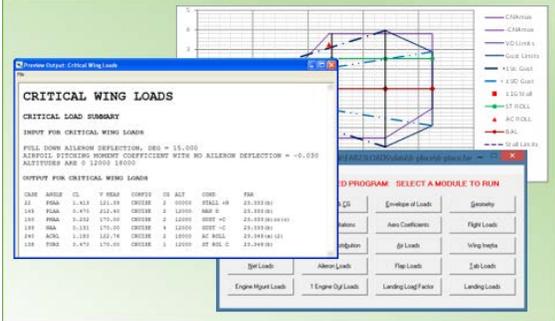
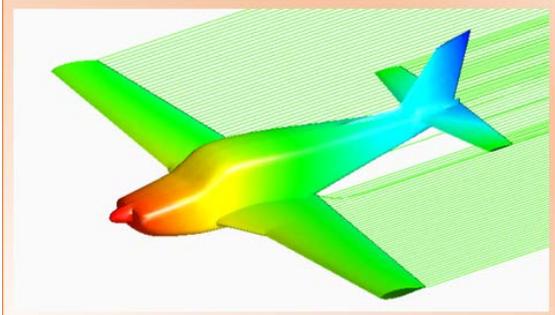
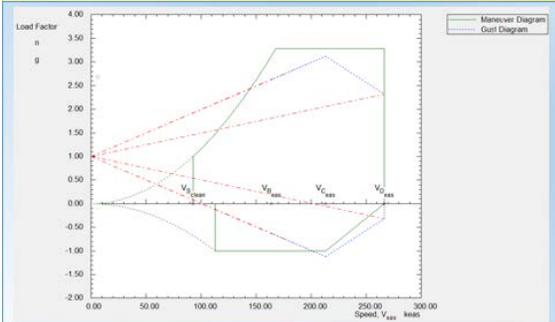
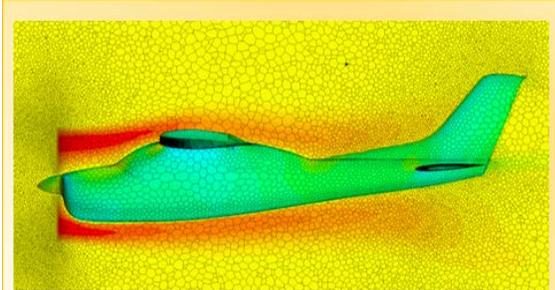


Figure 1: 3D surface pressure distribution plot of an aircraft wing and tail section.

Figure 2: V-n diagram showing Load Factor (n) vs Speed (V_EAS) in knots.

Figure 3: 3D surface pressure distribution plot of an aircraft fuselage and tail section.

Figure 4: Screenshot of DARcorporation software showing a 'CRITICAL WING LOADS' report window.

Upcoming Short Course: Airplane Flight Dynamics

November 13-17, 2017 - Orlando, Florida

[Outline, Fee & Registration](#)

Instructor: [Dr. Willem Anemaat](#)

Description: An overview of airplane static and dynamic stability and control theory and applications, classical control theory and applications to airplane control systems. Overview of flying qualities and regulations.



[Register](#)

Click above to learn more about the contents of the course from Dr. Anemaat himself!

DARcorporation



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