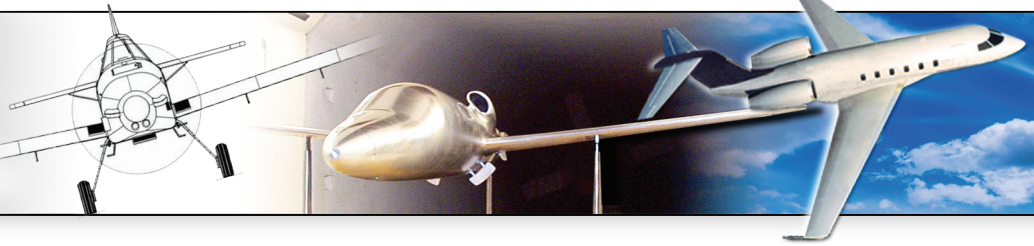
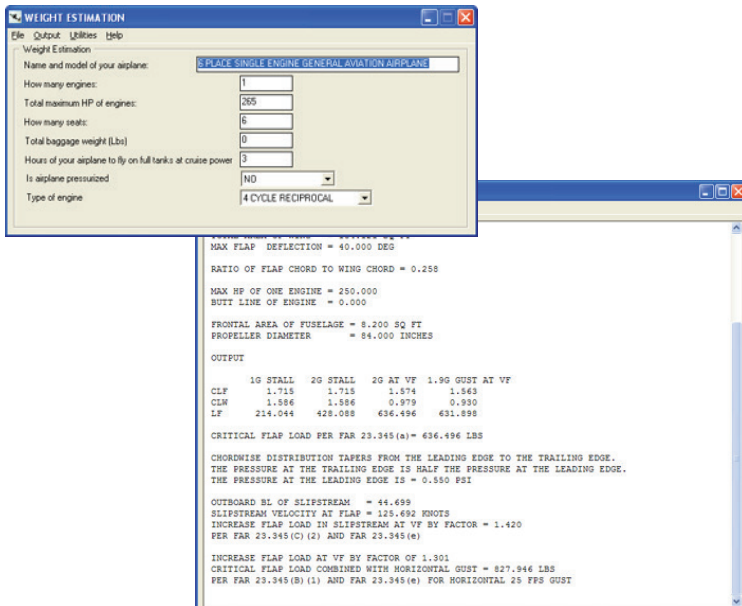
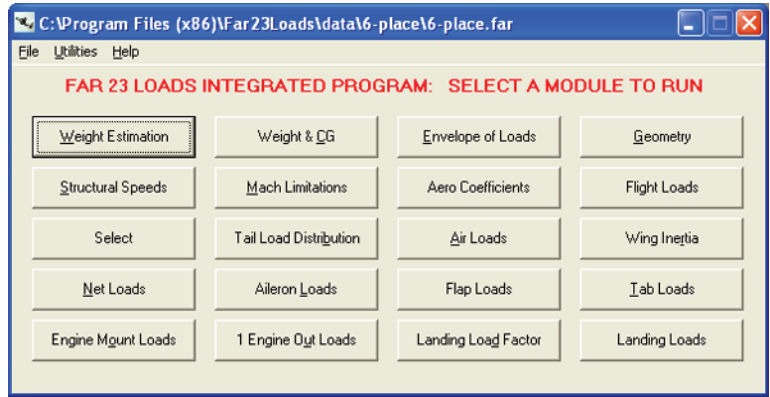


FAR 23 LOADS



FAR 23 LOADS is copyrighted by McGettrick Structural Engineering, Inc. It provides a procedure to calculate the loads on an airplane according to the Code of Federal Regulations, Title 14 – Aeronautics and Space, Chapter I – Federal Aviation Administration, Subchapter C – Aircraft, Part 23 – Airworthiness Standards, Normal, Utility, Acrobatic and Commuter Category Airplanes, Subpart C – Structures.



The loads on the airplane are determined by (1) the three view drawing, (2) the chosen maximum takeoff weight, (3) the chosen category and load factor. The software calculates the loads using methods acceptable to the FAA and actually recommended in the previous CAR3/CAM3/CAM4 and FAR 23/FAR 25 regulations. Previous versions of this software has been used as a reference by hundreds of individuals and companies in over 40 countries. It has been licensed to the FAA.

Type Certification

This software provides the means to calculate and print a loads report, including compressibility and altitude effects, for FAA Type Certification.

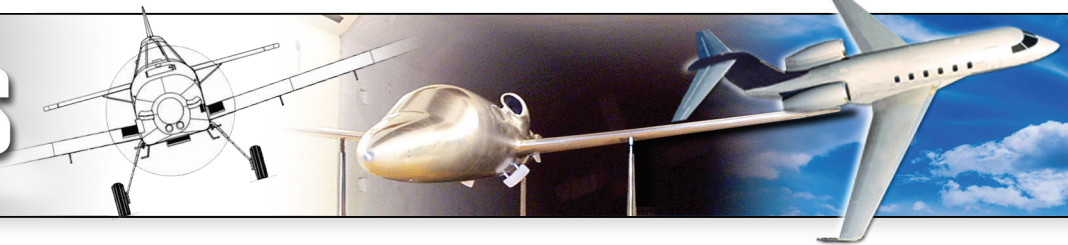
Supplemental Type Certification

Strength substantiation is required for most Supplemental Type Certifications (STCs) for changes to Type Certificated airplanes. The original loads report for certification are proprietary information and not available to persons making changes to type certificated airplanes. Users of previous versions of this software have received approval for STCs.

Experimental or Kit Airplanes

The loads on experimental home built airplanes, kit planes or ultra light airplanes should be calculated for flight safety. Weight may be reduced with stress analysis or testing only after calculating accurate loads. Although there are no FAR certification requirements for loads and strength analysis for this category in the US, there should be great concern for flight safety in this freedom from regulation.

FAR 23 LOADS



FLIGHT LOADS

File Output Utilities Help

General | Speed & Alt | Enroute Info | Cruise Coef | Cruise CG | Landing Coef | Landing CG |

Enter S (Wing Area, Sq-Ft)	184.121	FS of 25% MAC of tail	261.027
Enter Wing MAC (Inch)	63.246	FS of 50% MAC of tail	270.356
Aspect ratio of wing	6.095	Aspect ratio of horizontal tail	4.017
Enter XW (Fus Sta 25 Percent MAC Wing)	80.953	Incidence of horiz. tail, WL to chord (Deg)	2
Enter ZW (Waterline 25 Percent MAC Wing)	87.725	Sweep (DEG)	0
Elevator area (Total LH+RH) (Sq-Ft)	16.409	Aero Coefficient Mach number (usually about 0.1)	0.1
Horizontal tail area (Sq-Ft)	36.95	Ignore Pitch Due to Drag?	NO

Minimum Load Factor
Aircraft Category: **NORMAL**

Maximum Weight: 3400

The load factor for this airplane is set to: 3.800

The FAR calculated minimum load factor for this airplane is: 3.800

Set Load Factor

FAR 23 LOADS Consists of 20 Modules

- Weight Estimation
- Envelope of Loads
- Structural Speeds
- Aero Coefficients
- Select Critical Loads
- Air Loads
- Net Loads
- Flap Loads
- Engine Mount Loads
- Landing Load Factor
- Weight & CG
- Geometry
- Mach Limitations
- Flight Loads
- Tail Load Distribution
- Wing Inertia
- Aileron Loads
- Tab Loads
- One Engine Out Loads
- Landing Loads

The computer aided engineering approach can produce a reasonably complete airplane loads report. The program is based on the Federal Aviation Regulations, text references in the industry and years of experience in the certification process of FAR 23 airplanes.

- Intuitive graphic user interface
- FAA-supported re-development effort
- Modules are fully integrated, single database
- Modules can be run as stand-alone applications
- Program includes theoretical documentation and user interface guide with two airplane examples

