ACAC – Addendum

Model 8KCAB with

Lycoming Engine AEIO-360-H1B (180 HP)

Record of Revisions

LET	By	Description	Date	Pages Affected
A	JJB	Retyped Addendum, Updated for 1950 lbs Gross Weight	10-23-03	All

3.0 PERFORMANCE INFORMATION

3.1 CLIMB SPEEDS

Best Rate-of-Climb Speed at Sea Level: 82 MPH (71 Knots) CAS
Best Angle-of-Climb Speed at Sea Level: 58 MPH (50 Knots) CAS

Best Rate-of-Climb Speed Decreases 1 MPH per 2000ft Gain of Pressure Altitude.
Best Angle of Climb Speed Increases 1 MPH per 1500ft Gain of Pressure Altitude.

3.2 SERVICE CEILING

Service Ceiling: 16000 ft

3.3 AIRSPEED SYSTEM CALIBRATION

Indicated airspeed (IAS) is identical to calibrated airspeed (CAS) from stall up to 140 MPH. From this speed the following calibration exists.

IAS (MPH)	CAS (MPH)
140	139
150	148
160	158
170	167
180	185
200	194

4.0 LOADING INFORMATION

Weight and balance data is prepared individually for each airplane. Procedures used in this section have been approved by the FAA.

ACAC Addendum Page 3 shows the moment and loading envelope diagrams applicable to the 8KCAB. A weight and balance report containing the airplane empty weight, moment, and the approved equipment list is attached to this manual. These items are explained below.

4.1 MOMENT AND LOADING

The loading envelope shows the allowable limits of the total airplane moment from the minimum weight to the maximum gross weight. The moment diagram gives the moment contribution of the pilot, passenger, fuel, oil, and baggage. To find the moment contribution of a 100lb passenger, move vertically upward along the weight scale to 100lbs., move horizontally to the passenger line, the moment contribution is read vertically downward from this point, i.e. 4500 lbs.

To determine if a particular weight configuration is acceptable, find the total weight and the total moment by summing the contributions of each component, including the empty airplane (oil moment is negative and must be subtracted). On the loading diagram, locate the intersection to the horizontal total weight line and the vertical total moment line. If this intersection lies within the envelope, the configuration is acceptable.
(ACAC Addendum Page 4)

Note the distinction of normal and acrobatic category areas. Acrobatic category operations are prohibited outside of the acrobatic category envelope and at total weights above 1800 lbs. Reference section 1.2 of the aircraft flight manual for aerobatic category limitation.

4.2 WEIGHT AND BALANCE

The weight and balance report give the official aircraft empty weight, empty moment, empty CG, and useful load. The empty weight includes unusable fuel and undrainable oil. (ACAC Addendum Page 3)

4.3 EQUIPMENT

Each item installed on the airplane at the time of weighting is marked with and X on the equipment list. The weight and moment are of each item are also shown. The accelerometer is required for acrobatic category operation only. (ACAC Addendum Pages 5-9)