

Weight & Balance Data

Aircraft Serial No. _____

F. A. A. Registration No. _____

Date: _____

ITEM	Weight (lbs.)	C.G. Arm (inches)	Moment (lb. ins.)
Standard Airplane (Empty, Dry & Unpainted) Actual Computed			
Optional Equipment			
Special Installations (DMCR Approved)			
Paint Std. Stripes Over-All			
Unusable Fuel (5.0 Gal)	30.0	46.0	1380.
Licensed Empty Weight = Total of Items Above			

(GROSS WT.) - (LICENSED EMPTY WT.) = USEFUL LOAD
 2800 LBS) - (LBS) = LBS

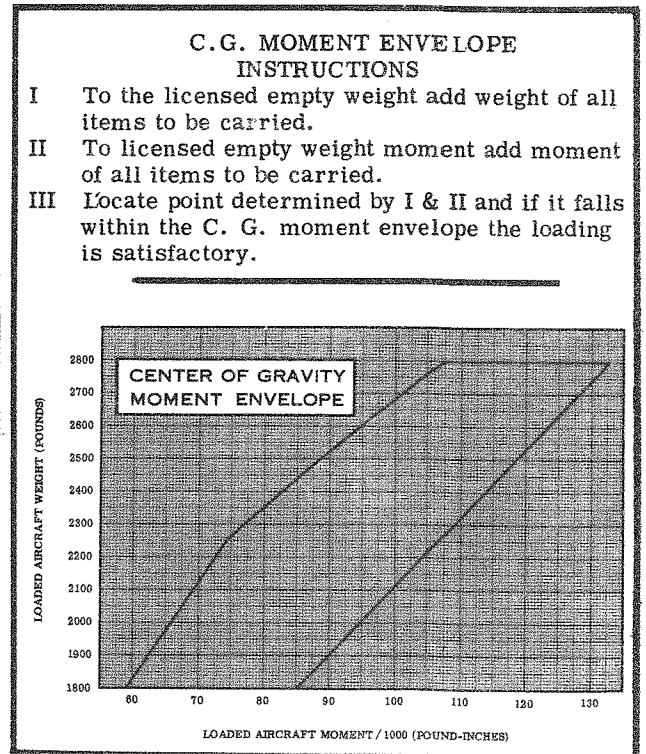
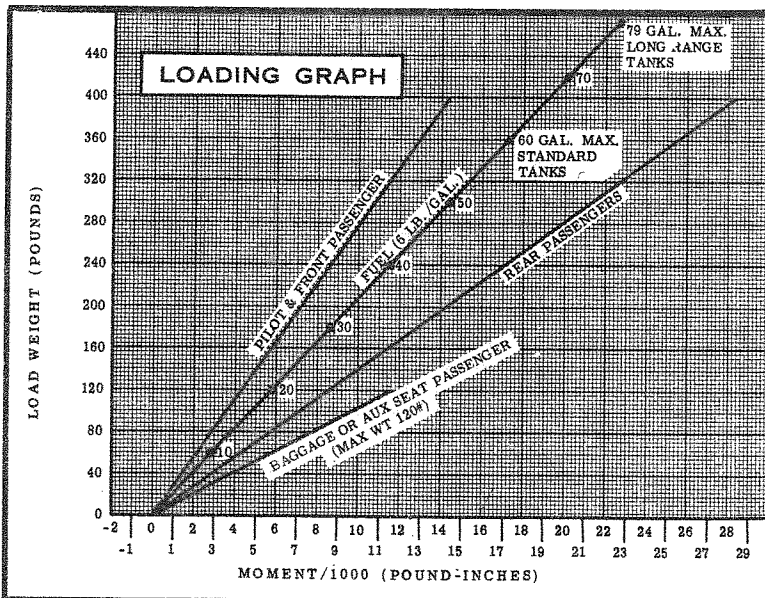
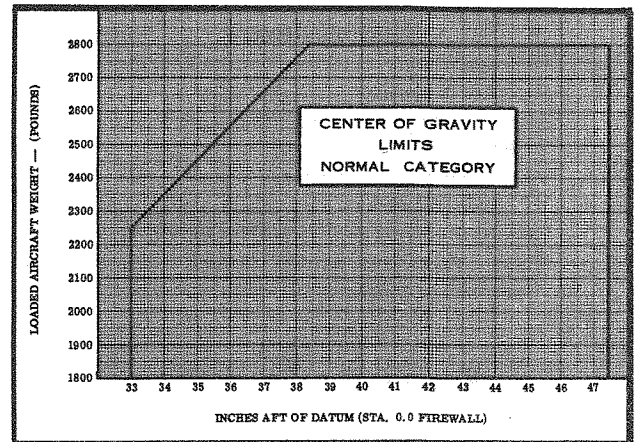
IT IS THE RESPONSIBILITY OF THE PILOT AND AIRPLANE OWNER TO INSURE THAT THE AIRPLANE IS LOADED PROPERLY. THE EMPTY WEIGHT C.G. & USEFUL LOAD ARE FOR THE AIRPLANE AS DELIVERED FROM THE FACTORY. REFER TO FORM FAA-337 WHEN ALTERATIONS HAVE BEEN MADE.

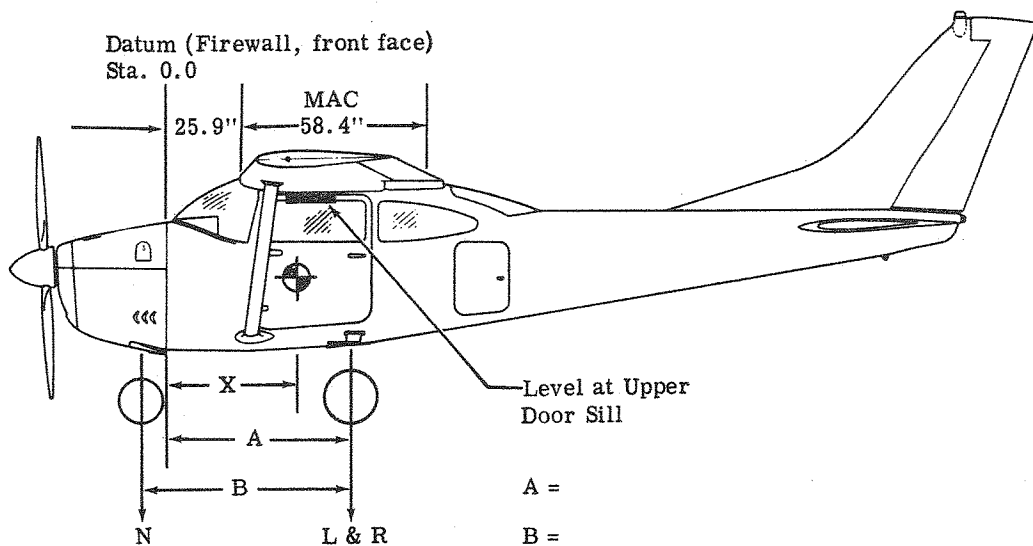
SAMPLE LOADING PROBLEM

	Weight (lbs)	C.G. Arm (Inches)	Moment (lb-ins/1000)
Licensed Empty Wt.			
Oil (12 Qts.)	22	-15.0	-0.3
Pilot & Front Passenger	340	36.0	12.2
Fuel		48.0	
Rear Seat Passengers	340	71.0	24.1
Baggage		97.0	

Total Loaded Airplane = **2800**

Locate this point (2800;) on the C. G. Moment Envelope.
 Since the point falls within the envelope the loading meets all balance requirements.





Scale Position	Scale Reading	Tare	Symbol	Net Weight
Left Wheel		5	L	
Right Wheel			R	
Nose Wheel			N	
Aircraft Empty Weight (As Weighed)			W	

$$X = \text{ARM} = (A) - \frac{(N) \times (B)}{W}$$

$$X = \text{ARM} = (\quad) - \frac{(\quad) \times (\quad)}{(\quad)} = (\quad) \text{ inches}$$

WEIGHING PROCEDURE

1. Preparation:
 - a. Inflate tires to recommended operating pressures.
 - b. Remove all wing tank drain plugs to remove all fuel.
 - c. Remove oil sump drain plug to drain all oil.
 - d. Move all sliding seats to the most forward position. All seat backs should be in the most nearly vertical position.
 - e. Put flaps in the fully retracted position.
 - f. Place all control surfaces in neutral position.
2. Leveling:
 - a. Place scales under each wheel (1000# minimum capacity for scales).
 - b. Deflate nose tire to center bubble on level (See Diagram).
3. Weighing:
 - a. With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.
4. Measuring:
 - a. Obtain measurement "A" by measuring horizontally (along the airplane center line) from a line stretched between the main wheel centers to a plumb bob dropped from the firewall.
 - b. Obtain measurement "B" by measuring horizontally and parallel to the airplane center line, from center of nosewheel axle, left side, to a plumb bob dropped from the line between the main wheel centers. Repeat on right side and average the measurements.
5. Completing the Form:
 - a. Using weights from (3) and measurements from (4) the airplane weight and C. G. can be determined.
 - b. Obtain licensed empty weight by adding weight and moment of unusable fuel (see other side) to airplane empty weight and moment.