

WEIGHT AND BALANCE.

The following information will enable you to operate your Cessna within the prescribed weight and center of gravity limitations. To figure the weight and balance for your particular airplane, use the Sample Problem, Loading Graph and Center of Gravity Moment Envelope, as follows:

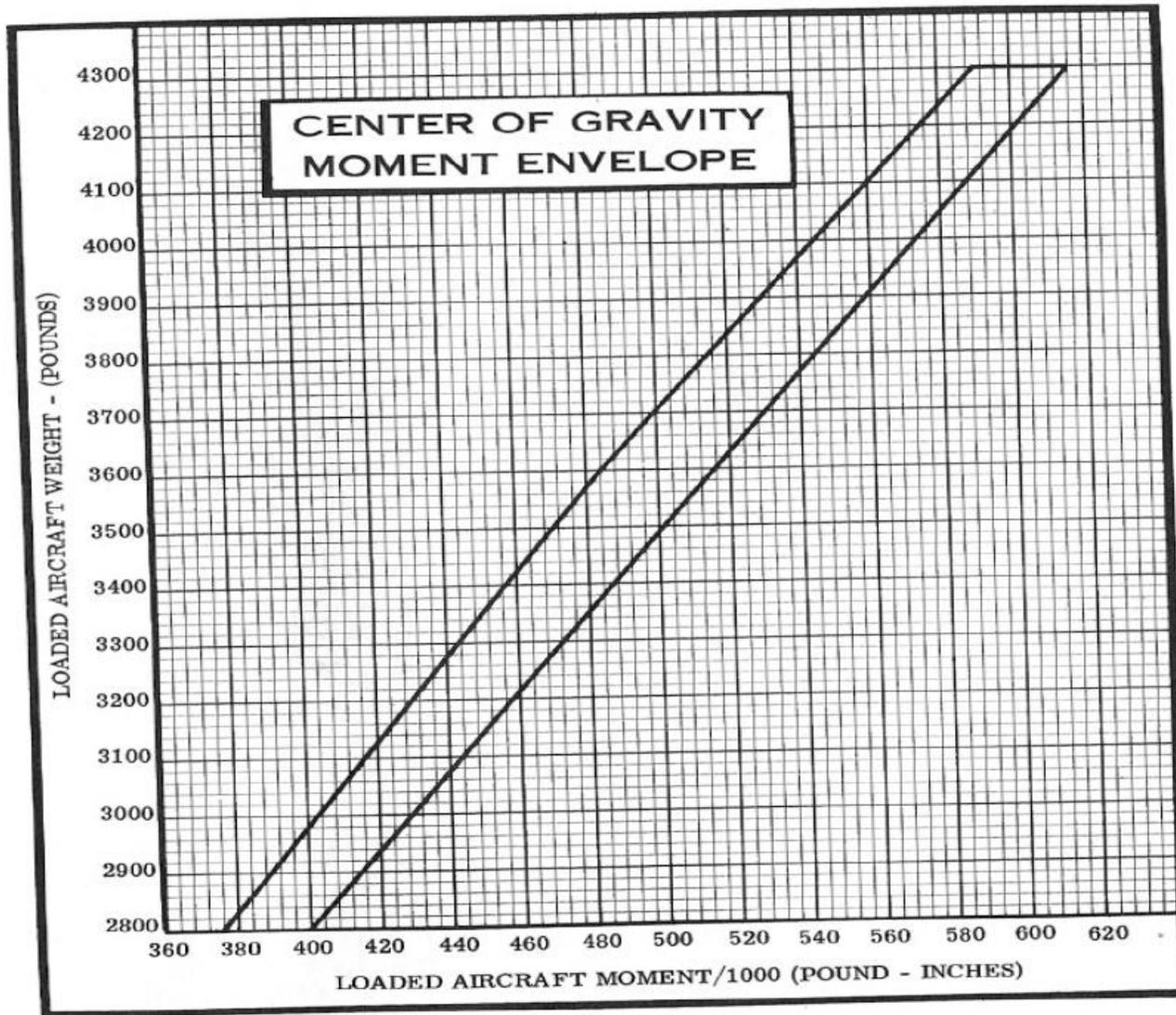
Take the licensed Empty Weight and Moment/1000 from the Weight and Balance Data sheet, plus any changes noted on forms FAA-337, carried in your airplane, and write them down in the proper columns. Using the Loading Graph, determine the moment/1000 of each item to be carried. Total the weights and moments/1000 and use the Center of Gravity Moment Envelope to determine whether the point falls within the envelope and if the loading is acceptable.

When an optional cargo pack is installed, it is necessary to determine the c.g. arm and calculate the moment/1000 of items carried in the pack. The arm (the c.g. arm is the same as the station) for any location in the pack can be determined from the diagram on page 4-8. Multiply the weight of the item by the c.g. arm, then divide by 1000 to get the moment/1000. The maximum loading capacity of the pack is 300 pounds.

NOTE

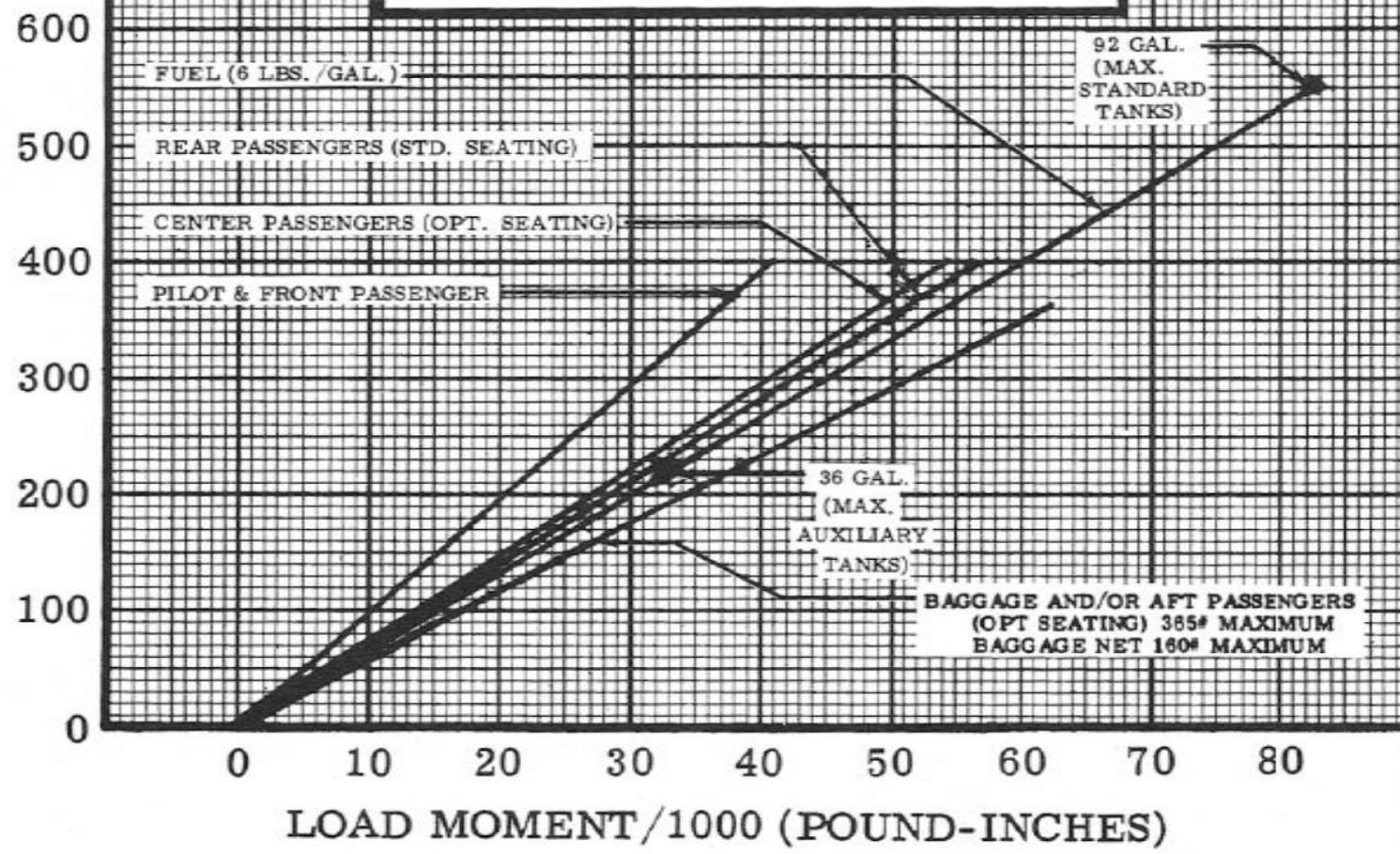
Each loading should be figured in accordance with the above paragraphs. When loading is light (such as pilot and copilot, and no rear seats or cargo), be sure to check the forward balance limits. When loading is heavy (near gross weight), be sure to check the aft balance limits.

To avoid time consuming delays in cargo and/or passenger shifting, plan your load so that the heaviest cargo and/or passengers are in the forward part of the aircraft or cargo pack, and the lightest in the rear. Always plan to have any vacant space at the rear of the aircraft or pack. For example, do not have passengers occupy the aft seat unless the front and center seats are to be occupied.



LOADING GRAPH

LOAD WEIGHT (POUNDS)



LOAD MOMENT/1000 (POUND-INCHES)

SAMPLE LOADING PROBLEM

	Sample Airplane		Your Airplane	
	Weight (lbs)	Moment (lb.-ins. /1000)	Weight ⇩	Moment ⇩
1. Licensed Empty Weight (Sample Airplane)	2763	386.3		
2. Oil - 10 Qts.* (Front Engine)	19	0.8	19	0.8
	19	3.9	19	3.9
3. Pilot & Front Passenger	340	34.7		
4. Rear Passengers (Standard Seating).....	340	47.9		
5. Fuel - (Standard-92 Gal. at 6#/Gal.)..	552	82.8		
6. Baggage				
7. Total Aircraft Weight (Loaded).....	4193	583.6		

8. Locate this point (4193 at 583.6) on the center of gravity envelope, and since this point falls within the envelope the loading is acceptable.

*Note: Normally full oil may be assumed for all flights.