

NTSB Weight and Balance Computations

	Weight	Moment
EW	1467	57.3
Tanks (40 gal)	240	11.5
Pilot and Front Pax	250	9.5
Rear Pax	200	14.5
	2157	92.8

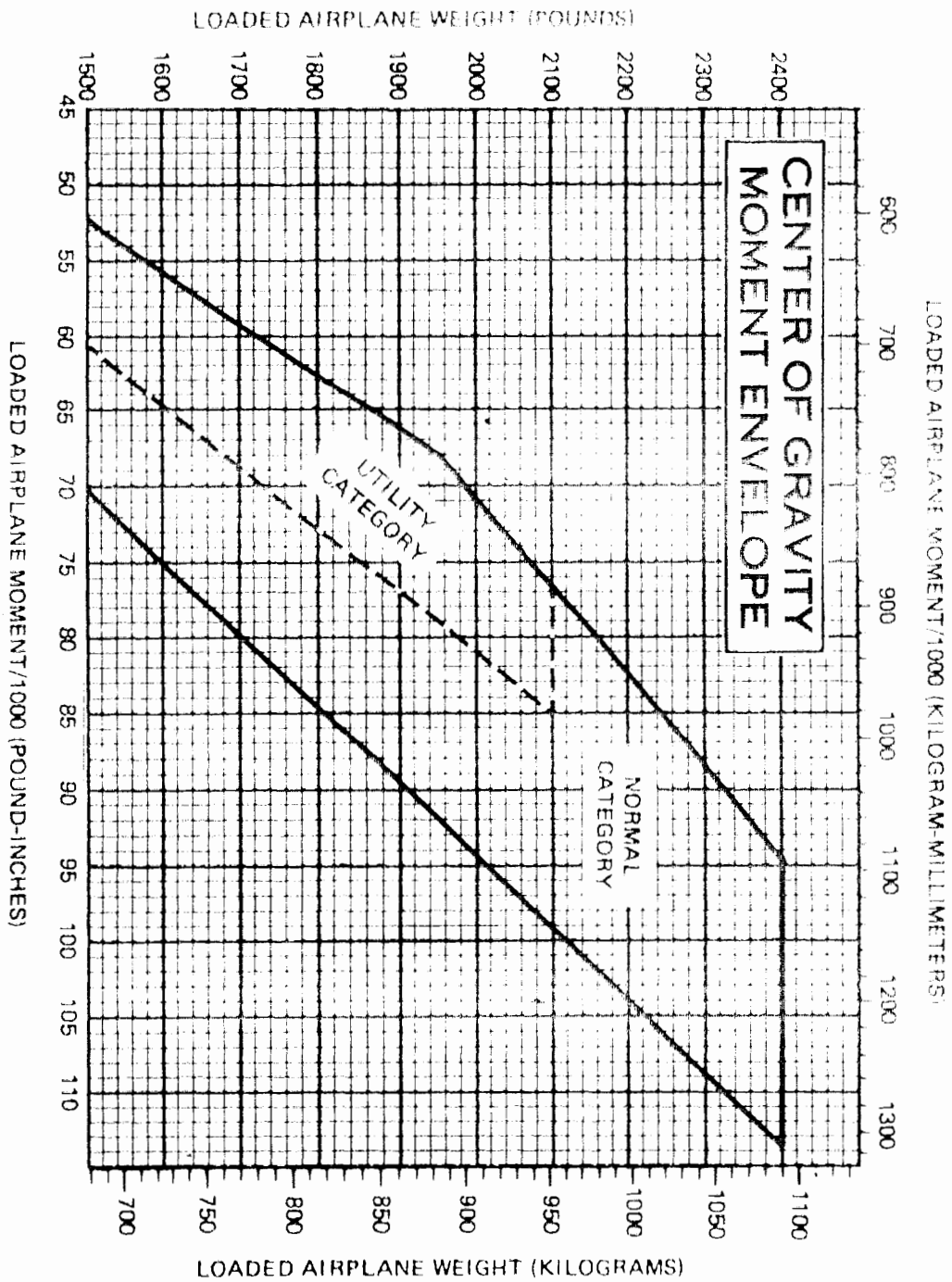
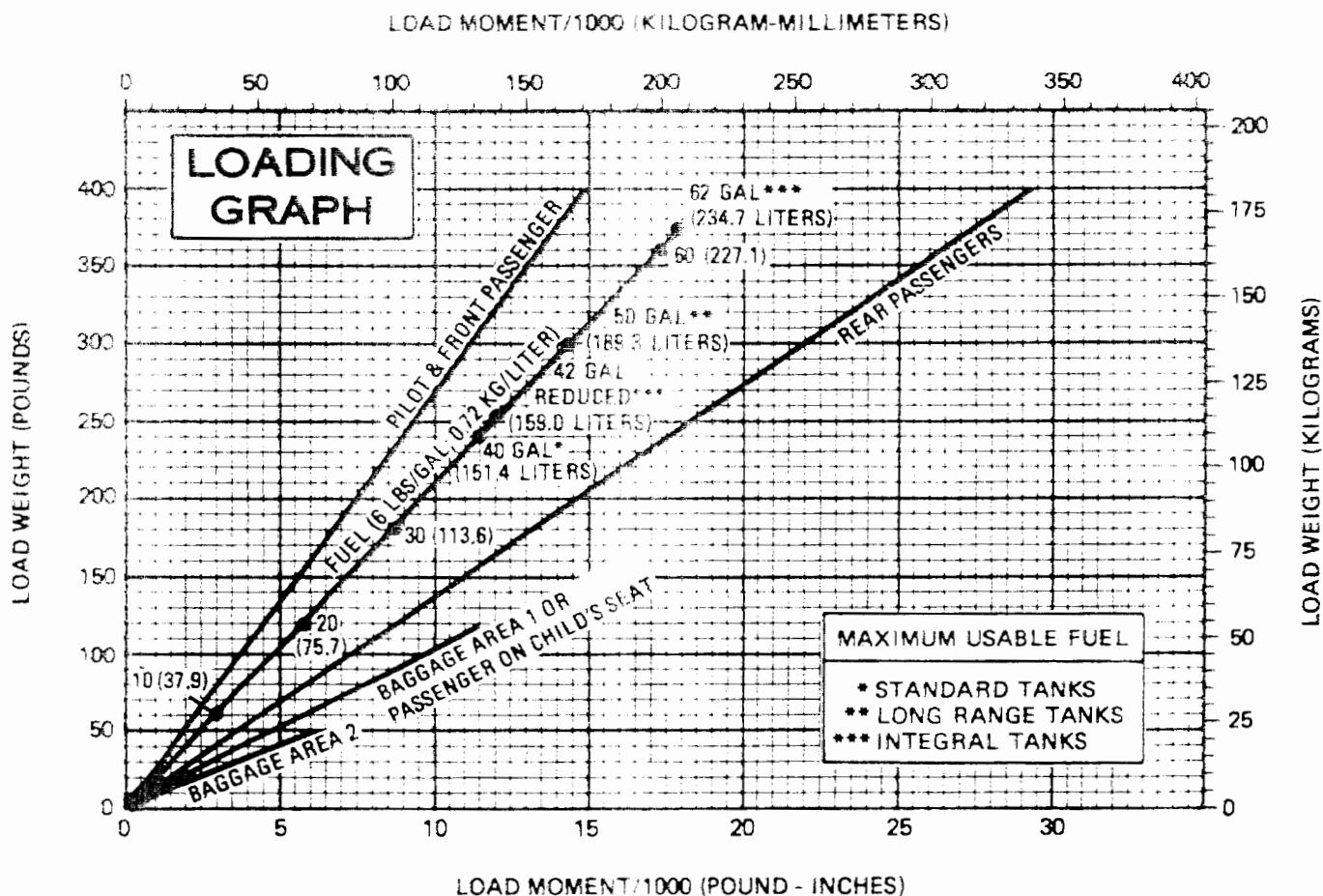


Figure 6-7. Center of Gravity Moment Envelope

SECTION 6
WEIGHT & BALANCE/
EQUIPMENT LIST

CSSNA
MODEL 172P



NOTE: Line representing adjustable seats shows the pilot or passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant C.G. range.

Figure 6-6. Loading Graph

SAMPLE LOADING PROBLEM	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb. - ins. /1000)	Weight (lbs.)	Moment (lb. - ins. /1000)
1. Basic Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel and full oil)	1467	57.3		
2. Usable Fuel (At 6 Lbs./Gal.)				
Standard Tanks (40 Gal. Maximum)	240	11.5		
Long Range Tanks (50 Gal. Maximum)				
Integral Tanks (62 Gal. Maximum)				
Integral Reduced Fuel (42 Gal.)				
3. Pilot and Front Passenger (Station 34 to 46)	340	12.6		
4. Rear Passengers	340	24.8		
5. * Baggage Area 1 or Passenger on Child's Seat (Station 82 to 108, 120 Lbs. Max.)	20	1.9		
6. * Baggage Area 2 (Station 108 to 142, 50 Lbs. Max.)				
7. RAMP WEIGHT AND MOMENT	2407	108.1		
8. Fuel allowance for engine start, taxi, and runup	-7	-3		
9. TAKEOFF WEIGHT AND MOMENT (Subtract Step 8 from Step 7)	2400	107.8		
10. Locate this point (2400 at 107.8) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable. * The maximum allowable combined weight capacity for baggage areas 1 and 2 is 120 lbs.				

Figure 6-5. Sample Loading Problem