

6.2 - Aeroplane Weight

6.2 - AEROPLANE WEIGHT

Aeroplane Type : PA.28 - 181

Registration Marking : VH- . MIZ

Issue	Date	Date of Expiry
Two	22 - 11 - 88	Indefinite

Aeroplane Weight and Centre of Gravity Data :

Item	Weight kg	Arm mm aft of datum	Index Unit kg mm	Cabin Configuration
EMPTY	693	2224	1540613	4 seats

P2

NOTE : The above weights include
 Unusable fuel and Undrainable Oil

Alan Lewis
 Approval Stamp AN31.

of transport Date

6.7 WEIGHT AND BALANCE DETERMINATION FOR FLIGHT

- (a) Add the weight of all items to be loaded to the basic empty weight.
- (b) Use the Loading Graph (Figure 6-13) to determine the moment of all items to be carried in the airplane.
- (c) Add the moment of all items to be loaded to the basic empty weight moment.
- (d) Divide the total moment by the total weight to determine the C.G. location.
- (e) By using the figures of item (a) and item (d) (above), locate a point on the C.G. range and weight graph (Figure 6-15). If the point falls within the C.G. envelope, the loading meets the weight and balance requirements.

	Weight Kgs	Arm Aft Datum MM	Moment
Basic Empty Weight	700	2242	1569.5
Pilot and Front Passenger		2045	
Passengers (Rear Seats)*		3000	
Fuel (181 Lts Maximum)		2413	
Baggage* Maximum 90 Kg		3627	
Total Loaded Airplane			

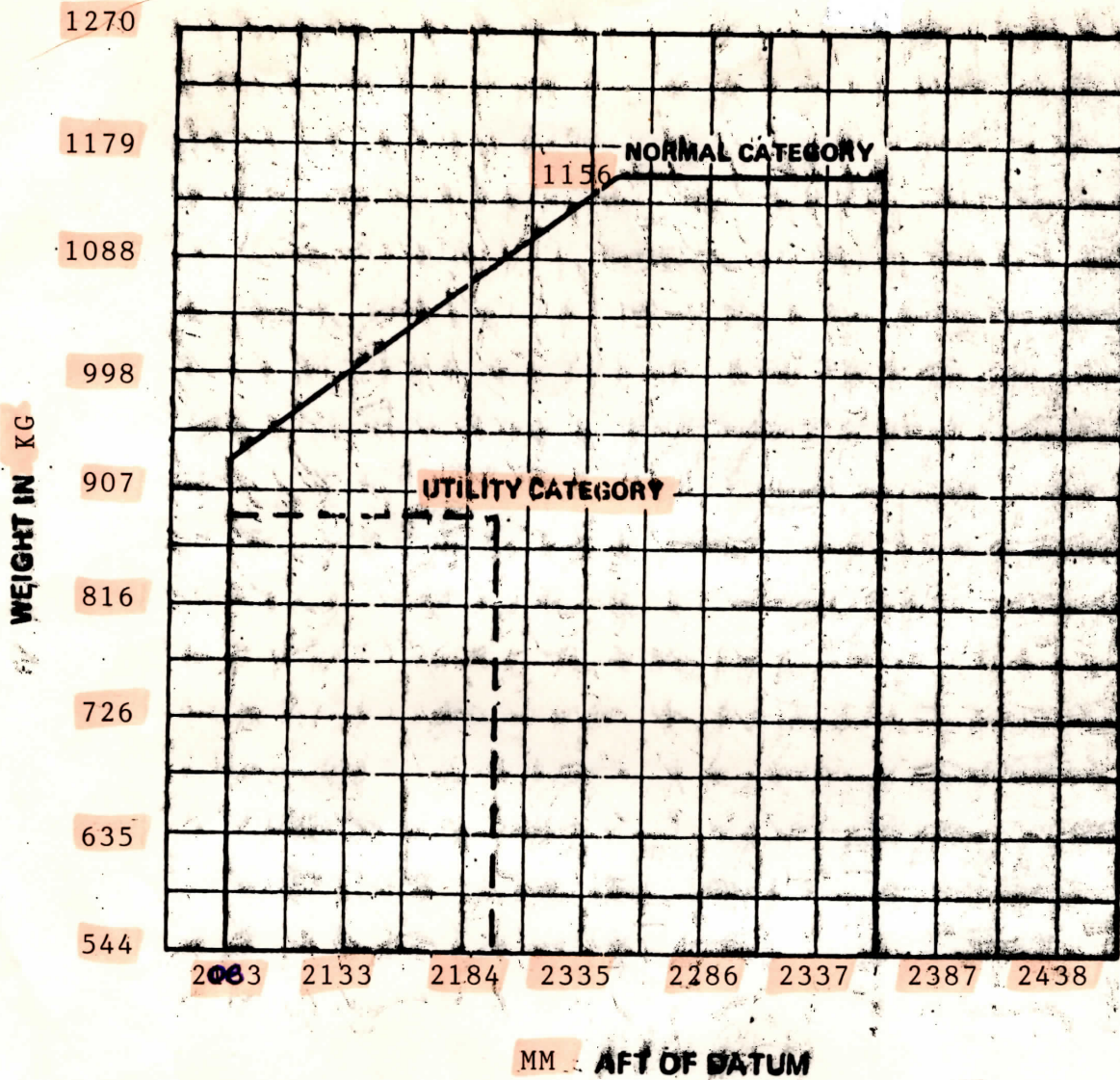
The center of gravity (C.G.) of this sample loading problem is at _____ inches aft of the datum line. Locate this point (_____ on the C.G. range and weight graph. Since this point falls within the weight - C.G. envelope, this loading meets the weight and balance requirements.

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO INSURE THAT THE AIRPLANE IS LOADED PROPERLY.

*Utility Category Operation - No baggage or rear passengers allowed.

SAMPLE LOADING PROBLEM (NORMAL CATEGORY)

Figure 6-9



C. G. RANGE AND WEIGHT

Figure 6-15