



Pacific Flying Club Aircraft Weight and Balance

Aircraft Type _____ Aircraft Registration _____

Loading Area	Weight (Lbs)	Arm	Moment
Empty Weight			
Useable Oil 1.8 lbs/quart (If not in empty wt.)			
Pilot & passenger			
Passengers (center)			
Passengers (rear)			
Baggage	1		
	2		
	3		
Totals - Zero Fuel			
Useable Fuel 6.0 lbs/US gal			
Totals at Take-off			
En- Route Fuel Burn	-		
Totals at Landing			

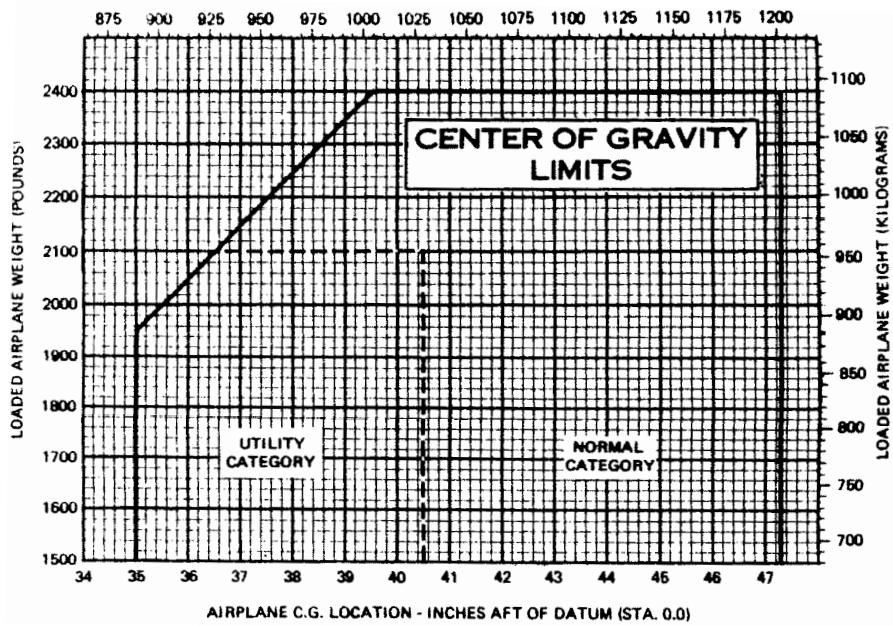
Weights			
MAX GROSS WEIGHTS		STANDARD PASSENGER WEIGHTS	
C152: 1670lb		Summer (Mar 15 - Dec14)	Winter (Dec 15-Mar 14)
PA-28: 2325lb		200 lbs	Males (>12 yrs) 206 lbs
C172: 2400lb (includes the diesel)		165 lbs	Females (>12 yrs) 171 lbs
C172R: 2450lb		75 lbs	Child (2-11 yrs) 75 lbs
C172xp and SP: 2550lb		30 lbs	* Child (<2 yrs) 30 lbs
		* Add in additional weight where child exceeds 30lbs	
		Reduce wt by 13 lbs if no carry on baggage for male/female	
		ACTUAL WEIGHTS SHOULD BE USED	

V_{ref} Calculation:

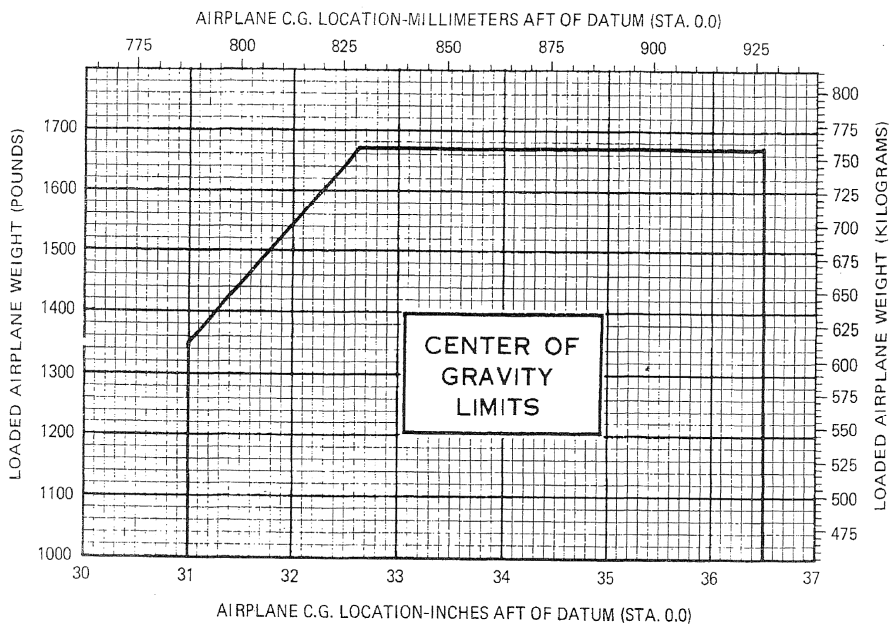
The purpose of the V_{ref} Calculation is to find the **calm wind** final approach speed adjusted for the lower landing weight.

1. V_{so} **KCAS** at max gross wt & forward C of G = _____ X 1.3 = _____ **KCAS** V_{ref} Max gross weight Calm Wind Final Approach Speed
2. Max Gross Wt. KCAS V_{ref} _____ X $\sqrt{\frac{\text{Landing Wt.}}{\text{Gross Wt.}}}$ = _____ KCAS V_{ref} Calm wind at lower weight.
3. Using the POH/AFM convert the adjusted KCAS V_{ref} _____ to KIAS V_{ref} _____

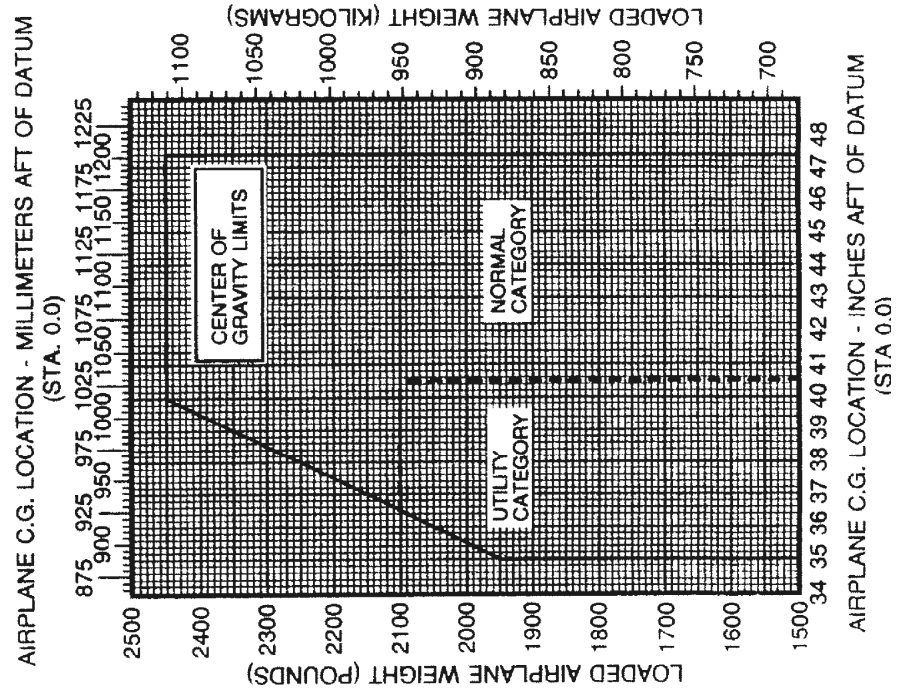
Note: Convert KIAS to and from KCAS by using the POH/AFM airspeed calibration chart. Always apply a KCAS to the above formula. In most cases, applying an *indicated airspeed (KIAS)* to the formula will result in a speed that is too slow. File - Aircraft Weight and Balance March 2012.doc



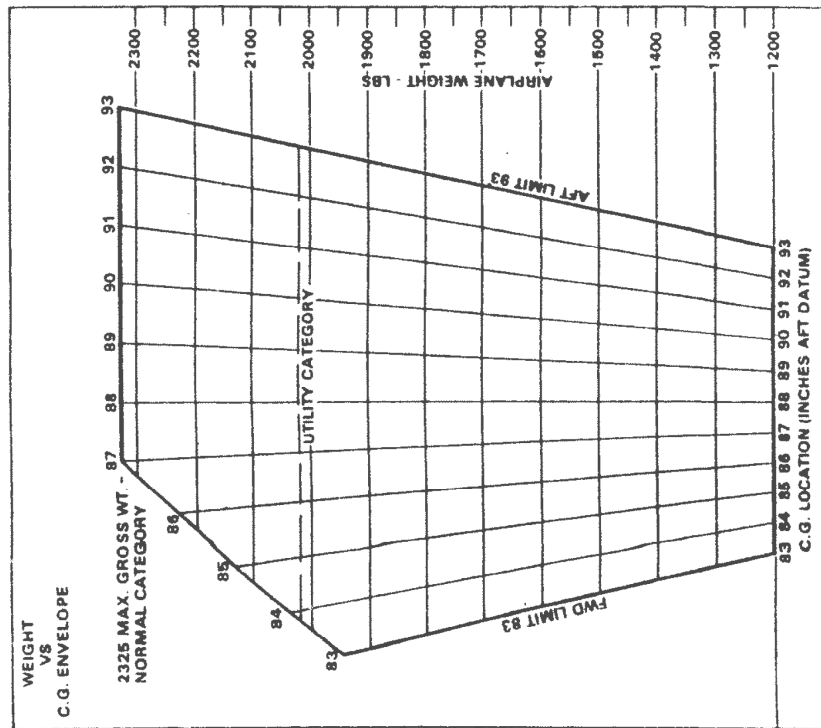
Cessna 172



Cessna 152



Cessna 172R



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