

PERFORMANCE

$$V_A = V_{a_{\max}} \times \sqrt{\frac{\text{current Weight}}{\text{Max Weight}}}$$

$$\text{Approx. T.A.S.} = \text{C.A.S.} \times (\text{Pressure Altitude} \times 0.02)$$

"2% per 1,000ft"

$$\text{Moment} = \text{Weight} \times \text{Arm}$$

$$\text{Center of Gravity} = \frac{\text{Total Moment}}{\text{Total Weight}}$$

$$\text{Weight Change Formula} = \frac{\text{Change in weight}}{\text{Total weight}} = \frac{\text{Change in C.G.}}{\text{Distance changed}}$$

$$\text{Glide Distance} = \frac{\text{Height AGL}}{1,000} \times 1.5$$

"1.5NM per 1,000ft AGL"

METEOROLOGY

$$\text{Pressure Altitude} = \text{Indicated alt} + (1,000[\text{Std. air pressure} - \text{Current Altimeter setting}])$$

$$\text{Density Altitude} = \text{P.A.} + (120[\text{O.A.T.} - \text{standard temperature}])$$

$$\text{Standard Temp at altitude} = 15 - \left(\frac{\text{Altitude}}{1,000} \times 2\right)$$

$$\text{Approx. Cloud Height (AGL)} = \frac{\text{OAT} - \text{Dewpoint}}{2.5} \times 1,000$$

MISCELLANEOUS

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