

# The Effect of Air Density and Density Altitude on Landing Distance for Fixed Wing Aircraft

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**Abstract.** This thesis is concerned with studying the factors that effect on landing distance for fixed wing span aircrafts. These factors are divided related to types and characteristics of aircrafts, pilot's technique, runway surface conditions, weathering conditions, and other environmental factors. Among these factors that were analysed in details both Air Density and Density Altitude to determine the effect of each factor on landing distance for fixed wing span aircrafts, what is the impact's percentage of factor? Also, to determine the extent impact of each on the other, and the factors that affect them.

**Keywords:** Air Density, Density Altitude, Atmospheric Pressure, Weather Systems, and Landing Distance.

