

Density Altitude Calculator

Elevation	☒ feet	☐ m	450
Air Temperature	☐ deg F	☒ deg C	28
Altimeter Setting	☒ in Hg	☐ hPa	29.9
Dew Point	☐ deg F	☒ deg C	5

Density Altitude	2186	feet	666	m
Absolute Pressure	29.42	in Hg	996.2	hPa
Air Density	0.0717	lb/ft ³	1.149	kg/m ³
Relative Density	93.76	%	93.76	%
Estimated AWOS	2100	feet	640	m

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SECTION V

operational data

PERFORMANCE INFORMATION—LANDPLANE.

The following operational data are compiled from actual tests with airplane and engine in good condition and using average piloting technique. Data are based upon a gross weight of 2200 lbs. with McCauley propeller installed, and full throttle for take-off and climb. Performance figures are for zero wind velocity and hard surface level runway. Speeds are true indicated airspeeds.

ITEM	ALTITUDE	OUTSIDE AIR TEMPERATURE					
		0°F	20°F	40°F	60°F	80°F	100°F
Flaps 40° <i>Landing Distance* (Ft.)</i> To land over 50 ft. obstacle at 67 MPH TIAS approach (Roll 40% distance shown)	Sea Level	1035	1070	1110	1145	1180	1215
	2000 Ft.	1100	1140	1175	1210	1245	1280
	4000 Ft.	1165	1205	1240	1280	1315	1350
	6000 Ft.	1235	1270	1310	1345	1380	1415
	7000 Ft.	1270	1305	1345	1380	1415	1450
Flaps Up <i>Take-off Distance* (Ft.)</i> To clear 50 ft. obstacle at 76 MPH TIAS (Ground run approx. 40% distance shown)	Sea Level	1460	1580	1700	1820	1930	2050
	2000 Ft.	1780	1910	2050	2190	2340	2500
	4000 Ft.	2140	2290	2450	2610	2790	3000
	6000 Ft.	2550	2740	2930	3140	3360	3620
	7000 Ft.	2820	3040	3260	3500	3750	4040
Flaps 20° <i>Take-off Distance* (Ft.)</i> To clear 50 ft. obstacle at approx. 67 MPH TIAS (Ground run approx. 38% distance shown)	Sea Level	1230	1350	1480	1625	1795	1995
	2000 Ft.	1540	1700	1860	2050	2250	2450
	4000 Ft.	1920	2110	2340	2580	2855	3140
	6000 Ft.	2450	2720	3000	3300	3620	3990
	7000 Ft.	2780	3100	3420	3745	4080	4455
Flaps Up <i>Normal Rate of Climb</i> Feet per min.	Best Climb	89	86	84	81	79	
	Speed	89	86	84	81	79	
	TIAS	89	86	84	81	79	
	Sea Level	760	740	715	690	670	645
	2000 Ft.	670	645	625	600	580	555

* Both take-off and landing distances are reduced approximately 10% for each 6 m.p.h. wind velocity.

NOTE

Take-off performance figures for 10° flaps are approximately the same as for 20° flaps.

★ In this area, the use of wing flaps will *increase* take-off distance. Under these atmospheric conditions, it is recommended that take-off be made with flaps up.

PERFORMANCE INFORMATION—SKIPLANE.

Take-Off: Under the most favorable conditions of smooth packed snow at