

Summary Aircraft Data 1973 C172M N998RA

Empty Weight (lbs)	Max T/O Weight (lbs)	Useful Load (lbs)	Fuel Capacity (gals)	Useable Fuel (gals)
1428.10	2300.00	871.90	42	38

Electrical System			Engine	Oil
Alternator	14 V	60 amp	160 HP	Min level = 6 qts
Battery	12 V	25 amp	O-320-E2D	Max level = 8 qts

Normal Category Load Factor: +3.8 G to -1.52 G

V – Speeds KIAS:

- V_{NE} = 160
- V_{NO} = 128
- V_{FE} = 85
- V_A (max T/O weight) = 97
- V_Y = 78
- V_X = 59
- V_G = 65
- V_R = 55
- V_{SO} = 41
- V_{S1} = 47

Standard Traffic Pattern

	Carb Heat	RPM	KIAS	Flaps	Trim
Downwind	ON	2000	85	NONE	As Req
Abeam Touchdown Pt.	ON	1700	80	10 deg	As Reg
Base	ON	1500	70 – 75	20 deg	As Req
Final	ON	1300 – 1200	60/65	30 deg before turning final 40 deg final	As Req

Maximum Crosswind Component = 15 knots @ 90 deg to runway.

GO-AROUND: Full Power, Flaps to 30 deg, pitch for normal climb, positive rate of climb established, flaps up incrementally until reaching traffic pattern altitude.

Commercial Maneuvers Speeds

Maneuver	Entry Speed KIAS
Chandelles	104
Lazy Eight	104
Steep Turns (45 – 50 deg bank)	97

TAKE-OFF DATA										
TAKE-OFF DISTANCE FROM HARD SURFACE RUNWAY WITH FLAPS UP										
GROSS WEIGHT POUNDS	IAS AT 50' MPH	HEAD WIND KNOTS	AT SEA LEVEL & 59°		AT 2500 FT. & 50° F		AT 5000 FT. & 41° F		AT 7500 FT. & 32° F	
			GROUND RUN	TOTAL TO CLEAR 50 FT OBS	GROUND RUN	TOTAL TO CLEAR 50 FT OBS	GROUND RUN	TOTAL TO CLEAR 50 FT OBS	GROUND RUN	TOTAL TO CLEAR 50 FT OBS
2300	68	0	865	1525	1040	1910	1255	2480	1565	3855
		10	615	1170	750	1485	920	1955	1160	3110
		20	405	850	505	1100	630	1480	810	2425
2000	63	0	630	1095	755	1325	905	1625	1120	2155
		10	435	820	530	1005	645	1250	810	1685
		20	275	580	340	720	425	910	595	1255
1700	58	0	435	780	520	920	625	1095	765	1370
		10	290	570	355	680	430	820	535	1040
		20	175	385	215	470	270	575	345	745

NOTES: 1. Increase distance 10% for each 25°F above standard temperature for particular altitude.
2. For operation on a dry, grass runway, increase distances (both "ground run" and "total to clear 50 ft. obstacle") by 7% of the "total to clear 50 ft. obstacle" figure.

Maximum Flaps for Forward Slip = 20 deg

LANDING DATA									
LANDING DISTANCE ON HARD SURFACE RUNWAY NO WIND – 40° FLAPS – POWER OFF									
GROSS WEIGHT LBS.	APPROACH IAS MPH	@ S.L. & 59° F		@ 2500 ft. & 50° F		@ 5000 ft. & 41° F		@ 7500 ft. & 32° F	
		GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.	GROUND ROLL	TOTAL TO CLEAR 50' OBS.
2300	69	520	1250	560	1310	605	1385	650	1455

NOTES: 1. Reduce landing distance 10% for each 5 knot headwind.
2. For operation on a dry, grass runway, increase distances (both "ground roll" and "total to clear 50 ft. obstacle") by 20% of the "total to clear 50 ft. obstacle" figure.