

NORMAL TAKE-OFF DISTANCES

June 1980

5-15

ASSOCIATED CONDITIONS

POWER FULL THROTTLE
 FLAPS UP
 GEAR RETRACT AFTER LIFT-OFF
 RUNWAY PAVED, LEVEL, DRY SURFACE
 WEIGHT 2750 LBS
 TAKE-OFF SPEEDS LIFT-OFF 80 MPH/70 KTS/IAS
 50 FT 84 MPH/73 KTS/IAS

NOTE

FOR EACH 100 POUNDS BELOW 2750 LBS, REDUCE TABULATED DISTANCES BY 8% AND TAKE-OFF SPEEDS BY 1 MPH

EXAMPLE:

PRESSURE ALTITUDE 6000 FT
 OAT 56°F
 WIND COMPONENT 0
 GROUND ROLL 2218 FT
 TOTAL OVER 50' 3408 FT

WIND COMPONENT DOWN RUNWAY KNOTS	SEA LEVEL			2000 FEET			4000 FEET			6000 FEET			8000 FEET		
	OAT °F	GROUND FEET	TOTAL OVER 50 FT FEET	OAT °F	GROUND FEET	TOTAL OVER 50 FT FEET	OAT °F	GROUND FEET	TOTAL OVER 50 FT FEET	OAT °F	GROUND FEET	TOTAL OVER 50 FT FEET	OAT °F	GROUND FEET	TOTAL OVER 50 FT FEET
0	23	1079	1714	16	1265	1997	9	1486	2332	2	1748	2728	-6	2061	3198
	41	1158	1845	34	1370	2151	27	1611	2516	20	1898	2946	13	2341	3458
	59	1260	1980	52	1480	2312	45	1742	2706	38	2054	3173	31	2429	3728
	77	1356	2120	70	1594	2478	63	1879	2904	56	2218	3408	49	2624	4009
15	23	942	1496	16	1108	1749	9	1305	2048	2	1540	2403	6	1821	2824
	41	1021	1613	34	1201	1886	27	1417	2213	20	1674	2599	13	1983	3059
	59	1103	1734	52	1300	2031	45	1535	2384	38	1814	2803	31	2152	3303
	77	1189	1859	70	1402	2179	63	1657	2561	56	1962	3014	49	2328	3556
30	23	805	1278	16	950	1500	9	1124	1764	2	1332	2078	-6	1580	2452
	41	874	1381	34	1032	1621	27	1223	1910	20	1450	2251	13	1724	2660
	59	946	1487	52	1120	1749	45	1327	2061	38	1574	2432	31	1875	2877
	77	1021	1597	70	1209	1880	63	1435	2218	56	1705	2620	49	2031	3103
	95	1100	1711	88	1303	2016	81	1548	2380	74	1841	2815	67	2195	3336

INSPECTIONS

The FAA requires that an airplane used for hire be inspected at each 100 hours of operation by qualified personnel. Airplanes which are not used for hire are required to have an inspection by qualified personnel on an annual basis.

Good operating practice requires that the airplane be preflighted prior to takeoff. Items found during preflight and engine run-up should be corrected on the basis of their importance to the safe operation of the airplane; however, in any event, early correction of items found is good preventative maintenance.

Although it is not a requirement that FAA qualified personnel change the oil and inspect the airplane, except at the 100-hour/annual inspection, as noted above, it is recommended the airplane be given an inspection at the recommended oil change period. Any unsatisfactory items should be corrected, either at that time or as soon as practical, depending on the nature of the item.

The inspection at the recommended oil change interval should include the following:

Operational Inspection

1. Alternator/voltage regulator functioning
2. Engine instruments
3. Flight instruments
4. Idle rpm and mixture
5. Engine controls operation
6. All lights
7. Radio operation
8. Magneto check
9. Brake operation

10. Tank selector operation
11. Heat and vent system operation
12. Starter operation
13. Electrical switches and circuit breakers
14. Power check 2650 to 2700 rpm static

Power Plant

1. Oil screens cleaned.
2. Induction air filter cleaned.
3. Check engine controls, wiring harness, and plumbing for clearance, security and condition.
4. Check propeller for rock damage, and spinner and spinner bulkheads for cracks and security; engine and prop for oil leaks.
5. Check engine baffles and cowling for cracks and security.
6. Check exhaust system and air ducts for condition and security.
7. Check for indications of oil leaks, condition and security of engine accessories.
8. Check brake system reservoir(s).
9. Clean and gap spark plugs.

Cabin and Aft Fuselage

1. Flight control operation through full travel and proper direction of travel.
2. Storm window and door operation.
3. Check interior furnishings and seat belts.
4. Check battery water level.
5. Check hydraulic pump reservoir.