

Before Takeoff

During cold weather operations, the engine should be properly warmed up before takeoff. In most cases this is accomplished when the oil temperature has reached at least 100°F (38°C). In warm or hot weather, precautions should be taken to avoid overheating during prolonged ground engine operation. Additionally, long periods of idling may cause fouled spark plugs.

• WARNING •

Do not takeoff with frost, ice, snow, or other contamination on the fuselage, wing, stabilizers, and control surfaces.

1. Doors LATCHED
2. CAPS Handle Verify Pin Removed
3. Seat Belts and Shoulder Harness..... SECURE
4. Air Conditioner AS DESIRED

• Caution •

Use of RECIRC mode prohibited in flight.

• Note •

If Air Conditioner is ON for takeoff roll, see Section 5, [Takeoff Distance](#) for takeoff distance change. No takeoff distance change is necessary if system remains OFF for takeoff roll.

5. Fuel Quantity CONFIRM
6. Fuel Selector..... FULLEST TANK
7. Fuel Pump BOOST
8. Mixture AS REQUIRED
9. Flaps SET 50% & CHECK
10. Transponder..... SET
11. Autopilot..... CHECK
12. Navigation Radios/GPS SET for Takeoff
13. Cabin Heat/Defrost AS REQUIRED
14. Brakes HOLD
15. Power Lever 1700 RPM

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16. Alternator CHECK
- a. Pitot Heat ON
 - b. Navigation Lights ON
 - c. Landing Light ON
 - d. Annunciator Lights CHECK
 - Verify both ALT 1 and ALT 2 caution lights out and positive amps indication for each alternator.
17. Voltage CHECK
18. Pitot Heat AS REQUIRED

• Note •

Pitot Heat should be turned ON for flight into IMC, flight into visible moisture, or whenever ambient temperatures are 41° F (5° C) or less.

19. Navigation Lights AS REQUIRED
20. Landing Light AS REQUIRED
21. Magnetos CHECK Left and Right
- a. Ignition Switch R, note RPM, then BOTH
 - b. Ignition Switch L, note RPM, then BOTH

• Note •

RPM drop must not exceed 150 RPM for either magneto. RPM differential must not exceed 75 RPM between magnetos. If there is a doubt concerning operation of the ignition system, RPM checks at higher engine speeds will usually confirm whether a deficiency exists.

An absence of RPM drop may indicate faulty grounding of one side of the ignition system or magneto timing set in advance of the specified setting.

22. Engine Parameters CHECK
23. Power Lever 1000 RPM
24. Flight Instruments, HSI, and Altimeter CHECK & SET
25. Flight Controls FREE & CORRECT
26. Trim SET Takeoff
27. Autopilot DISCONNECT