

PRE-FLIGHT CABIN

1. Aircraft Documents (AROW) – **Check**
2. MAGS – **Off / Key Out**
3. Master Switch – **On**
4. Flaps – **Extend**
5. Fuel Quantity – **Check**
6. Lights – **Verify Operation**
7. Pitot Heat – **Test**
8. Master Switch – **Off**

PRE-FLIGHT EMPENNAGE

1. Tie Down – **Remove**
2. Surfaces and Controls – **Check**
3. Antennas – **Check**
4. Baggage Compartment – **Locked**

PRE-FLIGHT RIGHT WING

1. Chocks / Tie Down – **Remove**
2. Surfaces and Controls – **Check**
3. Strut / Tire / Brake – **Check**
4. Fuel Sump – **Drain**
5. Fuel Quantity – **Check**
6. Fuel Cap – **Secure**

PRE-FLIGHT NOSE

1. Engine Oil Level – **Check (6-8 qts., 2 qts min)**
2. Fuel Sump – **Drain**
3. Propeller and Spinner – **Check**
4. Alternator Belt – **Check**
5. Air Intake and Filter – **Check**
6. Strut and Tire – **Check**
7. Static Source – **Check**

PRE-FLIGHT LEFT WING

1. Pitot Tube – **Check**
2. Fuel Vent – **Check**
3. Stall Horn – **Check**
4. Surfaces & Controls – **Check**
5. Chocks / Tie Down – **Remove**
6. Strut / Tire / Brake – **Check**
7. Fuel Sump – **Drain**
8. Fuel Quantity – **Check**
9. Fuel Cap – **Secure**

BEFORE STARTING ENGINE

1. Preflight Inspection – **Complete**
2. Passenger Briefing – **Complete**
3. **Fire During Startup** – **Continue Crank, Pull Mixture, Full Throttle, Pump Off, Evacuate**
4. Flaps – **Retract**
5. Seats and Seatbelts – **Adjust & Lock**
6. Fuel Selector Valve – **Fullest Tank**
7. Doors – **Closed & Locked**
8. Electrical Switches – **Off (Excl. Beacon/Tail Light)**
9. Circuit Breakers – **Check**

STARTING ENGINE

1. Master Switch – **On**
2. Brakes – **On**
3. Beacon / Tail Light – **Verify On**
4. Fuel Pump – **On**
5. Fuel Pressure – **Check**
6. Propeller – **Visually Clear**
7. Mixture – **Rich**
8. Carb Heat – **Off**
9. MAGS – **On / Both**
10. Propeller – **Verbally “CLEAR!”**
11. **If HOT:**
 - A. Throttle – **Open ½ Inch**
 - B. Mixture – **Idle Cutoff**
 - C. Ignition – **Start**
 - D. Mixture – **Rich**
12. **If COLD:**
 - A. Throttle – **Open ½ Inch**
 - B. Ignition – **Start**
 - C. If no start after 5s, prime with 1-3 strokes

Note: For possible flooding, to clear excess fuel:

Set mixture full lean, set full throttle, turn fuel pump off. Attempt start. Once started, set mixture rich and retard the throttle.

11. Throttle – **800-1,200 RPM**
12. Oil Pressure – **Check (Must Indicate in <30s)**
13. Ammeter – **Positive Charge (+)**

PRE-TAXI

1. Avionics – **On**
2. Intercom – **Check**
3. Nav / Position Lights – **On (Also Powers ADS-B)**
4. Taxi Light – **As Required**
5. Transponder – **ALT Set**
6. ATIS / AWOS – **Obtain (If Available)**
7. Altimeter – **Set**
8. Heading / Attitude Indicator – **Check / Set**
9. Transponder – **Check / Set**
10. Parking Brake & Brakes – **Pump and Test**
11. Clearance – **Obtained / Review Taxi**

ENGINE RUNUP

1. Parking Brake and Brakes – **Pump, Then On**
2. Flight Controls – **Free & Correct**
3. Trim – **Set for Takeoff**
4. Mixture – **Rich**
5. Throttle – **2,000 RPM**
 - A. MAGS (L/R <50 RPM Difference, <175 RPM Max Drop)
 - B. Vacuum Gauge – **Check (4.9-5.1 inHg)**
 - C. Engine Instruments – **Green / Normal**
 - D. Ammeter – **Check**
 - E. Mixture Set – **As Required for Altitude**
 - F. Carb Heat – **On (Check Drop)**
6. Idle RPM – **Check**
7. Carb Heat – **Off**
8. Throttle – **800-1,200 RPM**
9. Fuel Pump – **Off, Then On**
10. Departure Briefing – **Complete**

BEFORE TAKEOFF

1. Windows and Doors – **Closed & Latched**
2. Fuel Selector Valve – **Fullest Tank**
3. Transponder – **Check**
4. Strobe Lights – **On**
5. Correct Runway – **Verify**
6. Radio Call – **Initiate Prior to Runway Entry**
7. Parking Brake – **Off**

When past hold short line and on runway:

8. Runway Heading – **Crosscheck with Gauges**

Normal – **Rotate 50kts, Climb 74kts**

Soft – **25° Flaps, Elevator Back, Nose Wheel Lifted**

Short – **25° Flaps, Rotate 48kts**

If Obstacle Ahead – **Vx Climb at 65kts**

AFTER TAKEOFF

1. Throttle – **Maintain Full**
2. Flaps – **Retract**
3. Engine Instruments – **Check**
4. Landing Light – **Off**
5. Fuel Pump – **Off (>1,000ft AGL)**

CRUISE

1. Heading / Altitude – **Check**
2. Power – **Set (2,400 RPM)**
3. Trim – **Set**
4. Mixture – **Adjust (Above 5,000', ≤75% Power)**
5. Engine Instruments – **Monitor**

DESCENT / APPROACH

1. ATIS / AWOS – **Obtained**
2. Altimeters – **Set**
3. Mixture – **As Required**
4. Fuel Selector Valve – **Fullest Tank**
5. Fuel Pump – **On**
6. Approach Brief – **Complete**
7. COM / NAV – **Tune / Identify**
8. Landing Light – **On**

BEFORE LANDING

1. Before Landing Brief – **Complete**
2. Mixture – **Rich**
3. Flaps – **As Required**

AFTER LANDING

1. Flaps – **Retract**
2. Strobes – **Off**
3. Carb Heat – **Off**
4. Fuel Pump – **Off**
5. Taxi Light – **As Required**
6. Transponder – **Verify VFR / Standby**
7. Taxi Diagram – **Review**

SECURING

1. Avionics – **Off**
2. Electrical Switches – **Off (Excl. Beacon/Tail Light)**
3. Throttle – **Idle**
4. Mixture – **Idle Cutoff**
5. MAGS – **Off / Key Out**
6. Master Switch – **Off**
7. Hobbs / Tach / Fuel – **Record**
8. Chocks – **Install**
9. Tie-downs – **Secure**

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| Max Crosswind Demo – 17 |
| Best Glide – 70 (Decreases if < gross weight to around as low as 63kts) |
| Vr – 50 |
| Vx – 65 |
| Vy – 74 |
| Vso – 48 |
| Vs1 – 56 |
| Va – 112 (Decreases if < gross weight to as low as 98kts) |
| Vfe – 100 |
| Vno – 121 |
| Vne – 148 |
| Vapp – 66 (All speeds are in knots) |