

Preflight weather

- Visibility >= 5nm
- Ceiling >= 1500 agl
- Winds 20kts max
- Xwinds 10kts max
- Gust 10kts of total max
- Icing None
- Turbulence Max medium
- Winds aloft Checked
- Temperatures Note

Preflight navlog

- Waypoints Every 10-20 nm
- Legs Described
- Terrain Checked
- Airspace Checked
- Airport information Field elev, TPA, runways, surface, length, obst, pattern
- Services Checked
- Remarks Noted
- Radio freqs Noted
- Airspace Checked
- Navaids Checked
- Fuel Calculated
- Weight and balance Calculated
- Required runway length If required

Preflight interior

- Covers Removed
- Manual, checklists, charts, other docs On board
- Parking brake Set
- Flight controls Free and correct
- Exterior lights and pitot heat Checked
- Interior lights Set
- Avionics Checked
- Throttle and mixture Idle and cutoff
- Alt static air In
- Fuel shutoff valve In
- Trim Takeoff
- Fuel tank selectors Both
- Flaps Down, checked every 10 deg
- Annunciator panel Tested
- Fuel quantity Checked
- Battery Off

Preflight exterior

- Empennage
 - Baggage door Secure
 - Flight control surfaces Free
 - Antennas & lights Check
 - Trim tab Check
 - Tie down Remove
- Right wing
 - ELT antenna Check
 - Flaps Secure
 - Aileron Free
 - Tie down Remove
 - Fuel Check
 - Antennas Check
 - Chocks Remove
 - Gear Check
- Nose
 - Oil Check min 5 qts, yellow
 - Propeller and spinner Check
 - Air inlets Clear
 - Air filter Clear
 - Exhaust pipe Check
 - Gear Check
- Left wing
 - Fuel Check
 - Pitot tube Clear
 - Stall warning Clear
 - Landing & taxi lights Check
 - Tie down Remove
 - Aileron Free
 - Flaps Secure
 - Chocks Remove
 - Gear Check

Before engine start

- Location Safe for start
- Tie downs / chocks / covers Removed
- Preflight inspection Completed
- Doors Closed and locked
- Briefing Completed
 - Weather, expected rw, rw length, taxi, dep / enr / arr, arr rw length.
- Circuit breakers Checked
- Beacon light On
- Avionics masters Off
- Fuel selection valve Both
- Fuel shutoff valve In
- Parking brake Set

After engine start

- Throttle 1000 RPM, 1400 RPM max
- Mixture Leaned
- Oil pressure Green
- Alternator Charging
- Flaps Up
- Annunciator panel Extinguished
- Engine instruments Normal

Before taxi

- Magnetos Cycled
- Avionics On and set
- Weather Obtained
- Altimeter Set, field elev verified
- Heading indicator Set
- Flight instruments Check
- Oil temperature No taxi before > 75 F
- Taxi / nav lights As required

Before takeoff

- Runup Completed
- Departure briefing Completed
 - Rw, length, required, T/O procedure, emergencies, departure, navlog
- Flight and engine instruments Checked
- Flight controls Checked
- Fuel Checked

Cleared for T/O

- Trim Set for T/O
- Mixture Set for T/O
- Flaps Set for T/O
- Transponder Alt
- Landing & strobe lights On
- Taxi lights Off
- Pitot heat As required

After takeoff

- Mixture Set
- Power, airspeed, trim Set
- Flaps Up
- Engine instruments Checked
- Clock Start

Enroute

- Power, airspeed, trim Set
- Mixture Set
- Heading Check and set
- Engine instruments Check
- Annunciator panel Extinguished
- Lights As required
- Pitot heat As required
- Flight plan Checked

Descent

- Approach briefing Completed
 - Airport, elevation, expected rw, length, approach procedure, landing procedure, TPA, radio, taxi
- Landing light On
- Power, airspeed and trim Set
- Mixture Set

Before landing

- Parking brake Released
- Fuel tank selector Both
- Mixture Set
- Landing light On
- Flaps Set

After landing

- Flaps Up
- Trim T/O
- Mixture Set
- Lights Set
- Pitot heat Off
- Transponder Stby

After shutdown

- Avionics masters Off
- Throttle and mixture Idle and cutoff
- Magnetos Off
- Battery and alternator Off
- Lights Off (except bcn)
- Trim T/O
- Fuel tank selector Left or right
- Covers / chocks / tie downs As required
- Parking brake As required

Short field takeoff

- Flaps 10 deg
- Brakes Apply
- Throttle Full power
- Mixture Lean to max rpm \geq 3000 agl
- Engine instruments Check
- Brakes Release
- Elevator Slightly tail low
- Elevator Rotate at 55 KIAS
- Climb speed 55 KIAS until clear of obstacles
- Flaps Retract slowly after 300 agl and 60 KIAS

Short field landing

- Flaps 30 deg
- Airspeed 60 KIAS
- Touchdown Main gear first
- Landing roll Lower gently
- Brakes Full force
- Controls Full aft