



Flight School

Cessna 172E N6296E

Preflight Checklist

Preflight Preparation

NOTAMS.....Check
Weather.....Check
Weight and Balance.....Check
Inspections/Squawks.....Review

CABIN

Documents.....A.R.O.W
Hobbs Meter.....Record
Tach Meter.....Record
Ignition.....OFF
Keys.....On Dash
Master Switch.....ON
Fuel Gauges.....Check
Lights.....Check
Stall Horn.....Test
Master Switch.....OFF
Fuel Selector.....Both
Elevator Trim.....Set for Takeoff
Flaps.....Fully Extend

LEFT WING

Venturi.....Inspect
Main Gear/Tire/Brakes.....Inspect
Cabin Vents/Inlets.....Inspect
Wing Tie Down.....Remove
Leading Edge.....Inspect
Fuel Vent.....Check for Blockage
Wing Tip/Lights.....Inspect
Aileron/Hinges/Weights.....Inspect
Flaps.....Inspect

EMPENNAGE

Baggage Door.....Closed/Lock
Skin & Rivets.....Inspect
Horizontal Stabilizer.....Inspect
Elevator/Hinges/Cables.....Inspect
Vertical Stabilizer.....Inspect
Rudder/Hinges/Cables.....Inspect
Antennas.....Inspect
Underside.....Inspect

RIGHT WING

Flaps.....Inspect
Aileron/Hinges/Weights.....Inspect
Wing Tip/Lights.....Inspect
Leading Edge.....Inspect
Wing Tie Down.....Remove
Cabin Vents/Inlets.....Inspect
Main Gear/Tire/Brakes.....Inspect
Venturi.....Inspect

NOSE AND COWLING

Windshield.....Check if Clean
Engine Cowling.....Secure
Prop/Spinner.....Inspect
Cowling Inlets.....Check
Air Filter.....Check
Exhaust.....Check for Cracks
Nose Gear/Tire/Strut.....Inspect
Oil Level.....Check(6qts.)
Oil Access Door.....Secure
Static Port.....Check for Blockage

Final Check

Sump Fuel.....Drain (Right,Left & Belly)
Fuel Quantity.....Visually Check
Fuel Caps.....Secure
Last 360°Walk Around.....Complete

NORMAL OPERATIONS

ENGINE START

Preflight.....Complete
Passenger Brief.....S.A.F.E.T.Y.
Seats.....Adjusted/Locked
Doors.....Closed/Locked
Fuel Selector.....Both
Trim.....Set for Takeoff
Flaps.....UP
Electrical Switches.....OFF
Fuses/Circuit Breakers.....Check&In
Brakes.....Hold
Carb Heat.....Cold
Mixture.....Full Rich
Throttle.....1/4 Open
Beacon.....ON
Master Switch.....Pull On
Primer.....(Cold)2-3 Strokes
(Hot) Not Required
Primer.....In and Locked
Propeller Area.....Clear
Magnetos.....Both
Starter.....Push to Engage
Throttle.....800-1000RPM
Oil Pressure.....Above Red Line
Mixture.....Lean 1”

After Start/Before Taxi

Check Ammeter.....Check (0-+)
Radio Master.....ON
Radios.....ON,TUNE,Get Weather
Altimeter.....Check & Set
Transponder.....ON/STBY VFR
Nav Lights(This enables ADS-B).....On
Brakes.....Test

Run Up/Before Takeoff

Brakes.....Hold
Flight Controls.....Free & Correct
Mixture.....Rich
Throttle.....1700RPM
Magnetos.....Left/Right(<150)
Carb Heat.....Check
Engine Instruments.....Green
Ammeter.....Zero or Positive
Throttle.....Idle
Throttle.....800-1000RPM
Flight Instruments.....Check
Heading Ind.....Set to Compass
Heading Bug.....RWY Heading
Radios.....Check and Set
Pre-Takeoff Brief.....Complete
Doors/Windows.....Closed/Locked
Lights(Landing).....ON
Camera(Transponder).....ALT
Action(Mixture).....Rich
Traffic+Time.....Check+Note Time

Normal Takeoff

Flaps.....UP
Throttle.....“Max Power”
Engine Instruments.....“Green”
Airspeed.....“Alive”
Rotate.....60MPH
Climb.....80MPH(Dash to Horizon)

Short Field Takeoff

Flaps.....10°
Brakes.....Hold
Throttle.....“Max Power”
Engine Instruments.....“Green”
Brakes.....Release
Airspeed.....“Alive”
Rotate.....55MPH
Climb.....60MPH
Obstacles.....Clear
Climb.....80MPH
Flaps.....UP

Soft Field Takeoff

Flaps.....10°
Control Wheel.....Full Aft
Throttle.....Slowly Advance
Throttle.....“Max Power”
Engine Instruments.....“Green”
Airspeed.....“Alive”
Main Gear.....Lift Off ASAP
Ground Effect.....75MPH
Climb.....80MPH
Obstacles.....Clear
Flaps.....UP

Before Takeoff Brief

“This will be a (Type) takeoff on runway (##). We have xxxft of runway available & the wind is from (direction) at (velocity)”

1. **Abnormality PRIOR to Vr** - Throttle to Idle and Brake as Necessary.
2. **Engine Failure Immediately After Takeoff** - Throttle to idle and land on the remaining runway.

If no Runway Remaining Nose Down to hold 75MPH (Vg) & Land on the best suitable field in front of you. No more than 30° left or right. Then execute emergency forced landing

3. **Will Not** turn back to the Airport until at least 1000’AGL. Maintain 75MPH (Vg) and focus on positive control with no bank exceeding 30°
4. **If all is Normal** - Climb out at 80MPH to at least 500’AGL before making any turns.
5. **Questions or Concerns?**

CLIMB

Airspeed.....80MPH
Engine Instruments.....Green
Flaps.....UP
Landing Light.....OFF

CRUISE

Throttle.....2200-2450RPM
Trim.....As Required
Mixture.....Lean As Required
Fuel Selector.....As Desired
Engine Instruments.....Green
Heading Indicator.....Check
Set to Compass
Altimeter.....Check

DECENT/APPROACH

Weather.....Obtain
Altimeter.....Set
Fuel Selector.....Both
Mixture.....Adjust
Radios.....Tune/Set
Approach Briefing.....Complete

BEFORE LANDING

Seatbelts.....ON
Landing Light.....ON
Carb Heat.....Apply Before
Reducing Throttle
Mixture.....Full Rich
Flaps.....As Required
Trim.....As Required

NORMAL LANDING

Flaps.....As Required (Below 100MPH)
Airspeed.....Downwind 100MPH
Abeam.....90MPH 10° Flaps
Base.....80MPH 20° Flaps
Final.....70MPH Full Flaps
Touch Down.....Main Gear First
Landing Roll.....Lower Nose Gently
Brakes.....Minimum Required

SHORT FIELD LANDING

Flaps.....FULL
Airspeed.....65MPH
Touchdown.....Main Gear First
Brakes.....Maximum
Control Wheel.....Full Aft
After Touchdown.....Flaps Up

SOFT FIELD LANDING

Flaps.....FULL
Airspeed.....70MPH
Touchdown.....Nose High w/ Power
Control Wheel.....Full Aft
Brakes.....None

AFTER LANDING

Transponder.....Standby
Flaps.....UP
Trim.....Takeoff
Carb Heat.....Cold
Landing Light.....OFF
Mixture.....Lean 1”

SHUTDOWN/SECURE

Check Fuel.....Flew over 1hr
Order Fuel on 122.7
Or (540-422-8285)
Transponder.....OFF
Radio Master.....OFF
Nav Lights.....OFF
Throttle.....1000RPM
Magneto Ground.....
Check OFF then ON
Mixture.....Cutoff
Magnetos.....OFF Remove Key
Master Switch.....OFF
Fuel Selector.....Left or Right
Aircraft Log.....Complete

AIRSPEEDS

Vso.....52MPH
Vs.....59MPH
Vr.....60MPH
Vx.....65MPH
Vy.....75MPH
Vfe.....100MPH
Vno.....140MPH
Vne.....161MPH
Va.....(Gross)115MPH
Vg.....75MPH

Frequencies

KHWY AWOS.....120.35
KHWY CTAF.....122.7
Culpeper (CJR) AWOS.....119.32
Culpeper CTAF.....123.075
Orange (OMH) AWOS.....118.075
Orange CTAF.....122.8
Manassas (HEF) ATIS.....125.17
Manassas Ground.....121.8
Manassas Tower.....133.1
Stafford (RMN) AWOS.....126.325
Stafford CTAF.....122.725

Potomac Approach.....128.52
Potomac (Secondary).....127.32

Casanova (CSN) Vortac.....116.30
Linden (LDN) Vortac.....114.30
Brooke (BRV) Vortac.....114.50

Magnetos - "Burn Off"

(Run Up)

- Increase RPM to 2200
- Lean out Mixture for Best RPM
- Run at best RPM for Minutes
- Return to 1700 RPM
- Check Magnetos Again

Emergency Procedures

Engine Failure In Flight

Airspeed.....Vg75MPH

Best Field.....Identify

Checklist

Fuel Selector.....Both

Mixture.....Rich

Throttle.....Adjust

Carb Heat.....ON

Primer.....In/Locked

Magnetos.....Check(L/R/Both)

Starter.....Engage

If doesn't start

Declare.....Mayday on 121.5

Squawk 7700

Exit

Fuel Selector.....OFF

Mixture.....Idle Cutoff

Throttle.....Idle

Carb Heat.....OFF

Magnetos.....OFF

Master Switch.....OFF

Passenger Brief.....Complete

Door.....Open Before Landing

Upon Landing.....Evacuate

Engine Fire In Flight

Fuel Selector.....OFF

Mixture.....Idle Cutoff

Master Switch.....OFF

Cabin Heat/Air.....OFF

Airspeed.....Increase 100+MPH

Forced Landing.....Execute

Engine Roughness

Carb Heat.....ON

Mixture.....Adjust for smooth ops

Fuel Selector.....Both

Engine Gauges.....Check

Magnetos.....L/R/Both

Electrical Fire

Master Switch.....OFF

Vents.....Open

Cabin Heat/Air.....OFF

Circuit Breakers.....Check In

Extinguisher.....Obtain

Land.....As soon as possible

Alternator Failure

Ammeter.....Confirm

Alternator Circuit Breaker.....Reset

Alternator Switch.....OFF then On

(if still inoperative)

Electrical Switches.....OFF

Master switch.....OFF

Land.....As soon as possible