



FLIGHT SCHOOL

C172SP 353ME

**PREFLIGHT INSPECTION**

**① CABIN**

- 1. Pitot Tube Cover.....REMOVE
- 2. AROW Documents/Maintenance Log.....CHECK
- 3. Emergency Equipment .....CHECK
- 4. Control Wheel Lock.....REMOVE
- 5. Ignition Switch.....OFF
- 6. Master Switch.....ON
- 7. Fuel Quantity.....( )CHECKED/LIGHTS OUT
- 8. Avionics Master Switch.....ON/FAN ON/OFF
- 9. Alt. Static Selector.....OFF
- 10. Fuel Selector Valve.....BOTH
- 11. Fuel Shutoff Valve.....ON
- 12. Pitot Heat.....CHECK
- 13. Master Switch.....OFF
- 14. Elevator Trim.....SET

**② EMPENAGE**

- 15. Baggage Door .....CHECK
- 16. Tie-Down.....DISCONNECT
- 17. Control Surfaces.....CHECK
- 18. Trim Tab.....CHECK
- 19. Antennas.....CHECK

**③ RIGHT WING**

- 20. Flap.....CHECK
- 21. Aileron.....CHECK
- 22. Tie-Down.....DISCONNECT
- 23. Main Wheel Tire .....CHECK
- 24. Fuel Tank Sumps (5).....DRAIN
- 25. Fuel Quantity/Caps.....CHECK/SECURE

**③ NOSE**

- 26. Fuel Sumps (3).....DRAIN
- 27. Engine Oil (6-7 Qts).....CHECK
- 28. Engine Cooling Inlets.....CHECK/CLEAR
- 29. Propeller and Spinner.....CHECK
- 30. Air Filter .....CHECK
- 31. Nose Wheel Strut and Tire.....CHECK
- 32. Left Static Source.....CHECK

**④ LEFT WING**

- 33. Fuel Quantity/Caps.....CHECK/SECURE
- 34. Fuel Tank Sumps(5).....DRAIN
- 35. Pitot Tube.....CHECK
- 36. Fuel Tank Vent.....CHECK
- 37. Tie-Down.....DISCONNECT
- 38. Main Wheel Tire.....CHECK
- 39. Stall Warning.....CHECK
- 40. Landing/Taxi Lights.....CHECK
- 41. Aileron.....CHECK
- 42. Flap.....CHECK

**BEFORE ENGINE START**

- 1. Preflight Inspection.....COMPLETE
- 2. Passenger Briefing.....COMPLETE
- 3. Seats and Seat Belts.....SET
- 4. Brakes.....TEST
- 5. Circuit Breakers.....CHECK IN
- 6. Electrical Equipment.....OFF
- 7. Avionics Master.....OFF
- 8. Fuel Selector Valve.....BOTH
- 9. Fuel Shutoff Valve.....ON
- 10. Master Switch.....ON
- 11. Alternator Switch.....OFF
- 12. \*Prime.....AS REQUIRED
  - a. Throttle..... wide open
  - b. Mixture .....Rich
  - c. Fuel pump.....Momentary ON until fuel flow raises.
- 13. Throttle.....OPEN ¼ INCH
- 14. Mixture.....IDLE CUTOFF
- 15. Beacon.....ON
- 16. Propeller Area.....CLEAR
- 17. Ignition.....START



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**AFTER START**

- 1. Oil Pressure/Engine Instruments.....CHECK
- 2. Alternator Switch.....ON
- 3. Mixture.....LEAN
- 4. Flaps.....CHECK/UP
- 5. Avionics Master.....ON

**BEFORE TAKE OFF**

- 1. Flight Controls.....FREE/CORRECT
- 2. Fuel Quantity.....( )CHECK
- 3. Flight Instruments.....CHECK/SET
- 4. Mixture.....RICH
- 5. Fuel Selector Valve.....CHECK/BOTH
- 6. Runup (1800 RPM)
  - Magnetos (150 Max Drop/50 Differential).....CHECK
  - Engine Instruments and Ammeter.....CHECK
  - Idle.....CHECK
- 7. Panel.....**NO RED X's**
- 8. Electric Trim/Autopilot.....TEST
- 9. Elevator Trim.....SET
- 10. Flaps.....SET
- 11. Departure/Emergency Briefing.....COMPLETE

**RUNWAY ITEMS**

- 1. Heading Indicator.....SET
- 2. Altitude XPDR.....SET
- 3. Lights .....SET
- 4. Fuel.....MIXTURE FULL RICH
- 5. Time.....RECORD

**CLIMB**

- 1. Flaps .....UP
- 2. Airspeed.....70-85 KIAS
- 3. Throttle.....FULL OPEN
- 4. Mixture.....LEAN/TOP OF THE GREEN

**CRUISE**

- 1. Power (2100-2600) (<75%).....( )SET
- 2. Trim.....SET
- 3. Mixture (Used G3X).....LEAN assist
- 4. Engine Instruments.....CHECK

**DESCENT**

- 1. ATIS/ASOS.....ACUIRE
- 2. POWER.....CRUISE DESCENT SET
- 3. Mixture.....SET
- 4. Altimeter.....( ) SET
- 5. Fuel Selector .....BOTH
- 6. Approach Briefing.....COMPLETE

**BEFORE LANDING**

- 1. Mixture.....RICH
- 2. Autopilot.....OFF
- 3. Lights .....SET
- 4. Flaps.....10° SET

**AFTER LANDING**

- 1. Lights.....SET
- 2. Flaps.....UP
- 3. Mixture.....LEAN

**SHUTDOWN**

- 1. Avionics Master .....OFF
- 2. Lights OFF .....OFF
- 3. Mixture.....CUT OFF
- 4. Ignition.....OFF
- 5. Tachometer Time.....RECORD
- 6. Master Switch.....OFF

**SECURING**

- 1. Control Lock.....INSTALL
- 2. Fuel Selector Valve.....LEFT OR RIGHT
- 3. Pitot Cover.....INSTALL
- 4. Chocks.....LEFT MAIN
- 5. Tie-Downs.....SET
- 6. Paperwork/Flight Plan.....COMPLETE/CLOSED



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**ENGINE FAILURE DURING TAKEOFF ROLL**

- 1. Throttle.....IDLE
- 2. Brakes .....APPLY
- 3. Flaps.....RETRACT
- 4. Mixture.....CUTOFF
- 5. Ignition.....OFF
- 6. Master Switch.....OFF

**ENGINE FAILURE DURING CLIMB**

- 1. Airspeed...70 KIAS (Flaps UP) 65 KIAS (Flaps Down)
- 2. Mixture.....CUTOFF
- 3. Fuel Shutoff Valve.....OFF
- 4. Ignition .....OFF
- 5. Flaps.....AS REQUIRED
- 6. Master Switch.....OFF
- 7. Cabin Door.....UNLATCH
- 8. Land.....STRAIGHT AHEAD

**ENGINE FAILURE DURING FLIGHT**

- 1. Airspeed.....68 KIAS
- 2. Fuel Shutoff Valve.....ON (Push Full In)
- 3. Fuel Selector Valve.....BOTH
- 4. Auxiliary Fuel Pump.....ON
- 5. Mixture.....RICH
- 6. Ignition.....BOTH (or START if propeller is stopped)

**EMERGENCY LANDING WITHOUT ENGINE POWER**

- 1. Passenger Seat Backs .....MOST UPRIGHT POSITION
- 2. Seats and Seat Belts.....SECURE
- 3. Airspeed.....70 KIAS (Flaps UP)/65 KIAS (Flaps Down)
- 4. Mixture.....CUTOFF
- 5. Fuel Shutoff Valve.....OFF
- 6. Ignition .....OFF
- 7. Flaps.....AS REQUIRED
- 8. Master Switch.....OFF
- 9. Cabin Door.....UNLATCH

**ENGINE FIRE DURING START**

- 1. Ignition Switch.....START, Continue Cranking

IF engine starts:

- 2. Power.....1800 RPM
- 3. Engine.....SHUTDOWN

IF Engine Fails to Start:

- 4. Throttle.....FULL OPEN
- 5. Mixture.....CUT OFF
- 6. Cranking.....CONTINUE
- 7. Fuel Shutoff Valve.....OFF (Pull Full Out)
- 8. Auxiliary Fuel Pump.....OFF
- 9. Engine.....SECURE
  - a. Master Switch.....OFF
  - b. Ignition Switch.....OFF
- 10. Airplane.....EVACUATE
- 11. Fire.....EXTINGUISH

**ENGINE FIRE IN FLIGHT**

- 1. Mixture.....CUTOFF
- 2. Fuel Shutoff Valve.....OFF
- 3. Auxiliary Fuel Pump.....OFF
- 4. Master Switch .....OFF
- 5. Cabin Heat and Air.....OFF
- 6. Airspeed.....100-163 KIAS
- 7. Forced Landing.....EXCECUTE

**ELECTRICAL FIRE IN FLIGHT**

- 1. Master Switch.....OFF
- 2. Vents, Cabin Air, Heat.....CLOSED
- 3. Fire Extinguisher.....ACTIVATE



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**PRECAUTIONARY LANDING WITH ENGINE POWER**

1. Passenger Seat Back .....MOST UPRIGHT POSITION
2. Seats and Seat Belts.....SECURE
3. Airspeed.....65 KIAS
4. Flaps.....20°
5. Selected Field.....FLY OVER
6. Avionics and Electrical Switches.....OFF
7. Flaps.....30° (on Final Approach)
8. Airspeed.....65 KIAS
9. Master Switch.....OFF
10. Doors.....UNLATCH
11. Touchdown.....SLIGHTLY TAIL LOW
12. Ignition Switch.....OFF

**DITCHING**

1. Radio.....TRANSMIT MAYDAY on 121.5 MHz, giving location and intentions and SQUAWK 7700
2. Heavy Objects(baggage area)...SECURE/JETTISON
3. Passenger Seat Backs....MOST UPRIGHT POSITION
4. Seats and Seat Belts.....SECURE
5. Flaps.....20° to 30°
6. Power....ESTABLISH 300 FT/MIN DESCENT AT 55 KIAS  
IF no power is available, approach at 70 KIAS with flaps up or at 65 KIAS with 10° flaps
7. Cabin Doors.....UNLATCH
8. Touchdown.....LEVEL ATTITUDE
9. Face.....CUSHION
10. ELT.....ACTIVATE
11. Airplane.....EVACUATE
12. If necessary open window to flood cabin to equalize pressure so doors can be opened.
13. Life Vests and Raft.....INFLATE WHEN CLEAR OF AIRPLANE

**LANDING WITH A FLAT MAIN TIRE**

1. Approach.....NORMAL
2. Flaps.....30°
3. Touch Down.....GOOD MAIN TIRE FIRST  
Hold airplane off of flat tire as long as possible with aileron control.
4. Directional Control.....MAINTAIN

**LANDING WITH A FLAT NOSE TIRE**

1. Approach.....NORMAL
2. Flaps.....30°
3. Touch Down.....ON MAINS  
Hold nose wheel off the ground as long as possible, when nose wheel touches the ground maintain full up elevator.
4. Directional Control.....MAINTAIN

**AMMETER – EXCESSIVE RATE OF CHARGE**

1. Alternator.....OFF

**LOW VOLTAGE ANNUNCIATOR (VOLTS) DURING FLIGHT**

May occur during low RPM, Annunciator should go out at higher RPM.

1. Avionics Master.....OFF
2. Alternator Circuit Breaker (ALT FLD).....CHECK IN
3. Master Switch.....OFF (both sides)
4. Master Switch.....ON
5. Low Voltage Annunciator (VOLTS).....CHECK OFF
6. Avionics Master.....ON  
IF low voltage annunciator (VOLTS) illuminates again:
7. Alternator .....OFF
8. Nonessential Radio and Electrical Equipment.....OFF
9. Flight.....TERMINATE as soon as practical