



C172M N9252H

## 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
8. Pitot Heat.....CHECK
9. Lights.....Check Operation
10. Avionics Master Switch.....ON/OFF
11. Master Switch.....OFF
12. Alt Static Selector.....OFF
13. Fuel Selector Valve.....BOTH
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(1).....DRAIN
25. Fuel Quantity/Caps.....CHECK/SECURE

### ④ NOSE

26. Fuel Sumps(1) .....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(1).....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. Throttle.....OPEN ¼ INCH
10. Mixture.....RICH
11. Propeller Area.....CLEAR
12. \*Prime.....AS REQUIRED
13. Beacon.....ON
14. Master Switch.....ON
15. Alternator Switch.....OFF
16. 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
6. Radios.....SET/RECORD ATIS/ASOS
7. Brakes.....TEST

### BEFORE TAKE OFF

1. Flight Controls.....FREE/CORRECT
2. Fuel Quantity.....CHECK
3. Flight Instruments .....CHECK/SET
4. Mixture.....RICH
5. Fuel Selector Valve.....BOTH
6. Runup (1700 RPM)
  - Magneto (125 Max Drop/50 Differential).....CHECK
  - Oil Pressure/Engine Instruments.....CHECK
  - Carb. Heat .....CHECK
7. Idle.....CHECK
8. Power.....SET 1,000 RPM
9. Alternate Static.....CHECK
10. Elevator Trim.....SET TO TAKEOFF
11. Flaps.....SET AS REQUIRED
12. Departure/Emergency Briefing.....COMPLETE

### RUNWAY ITEMS

1. Heading Indicator.....SET TO COMPASS
2. Altitude XPDR.....SET
3. Lights.....AS REQUIRED
4. Fuel.....MIX FULL RICH
5. Time.....RECORD

### CLIMB

1. Airspeed.....V<sub>Y</sub> 90 MPH
2. Throttle.....FULL OPEN
3. Mixture.....LEAN (3turns)/EGT INCREASE
4. FLAPS.....UP

### CRUISE

1. Power (2100-2600) (<75%) .....SET
2. Trim.....SET
3. Mixture (Peak-75°).....LEAN
4. Engine Instruments.....CHECK
5. Heading.....SET TO COMPASS

### DESCENT

1. ATIS/ASOS.....ACUIRE
2. POWER.....CRUISE DESCENT SET (2000RPM)
3. Carb Heat.....AS REQUIRED
4. Mixture.....SET
5. Altimeter.....SET
5. Fuel Selector.....BOTH
6. Approach Briefing.....COMPLETE

### BEFORE LANDING

1. Lights.....SET
2. Mixture.....RICH
3. Fuel Selector.....BOTH
4. Carb Heat.....ON

### AFTER LANDING

1. Lights.....SET
2. Carb Heat.....OFF
3. Flaps.....UP
4. Mixture.....LEAN

### SHUTDOWN

1. Avionics Master .....OFF
2. Lights OFF .....OFF
3. Mixture .....CUTOFF
4. Ignition.....OFF
5. 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



FLIGHT SCHOOL

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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 TAKEOFF ROLL**

1. Airspeed...75 MPH (Flaps UP) 70 MPH (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.....80 MPH
2. Carb. Heat.....ON
3. Fuel Selector Valve.....BOTH
4. Mixture.....RICH
5. Ignition .....BOTH (or START if propeller is stopped)
6. Primer.....In and Locked
7. Radios.....SET 121.5
8. Squawk.....7700

**EMERGENCY LANDING WITHOUT ENGINE POWER**

1. Passenger Seat Backs.....MOST UPRIGHT POSITION
2. Seats and Seat Belts.....SECURE
3. Airspeed...80 MPH (Flaps UP) 70 MPH (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.....1700 RPM
3. Engine.....SHUTDOWN

IF Engine Fails to Start:

4. Throttle.....FULL OPEN
5. Mixture.....CUT OFF
6. Cranking.....CONTINUE
7. Fuel Selector Valve.....OFF (Pointed Aft)
8. Engine.....SECURE
  - a. Master Switch.....OFF
  - b. Ignition Switch.....OFF
10. Airplane.....EVACUATE
11. Fire.....EXTINGUISH

**ENGINE FIRE IN FLIGHT**

1. Mixture.....CUT OFF
2. Fuel Selector Valve.....OFF
3. Master Switch.....OFF
4. Cabin Heat and Air.....OFF
5. Airspeed.....120-182 MPH
6. Forced Landing.....EXECUTE

**ELECTRICAL FIRE IN FLIGHT**

1. Master Switch.....OFF
2. Vents, Cabin Air, Heat.....CLOSED
3. Fire Extinguisher.....ACTIVATE
4. Avionics.....OFF
5. All other switches (except ignition switch).....OFF

**CABIN FIRE**

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

After discharging an extinguisher within a closed cabin, ventilate the cabin.



FLIGHT SCHOOL  
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### PRECAUTIONARY LANDING WITH ENGINE POWER

1. Passenger Seat Back .....**MOST UPRIGHT POSITION**
2. Seats and Seat Belts.....**SECURE**
3. Airspeed.....**70 MPH**
4. Flaps.....**AS REQUIRED**
5. Selected Field.....**FLY OVER**
6. Avionics Switch and Electrical Switches.....**OFF**
7. Flaps.....**30°(On Final Approach)**
8. Airspeed.....**70 MPH**
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 70 MPH**  
**If no power is available, approach at 80 MPH with flaps up or at 75 MPH with 10° flaps**
7. Cabin Doors.....**UNLATCH**
8. Touchdown.....**LEVEL ATTITUDE**
9. Face.....**CUSHION**
10. ELT.....**ACTIVATE**
11. Airplane.....**EVACUATE**  
**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 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 (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**

### VACUUM SYSTEM FAILURE (VAC)

1. Vacuum Gauge.....**CHECK**  
If vacuum is not within normal limits partial panel procedures maybe required.