

# Cessna C-172M

## Checklist



### INTERIOR PREFLIGHT

|                                 |                  |
|---------------------------------|------------------|
| Required Documents.....         | On Board         |
| Hobbs/Tach Time.....            | Check            |
| Fuel Selector.....              | Cycle, then Both |
| Flight Controls.....            | Free & Correct   |
| Radio Master Switch.....        | Off              |
| Ignition Switch.....            | Off              |
| Master Switch.....              | On               |
| Fuel Quantity.....              | Check            |
| Flaps.....                      | Extend           |
| Aircraft Lights/Pitot Heat..... | All On           |
| Lights/Pitot Heat.....          | Check            |
| Lights/Pitot Heat.....          | Off              |
| Master Switch.....              | Off              |

### EXTERIOR PREFLIGHT

#### FUSELAGE/TAIL:

|                     |        |
|---------------------|--------|
| Baggage Door.....   | Secure |
| Antennas.....       | Check  |
| Left Fuselage.....  | Check  |
| Left Elevator.....  | Check  |
| Rudder.....         | Check  |
| Right Elevator..... | Check  |
| Trim Tab.....       | Check  |
| Right Fuselage..... | Check  |

#### RIGHT WING:

|                        |        |
|------------------------|--------|
| Flap.....              | Check  |
| Aileron.....           | Check  |
| Wingtip/Lights.....    | Check  |
| Leading Edge.....      | Check  |
| Fresh Air Inlet.....   | Check  |
| Main Wheel/Brakes..... | Check  |
| Fuel Sump.....         | Sample |
| Fuel Quantity.....     | Check  |

#### NOSE:

|                              |                 |
|------------------------------|-----------------|
| Windshield.....              | Check/Clean     |
| Oil.....                     | 6 Qts Min       |
| Fuel Strainer.....           | Drain (2 Secs.) |
| Cowling.....                 | Check Secure    |
| Propeller/Spinner.....       | Check           |
| Alternator Belt.....         | Check           |
| Landing Light.....           | Check           |
| Carburetor Air Filter.....   | Check           |
| Nose Wheel/Strut.....        | Check           |
| Static Port (left side)..... | Check           |

### EXTERIOR PREFLIGHT (CON'T)

#### LEFT WING:

|                         |        |
|-------------------------|--------|
| Main Wheel/Brakes.....  | Check  |
| Fuel Sump.....          | Sample |
| Fuel Quantity.....      | Check  |
| Fresh Air Inlet.....    | Check  |
| Pitot Head.....         | Check  |
| Fuel Tank Vent.....     | Check  |
| Stall Warning Vent..... | Check  |
| Leading Edge.....       | Check  |
| Wingtip/Lights.....     | Check  |
| Aileron.....            | Check  |
| Flap.....               | Check  |

### BEFORE START

|                          |          |
|--------------------------|----------|
| Preflight.....           | Complete |
| Passenger Briefing.....  | Complete |
| Belts/Seats.....         | Secure   |
| Fuel Selector Valve..... | Both     |
| Carburetor Heat.....     | Off      |
| Radio Master Switch..... | Off      |
| Circuit Breakers.....    | Check    |

### ENGINE START

|                      |                |
|----------------------|----------------|
| Throttle.....        | 1/8" Cold      |
|                      | 1/4" Hot       |
| Mixture.....         | Rich           |
| Prime.....           | 3-4 Cold       |
|                      | 1-2 Hot        |
| Brakes.....          | Hold           |
| Master Switch.....   | On             |
| Aircraft Lights..... | Set            |
| Propeller Area.....  | Clear          |
| Starter.....         | Engage         |
| Throttle.....        | 800-1,000 RPM  |
| Oil Pressure.....    | Check Positive |

### BEFORE TAXI

|                         |                |
|-------------------------|----------------|
| Radio Master.....       | On             |
| Ammeter.....            | Check Positive |
| Flaps.....              | Up             |
| Mixture.....            | Lean           |
| Avionics.....           | Set            |
| Transponder.....        | Set Code/ALT   |
| Flight Instruments..... | Check          |
| Aircraft Lights.....    | Set            |
| Nav Light.....          | On             |
| Brakes.....             | Test           |

### RUN UP

|  |                  |
|--|------------------|
| Brake.....                                 | Hold             |
| Flight Controls.....                       | Free & Correct   |
| Circuit Breakers.....                      | Check            |
| Mixture.....                               | Rich             |
| Throttle.....                              | 1,800 RPM        |
| Magnetos.....                              | Check            |
| <i>*Max drop 125 RPM, Max Diff 50 RPM*</i> |                  |
| Carburetor Heat.....                       | Check            |
| Ammeter.....                               | Check Positive   |
| Oil Temp.....                              | Check            |
| Oil Pressure.....                          | Check            |
| Throttle.....                              | Idle Check       |
| Throttle.....                              | 800-1,000 RPM    |
| Throttle Friction Lock.....                | Adjust           |
| Mixture.....                               | Re-Lean for Taxi |
| Magnetos.....                              | Both             |
| Primer.....                                | In/Locked        |

### BEFORE TAKEOFF

|                          |                 |
|--------------------------|-----------------|
| Transponder.....         | Set ALT         |
| Trim.....                | Set for Takeoff |
| Flaps.....               | Set             |
| Mixture.....             | Rich            |
| Carburetor Heat.....     | Off             |
| Aircraft Lights.....     | Set             |
| Flight Instruments.....  | Set             |
| Cabin Doors/Windows..... | Latched         |
| Takeoff Briefing.....    | Complete        |

### NORMAL TAKEOFF

|               |                      |
|---------------|----------------------|
| Heading.....  | Check Correct Runway |
| Throttle..... | Full Open            |
| Rotate.....   | 50-55 KIAS           |

### CLIMB

|                    |         |
|--------------------|---------|
| Best Angle Vx..... | 59 KIAS |
| Best Rate Vy.....  | 73 KIAS |
| Flaps.....         | Up      |

### CRUISE

|                      |     |
|----------------------|-----|
| Throttle.....        | Set |
| Mixture.....         | Set |
| Aircraft Lights..... | Set |
| Pitot Heat.....      | Set |

### DESCENT

|                           |          |
|---------------------------|----------|
| Instruments/Avionics..... | Set      |
| Aircraft Lights.....      | Set      |
| Pitot Heat.....           | Set      |
| Carburetor Heat.....      | Set      |
| Throttle.....             | Set      |
| Mixture.....              | Rich     |
| Approach Briefing.....    | Complete |

### BEFORE LANDING

|                        |         |
|------------------------|---------|
| Fuel Selector.....     | Both    |
| Aircraft Lights.....   | Set     |
| Carburetor Heat.....   | On      |
| Mixture.....           | Rich    |
| Flaps.....             | Set     |
| Approach Airspeed..... | 60 KIAS |

### AFTER LANDING

|                      |                 |
|----------------------|-----------------|
| Flaps.....           | Up              |
| Trim.....            | Set for Takeoff |
| Aircraft Lights..... | Set             |
| Pitot Heat.....      | Off             |
| Carburetor Heat..... | Off             |
| Mixture.....         | Lean            |

### SHUTDOWN

|                      |              |
|----------------------|--------------|
| Radio Master.....    | Off          |
| Throttle.....        | Idle         |
| Magneto.....         | Check        |
| Mixture.....         | Idle Cut-Off |
| Magnetos.....        | Off          |
| Aircraft Lights..... | Off          |
| Master Switches..... | Off          |
| Nav Lights.....      | <b>ON</b>    |
| Brakes.....          | Released     |

### Important Speeds KIAS

|                       |                |
|-----------------------|----------------|
| Vs0.....              | 41 KIAS        |
| Vs1.....              | 47 KIAS        |
| Vrotate.....          | 55 KIAS        |
| Vx.....               | 59 KIAS        |
| Vy.....               | 73 KIAS        |
| Vfe.....              | 85 KIAS        |
| Va (maneuvering)..... | 97 KIAS        |
| Vno.....              | 128 KIAS       |
| Vne.....              | 160 KIAS       |
| Normal Approach.....  | 60 KIAS        |
| Best Glide.....       | <b>65 KIAS</b> |



**Engine Failure-Takeoff**

Pitch.....Nose down immediately  
 Airspeed .....Maintain Safe (65 KIAS)  
 Land ..... Straight Ahead

*If time and altitude permit, proceed to*  
**ENGINE FAILURE - FLIGHT**

**Engine Failure-Flight**

Airspeed.....65 KIAS  
 Best Landing Site.....Locate  
 Carburetor Heat ..... On  
 Fuel Selector.....Both  
 Mixture ..... Rich  
 Magnetos ..... Both  
 Primer ..... In/Locked  
 Engine Gauges ..... Check

*If power is **not** restored proceed to*  
**POWER OFF LANDING**

**Power Off Landing**

Airspeed ..... 65 KIAS  
 Best Landing Site..... Locate  
 Passengers ..... Prepare

*If time and altitude permit:*

Transponder ..... 7700  
 Radios ..... Transmit 121.5  
 ELT ..... On

*When committed to landing:*

Throttle ..... Idle  
 Mixture ..... Idle Cut-Off  
 Fuel Selector ..... Off  
 Magnetos ..... Off  
 Flaps.....Extend (time/altitude permitting)  
 Master Switch ..... Off  
 Belts/Shoulder Harness ..... Secure  
 Doors.....Open  
 Approach Speed ..... 65 KIAS

**Engine Fire-Start**

Starter ..... Continue Cranking  
*If engine starts:*  
 Power ..... 1700 RPM  
 Run engine for approximately one minute  
 Engine .... Shutdown and Have Inspected  
*If engine does not start:*  
 Starter ..... Continue Cranking  
 Mixture ..... Idle Cut-Off  
 Throttle ..... Full Open  
*When fire extinguishes...*  
 Magnetos ..... Off  
 Fuel Selector.....Off  
 Master Switch ..... Off

*If fire continues;*  
**EVACUATE AIRCRAFT** and extinguish  
 fire

**Engine Fire-Flight**

Mixture ..... Idle Cut-Off  
 Fuel Selector ..... Off  
 Throttle ..... Idle  
 Heater/Defroster Vents.....Close

*If fire continues, leave Mixture at Idle Cut-Off and proceed to:*  
**EMERGENCY DESCENT**

*If fire appears out, proceed to:*  
**POWER OFF LANDING**

**Electrical Fire**

Batt/Alt Master Switch .....Off  
 Radio Master and All Electrical.....Off  
 Overhead Fresh Air Vents/Windows...Open  
 Panel Cabin Air/Heat/Defrost.....Closed

*If fire appears out and electrical power is necessary:*

Batt/Alt Master Switch ..... On  
 Circuit Breakers ..... DO NOT RESET  
 Radio/Electrical Equip---ON one at a time  
 \*Land As Soon as Practical\*

**Emergency Descent**

Throttle ..... Idle  
 Mixture .....Rich (unless fire)  
 Bank ..... 30° – 45°  
 Airspeed.....128 KIAS

**Engine Roughness**

Carburetor Heat ..... On  
 Throttle.....2500 RPM  
*If roughness continues after 30 sec:*  
 Fuel Selector .....Switch Tanks  
*Check each tank for 30 sec*  
 Mixture .....Full Rich  
 Engine Gauges ..... Check  
 Magneto Switch .....Check Individually  
*If operation is satisfactory on either magneto, continue on that magneto at reduced power and Full Rich mixture.*  
*Land as soon as practical.*

*If roughness continues, land as soon as possible.*

**High Oil Temperature**

Altitude.....Level (stop climb)  
 Throttle.....2200 RPM  
*If temp does not go down, or continues to rise, land as soon as practical.*  
 Prepare for **POWER OFF LANDING**

**Alternator Failure**

*LOW VOLTAGE light may be illuminated*  
 Prepare for **ELECTRICAL FIRE**  
 All Non-Required Equipment.....Off  
 12V Charging Socket.....Unplug  
 Circuit Breakers.....Check  
*If no circuit breakers popped...*  
 Alternator Master Switch.....Cycle Off/On  
*If circuit breakers popped, reset them only if absolutely necessary for safety of flight.*

*If Alternator is not restored, land as soon as practical.*

**Complete Electrical Failure**

Battery Master Switch ..... Off  
 Alternator Master Switch..... Off  
 Radio Master and All Electrical..... Off  
*Prepare for **ELECTRICAL FIRE***  
 Battery Master Switch.....On  
*If electrical power is not restored, stop this checklist and land as soon as practical.*  
*If electrical power is restored...*  
 Alternator Master Switch.....On  
*If alternator Over-Voltage light illuminates, turn off Alternator Master, stop this checklist, and land as soon as practical.*  
 Electrical Components.....On, one at a time  
*Land as soon as practical.*

**Spin Recovery**

Throttle ..... Idle  
 Ailerons ..... Neutral  
 Rudder ..... Full opposite  
 (to the direction of rotation)  
 Yoke ..... Full forward  
 Rudder ..... Neutral  
 (when rotation stops)  
 Yoke .....Recover from dive  
 Throttle ..... Do not exceed 160 KIAS