

Cessna C-172M Checklist



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
Fuel Selector.....	Switch, then Both
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
Suction Gauge.....	Check 4.6-5.4" Hg.
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.....	60-65 MPH

CLIMB

Best Angle Vx.....	75 MPH
Best Rate Vy.....	91 MPH
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.....	70 MPH

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
All Switches.....	Off
Nav Lights.....	ON
Brakes.....	Released

Important Speeds MPH

Vs0.....	54 MPH
Vs1.....	61 MPH
Vx.....	75 MPH
Vy.....	91 MPH
Vfe.....	100 MPH
Va (maneuvering).....	112 MPH
Vno.....	145 MPH
Vne.....	182 MPH
Normal Approach.....	70 MPH
Best Glide.....	80 MPH

Cessna C-172M Maneuvers

LAKE ELMO



Normal Takeoff

Before Takeoff Checklist Complete

Flaps	0°
Power	Full
Engine Instruments	Verify Green
Rotate	60-65 MPH
Climb Out	Vx 75 MPH
	Vy 91 MPH

Normal Landing

Before Landing Checklist Complete

Midfield Downwind	BCGUMPS
Abeam Touchdown....	Throttle 1500 RPM
Flaps	10°
Airspeed	90 MPH
Base – Flaps	20°
Airspeed	80 MPH
Final – Flaps	30°
Airspeed	70 MPH
Touchdown	Just above stall speed

Short Field Takeoff

Before Takeoff Checklist Complete

Flaps	10°
Runway	Use All Available
Brakes	Hold
Throttle	Full
Engine Instruments	Verify Green
Brakes	Release
Rotate	55 MPH
Climb Out	65 MPH
<i>When Clear of Obstacle</i>	
Accelerate to	91 MPH
At Vy – 91	Raise Flaps
Climb Out	91 MPH

Short Field Landing

Before Landing Checklist Complete

Midfield Downwind	BCGUMPS
Approach (Obstacle)	Steeper
Abeam Touchdown....	Throttle 1500 RPM
Flaps	10°
Airspeed	90 MPH
Base – Flaps	20°
Airspeed	80 MPH
Final – Flaps	40°
Airspeed	70 MPH
Threshold	65-70 MPH
Touchdown	Just above stall speed
Braking	Apply Maximum Foot & Aero

Soft Field Takeoff

Before Takeoff Checklist Complete

Flaps	10°
Yoke	Full Back
Engine Instruments	Verify green
Throttle	Full
Rotate	Min. Airspeed
Yoke	Slowly release to maintain nose up until liftoff
Ground Effect	Remain in
Accelerate	Vy 91 or End of Runway
At Vy 91	Normal Climb
Clear of Obstacles	Raise Flaps to 0°

Soft Field Landing

Before Landing Checklist Complete

Midfield Downwind	BCGUMPS
Midfield Downwind	BCGUMPS
Abeam Touchdown....	Throttle 1500 RPM
Flaps	10°
Airspeed	90 MPH
Base – Flaps	20°
Airspeed	80 MPH
Final – Flaps	30°
Airspeed	70 MPH
Touchdown	Just above stall speed
Yoke	Full Back

Wheel Brakes...Use Minimum Required

Go-Around

Throttle	FULL Power
Carburetor Heat	Off
Flight Controls	Start Climbout
Flaps	Retract to 20°
Airspeed.....	65 MPH or greater
<i>When clear of obstacles</i>	
Airspeed	Vy 91 MPH
Flaps	Raise to 0°

Steep Turns

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	2300 RPM
Airspeed	110 MPH
Bank	45° Private
	50° Commercial
Roll Out	Original Heading
Repeat	Opposite Direction

Slow Flight

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	1500 RPM
Flaps	30° when in white arc
Altitude	Maintain as Speed Decreases
Throttle	Add power to Maintain 55-60 MPH
Banks	Shallow
Recover	Full Power, remove Flaps and Carb Heat, Maintain Altitude

Power Off Stall

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	1500 RPM
Carburetor Heat.....	On
Flaps	30° when in white arc
Airspeed	Slow to 70 MPH
Descent	Initiate 500 FPM to simulate final approach
Throttle	IDLE
Pitch	Induce Stall

Stall Recovery:

Release back pressure, full power, and remove carb heat and one notch of flaps As decent stops, remove 2nd notch of flaps and accelerate to >80 MPH and initiate climb.

Power On Stall

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	1500 RPM
Airspeed	Slow to 70 MPH
Throttle	Full Power
Pitch	Induce Stall

Stall Recovery:

Release back pressure, ensure full power and stop descent. Accelerate to >80 MPH and climb to a safe altitude

Rectangular Course

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	2000 – 2200 RPM
Airspeed	90 MPH
Altitude	1000 ft AGL
Entry	45° to Downwind
Ground track	Adjust for wind drift to maintain a ¼ -½ mi distance

Turns Around a Point

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	2000 – 2200 RPM
Airspeed	90 MPH
Altitude	1000 ft AGL
Entry	On Downwind
Ground track	Adjust for wind drift to maintain a ¼ -½ mi radius

S-Turns Along a Road

Clearing Turns	Complete
BCGUMPS	Complete
Throttle	2000 – 2200 RPM
Airspeed	90 MPH
Altitude	1000 ft AGL
Entry	On Downwind
Ground track	Adjust for wind drift to maintain a ¼ -½ mi radius

Cessna C-172M
Emergencies & Abnormals
LAKE ELMO
AERO

Engine Failure-Takeoff

Pitch.....Nose down immediately
 AirspeedMaintain Safe (80 MPH)
 Land Straight Ahead

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

Engine Failure-Flight

Airspeed.....80 MPH
 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 80 MPH
 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 70 MPH

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 SwitchOff
 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
 MixtureRich (unless fire)
 Bank 30° – 45°
 Airspeed.....145 MPH

Engine Roughness

Carburetor Heat On
 Throttle.....2500 RPM
If roughness continues after 30 sec:
 Fuel SelectorSwitch Tanks
Check each tank for 30 sec
 MixtureFull Rich
 Engine Gauges Check
 Magneto SwitchCheck 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)
 YokeRecover from dive
 Throttle Do not exceed 182 MPH