

Cessna C-172 Checklist

Skyhawk

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 to 8 Qts
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/In

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 As Required
Propeller Area Clear
Starter Engage
Throttle 800-1,000 RPM
Oil Pressure Check Positive

BEFORE TAXI

Ammeter Check Positive
Flaps Retract (0°)
Mixture Lean
Fuel Selector Switch, then Both
Radio Master On
Avionics Set
Transponder Set Code/ALT
Weather Check
Flight Instruments Check
Landing Light On, for Taxi
Brakes Test

RUN UP

Parking Brake Set
Flight Controls Free & Correct
Circuit Breakers Check
Mixture Rich
Throttle 1,800 RPM
Magnetos Check
(Max drop 125 RPM, Max Diff 50 RPM)
Carburetor Heat Check
Ammeter Check Positive
Cylinder Head Temp Check
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
Parking Brake Release

BEFORE TAKEOFF

Trim Set for Takeoff
Flaps Set
Transponder Set ALT
Mixture Rich
Carburetor Heat Off
Aircraft Lights As Required
Flight Instruments Set
Cabin Doors/Windows Latched

NORMAL TAKEOFF

Heading Check Correct Runway
Throttle Full Open
Rotate 58-68 MPH

CLIMB

Best Angle Vx 75 MPH
Best Rate Vy 85 MPH
Flaps Retract (0°)

CRUISE

Throttle Set for Cruise
Mixture Lean for Cruise
Aircraft Lights As Required
Pitot Heat As Required

DESCENT

Instruments/Avionics Set
Aircraft Lights As Required
Pitot Heat As Required
Weather Check
Carburetor Heat As Required
Throttle Set for Descent
Mixture Rich
Approach Briefing Complete

BEFORE LANDING

Fuel Selector Both
Aircraft Lights As Required
Carburetor Heat On
Mixture Rich
Flaps As Required
Approach Airspeed 75 MPH

AFTER LANDING

Trim Set for Takeoff
Aircraft Lights As Required
Pitot Heat Off
Carburetor Heat Off
Mixture Lean
Flaps Retract (0°)

SHUTDOWN

Transponder Off
Radio Master Off
Magneto Check
Throttle Idle
Mixture Idle Cut-Off
Aircraft Lights Off
Magnetos Off
All Switches Off
Brakes Released

Important speeds MPH

Vs0 54 MPH
Vs1 61 MPH
Vrotate 58-68 MPH
Vx 75 MPH
Vy 85 MPH
Vfe 100 MPH
Va (maneuvering) 112-120 MPH
Vno 145 MPH
Vne 182 MPH
Normal Approach 75 MPH
Best Glide 80 MPH

C-172 Emergency Procedures

Engine Failure-Takeoff

Airspeed Maintain Safe Land Straight Ahead
If Sufficient altitude has been gained attempt to restart:
 Airspeed 80 Best Glide
 Fuel Selector Switch Tanks
Mixture Rich
 Carburetor Heat On
 Magnetos Both
 Primer In/Locked
*If power is **not** restored, proceed with **POWER OFF LANDING***

Engine Failure-Flight

Fuel Selector Switch Tanks
Mixture Rich
 Carburetor Heat On
 Magnetos Both
 Primer In/Locked
 Engine Gauges Check
*If power is **not** restored proceed with **POWER OFF LANDING***
If power is restored:
 Carburetor Heat Off
 Land As Soon as Practical

Power Off Landing

Airspeed 80 MPH
 Place to Land 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
 Magnetos Off
 Master Switch Off
 Fuel Selector Off
 Belts/Shoulder Harness Secure
 Approach Speed 74 MPH

Engine Fire-Start

Starter Continue Cranking
If engine starts:
 Power 1,700 RPM
 Engine Shutdown and Have Inspected
If engine does not start:
 Starter Continue Cranking
Mixture Idle Cut-Off
 Throttle Full Open
 Fuel Selector Off
 Magnetos Off
 Master Switch Off

If fire continues;
EVACUATE AIRCRAFT and extinguish fire

Engine Fire-Flight

Fuel Selector Off
 Throttle Idle
Mixture Idle Cut-Off
 Heater/Defroster Off
If fire continues, proceed with:
EMERGENCY DESCENT, Line 3

If fire appears out, proceed with:
POWER OFF LANDING

Electrical Fire

Batt/Alt Master Switch Off
 Radio Master Off
 Fresh Air Vents Open
 Heat/Defroster Off
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

1. Throttle Idle
2. **Mixture Rich**
3. Bank 30° – 45°
4. Rollout At 130 MPH
 or at pattern altitude
 Proceed with **POWER OFF LANDING**

Carburetor Icing

Carburetor Heat On
Mixture Adjust for Smoothness

Engine Roughness

Carburetor Heat On
If roughness continues after one min:
 Carburetor Heat Off
Mixture Adjust for Smoothness
 Fuel Selector Switch Tanks
 Engine Gauges Check
 Magneto Switch “L” then “R”
 then “BOTH”

If operation is satisfactory on either one, continue on that magneto, at reduced power and full “RICH” mixture, to nearest airport.

Prepare for **POWER OFF LANDING**

Loss of Oil Pressure

Engine Power Reduce
 Oil Temp Monitor
 Land As Soon as Practical
 Prepare for **POWER OFF LANDING**

High Oil Temperature

Mixture Rich
 Throttle Reduce
 Oil Pressure Monitor
 Oil Temp Monitor
If temp does not go down, or continues to rise:
 Land As Soon as Practical
 Prepare for **POWER OFF LANDING**

Electrical Failure

LOW VOLTAGE light illuminated:
 Ammeter Check Amps 0
 ALT Switch Off
 Electrical Load Reduce
 ALT Circuit Breaker Check/Reset
 ALT Switch On

Power not restored:
 ALT Switch Off
 Electrical Load Reduce Load
 Land As Soon as Practical

Electrical Overload

BATT Master Switch Off
 ALT Switch On

If Amps are reduced:

Electrical Load Reduce
 Land As Soon As Practical
If Amps are not reduced:
 ALT Switch Off
 BATT Switch As Required
 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 AS REQUIRED
 Throttle AS REQUIRED

C-172 Maneuvers

Normal Takeoff

(Before Takeoff Checklist Complete)

Flaps 0°
Power Full
Engine Instruments Verify Green
Rotate 58-68 MPH
Climb Out Vx 75 MPH
Vy 85 MPH

Normal Landing

(Before Landing Checklist Complete)

Midfield Downwind BCGUMPS
Abeam Runway Threshold –
Throttle 1600 RPM
Flaps 10°
Airspeed 95 MPH
Base – Flaps 20°
Airspeed 85 MPH
Final – Flaps 40°
Airspeed 75 MPH
Threshold 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 58-68
Climb Out Vx - 75
Clear of Obstacle Raise Flaps to 10°
Accelerate to Vy - 85
At Vy - 85 Raise Flaps Completely
Climb Out Vy - 85

Short Field Landing

(Before Landing Checklist Complete)

Midfield Downwind BCGUMPS
Approach (Obstacle) Steeper
Abeam Runway Threshold –
Throttle 1600 RPM
Flaps 10°
Airspeed 95 MPH
Base – Flaps 20°
Airspeed 85 MPH
Final – Flaps 40°
Airspeed 75 MPH
Threshold 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 85 or End of Runway
At Vy 85 Normal Climb
Clear of Obstacles Raise Flaps to 0°

Soft Field Landing

(Before Landing Checklist Complete)

Midfield Downwind BCGUMPS
Abeam Runway Threshold –
Throttle 1500 RPM
Flaps 10°
Airspeed 95 MPH
Base – Flaps 20°
Airspeed 85 MPH
Final – Flaps 40°
Airspeed 75 MPH
Threshold 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 10°
Airspeed Accelerate to
Vx 75 or Vy 85
Flaps Raise to 0°

Steep Turns

Clearing Turns Complete
BCGUMPS Complete
Throttle 2000-2200 RPM
Airspeed 90 - 100 MPH
Bank 45° Private
60° Commercial
Roll Out Original Heading
Repeat Opposite Direction

Slow Flight

Clearing Turns Complete
BCGUMPS Complete
Throttle 1500 RPM
Flaps 40° when in
white arc
Altitude Maintain as Speed Decreases
Throttle Add power to
Maintain 50-55 MPH
Banks Shallow
Recover Full Power, remove Flaps
and Carb Heat, Maintain Altitude

Power Off Stall

Clearing Turns Complete
BCGUMPS Complete
Throttle 1500 RPM
Flaps 40° 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 Vy 85 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 Vy 85 and
climb to a safe altitude

Rectangular Course

Clearing Turns Complete
BCGUMPS Complete
Throttle 2000 - 2200 RPM
Airspeed 90 - 100 MPH
Altitude 600 - 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 - 100 MPH
Altitude 600 - 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 - 100 MPH
Altitude 600 - 1000 ft
AGL
Entry On Downwind
Ground track Adjust for wind drift
to maintain a ¼ -½ mi radius