Cessna C-172N Checklist

Skyhawk

INTERIOR PREFLIGHT

Required Documents ..... On Board
Hobbs/Tach Time ..... Check
Fuel Selector ..... Cycle, then Both
Flight Controls ..... Free & Correct
Avionics Master ..... Off
Ignition Switch ..... Off
Master Switch ..... On
Fuel Quantity ..... Check
Flaps ..... Extend
Aircraft Lights/Pitot Heat ..... All On
Lights/Pitot Heat ..... Check
All Electrical Switches ..... 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
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
Circuit Breakers ..... Check/In
Carburetor Heat ..... Off
Avionics Master ..... Off
Fuel Selector Valve ..... Both

ENGINE START

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

BEFORE TAXI

Fuel Selector ..... Switch, then Both
Ammeter ..... Check Positive
Flaps ..... Retract (0º)
Mixture ..... Lean
Avionics Master ..... On
Avionics ..... Set
Flight Instruments ..... Check
Transponder ..... ALT
Aircraft Lights ..... Set
Brakes ..... Test

RUN UP

Brakes .....Hold
Flight Controls ..... Free & Correct
Mixture ..... Rich
Throttle ..... 1,700 RPM
Magnetos ..... Check
(Max drop 125 RPM, Max Diff 50 RPM)
Carburetor Heat ..... Check
Ammeter ..... Check Positive
Oil Temp ..... Check
Oil Pressure ..... Check
Vacuum Pressure ..... 5.0"
Throttle ..... Idle Check
Throttle ..... 800-1,000 RPM
Throttle Friction Lock ..... Adjust
Primer ..... In/Locked
Circuit Breakers ..... Check
Brake ..... Release

BEFORE TAKEOFF

Cabin Doors/Windows ..... Latched
Trim ..... Set for Takeoff
Flaps ..... Set
Magnetos ..... Both
Transponder ..... Set ALT
Mixture ..... Rich
Carburetor Heat ..... Off
Aircraft Lights .....Set
Flight Instruments ..... Check

Takeoff Brief

Runway .....Verify
Flaps ..... Set
Reject Considerations .....Brief

CLIMB

Flaps ..... Retract (0º)
Lights ..... Set

CRUISE

Throttle ..... Set for Cruise
Mixture ..... Lean for Cruise
Aircraft Lights ..... Set

DESCENT

Weather ..... Check
Flight Instruments ..... Set/Check
Aircraft Lights ..... Set
Carburetor Heat ..... Set
Mixture ..... Rich
Approach Briefing ..... Complete

BEFORE LANDING

Fuel Selector ..... Both
Aircraft Lights ..... Set
Carburetor Heat ..... On
Mixture ..... Rich
Flaps ..... Set

AFTER LANDING

Flaps ..... Retract (0º)
Trim ..... Set for Takeoff
Aircraft Lights ..... Set
Carburetor Heat ..... Off
Pitot Heat ..... Off
Mixture ..... Lean

SHUTDOWN

Avionics Master ..... Off
Throttle ..... Idle
Magneto ..... Check
Mixture ..... Idle Cut-Off
Aircraft Lights ..... Off
Magnetos ..... Off
All Switches ..... Off
Flight Plan ..... Cancel
Brakes ..... Released

Important speeds MPH

Vs0 ..... 41 KIAS
Vs1 ..... 47 KIAS
Vrotate ..... 55 KIAS
Vx ..... 59 KIAS
Vy ..... 73 KIAS
Vfe ..... 85 KIAS
Va (maneuvering) ..... 80 – 97 KIAS
Vno ..... 128 KIAS
Vne ..... 160 KIAS
Normal Approach ..... 65 KIAS
Best Glide ..... 65 KIAS

C-172 Emergency Procedures

Engine Fire During Start

Starter …..... Continue Cranking
Mixture …..... Idle Cut-Off
Throttle …..... Full Open
Fuel Selector …..... Off

If Fire Continues
EVACUATE AIRCRAFT and call 911

Engine Failure In Flight

Airspeed …..... Pitch for Best Glide
Fuel Selector ..... Switch Tanks
Mixture ..... Rich
Carburetor Heat …..... On
Magnetos ..... Check
Primer ..... In/Locked
Engine Gauges ..... Check

If power is not restored proceed with
POWER OFF LANDING

Engine Fire In Flight

Mixture …..... Idle Cut-Off
Fuel Selector …..... Off
Throttle …..... Idle
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
Fresh Air Vents …..... Open if Needed
Heat/Defroster …..... Off

If fire continues proceed with
EMERGENCY DESCENT

If fire is out, Land as soon as Possible

Emergency Descent

1. Throttle …..... Idle
2. Mixture …..... Rich
3. Bank …..... 30º – 45º
4. Pitch …..... Vne

Prepare for POWER OFF LANDING

Power Off Landing

Airspeed …..... Best Glide
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
Doors …..... Unlock

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
Instrument Conditions …… Exit or Avoid

Land As Soon as Practical

Carburetor Icing

Carburetor Heat …..... On
Mixture …..... Adjust for Smoothness

Engine Roughness

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

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
Airspeed ……..Increase if possible
Oil Pressure …..... Monitor
Oil Temp …..... Monitor

If temperature cannot be reduced
Land As Soon as Practical

Electrical Overload

BATT Master Switch …..... Off
ALT Switch …..... On
Electrical Load …..... Reduce

If Amps are reduced
BATT Master Switch ..…….. On
Ammeter …….. Monitor

If Amps are not reduced:
ALT Switch …..... Off
BATT Switch ….. On ONLY If Required

Land As Soon as Practical

Spin Recovery

Power ..…..... Idle
Ailerons …..... Neutral
Rudder …..... FULL OPPOSITE (to the direction of rotation)
Elevator ..... Push forward to break stall

When Rotation Stops
Rudder …..... NEUTRAL
Elevator ..... Recover to Level Flight
Throttle …..... Set

C-172 Maneuvers

Normal Takeoff

(Before Takeoff Checklist Complete)
Flaps ..... 0°
Power ..... Full
Engine Instruments ..... Verify Green
Rotate ..... …… 55 KIAS
Climb Out ..... Vx 59 KIAS
Vy 73 KIAS

Normal Landing

(Before Landing Checklist Complete)
Midfield Downwind ..... BCGUMPS
Abeam Runway Threshold –
Throttle 1500 RPM
Flaps 10°
Airspeed 90 KIAS
Base – Flaps 20°
Airspeed 80 KIAS
Final – Flaps 30°
Airspeed 70 KIAS
Threshold 60 – 65 KIAS
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 KIAS
Climb Out ..... Vx - 59
Clear of Obstacle
Accelerate to ..... Vy - 73
At Vy ..... Raise Flaps Completely
Climb Out ..... Vy - 73

Short Field Landing

(Before Landing Checklist Complete)
Midfield Downwind ..... BCGUMPS
Approach (Obstacle) ..... Steeper
Abeam Runway Threshold –
Throttle 1500 RPM
Flaps 10°
Airspeed 90 KIAS
Base – Flaps 20°
Airspeed 80 KIAS
Final – Flaps 40°
Airspeed 70 KIAS
Threshold 60 KIAS
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 73 or End of Runway
At Vy ..... 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 90 KIAS
Base – Flaps 20°
Airspeed 80 KIAS
Final – Flaps 30°
Airspeed 70 KIAS
Threshold 60-65 KIAS
Touchdown ..... Just above stall speed
Yoke ..... Full Back
Wheel Brakes...Use Minimum Required

Go-Around

Throttle ..... FULL Power
Carburetor Heat ..... Off
Flight Controls .....Pitch to Horizon
Flaps..... Retract to 10°
Airspeed ..... Accelerate to Vx or Vy
Flaps ..... Retract to 0°

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 45 – 50 KIAS
Banks ..... Shallow
Recover ..... Go Around Procedure

Power Off Stall

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 1500 RPM
Flaps ..... 40° when in white arc
Airspeed ..... Slow to 60 KIAS
Descent ..... Initiate 500 FPM to simulate final approach
Throttle ..... IDLE
Pitch ..... Induce Stall

Power On Stall

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 1500 RPM
Airspeed ..... Slow to 60 KIAS
Throttle ..... Full Power
Pitch ..... Induce Stall

Stall Recovery

Flight Control ..... Break the Stall
Throttle ..... Full
Flaps ..... Retract to 10º
Airspeed ..... Accelerate to Vx or Vy
Flaps ..... Retract
Recover to Level Flight

Steep Turns

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 2000–2200 RPM
Airspeed ..... 90 KIAS
Bank ..... 45° Private
50° Commercial
Roll Out ..... Original Heading
Repeat ..... Opposite Direction

Rectangular Course

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