

# Cessna C-172N Checklist



Required Documents.....	On Board
Fuel Selector.....	Cycle, then Both
Ignition Switch.....	Off
Master Switch.....	On
Hobbs/Tach Time.....	Check
Battery Volts.....	Min 22V
Fuel Quantity.....	Check
Flaps.....	Extend
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
OAT Probe.....	Check
Oil.....	5 Qts Min
Fuel Strainer.....	Drain (2 Secs.)
Cowling.....	Check Secure
Propeller/Spinner.....	Check
Alternator Belt.....	Check
Landing Light.....	Check
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 Tube.....	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
Avionics Master.....	Off
Fuel Selector Valve.....	Both

### ENGINE START

Brakes.....	Hold
Master Switch.....	On
Aircraft Lights.....	Set
Nav Database Updates.....	Check
Throttle.....	1/4" Open
Carb Heat.....	Off
Mixture.....	Rich
Prime.....	3-4 Cold 0-2 Hot
Propeller Area.....	Clear
Starter.....	Engage
Throttle.....	800-1,000 RPM
Oil Pressure.....	Check Positive

### BEFORE TAXI

Avionics Master.....	On
Electrical.....	Check (28V)
Flaps.....	Up
Mixture.....	Lean
Avionics.....	Set
<i>*Verify AHRS Calibration Complete*</i>	
Flight Instruments.....	Check
Transponder.....	Set Code/GND
Aircraft Lights.....	Set
Brakes.....	Test

## RUN UP

Brakes.....	Hold
Flight Controls.....	Free & Correct
Circuit Breakers.....	Check
Mixture.....	Rich
Oil Temp.....	>75 °
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 Green (> 75)
Oil Pressure.....	Check Green (55-95)
Throttle.....	Idle Check
Throttle.....	800-1,000 RPM
Throttle Friction Lock.....	Adjust
Mixture.....	Re-Lean for Taxi
Magnetos.....	Both
Primer.....	In/Locked

### BEFORE TAKEOFF

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

### TAKEOFF BRIEF

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

### CLIMB

Flaps.....	Up
Aircraft Lights.....	Set
Transponder.....	Verify ALT

### CRUISE

Throttle.....	Set
Mixture.....	Set
Aircraft Lights.....	Set

## DESCENT

Weather.....	Check
Avionics.....	Set/Check
Carburetor Heat.....	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
Carburetor Heat.....	Off
Pitot Heat.....	Off
Mixture.....	Lean

### SHUTDOWN

Throttle.....	Idle
Magneto.....	Check
Mixture.....	Idle Cut-Off
Aircraft Lights.....	Off
Nav Light.....	On
Avionics Master.....	Off
Magnetos.....	Off
Tachometer Time.....	Record
Master Switch.....	Off
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.....	65 KIAS

# Cessna C-172 Maneuvers

## LAKE ELMO



### Normal Takeoff

*\*Before Takeoff Checklist Complete\**

Flaps .....	0°
Power .....	Full
Engine Instruments .....	Verify Green
Rotate .....	50-55 KIAS
Climb Out .....	V <sub>x</sub> 59 KIAS
	V <sub>y</sub> 73 KIAS

### Normal Landing

*\*Before Landing Checklist Complete\**

Midfield Downwind .....	BCGUMPS
Abeam Touchdown....	Throttle 1500 RPM
Flaps .....	10°
Airspeed .....	80 KIAS
Base – Flaps .....	20°
Airspeed .....	70 KIAS
Final – Flaps .....	30°
Airspeed .....	60 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 .....	50 KIAS
Climb Out .....	59 KIAS
<i>When Clear of Obstacle</i>	
Accelerate to .....	73 KIAS
At V <sub>y</sub> – 73 .....	Raise Flaps
Climb Out .....	V <sub>y</sub> - 73

### Short Field Landing

*\*Before Landing Checklist Complete\**

Midfield Downwind .....	BCGUMPS
Approach (Obstacle) .....	Steeper
Abeam Touchdown.....	Throttle 1500 RPM
Flaps .....	10°
Airspeed .....	80 KIAS
Base – Flaps .....	20°
Airspeed .....	70 KIAS
Final – Flaps .....	40°
Airspeed .....	60 KIAS
Threshold .....	54-60 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 .....	V <sub>y</sub> 73 or End of Runway
At V <sub>y</sub> 73 .....	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 .....	80 KIAS
Base – Flaps .....	20°
Airspeed .....	70 KIAS
Final – Flaps .....	30°
Airspeed .....	60 KIAS
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.....	55 KIAS or greater
<i>When clear of obstacles</i>	
Airspeed .....	V <sub>y</sub> 73 KIAS
Flaps .....	Raise to 0°

### Steep Turns

Clearing Turns .....	Complete
BCGUMPS .....	Complete
Throttle .....	2300 RPM
Airspeed .....	95 KIAS
Bank .....	45° Private
	50° Commercial
Roll Out .....	Original Heading
Repeat .....	Opposite Direction

### Slow Flight

Clearing Turns .....	Complete
BCGUMPS .....	Complete
Throttle .....	1500-1700 RPM
Flaps .....	30° when in white arc
Altitude .....	Maintain as Speed Decreases
Throttle .....	Add power to Maintain 45-55 KIAS
Banks .....	Shallow
Recover .....	Full Power, remove Flaps and Carb Heat, Maintain Altitude

### Power Off Stall

Clearing Turns .....	Complete
BCGUMPS .....	Complete
Throttle .....	1500-1700 RPM
Carburetor Heat.....	On
Flaps .....	30° when in white arc
Airspeed .....	Slow to 60 KIAS
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 2<sup>nd</sup> notch of flaps and accelerate to >70 KIAS and initiate climb.

### Power On Stall

Clearing Turns .....	Complete
BCGUMPS .....	Complete
Throttle .....	1500-1700 RPM
Airspeed .....	Slow to 60 KIAS
Throttle .....	Full Power
Pitch .....	Induce Stall
<b>Stall Recovery:</b>	
Release back pressure, ensure full power and stop descent. Accelerate to >70 KIAS and climb to a safe altitude	

### Rectangular Course

Clearing Turns .....	Complete
BCGUMPS .....	Complete
Throttle .....	2000 – 2200 RPM
Airspeed .....	85 KIAS
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 .....	85 KIAS
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 .....	85 KIAS
Altitude .....	1000 ft AGL
Entry .....	On Downwind
Ground track .....	Adjust for wind drift to maintain a ¼ -½ mi radius

**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