

Cessna C-172N Checklist

Skyhawk G3X (N737ME, N737YU)

LAKE ELMO



INTERIOR PREFLIGHT

Required Documents.....On Board
Fuel Selector.....Cycle, then Both
Ignition Switch.....Off
Master Switches.....On
Hobbs/Tach Time.....Check
Battery Volts.....Min 22V
Fuel Quantity.....Check
Flaps.....Extend
Lights/Pitot Heat.....Check
Nav Database.....Verify (IFR)
GTN650 is primary nav source
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
OAT Probe.....Check
Fuel Sump.....Sample
Fuel Quantity.....Check

NOSE:

Windshield.....Check/Clean
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 Switches.....On
Aircraft Lights.....Set
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
Verify AHRS Calibration Complete
Flight Instruments.....Check
Transponder.....Set Code/GND
Aircraft Lights.....Set
Brakes.....Test

RUN UP

Brakes.....Hold
Autopilot.....Test (if Required)
Flight Controls.....Free & Correct
Circuit Breakers.....Check
Mixture.....Rich
Oil Temp.....>75 °
Throttle.....1,800 RPM
Magnetos.....Check
Max drop 125 RPM, Max Diff 50 RPM
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

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

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
Magnetos.....Check
Avionics Master.....Off
Mixture.....Idle Cut-Off
Aircraft Lights.....Off
Nav Light.....On
Magnetos.....Off
Tachometer Time.....Record
Master Switches.....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

LAKE ELMO



Autopilot Master.....	Engage
HDG Bug.....	Test Left/Right
V/S Bug.....	Test Up/Down
Flight Controls....	Confirm Positive Control
Autopilot.....	Disconnect on Yoke

Before Takeoff Checklist Complete

Flaps 0°
Power Full
Engine Instruments Verify Green
Rotate 50-55 KIAS
Climb Out Vx 59 KIAS
 Vy 73 KIAS

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

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 Vy – 73	Raise Flaps
Climb Out	Vy - 73

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

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 73	Normal Climb
Clear of Obstacles	Raise Flaps to 0 °

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

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	Vy 73 KIAS
Flaps	Raise to 0°

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

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

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 2nd notch of flaps and accelerate to >70 KIAS and initiate climb.

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

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

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

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

Cessna C-172

Emergencies & Abnormals

LAKE ELMO

AERO

Engine Failure-Takeoff

Pitch.....Nose down immediately
AirspeedMaintain 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 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.....128 KIAS

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 160 KIAS