Cessna C-152 Checklist

LAKE ELMO AERO

INTERIOR PREFLIGHT

Required Documents	On Board
Hobbs/Tach Time	Check
Flight Controls	Free & Correct
Fuel Shutoff Valve	Cycle
Radios and Electrical	Off
Ignition Switch	Off
Master Switch	On
Fuel Quantity	Check
Flaps	Extend
Aircraft Lights	On
Pitot Heat	On
Lights/Pitot Heat	Check-Then Off
Master Switch	Off

EXTERIOR PREFLIGHT

Fuselage/Tail:

Left Fuselage	Check
Antennas	Check
ID Plate	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 Sumps	Sample All
Fuel Quantity	Check

Nose:

Windshield	Check/Clean
Oil	4 Qts Min
Fuel Strainer	Sample
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 Sumps	Sample All
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 Shutoff Valve	On
Carburetor Heat	Off
Radios/Electrical	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

Radios/Avionics	On/Set
Ammeter	Check Positive
Flaps	Up
Mixture	Lean
Transponder	Set Code/ALT
Flight Instruments	Set
Aircraft Lights	Set
Nav Lights	On
Brakes	Test

RUN UP

Brake	Hold
Flight Controls	Free & Correct
Circuit Breakers	Check
Mixture	Rich
Throttle	1,700 RPM
Magnetos	Check
Max drop 125 RPM, Max Diff 50 RPM	
Carburetor Heat	Check
Ammeter	Check Positive
Oil Pressure	Check
Oil Temperature	Check
Suction Gauge	Check 4.6-5.2" Hg.
Throttle	Idle Check
Throttle	800-1,000 RPM
Mixture	Re-Lean for Taxi
Magnetos	Both
Primer	In/Locked

BEFORE TAKEOFF

Transponder	Set ALT
Trim	Set Takeoff
Flaps	Set
Mixture	Rich
Carburetor Heat	Off
Aircraft Lights	Set
Flight Instruments	Set
Cabin Door/Windows	Latched
Takeoff Briefing	Complete

NORMAL TAKEOFF

Heading	Check Correct Runway
Throttle	Full Open
Rotate	50 KIAS

CLIMB

Best Angle Vx	55 KIAS
Best Rate Vy	67 KIAS
Flaps	Up

CRUISE

Throttle	Set
Mixture	Set
Trim	Set
Aircraft Lights	Set
Pitot Heat	Set

DESCENT

Instrument/Avionics	Set
Aircraft Lights	Set
Pitot Heat	Set
Carburetor Heat	Set
Throttle	Set
Mixture	Set
Approach Briefing	Complete

BEFORE LANDING

Aircraft Lights	Set
Carburetor Heat	On
Mixture	Rich
Flaps	Set
Approach Airspeed	55-65 KIAS

AFTER LANDING

Flaps	Up
Trim	Set Takeoff
Aircraft Lights	Set
Pitot Heat	Off
Carburetor Heat	Off
Mixture	Lean

SHUT DOWN

Radios/Avionics	Off
Throttle	Idle
Magneto	Check
Mixture	Idle Cut-Off
Magnetos	Off
Aircraft Lights	Off
All Switches	Off
Nav Lights	**ON**
Brakes	Released

Important Speeds KIAS

V_{S0}	35 KIAS
V_{S1}	40 KIAS
V_R	50 KIAS
V_X	55 KIAS
V_Y	67 KIAS
V_{FE}	85 KIAS
V_A (maneuvering)	93-104 KIAS
V_{NO}	111 KIAS
V_{NE}	149 KIAS
Normal Approach	60-70 KIAS
Best Glide	**60 KIAS**

Cessna C-152 Maneuvers

LAKE ELMO AERO

Normal Takeoff

Before Takeoff Checklist Complete

Flaps ..... 0°
Power ..... Full
Engine Instruments ..... Verify Green
Rotate ..... 50 – 55 KIAS
Climb Out ..... Vx 55 KIAS
Vy 67 KIAS

Normal Landing

Before Landing Checklist Complete

Midfield Downwind ..... BCGUMPS
Abeam Runway Threshold:

	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 Speed ..... 55 KIAS
(Until clear of obstacles)
Wing Flaps ..... Retract 60 KIAS
Climb Out ..... Vy - 67 KIAS

Short Field Landing

Before Landing Checklist Complete

Midfield Downwind ..... BCGUMPS
Approach (Obstacle) ..... Steeper
Abeam Runway Threshold:

	Throttle	1500 RPM
	Flaps	10°
	Airspeed	80 KIAS
Base –	Flaps	20°
	Airspeed	70 KIAS
Final –	Flaps	30°
	Airspeed	60 KIAS
	Threshold	54 KIAS

Touchdown ..... Just above stall speed
Braking ..... Apply Max 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 67 or End of Runway
At Vy 67 ..... 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	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 ..... >60 KIAS
Flaps ..... Retract to 0°
Climbout ..... At Vy 67

Steep Turns

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 2300 RPM
Airspeed ..... 85 KIAS
Bank ..... 45° Private
50° Commercial
Roll Out ..... Original heading
Repeat ..... Other Direction

Slow Flight

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 1500 RPM
Flaps ..... Full, when in white arc
Altitude ..... Maintain as Speed Decreases
Throttle ..... Add power to maintain Altitude
Pitch ..... 45-50 KIAS
Banks ..... Shallow
Recover ..... Full power, remove flaps and carb heat, maintain altitude

Power Off Stall

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 1500 RPM
Flaps ..... Full, when in white arc
Airspeed ..... Slow to 60 KIAS
Descent ..... Initiate 500 FPM to simulate final approach
Throttle ..... IDLE
Pitch ..... Induce Stall
Stall Recovery:
Go-Around Procedure
Minimize Altitude Loss

Power On Stall

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 1500 RPM
Airspeed ..... Slow to 65 KIAS
Throttle ..... Full Power
Pitch ..... 20º Induce Stall
Stall Recovery:
Flight Controls..... Nose Down
Throttle..... Full

Rectangular Course

Clearing Turns ..... Complete
BCGUMPS ..... Complete
Throttle ..... 2000 – 2200 RPM
Airspeed ..... 85 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 ..... 85 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 ..... 85 KIAS
Altitude ..... 600 – 1000 ft AGL
Entry ..... On Downwind
Ground track ..... Adjust for wind drift to maintain a ¼ -½ mi radius

Cessna C-152
Emergencies & Abnormals
LAKE ELMO AERO

Engine Fire-*Start*

Starter……..…Continue Cranking
Mixture ……..……...Idle Cut-Off
Throttle ……..Open
Fuel Shutoff Valve ...……Off

Engine Failure-*Takeoff*

Airspeed ……...Maintain Safe Airspeed
Land ……...Straight Ahead

If Sufficient altitude has been gained attempt to restart:

Airspeed ……...Maintain Safe Airspeed
Mixture ……..……Rich
Carburetor Heat ……On

If power is not restored, proceed to ***POWER OFF LANDING***

Engine Failure-*In Flight*

Airspeed ……...60 KIAS
Best Landing Site……Locate
Mixture ……..……..Rich
Fuel Shutoff Valve……On
Carburetor Heat ……On
Engine Gauges ……Check
Primer ……..Check Locked
Ignition ……Check Both

If power is ***NOT restored*** *proceed to* ***POWER OFF LANDING****:*

Power Off Landing

Airspeed ……...60 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 Shutoff Valve…… Off
Magnetos …..... Off
Flaps……Extend (time/altitude permitting)
Master Switch …..... Off
Belts/Shoulder Harness …..... Secure
Door..……..Open
Approach Speed …..55-60 KIAS

Engine Fire-*Flight*

Mixture ……...Idle Cut-Off
Fuel Shutoff Valve……Off
Master Switch ……...Off
Throttle ……Idle
Fresh Air Vents/Windows……...Open
Panel Cabin Air/Heat/Defrost……...Closed
Magneto Switch ……Off

If fire extinguishes, proceed to ***POWER OFF LANDING***

If fire does not extinguish, proceed to ***EMERGENCY DESCENT***

Electrical Fire

Batt/Alt Master Switch ….....Off
Radio Master and All Electrical…….Off
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 …..... 30º – 45º
Airspeed……...111 KIAS

Alternator Failure

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.

Engine Roughness

Throttle……2500 RPM
Carburetor Heat …..... On
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.

Loss of Oil Pressure Light

Land as Soon as Practical
Prepare for ***POWER OFF LANDING***

Loss of Fuel Pressure

Fuel Shutoff Valve……On
Mixture……Rich

If pressure does not return, land as soon as practical.
Prepare for ***POWER OFF LANDING.***

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***

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 149 KIAS

IN AN EMERGENCY

Call 911 FIRST if necessary for safety
Then call Lake Elmo Aero at 651-777-1399