



<p style="text-align: center;">INITIAL</p> <p>Weather – Checked NOTAMS – Checked Weight & Balance Fuel Required Gal. _____ A.R.O.W. Pitot Cover – Remove Gust Locks – Remove Fuel – Both Master – On Flaps – Extend Lights – Check Fuel Gauges – Verify Master – Off</p> <p style="text-align: center;">EXTERIOR</p> <p>Fuel Quantity – Stick Fuel Quality – Sump Caps, Drains, Vents Oil – 6 to 8 qts. Engine & Belt – Check Prop & Air Intake – Check Exhaust System – Check Control Surfaces – Check Pitot & Static Ports – Clear Gear, Tires, Brakes Antennas – Check Ties, Chocks, Towbar Baggage Door – Check</p> <p style="text-align: center;">INTERIOR</p> <p>Passenger Brief Hobbs – Record Alt Static – Closed Brakes – Pedal Test Seatbelts – Fastened Seats – Locked</p>	<p style="text-align: center;">ENGINE START</p> <p>Avionics – Off Fuel – Both Trim – Set for Takeoff Mixture – Full Rich Throttle – Open ¼ in. Carb Heat – Off Beacon – On Breakers – Checked In Master – On Prime – 1 to 3 Pumps Prop – Clear Mags – Start Oil Pressure – Check RPM – Idle Mixture – Lean for Taxi</p> <p style="text-align: center;">PRE-TAXI</p> <p>Flaps – Retracted Heat/Air – Set Avionics – On/Set ATIS/AWOS – Listen Altimeter – Set Transponder – On/Stby Radio – Test Taxi/Nav Light – As Req Brakes – Pedal Test</p> <p style="text-align: center;">TAXI</p> <p>DG & Compass <i>should be free moving & indicating known hdgs while taxiing</i> Attitude Indicator – Check Turn Coordinator – Check</p>	<p style="text-align: center;">RUN UP</p> <p>Brakes – Apply Controls – Free & Correct Instruments – 6 Checked Mixture – Rich Primer – Locked Throttle – 1700 RPM Mags – R/L/Both Carb Heat – Test Vacuum – Check Amps/ Volts – Check Oil Pressure – Check Oil Temp – Check Throttle – Idle</p> <p style="text-align: center;">PRE-TAKEOFF</p> <p>Fuel – Both Trim – Takeoff Flaps – 0° - 10° Mixture – Rich Carb Heat – Off Landing Light – On Strobes – On Transponder – Alt/ Sqwk Doors & Windows – Latch DG – Set to Compass Time – Note</p> <p style="text-align: center;">TAKEOFF</p> <p>Check for Traffic & Call Wind Direction – Note X-Wind Correction – Apply Throttle – Full Engine Gauges – Green Airspeed – Alive Rotate – V_r 60 mph Pitch for – V_y 82 mph</p>	<p style="text-align: center;">CLIMB</p> <p>Airspeed 80-90 mph Power – Set Mixture – Set Instruments – Check Taxi/ Lnd Light – Off</p> <p style="text-align: center;">CRUISE</p> <p>Power – Set Mixture – Set Instruments – Check DG – Set to Compass</p> <p style="text-align: center;">DESCENT</p> <p>Mixture – Richen Carb Heat – As Required ATIS/AWOS – Listen Altimeter – Set DG – Set to Compass Instruments – Check</p> <p style="text-align: center;">PRE-LANDING</p> <p>Fuel – Both Landing Light – On (10mi) Seat Belts – Fastened Radio – Announce Position Airspeed – White Arc</p> <p style="text-align: center;">Read & Do Checklists</p>	<p style="text-align: center;">LANDING</p> <p>Carb Heat – On Throttle – Reduce Flaps – 10° - 40° Airspeed – Set Trim – As required</p> <p style="text-align: center;">AFTER LANDING</p> <p>Announce Clear of Rwy Trim – Set for Takeoff Flaps – Retract Mixture – Lean for Taxi Carb Heat – Off Landing/Strobe Light – Off Taxi Light – As Req Transponder – Stby</p> <p style="text-align: center;">SHUTDOWN</p> <p style="text-align: center;"><i>Turn off In Order</i></p> <p>Music – Avionics Mixture – Cutoff Mags – Off Master – Off</p> <p style="text-align: center;">SECURING</p> <p>Switches – Off Hobbs/Tach – Record Squawks – Notify Gust Lock – Install Pitot Cover – Install Cowl Plugs – Install Chocks/Tie Down Verify Quiet & Dark</p> <p style="text-align: center;">Do & Verify Checklists</p>
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V_r • Rotation Speed – 60 mph	V_{so} • Stall Speed (Dirty) – 55 mph	V_a • Maneuvering Speed – 112 mph	V_{ne} • Never Exceed – 182 mph
V_x • Best Climb Angle – 68 mph	V_s • Stall Speed (Clean) – 60 mph	V_{fe} • Flap Extended – 100 mph	X Wind • Max Demo'd – 15 kts
V_y • Best Climb Rate – 82 mph	V_g • Best Glide Speed – 80 mph	V_{no} • Normal Operating – 145 mph	

	Mph (Kts)	Flaps	– Notes –
Cruise Settings (TAS – 5,000')			<i>Lean mixture above 3000ft</i>
Economy	114 (99)	0°	2300 RPM – 6.4 GPH – 54% Power
Normal	121 (105)	0°	2400 RPM – 6.8 GPH – 60% Power
Maximum	133 (115)	0°	2600 RPM – 8.1 GPH – 73% Power
Arrival			
Approach	75 - 70 (65 - 61)	10° - 20°	1400 RPM (<i>initially</i>)
Short Final	70 - 65 (61 - 57)	30° - 40°	Idle – 1200 RPM
Lebanon (M54) 588' CTAF – 122.725 AWOS – 118.325	Gallatin/ Sumner County (KXNX) 583' CTAF – 123.05 AWOS – 132.725		Short Field Takeoff (50 ft. obstacle): 0° Flaps, Climb V_x 68 until clear Short Field Takeoff (No obstacle): 10° Flaps Soft Field Takeoff 10° Flaps



ENGINE FAILURE – RESTART

- AIRSPEED PITCH FOR **80 MPH**
- FUEL SELECTOR BOTH
- MIXTURE FULL RICH
- CARB HEAT ON (OUT)
- PRIMER IN & LOCKED
- MAGS BOTH/ START (If propeller has stopped windmilling)

If no restart proceed to forced landing checklist

FORCED LANDING

Once landing is assured and time permits

- SEATBELTS & SHOULDER HARNESSSES SECURE
- AIRSPEED **75 MPH** (flaps up) **70 MPH** (flaps down)
- MIXTURE CUTOFF
- FUEL SELECTOR OFF
- MAGS OFF
- RADIO 121.5 (Declare Emergency)
- TRANSPONDER 7700
- FLAPS 40° RECCOMENDED
- MASTER OFF
- DOORS UNLATCHED

ENGINE FIRE IN FLIGHT

- MIXTURE CUTOFF
- FUEL SELECTOR OFF
- MASTER OFF
- CABIN HEAT CLOSED
- AIRSPEED **120 - 140 MPH**

Proceed to forced landing checklist

ELECTRICAL FIRE IN FLIGHT

- MASTER OFF
 - ALL RADIO AND ELECTRICAL SWITCHES OFF
 - CABIN HEAT/AIR AND VENTS OFF
- Land at nearest suitable airport or proceed to forced landing checklist, DO NOT RESET TRIPPED CIRCUIT BREAKERS*

OVERVOLTAGE LIGHT

If light illuminates alternator will disengage

- MASTER OFF, THEN ON
- If overvoltage light remains off proceed normally*
- IF OVERVOLTAGE LIGHT REMAINS ON:
- MASTER OFF
 - BEFORE LANDING MASTER ON
- This conserves power for flaps, radios, & essential equipment*

INSUFFICIENT RATE OF CHARGE

- If ammeter shows -negative value battery is discharging*
 - MASTER OFF
 - BEFORE LANDING MASTER ON
- This conserves power for flaps, radios, & essential equipment*

ICING CONDITIONS

- PITOT HEAT ON
 - CARB HEAT ON
 - CABIN HEAT MAXIMUM
- CONSIDER 180 TURN OR CLIMB OR DESCEND**
- DO NOT REMAIN IN ICING CONDITIONS**
- RPMS INCREASE
 - FLAPS NOT RECCOMENDED FOR LANDING
- LAND AT HIGHER AIRSPEED

GO AROUND

- POWER FULL
- CARB HEAT OFF
- CLIMB POSITIVE RATE
- FLAPS RETRACT SLOWLY
- AIRSPEED **82 MPH**

N61813 Cessna 172 M <i>(Lycoming O-320 E2D, 150HP)</i>	
Empty Weight: 1,473 lbs	Useful Load: 827 lbs
Max Gross Weight (takeoff): 2300 lbs Max Baggage Area: 120 lbs	
Fuel Type: 100 LL (Blue) Fuel: Useable 48 gal / Total 52 gal / Unusable 4 gal Oil Capacity: 8qts (Minimum 6) Electrical System: 12-14V / 60 AMP Alternator Service Ceiling: 13,100ft Rate of Climb (sea level): 645fpm Range (75% 8,000ft): 4.7hrs (no reserve, 650 mi, no wind)	

