

<p>INITIAL</p> <p>Weather & Den. Alt. Weight & Balance Performance Req. Flight Plan - File Papers - A.R.O.W. Fuel - Both Control Lock Master - On Flaps - Extend Pitot Heat - Test Lights - Int. / Ext. Fuel Gauges - True Master - Off</p>	<p>START</p> <p>Seat Track/Back - Lock Avionics - Off Autopilot - Off Carb Heat - Off Beacon - On Mixture - Full Rich Throttle - Slight Prime Brakes Prop - Clear Master - On Mags - Start Oil Pressure Lights - As Req. Mixture - As Req.</p>	<p>RUN-UP</p> <p>Brakes - Set Fuel - Both Trim - Takeoff Flight Controls Instruments Mixture - Best Power Primer - In & Lock</p>	<p>TAKEOFF</p> <p>Full Throttle 2280 RPM (Min) Oil Pressure Rotate * 55 (63) Vy - 73 (84) Flaps - Up</p>	<p>DESCENT</p> <p>Mixture - Richen Fuel - Both Carb Heat - As Req. ATIS / AWOS Altimeter - Set Instruments H.I. To Compass</p>	<p>AFTER LANDING</p> <p>Flaps - Up Carb Heat - Off Strobes - Off Landing Light - Off Taxi Light - As Req. Pitot Heat - Off Mixture - As Req. Trim - Takeoff XPDR - STBY</p>
<p>EXTERIOR SUMMARY <i>After Geographical Check</i></p> <p>Fuel Quantity Fuel Quality Caps/Drains/Vents Engine / Oil / Belt Prop / Air Intake Exhaust System Stall Indicator - Test Surfaces & Controls Pitot & Static Ports Gear / Tires / Brakes Antennas Ties / Chocks Baggage Door Final Walk Around</p>	<p>PRE-TAXI / TAXI</p> <p>Seat Belts / Harness Flaps - Up Heat / Vent / Defrost Avionics - On / Set XPDR - STBY ATIS / AWOS Altimeter - Set Radio - Test Taxi Light - As Req. Brakes - Test Attitude Indic. - Test Turn Coord. - Test H.I./Compass - Test</p>	<p>PRE-TAKEOFF</p> <p>1700 RPM Mags (R&L) - Test Carb Heat - Test Vacuum Amps / Volts Oil Pressure Oil Temperature Idle - Check Closed Throttle Friction</p>	<p>CLIMB</p> <p>70-80 (81-92) Power Mixture Instruments Taxi / Land Light - Off Flight Plan - Open</p>	<p>PRE-LANDING</p> <p>Landing Light - On Autopilot - Off Seat Belt / Harness Mixture - Best Power Carb Heat - On Fuel - Both Flaps - As Req.</p>	<p>SECURING</p> <p>ELT - Verify Silent Avionics - Off Mixture - Full Lean Master - Off Fuel - Left or Right Lights - Off Hobbs / Tach Time Control Lock Chocks Tie Downs Pitot Cover Baggage Door Cabin Doors</p>
<p>INTERIOR</p> <p>Passenger Brief Hobbs / Tach Time Circuit Breakers Alternate Static Brakes - Pedal Test</p>		<p>CRUISE</p> <p>Flaps - 0°-10° Mixture - Best Power Carb Heat - Off Or As Req. H.I. To Compass Doors / Windows XPDR - Alt + Sqwk Landing Light - On Strobes - As Req. Time - Note Brakes - Release</p>	<p>CRUISE</p> <p>Power Mixture Instruments H.I. To Compass</p>	<p>LANDING</p> <p>Flaps - 40° Or As Req. Speed * 60 (69)</p> <p>G.U.M.P.F.S.</p>	<p>GO AROUND</p> <p>Power - Full Carb Heat - Off Positive Rate Climb Flaps - Retract Slowly</p> <p>* Adjust Speed As Needed For Conditions</p>

X Wind • Max Demo'd - 15 (17)	V _{S0} • Stall w/flaps (77-79) - 41 (47)	Best Glide (2000 lbs) - 61 (70)	V _{no} • Max Struct. Cruise - 127 (146)
V _r • Rotation Speed - 55 (63)	V _{S0} • Stall w/flaps (1980) - 33 (38)	Best Glide (Full Gross) - 65 (75)	V _{ne} • Never Exceed - 158 (182)
V _x • Best Angle Climb - 59 (68)	V _s • Stall w/o flaps (77-79) - 47 (54)	V _a • Max Abrupt Ctrl (2000 lbs) - 90 (104)	V _{fe} • 10° Flaps (79-80) - 110 (127)
V _y • Best Rate Climb - 73 (84)	V _s • Stall w/o flaps (1980) - 44 (51)	V _a • Max Abrupt (Full Gross) - 97 (112)	V _{fe} • Full Flaps - 85 (98)

	KNOTS (MPH)	FLAPS °	NOTES
DEPARTURE			
Rotation *	55 (63)	0	172n V-Speeds Vary 1 or 2 Knots Depending On Year. We Use The Most Conservative Figure. '77-'79: Short w/Obstacle: 0° Flaps - 59 (68) '77-'79: Short w/o Obstacle: 0° Flaps - 55 (63) 1980: Short Field: 10° Flaps - 53 (61). '77-'80 Soft Field: 10° Flaps
Best Angle Climb	59 (68)	0	
Best Rate Climb	73 (84)	0	
CRUISE (TAS - 5,000')			
Economy	99 (114)	0	2300 RPM - 6.3 GPH - 55%
Normal	107 (123)	0	2450 RPM - 7.3 GPH - 65%
Maximum	114 (131)	0	2575 RPM - 8.4 GPH - 75%
ARRIVAL			
Approach	70 (81)	10-20	1700 RPM (Initially)
Short Final *	60 (69)	30-40	Idle - 1200 RPM

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Specs Are Approximate Because Of Environment & Plane Model / Year Variables. Specs Are In: LBS, KIAS, Sea Level, Standard Day, Normal Category, Max. Gross Wt., No Wind, "Best Power", Wheel Pants, New Engine. () = MPH.

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POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL
 BEST GLIDE – 65 KIAS (75 MPH) (Full Gross Weight)
 FUEL SELECTOR – OFF
 MIXTURE – FULL LEAN / IDLE CUTOFF
 FLAPS – DOWN
 MASTER & MAGS – OFF (Unlatch Doors)

POWER LOSS IN FLIGHT

BEST GLIDE – 65 KIAS (75 MPH) (Full Gross Weight)
 CARB HEAT – ON (Also Supplies Alternate Air)
 NOTE WIND DIRECTION & VELOCITY
 PICK LANDING SITE
 MIXTURE – FULL RICH
 FUEL SELECTOR – CHECK / SWITCH / BOTH (Note Gauges)
 FUEL PRIMER – LOCKED (Try Re-Priming)
 MAGNETOS – CHECK ALL
 MASTER – ON

IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE
 SQUAWK 7700
 DECLARE EMERGENCY (TWR, APP, Unicom, 121.5)
 FUEL SELECTOR – OFF
 MIXTURE – FULL LEAN / IDLE CUTOFF
 SEATBELTS / HARNESS
 FLAPS – AS NEEDED (Full Flaps When Field Assured)
 MASTER & MAGS – OFF
 UNLATCH DOORS
 PROTECT BODY

ELECTRICAL FIRE IN FLIGHT

ALL ELECTRICAL DEVICES + MASTER – OFF (Mags On)
 CLOSE VENTS, CABIN HEAT, & AIR
 IF FIRE OUT – MASTER ON ONLY IF CRITICAL (Vents – Open)
 THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME
 RESET CIRCUIT BREAKERS ONLY IF CRITICAL

ENGINE FIRE IN FLIGHT

MIXTURE – FULL LEAN / IDLE CUTOFF
 FUEL SELECTOR – OFF
 MASTER SWITCH – OFF
 CABIN HEAT & AIR – OFF (Except Overhead Vents)
 INCREASE AIRSPEED TO EXTINGUISH – LAND ASAP

ENGINE FIRE DURING START

CONTINUE CRANKING ENGINE
 IF START – RUN A FEW SECONDS - SHUTDOWN - INSPECT
 IF NO START – MIXTURE IDLE CUTOFF & FUEL SELECTOR OFF
 THROTTLE FULL OPEN
 CONTINUE CRANKING ENGINE A FEW SECONDS
 MASTER & MAGS – OFF
 EVACUATE / FIRE EXTINGUISHER

ICING

PITOT HEAT – ON
 CARB HEAT – ON
 CABIN HEAT & DEFROST – MAXIMUM
 STRONGLY CONSIDER 180° TURN
 ATTAIN HIGHER OR LOWER ALTITUDE
 INCREASE ENGINE SPEED
 FLAPS – NOT RECOMMENDED FOR LANDING
 LAND FASTER AS NEEDED

OTHER

AMMETER w/EXCESS RATE OF CHARGE: Alternator – Off, Pull C.B. / Nonessential Electric – Off / Terminate Flight A.S.A.P.

LOW VOLTAGE: Avionics Power Switch – Off / Alt. C.B. - In / Master – Off, then, Master – On / Ck. Volt Lt. Off / Avionics – On
 If Illuminates Again: Alt. & Electric – Off / Terminate Flight A.S.A.P.

RADIO OUT: Check Circuit Breakers & VOLUME
 Recycle Alternator Switch
 If IFR & Still Out, Set XPDR To 7600.
 (Suggested For VFR If In B, C, D Airspace.)

UNICOM: 122.7 – 122.8 – 122.95 – 123.0 – 123.05
 MULTICOM: 122.9 (CTAF), 122.75, 122.85 (Air To Air)
 FLIGHT WATCH: 122.0

TOWER SIGNALS	ON GROUND	IN FLIGHT
Steady Green	Cleared For Takeoff	Cleared To Land
Flashing Green	Cleared To Taxi	Return For Landing
Steady Red	Stop	Yield & Continue Circling
Flashing Red	Taxi Clear of Landing Area	Airport Unsafe - Do Not Land
Flashing White	Return To Starting Point	N/A
Alternating Red & Green	Use Extreme Caution	Use Extreme Caution

* Every Plane Has A Different Empty Weight And Useful Load
 Cessna 172n (Lycoming O-320-H2AD, 160 HP)

* Empty Weight: LBS (Specific Plane Weight)
 * Max. Useful Load: LBS (Including Fuel @ 6 lbs/gal)
 Max. Baggage Area: 120 LBS (Included In Useful Load)
 Max. T.O. Weight: 2300 LBS

Fuel Type: 100 LL (Blue) / 100 (Green)
 Usable Fuel: 40 Gallons (50 L.R Tanks)
 Oil Capacity: 6 Quarts (Minimum 4)
 Electrical: 24-28 VOLT / 60 AMP
 Tire Pressure: Nose - 31 PSI / Main - 29 PSI