

INITIAL	START	RUN-UP	TAKEOFF	DESCENT	AFTER LANDING
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	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.	Brakes - Set Fuel - Both Trim - Takeoff Flight Controls Instruments Mixture - Best Power Primer - In & Lock 1700 RPM Mags (R&L) - Test Carb Heat - Test Vacuum Amps / Volts Oil Pressure Oil Temperature Idle - Check Closed Throttle Friction	Full Throttle 2300 RPM (Min) Oil Pressure Rotate * 55 (63) Vy - 78 (90) Flaps - Up	Mixture - Richen Fuel - Both Carb Heat - As Req. ATIS / AWOS Altimeter - Set Instruments H.I. To Compass	Flaps - Up Carb Heat - Off Strobes - Off Landing Light - Off Taxi Light - As Req. Pitot Heat - Off Mixture - As Req. Trim - Takeoff XPDR - STBY
EXTERIOR SUMMARY <i>After Geographical Check</i>	PRE-TAXI / TAXI	PRE-TAKEOFF	CLIMB	PRE-LANDING	SECURING
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	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	Flaps - 0°- 10° Mixture - Best Power Carb Heat - Off <i>Or As Req.</i> H.I. To Compass Doors / Windows XPDR - Alt + Sqwk Landing Light - On Strobes - As Req. Time - Note Brakes - Release <i>Abort Plan - Ready!</i>	CRUISE	Landing Light - On Autopilot - Off Seat Belt / Harness Mixture - Best Power Carb Heat - On Fuel - Both Flaps - As Req.	ELT - Verify Silent Avionics - Off Mixture - Full Lean Mags - Off Master - Off Fuel - Left or Right Lights - Off Hobbs / TachTime Control Lock Chocks Tie Downs Pitot Cover Baggage Door Cabin Doors
INTERIOR				LANDING	Close Flight Plan
Passenger Brief Hobbs / Tach Time Circuit Breakers Alternate Static Brakes - Pedal Test			Power Mixture Instruments H.I. To Compass	Flaps - 40° <i>Or As Req.</i> Speed * 60 (69) G. U. M. P. F. S. GO AROUND <i>Power - Full Carb Heat - Off Positive Rate Climb Flaps - Retract Slowly</i>	* Adjust Speed As Needed For Conditions

X Wind • Max Demo'd - 15 (17)	Vs ₀ • Stall with flaps - 41 (47)	Best Glide (1976) (2000 lbs) - 61 (70)	Vno • Max Struct. Cruise - 128 (147)
Vr • Rotation Speed - 55 (63)	Vs • Stall without flaps - 47 (54)	Best Glide (1976) (Full Gross) - 65 (75)	Vfe • Flaps Extended - 85 (98)
Vx • Best Angle Climb - 64 (74)	Best Glide (2000 lbs) - 65 (75)	Va • Max Abrupt Ctrl (2000 lbs) - 90 (104)	Vne • Never Exceed - 160 (184)
Vy • Best Rate Climb - 78 (90)	Best Glide (Full Gross) - 70 (80)	Va • Max Abrupt (Full Gross) - 97 (112)	

	KNOTS (MPH)	FLAPS °	- NOTES -
<i>172M - Speeds May Vary Slightly Depending On Year. (IAS & CAS)</i>			
DEPARTURE			
Rotation *	55 (63)	0	Short Field w/Obstacle: 0° Flaps. Climb 59 (68) Until Clear. Short w/o Obstacle or Soft Field: 10° Flaps.
Best Angle Climb	64 (74)	0	
Best Rate Climb	78 (90)	0	
CRUISE (TAS - 5,000')			
Economy	99 (114)	0	2300 RPM - 6.4 GPH - 54%
Normal	108 (124)	0	2450 RPM - 7.1 GPH - 63%
Maximum	117 (135)	0	2625 RPM - 8.3 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 – 70 KIAS (80 MPH) (Full Gross Weight)
 BEST GLIDE (1976) – 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 – 70 KIAS (80 MPH) (Full Gross Weight)
 BEST GLIDE (1976) – 65 KIAS (75 MPH) (Full Gross Weight)
 CARB HEAT – ON (Also Supplies Alternate Air)
 NOTE WIND DIRECTION & VELOCITY
 PICK LANDING SITE
 FUEL SELECTOR – CHECK / SWITCH / BOTH (Note Gauges)
 MIXTURE – FULL RICH
 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 – IDLE MIXTURE 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 OR AS REQUIRED
 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

EXCESSIVE RATE OF CHARGE: Over Voltage Warning Light Will Illuminate If Reaches Approx. 16 Volts. To Reactivate, Turn Both Sides Of The Master Switch Off / Then On Again. If Light Comes On Again, Terminate Flight A.S.A.P.

INSUFFICIENT RATE OF CHARGE: Nonessential 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 172 M (Lycoming: O-320-E2D, 150HP)

* **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) / 80 (Red)
Usable Fuel: 38 Gallons (48 L.R Tanks)
Oil Capacity: 8 Quarts (Minimum 6)
Electrical: 12-14 VOLT / 60 AMP
Tire Pressure: Nose-31 PSI / Main - 29 PSI (5.00 x 5)
Tire Pressure: Nose-26 PSI / Main - 29 PSI (6.00 x 6)