

INITIAL	START	RUN-UP	TAKEOFF	DESCENT	AFTER LANDING
Weather & Den. Alt. Weight & Balance Performance Req. Flight Plan - File Papers - A.R.O.W. Flaps - Extend Master - On Pitot Heat - Test Stall Indicator - Test Lights - Int. / Ext. Fuel Gauges - True Master - Off EXTERIOR SUMMARY <i>After Thorough Grounding of Check</i> Fuel Quantity Fuel Quality Caps/Drains/Vents Engine / Oil / Belt Prop / Air Intake Exhaust System Surfaces & Controls Pitot & Static Ports Gear / Tires / Brakes Antennas Ties/Chocks/Towbar Final Walk Around INTERIOR Flaps - Up Passenger-Load/Brief Hobbs / Tach Time Fuel - Proper Tank Circuit Breakers Alternate Static Pitot / Static - Drain/Close ELT - Armed	Seat Track/Back-Lock Avionics - Off Autopilot - Off Carb Heat - Off Mixture - Full Rich Throttle - Slight Prime Brakes Prop - Clear Master - On Beacon - On Fuel Pump - On Mags - Start Oil Pressure Fuel Pump - Off Fuel Pressure Lights - As Req. Mixture - As Req. PRE-TAXI / TAXI Seat Belt / Harness Heat / Vent / Defrost Avionics - On ATIS / AWOS Altimeter XPDR - Alt + Sqwk ADS-B - On Radio - Test Taxi Light - As Req. Brakes - Test Attitude Indic. - Test Turn Coord. - Test H.I. To Compass - Test	Brakes Fuel - Proper Tank Trim - Takeoff Flight Controls Annunciator Lights Instruments Mixture - Best Power Primer - In & Lock 2000 RPM Mags - Test R-L Both Carb Heat - Test Vacuum Amps / Volts Fuel Pressure Oil Pressure Oil Temperature Idle - Check Closed Friction Lock PRE-TAKEOFF Flaps - 0°-25° Mixture - Best Power Fuel Pump - On Carb Heat - Off <i>Or As Req.</i> Pitot Heat - As Req. XPDR - Alt + Sqwk Heading Bug Doors / Windows Strobes - As Req. Landing Light - On Time - Note Brakes - Release <i>Abort Plan - Ready!</i>	Full Throttle 2275 RPM <i>Minimum</i> Oil Pressure Rotate - *48 (55) Vy - 75 (86) Flaps - Up CLIMB 75-87 (86-100) Power Mixture Instruments Taxi / Land Light - Off Flight Plan - Open Fuel Pump - Off <i>After Reaching Desired Altitude</i> CRUISE Power Mixture Instruments Fuel - Proper Tank <i>Fuel Pump On While Switching</i>	Mixture - Richen Carb Heat - As Req. Fuel - Proper Tank Altimeter Instruments PRE-LANDING Brakes - Pedal Test Landing Light - On Seat Belt / Harness Mixture - Best Power Carb Heat - As Req. Fuel Pump - On Fuel - Proper Tank Flaps - As Req. LANDING Flaps - 40° <i>Or As Req.</i> * 59 (68) G.U.M.P.F.S. GO-AROUND Power - Full Carb Heat - Off Positive Rate Climb Flaps - Retract Slowly	Flaps - Up Carb Heat - Off Fuel Pump - Off Strobes - Off Landing Light - Off Taxi Light - As Req. Pitot Heat - Off Mixture - As Req. Trim - Takeoff XPDR - Alt + Sqwk SECURING ELT - Verify Silent Avionics - Off Mixture - Full Lean Mags - Off Master - Off Lights - Off Hobbs / Tach Time Secure Yoke Chocks Tie Downs Pitot Cover Cabin Door Close Flight Plan * Adjust Speed As Needed For Conditions. Check Your POH For Notes, Cautions Plus Manufacturer Test Revisions.

Vr • Rotation -	48 (55)	Vs0 • Stall With Flaps -	41 (47)	Va • Max Abrupt Ctl (1650 lbs) -	100 (115)	Vne • Never Exceed -	155 (178)
Vx • Best Angle Climb -	66 (76)	Vs • Stall w/o Flaps -	50 (58)	Va • Max Abrupt (2150 lbs) -	114 (131)	Vfe • Flaps Extended -	101 (116)
Vy • Best Rate Climb -	75 (86)	Best Glide (1650 lbs) -	60 (69)	Vno • Max Structural Cruise -	124 (143)	X Wind • Max Demo'd -	17 (20)
		Best Glide (2150 lbs) -	69 (79)				

	KNOTS (MPH)	FLAPS °	NOTES
DEPARTURE			
Rotation *	48 (55)	0	Hot Start: Master - On, Fuel Pump - On, Mixture - Idle Cutoff Then Rich After Engine Starts.
Best Angle Climb	66 (76)	0	Short Field: 25° Flaps. Rotate *50 (58) Then 66 (76) Until Clear
Best Rate Climb	75 (86)	0	Soft Field: 25° Flaps. Rotate As Early As Possible.
CRUISE TAS-5,000'			
Economy	85 (98)	0	2230 RPM - 6.2 GPH - 55%
Normal	94 (108)	0	2370 RPM - 7.3 GPH - 65%
Maximum	104 (120)	0	2520 RPM - 8.4 GPH - 75%
ARRIVAL			
Approach	70 (81)	10-25	1500 RPM (Initially)
Short Final *	59 (68)	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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(IF UNABLE TO ABORT TAKEOFF)

POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL

- BEST GLIDE – 69 KIAS (79 MPH) *Full Gross Weight*
- FUEL SELECTOR – OFF
- MIXTURE – FULL LEAN / IDLE CUTOFF
- FLAPS – DOWN
- MASTER & MAGS – OFF *UNLATCH DOOR
PROTECT BODY*

POWER LOSS IN FLIGHT

- BEST GLIDE – 69 KIAS (79 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 *Note Gauges*
- FUEL PUMP – ON
- 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*
- ELT – ON
- MIXTURE – FULL LEAN / IDLE CUTOFF
- FUEL SELECTOR – OFF
- SEATBELTS / HARNESS
- FLAPS – AS NEEDED *Full Flaps When Field Assured*
- MASTER & MAGS – OFF
- UNLATCH DOOR
- PROTECT BODY

ELECTRICAL FIRE IN FLIGHT

- ALL ELECTRICAL DEVICES + MASTER OFF *Mags – On*
- CABIN HEAT & AIR – OFF
- IF FIRE OUT – MASTER ON ONLY IF CRITICAL *Vents – Open*
- THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME
- RESET CIRCUIT BREAKER ONLY IF CRITICAL

ENGINE FIRE IN FLIGHT

- THROTTLE – CLOSED
- MIXTURE – FULL LEAN / IDLE CUTOFF
- FUEL SELECTOR – OFF
- MASTER – OFF
- CABIN HEAT & AIR – OFF *Vents – Open*
- 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 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

ALTERNATOR FAILURE: Reduce Electrical Load / Verify C.B. In. Attempt To Reset Overvoltage Relay – Turn ALT Switch Off For One Second, Then On.

If Ammeter Continues To Indicate Zero Output, Or If Alternator Will Not Remain Reset, Turn Off ALT Switch, Maintain Minimum Electrical Load And Land ASAP. (BATTERY ONLY)

Local Frequencies:

UNICOM: 122.7 122.725 122.8 122.975 123.0 123.05
 MULTICOM: 122.9 (CTAF) 122.75 (Air To Air)
 FSS: 122.2
 GROUND: 121.3 123.5 121.7 123.9
 EMERGENCY: 121.5

RADIO OUI! CHECK CIRCUIT BREAKERS & VOLUME RECYCLE ALTERNATOR SWITCH IF IFR & STILL OUT, SET XPDR TO 7600. (Suggested For VFR If In B, C, D Airspace)

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

Piper Cherokee 140, PA-28-140 Lycoming: O-320-E3D, 150 HP

- * Empty Weight: LBS (Specific Plane Weight)
- * Max. Useful Load: LBS (Including Fuel @ 6 lbs / gal)
- Max. Baggage Area: 100 LBS (S/N 28-20000 - S/N 28-20939)
- Max. Baggage Area: 200 LBS (S/N 28-20940 & On)
- Max. T.O. Weight: 1950 LBS (S/N 28-20000 - S/N 28-20939)
- Max. T.O. Weight: 2150 LBS (S/N 28-20940 & On)

- Fuel Type: 100 LL (Blue) / 100 (Green) / 80/87 (Red)
- Usable Fuel: 49.5 Gallons
- Oil Capacity: 8 Quarts (POH Minimum 2, Recommend 6)
- Electrical: 12-14 VOLT / 60 AMP
- Tire Pressure: Nose - 24 PSI / Main - 24 PSI