

| 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 2280 RPM (Min) Oil Pressure Rotate * 55 (63) Vy - 73 (84) Flaps - Up CLIMB 70-80 (81-92) Power Mixture Instruments Taxi / Land Light - Off Flight Plan - Open | Mixture - Richen Fuel - Both Carb Heat - As Req. ATIS / AWOS Altimeter - Set Instruments H.I. To Compass PRE-LANDING Landing Light - On Autopilot - Off Seat Belt / Harness Mixture - Best Power Carb Heat - On Fuel - Both Flaps - As Req. LANDING Flaps - 40° Or As Req. Speed * 60 (69) G.U.M.P.F.S. GO AROUND Power - Full Carb Heat - Off Positive Rate Climb Flaps - Retract Slowly | Flaps - Up Carb Heat - Off Strobes - Off Landing Light - Off Taxi Light - As Req. Pitot Heat - Off Mixture - As Req. Trim - Takeoff XPDR - STBY SECURING ELT - Verify Silent Avionics - Off Mixture - Full Lean Mags - Off Master - Off Fuel - Left or Right Lights - Off Hobbs / Tach Time Control Lock Chocks Tie Downs Pitot Cover Baggage Door Cabin Doors Close Flight Plan |
| EXTERIOR SUMMARY <i>After Geographical Check</i> 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 | PRE-TAXI / TAXI 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 | PRE-TAKEOFF 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 <i>Abort Plan - Ready!</i> | CRUISE Power Mixture Instruments H.I. To Compass | | |
| INTERIOR Passenger Brief Hobbs / Tach Time Circuit Breakers Alternate Static Brakes - Pedal Test | | | | | |

| | | | |
|---|--|--|--|
| 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. |
| Best Angle Climb | 59 (68) | 0 | '77-'79: Short w/Obstacle: 0° Flaps - 59 (68) |
| Best Rate Climb | 73 (84) | 0 | '77-'79: Short w/o Obstacle: 0° Flaps - 55 (63) |
| CRUISE (IAS-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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VERTICAL SCALE = NAUTICAL MILES PER INCH: WAC = 14 SEC = 7 TAC = 3.5 NOS = 12 JEPP = 15 ELA = 12
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1. Use latest Weight & Balance sheet
2. Use Supplemental Flight Manual when flying N739FY
3. Attach to factory POH

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