

| INITIAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | START                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RUN-UP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | TAKEOFF                                                                                                                                                                                                                                                                                                                                                                                                           | DESCENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AFTER LANDING                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 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<br><br><b>EXTERIOR SUMMARY</b><br><i>After Geographical Check</i><br><br>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 Baggage Door Final Walk Around<br><br><b>INTERIOR</b><br><br>Flaps – Up Passenger-Load/Brief Hobbs / Tach Time Fuel – Proper Tank Circuit Breakers Alternate Static ELT – Armed Brakes – Pedal Test | Seat Track/Back–Lock Avionics – Off Autopilot – Off AC – Off Prop – High RPM Throttle – Slight Brakes Prop – Clear Master/Alt – On Beacon – On Fuel Pump – On Mixture – Rich/Prime Mixture – Lean Mags – Start Mixture – Full Rich Oil Pressure Fuel Pump – Off Fuel Pressure Lights – As Req. Mixture – As Req.<br><br><b>PRE-TAXI / TAXI</b><br><br>Seat Belts / Harness Heat / Vent / Defrost Avionics – On / Set ATIS / AWOS Altimeter – Set XPDR – Alt + Sqwk ADS-B – On Radio – Test Taxi Light – As Req. Brakes – Test Attitude Indic. – Test Turn Coord. – Test H.I./Compass–Test | Brakes – Set Fuel – Proper Tank Trim – Takeoff Flight Controls Instruments Annunci. Panel Mixture – Best Power<br><br>2000 RPM Mags (R&L) – Test Prop – Cycle Vacuum Amps / Volts Oil Pressure Oil Temperature Alternate Air Idle – Check Closed Friction Lock<br><br><b>PRE-TAKEOFF</b><br><br>Flaps – 10°-25° Prop – High RPM Mixture – Best Power Fuel Pump – On AC – Off Alter. Air – Closed Pitot Heat – As Req. XPDR – Alt + Sqwk Heading Bug Doors / Windows Landing Light – On Strobes – On Time – Note Brakes – Release<br><br><i>Abort Plan – Ready!</i> | Full Throttle 2700 RPM (Max) Manifold Pressure Oil Pressure Rotate * 58 (67) Vy – 89 (102) Flaps – Up<br><br><b>CLIMB</b><br><br>100 (115) Throttle – 25" MP Prop – 2500 RPM Mixture – As Req. Fuel Pump – As Req. Instruments Taxi/Land Light – Off Flight Plan – Open<br><br><b>CRUISE</b><br><br>Throttle Prop Mixture Fuel Pump – Off Instruments H.I. To Compass Fuel – Proper Tank (Fuel Pump On To Switch) | Throttle – MP As Req. Mixture – Richen Fuel – Proper Tank ATIS / AWOS Altimeter – Set Instruments H.I. To Compass<br><br><b>PRE-LANDING</b><br><br>Landing Light – On Autopilot – Off AC – Off Seat Belts / Harness Mixture – Best Power Fuel Pump – On Fuel – Proper Tank Flaps – As Req.<br><br><b>LANDING</b><br><br>Flaps – 40° Or As Req. Prop – High RPM Speed * 75 (86)<br><br>G. U. M. P. F. S.<br><br><b>GO AROUND</b><br>Power – Full Positive Rate Climb Flaps – Retract Slowly | Flaps – Up Fuel Pump – Off Strobes – Off Landing Light – Off Taxi Light – As Req. Pitot Heat – Off Mixture – As Req. Trim – Takeoff XPDR – Alt + Sqwk<br><br><b>SECURING</b><br><br>ELT – Verify Silent Avionics – Off AC – Off Throttle – Retard Mixture – Full Lean Mags – Off Master – Off Lights – Off Hobbs / Tach Time Secure Yoke Chocks Tie Downs Pitot Cover Baggage Doors Cabin Doors<br><br><b>Close Flight Plan</b><br><br>* Adjust Speed As Needed For Conditions |

|                                 |                                    |                                             |                               |
|---------------------------------|------------------------------------|---------------------------------------------|-------------------------------|
| Vr • Rotation Speed – 58 (67)   | Vs0 • Stall with flaps – 47 (54)   | Va • Max Abrupt Ctrl (2400 lbs) – 110 (127) | Vfe • Full Flaps – 109 (125)  |
| Vx • Best Angle Climb – 79 (91) | Vs • Stall w/o flaps – 54 (62)     | Va • Max Abrupt (Full Gross) – 131 (151)    | X Wind • Max Demo'd – 17 (20) |
| Vy • Best Rate Climb – 89 (102) | Best Glide (2400 lbs) – 73 (84)    | Vno • Max Structural Cruise – 149 (171)     |                               |
|                                 | Best Glide (Full Gross) – 87 (100) | Vne • Never Exceed – 192 (221)              |                               |

|                            | KNOTS (MPH) | FLAPS ° | – NOTES –                                                                        |
|----------------------------|-------------|---------|----------------------------------------------------------------------------------|
| <b>DEPARTURE</b>           |             |         |                                                                                  |
| Rotation *                 | 58 (67)     | 10      | Short Field: 25° Flaps. Rotate* 55-62 (63-71) Then 79 (91) Until Clear Obstacles |
| Best Angle Climb           | 79 (91)     | 0       |                                                                                  |
| Best Rate Climb            | 89 (102)    | 0       | Soft Field: 25° Flaps                                                            |
| <b>CRUISE</b> (TAS-5,000') |             |         |                                                                                  |
| Economy                    | 119 (137)   | 0       | 21.5" MP – 2100 RPM – 14.2 GPH – 55%                                             |
| Normal                     | 132 (152)   | 0       | 22.5" MP – 2300 RPM – 16.1 GPH – 65%                                             |
| Maximum                    | 142 (163)   | 0       | 24.4" MP – 2400 RPM – 18.0 GPH – 75%                                             |
| <b>ARRIVAL</b>             |             |         |                                                                                  |
| Approach                   | 85 (98)     | 10-25   | 17" MP (Initially)                                                               |
| Short Final *              | 75 (86)     | 40      | Prop – High 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 – 87 KIAS (100 MPH) (Full Gross Weight)  
 FUEL SELECTOR – OFF  
 MIXTURE – FULL LEAN / IDLE CUTOFF  
 FLAPS – DOWN  
 MASTER & MAGS – OFF (Unlatch Door)

## POWER LOSS IN FLIGHT

BEST GLIDE – 87 KIAS (100 MPH) (Full Gross Weight)  
 NOTE WIND DIRECTION & VELOCITY  
 PICK LANDING SITE  
 MIXTURE – FULL RICH  
 FUEL SELECTOR – CHECK / SWITCH (Note Gauges)  
 FUEL PUMP – ON  
 ALTERNATE AIR – ON  
 MAGNETOS – CHECK ALL  
 MASTER – ON

## IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE  
 PROP – LOW RPM (Full Aft)  
 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(S) 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 – 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  
 DEICING EQUIPMENT – ON  
 CABIN HEAT & DEFROST – MAXIMUM  
 STRONGLY CONSIDER 180° TURN  
 ATTAIN HIGHER OR LOWER ALTITUDE  
 INCREASE ENGINE AND PROP 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 A.S.A. Practical. (BATTERY ONLY)

**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)  
**F.S.S.:** 122.000 To 122.675. **Most Common - 122.2**  
**EMERGENCY:** 121.5

| 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 Six/300 PA-32-300 (Lycoming IO-540, 300 HP)

\* **Empty Weight:**  LBS (Specific Plane Weight)  
 \* **Max. Useful Load:**  LBS (Including Fuel @ 6 lbs/gal)  
**Max. Baggage Areas:** 200 LBS (100 Each-Included In Useful Load)  
**Max. T.O. Weight:** 3400 LBS

If 7th Seat Installed Weight Over 3112 lbs Must Be Fuel Weight Only

**Fuel Type:** 100LL (Blue) / 100 (Green)  
**Usable Fuel:** 83.6 Gals ('77-'78) / 94 Gals ('79 up)  
**Oil Capacity:** 12 Quarts (Minimum 4)  
**Electrical:** 12-14 VOLT / 60 AMP ALT  
**Tire Pressure:** Nose - 30 PSI / Main - 38 PSI