

| INITIAL                                                                                                                                                                                                                                                                                                                                                                    | START                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | RUN-UP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TAKEOFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DESCENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | AFTER LANDING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| Weather & Den. Alt.<br>Weight & Balance<br>Performance Req.<br>Flight Plan - File<br>Papers - A.R.O.W.<br>Electrical / Mags - Off<br>Mixtures - Full Lean<br>Control Lock<br>Gear Lever - Down<br>BATT - On<br>Gear Lights - 3 Green<br>Flaps - Down<br>Pitot/Stall/Vent Heat<br>Transfer Pump - Listen<br>Lights - Int. / Ext.<br>Fuel Gauges - True<br>BATT - Off        | Seat Track/Back-Lock<br>Avionics - Off<br>Emer Alt Fld Switch-Off<br>Autopilot - Off<br>Prop Sync - Off<br>Fuel Selector - Mains<br>Alternate Air - In<br>Brakes<br><b>#1 Engine Start</b><br>Mixture - Full Rich<br>Prop - High RPM<br>Throttle - 1"<br>BATT / ALT - On<br>Beacon - On<br>Mags - On<br>Prop - Clear<br>Starter - Press<br>Primer - As Req.<br>Fuel Pump - Low<br>Oil Pressure<br>>1000 RPM<br><b>#2 Repeat Engine Start</b><br>Lights - As Req.<br>Mixture - As Req. | Brakes<br>Elec. Trim/Autopilot<br>Trim - Takeoff<br>Flight Controls<br>Instruments<br>Mixture - Full Rich<br>1700 RPM<br>Mags-Test R-L-Both<br>Prop - Feather Test<br>To 1200 RPM<br>Suction<br>Amps / Volts<br>Alternators<br>Oil Pressure<br>Oil Temperature<br>Idle - Check Closed<br>Friction Lock<br><b>PRE-TAKEOFF</b><br>Flaps - 0°- 15°<br>Props - High RPM<br>Mixture - Full Rich<br>Fuel Pumps - Low<br>Prop Sync - Off<br>XPDR - Alt + Sqwk<br>Heading Bug<br>Doors / Windows<br>Pitot Heat - As Req.<br>Deice Equip. - As Req.<br>Landing Light - On<br>Strobes - On<br>Time - Note<br>Brakes - Release<br><b>ABORT PLAN - READY!</b> | Full Throttle<br>2625 RPM Max<br>Oil Pressure<br>Rotate - * 78 (90)<br>Lift-off - 90 (104)<br>Vy - 107 (123)<br>Gear - Up<br>Flaps - Up<br>Yaw Damper - On<br><b>CLIMB</b><br>115-130 (132-150)<br>Throttles - 24" MP<br>Props - 2450 RPM<br>Mixture - As Req.<br>Fuel Pumps - As Req.<br>On Above 12,000'<br>Prop Sync - On<br>Instruments<br>Taxi/Land Light - Off<br>Flight Plan - Open<br><b>CRUISE</b><br>Throttles<br>Props<br>Mixture<br>Fuel Pumps - As Req.<br>Instruments<br>Oxygen<br>Fuel - Mains<br>1st Hr. - w/40 GAL AUX<br>90 Min. - w/63 GAL AUX<br>See Manual If Wing Locker Tanks<br>Pumps Low / Mixture Rich<br>When Switching. | Power - As Req.<br>Mixture - Richen<br>Alternate Air - In<br>Fuel Selector - Mains<br>Defroster<br>ATIS / AWOS<br>Altimeter<br>Instruments<br><b>PRE-LANDING</b><br>Brakes - Pedal Test<br>Landing Light - On<br>Autopilot - Off<br>Yaw Damper - Off<br>Prop Sync - Off<br>Gas...Mains/Pumps-Low<br>Undercarriage...Down<br>Mixture.....Full Rich<br>Props.....High RPM<br>Flaps.....As Req.<br>Seatbelts...& Harness<br><b>LANDING</b><br>Gear - Down 3 Green<br>Flaps - 35° Or As Req.<br>Props - High RPM<br>* 89 (102)<br><b>GO-AROUND</b><br>Power - Full<br>Flaps - 15°<br>Positive Rate Climb<br>Gear - Up<br>Cowl Flaps - Open<br>Flaps - Up | Flaps - Up<br>Fuel Pumps - As Req.<br>Strobes - Off<br>Landing Light - Off<br>Taxi Light - As Req.<br>Deice Equip. - Off<br>Pitot Heat - Off<br>Mixture - As Req.<br>Trim - Takeoff<br>XPDR - Alt + Sqwk<br><b>SECURING</b><br>ELT - Verify Silent<br>Avionics - Off<br>Fuel Pumps - Off<br><b>1st Started Engine</b><br>Mixture - Full Lean<br><b>Running Engine</b><br>>1000 RPM Suction<br>Guage CK<br>Mixture - Full Lean<br>Fuel Selectors - Off<br>Mags - Off<br>BATT / ALT - Off<br>Lights - Off<br>Hobbs / Tach Time<br>Control Lock<br>Chocks<br>Tie Downs<br>Pitot Cover<br>Baggage Doors<br>Cabin Doors<br><b>Close Flight Plan</b><br>* Adjust Speed<br>As Needed For<br>Conditions.<br>Check Your POH<br>For Notes / Cautions<br>Plus Manufacturer<br>For Revisions. |
| <b>EXTERIOR SUMMARY</b><br>After Thorough Visual Inspection<br>Fuel Quantity<br>Fuel Quality<br>Caps / Drains / Vents<br>Engines / Oil / Belt<br>Props / Air Intakes<br>Exhaust Systems<br>Surfaces & Controls<br>Pitot & Static Ports<br>Deice Equipment<br>Gear / Tires / Brakes<br>Antennas<br>Wing Lockers<br>Baggage Doors<br>Ties/Chocks/Towbar<br>Final Walk Around | <b>PRE-TAXI / TAXI</b><br>Seat Belts / Harness<br>Flaps - Up<br>Heat/Vent/Defrost<br>Deice - Electric Test<br>Avionics - On<br>ATIS / AWOS<br>Altimeter<br>XPDR - Alt + Sqwk<br>ADS-B - On<br>Radio - Test<br>Taxi Light - As Req.<br>Brakes-Release/Test<br>Crossfeed - Test<br>Attitude Indic.-Test<br>Turn Coord. - Test<br>HSI To Compass-Test                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>INTERIOR</b><br>Passenger Brief<br>Hobbs / Tach Time<br>Circuit Breakers<br>Oxygen                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Vr • Rotation - 78 (90)<br>Vx • Best Angle Climb - 81 (93)<br>Vxse • Best Angle 1 Eng - 93 (107)<br>Vy • Best Rate Climb - 107 (123)<br>Vyse • Best Rate 1 Eng - 102 (117)                                                                                                                                                                                                 | Vso • Stall With Flaps - 62 (71)<br>Vs • Stall w/o Flaps - 74 (85)<br>Best Glide (4400 lbs) - 87 (100)<br>Best Glide (Full Gross) - 96 (110)<br>Vmca • Min. Ctrl. 1 Eng - 75 (86)                                                                                                                                                                                                                                                                                                     | Vsse • 1 Eng. Intentional - 90 (104)<br>Va • Max Abrupt (4400 lbs) - 135 (155)<br>Va • Max Abrupt (Full Gross) - 148 (170)<br>Vno • Max Structural Cruise - 183 (210)<br>Vne • Never Exceed - 224 (258)                                                                                                                                                                                                                                                                                                                                                                                                                                           | Vle • Max Gear Extended - 140 (161)<br>Vlo • Max Gear Operate - 140 (161)<br>Vfe • 15° Flaps - 160 (184)<br>Vfe • Full Flaps - 140 (161)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|                         | KNOTS (MPH) | FLAPS ° | - NOTES -                                         |
|-------------------------|-------------|---------|---------------------------------------------------|
| <b>DEPARTURE</b>        |             |         | Aux Fuel Pump Procedures Assume MEB-88-3, Rev. 2. |
| Rotation *              | 78 (90)     | 0       |                                                   |
| Best Angle Climb        | 81 (93)     | 0       |                                                   |
| Best Rate Climb         | 107 (123)   | 0       |                                                   |
| <b>CRUISE</b> TAS-7500' |             |         |                                                   |
| Economy                 | 165 (190)   | 0       | 21.0" Hg - 2200 RPM - 132 PPH - 55%               |
| Normal                  | 177 (204)   | 0       | 22.0" Hg - 2300 RPM - 144 PPH - 64%               |
| Maximum                 | 186 (214)   | 0       | 22.0" Hg - 2450 RPM - 159 PPH - 71%               |
| <b>ARRIVAL</b>          |             |         |                                                   |
| Approach                | 110 (127)   | 15      | 17" MP - (Initially)                              |
| Short Final *           | 89 (102)    | 35      | Props - High RPM                                  |

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Specs Are Approximate Because Of Environment & Plane Model / Year Variables. Specs Are In: LBS, IAS/CAS, Sea Level, Standard Day, Normal Category, Max Gross Wt., No Wind, "Best Power", New Engine. ( ) = MPH.  
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(IF UNABLE TO ABORT TAKEOFF)

### POWER LOSS DURING TAKEOFF

THROTTLES – CLOSE BOTH IMMEDIATELY

BRAKES – AS REQUIRED / STOP STRAIGHT AHEAD

\* IF INSUFFICIENT RUNWAY REMAINS FOR STOPPING

\* FUEL SELECTORS – OFF

\* BATTERY / ALTERNATOR & MAGS – OFF

UNLATCH DOORS

PROTECT BODY

### ONE ENGINE IMMEDIATELY AFTER TAKEOFF

>90 KIAS Also One Engine Go-Around-Avoid If Flaps >15°

MAINTAIN SAFE AIRSPEED

Quality Landing Area Ahead?

MIXTURE / PROPS / THROTTLES – FULL FORWARD

GEAR / FLAPS – UP

IDENTIFY

VERIFY – CLOSE THROTTLE (Inoperative Engine)

PROP – FEATHER (Inoperative Engine)

ACCELERATE TO 102 KIAS (117 MPH)

5° Bank & 1/2 Ball  
To Good Engine

### ONE ENGINE IN FLIGHT

CONTROL AIRPLANE – MAINTAIN SAFE AIRSPEED

INOPERATIVE ENGINE – IDENTIFY

OPERATIVE ENGINE – ADJUST

Idle Foot = Idle Engine

THROTTLE – AS NEEDED TO MAINTAIN CONTROL

AIR START - UNFEATHERING | FUEL - MAINS | FUEL PUMP - HIGH (If PUMP FAIL) |

MIXTURE | OIL PRESSURE & TEMP | BATT | ALT | MAGS - ON |

#### Prop: With Accumulators

Throttle 1-Inch

Prop Forward

When Windmill Retard To  
Detent (@1000 RPM),

Then Advance Prop Slowly To  
High, CHT -200°

#### Prop: Without Accumulators

Throttle 1-Inch

Prop Forward of Detent

Press Starter Button

Activate Primer

If No Start: Mags-Off, Mixture-Idle,  
Full Throttle, Start For A Few Revolutions,  
Then Repeat Air Start.

Warm Engine At 15"

### IF NO RESTART - SECURE DEAD ENGINE

THROTTLE - RETARD | PROP - FEATHER | MIXTURE - IDLE CUTOFF |

FUEL PUMP - OFF | FUEL - OFF | MAGS - OFF | ALT - OFF | COWL FLAP - CLOSE |

FUEL PUMP – OPERATIVE ENGINE – AS REQUIRED Consider Xfeed

### ONE ENGINE LANDING

FUEL SELECTOR – MAIN TANK / FUEL PUMP – LOW

APPROACH SPEED – 94 KIAS (108 MPH)

With Excess Altitude

EXTEND GEAR & FLAPS – WHEN FIELD ASSURED

SHORT FINAL – <89 KIAS (102 MPH)

### BOTH ENGINES OUT / LANDING

MAINTAIN BEST GLIDE – 96 KIAS (110 MPH)

Full Gross

PROPS – FEATHER w/ Starter, Rotate To Horizontal If Time Permits

MIXTURE – FULL LEAN / IDLE CUTOFF

FUEL SELECTORS – OFF

SQUAWK 7700

DECLARE EMERGENCY

TWR, APP, Unicom, 121.5

SEATBELTS / HARNESS

FLAPS – AS NEEDED

Full Flaps When Field Assured

GEAR – DOWN

Up If Very Rough or Soft Terrain

MAGS / BATTERY / ALTERNATOR – OFF

AIRSPEED – 94 KIAS (108 MPH)

With Hard-Smooth Surface

UNLATCH DOORS & PROTECT BODY

### ELECTRICAL FIRE IN FLIGHT

ALL ELECTRICAL DEVICES + BATTERY – OFF Pull CB's, Mags – On

CABIN HEAT & AIR – OFF

IF FIRE OUT - MASTER ON ONLY IF CRITICAL Vents & Wemacs – Open

THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME

RESET CIRCUIT BREAKER(S) ONLY IF CRITICAL

### ENGINE FIRE IN FLIGHT

FUEL PUMPS – OFF / FUEL SELECTOR – OFF TO AFFECTED ENGINE

CLOSE THROTTLE / FEATHER PROP – TO AFFECTED ENGINE

MIXTURE – FULL LEAN / IDLE CUTOFF

CABIN HEAT & AIR – OFF / ALTERNATOR & MAGS – OFF

INCREASE AIRSPEED TO EXTINGUISH – LAND ASAP

### ALTERNATOR/S FAILURE

SINGLE FAILURE – REDUCE LOAD, IF CB TRIPPED - ALT- OFF, RESET CB,

ALT-ON. IF REOPENS, ALT- OFF. IF DOESN'T; MONITOR OUTPUT.

IF COMPLETE LOSS, CHECK FIELD FUSE & REPLACE IF NECESSARY.

DUAL FAILURE – REDUCE LOAD, IF CB TRIPPED - BOTH ALTs OFF, RESET

CBs, LEFT ALT- ON, MONITOR VOLTS. IF REOPENS, TURN OFF & REPEAT FOR

RIGHT ALT. IF REOPENS LAND ASAP. IF CBs NOT TRIPPED, ALTs OFF, CHECK

FIELD FUSES & REPLACE AS REQUIRED. IF STILL INOP, CHECK LT & RT ALT AS

ABOVE. IF REMAINS INOP-ALTs OFF. TURN ON EMERG. ALT FIELD SWITCH.

CHECK EACH ALT. IF STILL INOP, TURN OFF ALTs -LAND ASAP.

### ICING

PITOT HEAT / DEICING EQUIPMENT – ON

ALTERNATE AIR / STATIC SOURCE – AS NEEDED

CABIN HEAT & DEFROST – MAXIMUM

STRONGLY CONSIDER 180° TURN

ATTAIN HIGHER OR LOWER ALTITUDE

INCREASE ENGINE & PROP SPEED

FULL FLAPS NOT RECOMMENDED FOR LANDING

LAND FASTER AS NEEDED

### MANUAL GEAR EXTENSION

REDUCE AIRSPEED BELOW 140 KIAS (161 MPH)

CIRCUIT BREAKER – PULL

If Not Tripped

LANDING GEAR LEVER – NEUTRAL

Center Position

TILT PILOT'S SEAT FULL AFT

Or Raise

EXTEND & LOCK HANDCRANK

ROTATE CRANK (CLOCKWISE) 4 TURNS PAST LIGHTS ON Approx. 52 Turns

VERIFY GEAR LIGHTS & WARNING HORN Push Button & Stow Crank

| 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 310 Q (Continental: 10-470-VO, 260 HP)

\* Empty Weight:

LBS (Specific Plane Weight)

\* Max. Useful Load:

LBS (Including Fuel @ 6 lbs/gal)

Max. Wing Lockers: 240 LBS

Max. Aft Bag Area: 200 LBS (Station 96.0)

Max. Aft Bag Area: 160 LBS (Station 124.0)

Max. T.O. Weight: 5300 LBS

Fuel Type: 100LL (Blue) / 100 (Green)

Usable Fuel: 100 Gallons Standard Tanks

140 w/Opt. 40 Gal. Aux Tanks

163 w/Opt. 63 Gal. Aux Tanks

203 w/Opt. 63 Gal. Aux. Tanks & Wing Locker Tanks

Oil Capacity: 13 Quarts Per Engine (Minimum 9)

Electrical: 24-28 VOLT / 50-100 AMP

Tire Pressure: Nose - 40 psi / Mains - 60 psi