

INITIAL	START	RUN-UP	TAKEOFF	DESCENT	AFTER LANDING
Weather & Den. Alt. Weight & Balance Performance Req. Flight Plan - File Papers - A.R.O.W. Release Controls Ignition - Off All Electrical - Off Fuel Valve - On Fuel Gauges - True Seat Belts - Ck/Secure ELT - Arm Master - On Lights - Int. / Ext. Master - Off	Front Seat - Adj/Secure Avionics - Off Alternate Air - Cold Prop - High RM Brakes - Set Master - On Beacon - On Mixture - Full Rich Throttle - 1/4 - 1/2" Fuel Pump <i>On Until Press. Then Off</i> Mixture - Idle / Off Throttle - 1/2 - 1" Mags - On / Both Prop - Clear Ignition - On Starter - Engage Mixture - Full Rich Oil / Fuel Pressure Lights - As Req. Mixture - As Req.	Brakes - Set Trim - Takeoff Flight Controls Instruments Mixture - Best Power  2000 RPM Mags (R & L) - Test <i>(50 RPM Max Differential                      175 RPM Max Drop)</i> Prop - Cycle <i>(300 RPM Max Drop)</i> Alternate Air - Test Ammeter Oil Pressure Oil Temperature Idle - Check Closed Throttle Friction	Full Throttle 2700 RPM (Max) Oil Pressure / Temp. Lift Off * <b>52 (60)</b> Vy - <b>70 (80)</b>	Mixture - Richen ATIS / AWOS Altimeter - Set Instruments	Alternate - Cold Strobes - Off Lights - As Req. Mixture - As Req. Trim - Takeoff XPDR - Alt + Sqwk
<b>EXTERIOR SUMMARY</b> <i>After Geographical Check</i>  Fuel Quantity Fuel Quality Caps/Drains/Vents Engine / Oil / Belt Prop / Air Filter Windshield Exhaust System Stall Indicator Surfaces & Controls Pitot & Static Ports Gear / Tires / Brakes Antennas Brace Wires Ties/Chocks/Towbar Final Walk Around	<b>PRE-TAXI / TAXI</b>  Seat Belts / Harness Land Light - As Req. Heat / Vent / Defrost Avionics - On / Set ATIS / AWOS Altimeter - Set XPDR - Alt + Sqwk ADS-B - On Radio - Test Brakes - Test Turn Coord. - Test	<b>PRE-TAKEOFF</b>  Alternate Air - Cold Fuel - On Prop - High RPM Mixture - Best Power XPDR - Alt + Sqwk Heading Bug Door / Window Landing Light - On Strobes - As Req. Time - Note Brakes - Release  <i>Abort Plan - Ready!</i>	<b>CLIMB</b>  Throttle Prop Mixture Instruments Land Light - Off Flight Plan - Open	<b>PRE-LANDING</b>  Landing Light - On Mixture - Best Power Alternate Air - Cold <i>(On if Icing Conditions)</i>	<b>SECURING</b>  Park Brake - Set ELT - Verify Silent Avionics / Elec. - Off Mixture - Full Lean Ignition - Off Master - Off Lights - Off Hobbs / Tach Time Secure Controls Chocks Tie Downs Pitot Cover Cabin Door
<b>INTERIOR</b>  Passenger Brief Hobbs / Tach Time Circuit Breakers Brakes - Pedal Test			<b>CRUISE</b>  Throttle Prop <i>(2600 RPM Max.                      For Acrobatics)</i> Mixture Instruments Alternate Air - As Req.	<b>LANDING</b>  Prop - High RPM Speed * <b>65-70</b> (75-80)  <b>G. U. M. P. F. S.</b>  <b>GO AROUND</b> Power - Full Alternate Air - Cold Airspeed - <b>70 (80)</b> Trim - Reset	<b>Close Flight Plan</b>

X Wind • Max Demo'd - 17 (20)	Vs • Stall w/o flaps - 47 (54)	Va • Max Abrupt Ctrl (1500 lbs) - 96 (110)	Loop / Hammer Head - 122 (140)
Lift Off - 52 (60)	Best Glide (1500 lbs) - 63 (73)	Va • Max Abrupt (Full Gross) - 105 (121)	Immelman - 126 (145)
Vx • Best Angle Climb - 50 (58)	Best Glide (Full Gross) 70 (80)	Vno • Max Structural Cruise - 139 (160)	Snap Roll - 78 (90)
Vy • Best Rate Climb - 70 (80)		Vne • Never Exceed - 174 (200)	Slow or Barrel Roll - 113 (130)

	KNOTS (MPH)	- NOTES -
<b>DEPARTURE</b>		All Vspeeds Are CAS. Note: Manual States IAS & CAS Are Identical From Stall Speed To 122 KIAS (140 MPH). See Calibration Chart Beyond This Speed.
Lift Off *	52 (60)	Maneuvering Load Factors: <u>Normal</u> - +5Gs, -3Gs
Best Angle Climb	50 (58)	<u>Acrobatic</u> - +6Gs, -5Gs
Best Rate Climb	70 (80)	Va • 115 (132) Acrobatic Category
<b>CRUISE</b> (TAS - 5,000')		
Normal	126 (145)	24" 2400 RPM - 10.0 GPH - 72%
<b>ARRIVAL</b>		
Approach	87 (100)	14" MP (Initially)
Short Final *	65-70 (75-80)	Idle MP / Prop - High RPM

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Specs Are Approximate Because Of Environment & Plane Model / Year Variables. Specs Are In: LBS, Calibrated, Sea Level, Standard Day, Normal Category, Max Gross Wt., No Wind, "Lean Mixture", 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 - 70 KIAS (80 MPH) (Full Gross Weight)  
FUEL VALVE - OFF (Pull Full Out)  
MIXTURE - FULL LEAN / IDLE CUTOFF  
MASTER & IGNITION - OFF  
UNLATCH DOOR

## POWER LOSS IN FLIGHT

BEST GLIDE - 70 KIAS (80 MPH) (Full Gross Weight)  
NOTE WIND DIRECTION & VELOCITY  
PICK LANDING SITE  
**MAY BE DUE TO SERIES OF INVERTED MANEUVERS:**  
ASSUME ERECT FLIGHT ATTITUDE  
THROTTLE - 3/4 FORWARD  
MIXTURE - FULL RICH  
PROP - FULL FORWARD  
FUEL VALVE - CHECK ON  
EMERGENCY FUEL PUMP - ON  
MAGNETOS - CHECK ALL  
MASTER - ON  
STARTER - ENGAGE (If Windmill RPM Is Insufficient)

## IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE  
SQUAWK 7700  
DECLARE EMERGENCY (TWR, APP, Unicom, 121.5)  
MIXTURE - FULL LEAN / IDLE CUTOFF  
FUEL VALVE - OFF  
SEATBELTS / HARNESS  
MASTER & IGNITION - OFF  
UNLATCH DOOR  
PROTECT BODY

## ELECTRICAL FIRE IN FLIGHT

ALL ELECTRICAL DEVICES + MASTER - OFF (Mags On)  
VENTS, CABIN HEAT, & AIR - CLOSED (Open Only If Critical)  
FIRE EXTINGUISHER  
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 - LAND ASAP

## ENGINE FIRE IN FLIGHT

MIXTURE - FULL LEAN / IDLE CUTOFF  
FUEL VALVE - OFF  
MASTER SWITCH - OFF  
CABIN HEAT & AIR - OFF  
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  
FUEL VALVE - OFF  
MASTER & IGNITION - OFF  
EVACUATE / FIRE EXTINGUISHER

## ICING

ALTERNATE AIR - ON  
CABIN HEAT & DEFROST - MAXIMUM  
STRONGLY CONSIDER 180° TURN  
ATTAIN HIGHER OR LOWER ALTITUDE  
INCREASE ENGINE SPEED  
LAND FASTER AS NEEDED

## OTHER

**ELECTRICAL SYSTEM MALFUNCTION:** Ammeter Indicates Current To Or From The Battery.

**Steady Discharge** Indicates Inoperative Alternator. Turn Off Nonessential Electrical Equipment. BATTERY ONLY  
Terminate Flight A.S.A.P.

**Excess Rate Of Charge:** All Electrical Off - LAND A.S.A.P.

**RADIO OUT:** Check Circuit Breakers & VOLUME  
Recycle Alternator Switch  
(Suggest XPDR: 7600 If VFR 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  
American Champion, Bellanca 8KCAB, (Lycoming AEIO-360-H1A, 180HP)

\* **Empty Weight:**  LBS (Specific Plane Weight)  
\* **Max. Useful Load:**  LBS (Including Fuel @ 6 lbs/gal)  
**Max. Baggage Area:** 100 LBS (Prohibited During Acrobatics)  
**Max. T.O. Weight:** 1800 LBS

**Fuel Type:** 91/96 / 100/130  
**Usable Fuel:** 40 Gallons  
**Oil Capacity:** 8 Quarts (Minimum 6)  
**Electrical:** 12-14 VOLT / 60 AMP  
**Tire Pressure:** Tail - 40 PSI / Main - 28 PSI

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