

**PREFLIGHT (CABIN)**  
 Inspections ..... CURRENT  
 AROW documents.... ON BOARD  
 Compass corr. card ..... LEGIBLE  
 Hobbs ..... RECORD  
 Parking brake ..... SET  
 Ignition ..... OFF  
 Mixture ..... IDLE CUT-OFF  
 Avionics/electrical switches .OFF  
 Circuit breakers..... IN  
 Pitot-static system .....DRAIN  
 Windows ..... CLEAN  
 Flight controlsFREE & CORRECT  
 Battery master switch.....ON  
 Fuel quantity gauges ..... CHECK  
 Electric fuel pump ..... CHECK  
 External lights ..... CHECK  
 Stall warning ..... CHECK  
 Pitot heat ..... CHECK  
 Battery master switch..... OFF  
 Flaps..... 40°

**PREFLIGHT (EXTERIOR)**  
 Right flap, aileron, wing .. CHECK  
 Tie-down & chocks ..... REMOVE  
 Fuel vent ..... CHECK  
 Fuel sump(s) .....DRAIN  
 Fuel quantity ..... CHECK  
 Right main tire ..... 24psi CHECK  
 Right main gear strut infl. .... 4.5"  
 Right air inlet ..... CLEAR  
 Oil level ..... 6-8 QTS.  
 Propeller & spinner ..... CHECK  
 Induction air inlet ..... CHECK  
 Alternator belt..... CHECK  
 Nose wheel tire..... 30psi CHECK  
 Nose gear strut inflation..... 3.25"  
 Brake reservoir ..... CHECK  
 Fuel strainer..... DRAIN  
 Left air inlet ..... CHECK  
 Fuel sump(s) .....DRAIN  
 Fuel quantity ..... CHECK  
 Left main tire..... 24psi CHECK  
 Left main gear strut infl. .... 4.5"  
 Fuel vent ..... CHECK  
 Pitot head ..... CHECK  
 Tie-down & chocks ..... REMOVE  
 Left flap, aileron, wing ..... CHECK  
 Left side of fuselage ..... CHECK  
 Antennae ..... SECURE  
 Empennage ..... CHECK  
 Tail tie-down ..... REMOVE  
 Right side of fuselage..... CHECK  
 Baggage ..... SECURE  
 Baggage door ..... LOCKED  
 General inspectionWALK AROUND

**BEFORE ENGINE START**  
 Flaps ..... RETRACT  
 Crew & passengers..... BRIEF  
 Seats..... ADJUST & LOCK  
 Seat belts & harnesses...FASTEN  
 Parking brake ..... SET  
 Avionics ..... OFF  
 Carburetor heat ..... OFF  
 Fuel selector ..... DESIRED TANK

**STARTING ENGINE**  
 \*Throttle..... 1/4" OPEN  
 Master switch ..... ON  
 \*\*Electric fuel pump ..... ON  
 Anti-collision light ..... ON  
 \*\*\*Primer..... AS REQUIRED  
 \*\*\*\*Mixture ..... RICH  
 Propeller area ..... CLEAR  
 Starter ..... ENGAGE

\*1/2" OPEN for HOT START  
 \*FULL OPEN for FLOODED START  
 \*\*OFF for FLOODED START  
 \*\*\*omit for FLOODED / HOT START  
 \*\*\*\*IDLE then RICH for FLOODED START

**AFTER ENGINE START**  
 Throttle ..... 1000 RPM  
 Oil pressure ..... CHECK  
 Fuel pump ..... OFF  
 Fuel pressure..... CHECK  
 Mixture..... AS REQUIRED  
 Avionics master/radios..... ON  
 GTN 750 Check:  
 Database Date ..... CHECK  
 LCDI, LFLG, VCDI, VFLG . CHECK  
 To/From, RMI, OBS, DTK .CHECK  
 ATIS/Clearance ..... RECORD  
 Flight instruments... SET/CHECK

**TAXIING**  
 Parking brake ..... RELEASE  
 Brakes/flight instruments CHECK

**ENGINE RUNUP**  
 Parking brake ..... SET  
 Check area ..... CLEAR  
 Mixture..... RICH  
 Fuel selector ..... SWITCH TANK  
 Throttle..... 2000 RPM  
 Magnetos.... max 175 drop/50 diff.  
 Engine gauges ..... CHECK  
 Load meter ..... CHECK  
 Vacuum ..... 5"±0.1"  
 Carb. heat ON .....CHECK DROP  
 Throttle idle.. SMOOTH RUNNING

Carb. heat OFF... RPM INCREASE  
 Throttle ..... 1000 RPM  
 Standby Vacuum ..... CHECK

**BEFORE TAKEOFF**  
 Seat backs..... ERECT  
 Seat belts & harnesses.. FASTEN  
 Trim..... SET  
 Flaps ..... SET  
 Carburetor heat ..... OFF  
 Mixture..... SET  
 Primer ..... LOCKED  
 Magnetos..... BOTH  
 Fuel selector ..... PROPER TANK  
 Window ..... CLOSED  
 Flight controlsFREE & CORRECT  
 Engine gauges ..... CHECK  
 Flight instruments.....CHECK  
 Annunciator ..... PRESS TO TEST  
 Avionics / Transponder ..... SET  
 Circuit breakers..... IN  
 Cabin door ..... LATCHED  
 Takeoff briefing ..... GIVEN

**HOLDING SHORT / LINEUP**  
 Flaps ..... SET  
 Window / Door ..... CLOSED  
 Takeoff Time ..... NOTED  
 Mixture..... SET  
 Fuel pump ..... ON  
 Landing light ..... ON  
 Transponder ..... ALT

**AFTER TAKEOFF / CLIMB**  
 500 ft AGL  
 Flaps ..... UP  
 Engine gauges..... CHECK

1000 ft AGL  
 Fuel pump ..... OFF  
 Fuel pressure..... CHECK  
 Cruise climb ..... 87 KIAS

**CRUISE CHECK**  
 Power..... SET  
 Mixture..... ADJUST  
 Landing light ..... OFF

**PRE-MANEUVER CHECK**  
 Altitude ..... CHECK  
 Landing light ..... ON  
 Fuel pump ..... ON  
 Mixture ..... RICH  
 Primer ..... LOCKED  
 Magnetos..... BOTH  
 Fuel selector ..... PROPER TANK  
 Seat belts & harnesses.. FASTEN  
 Cockpit area ..... SECURED  
 Clearing turns ..... EXECUTE

**POST-MANEUVER CHECK**  
 Landing light ..... OFF  
 Fuel pump ..... OFF  
 Mixture..... SET

**DESCENT**  
 Power ..... SET  
 Mixture..... ENRICHEN  
 Carburetor heat.... AS REQUIRED

**APPROACH & LANDING**  
 ATIS ..... RECORD  
 Approach briefing..... GIVEN  
 Mixture ..... SET  
 Landing light ..... ON  
 Fuel pump ..... ON  
 Fuel selector ..... PROPER TANK  
 Seat backs ..... ERECT  
 Seat belts & harnesses.. FASTEN

**AFTER LANDING**  
 Flaps ..... RETRACT  
 Fuel pump ..... OFF  
 Flaps ..... OFF  
 Transponder..... STANDBY/OFF

**ENGINE SHUTDOWN**  
 Avionics master/radios ..... OFF  
 Throttle ..... CLOSED  
 Mixture ..... IDLE CUT-OFF  
 Magnetos..... OFF  
 Electrical switches ..... OFF  
 Master switch..... OFF

**PARKING**  
 Hobbs ..... RECORD  
 Control wheel..... SECURED  
 Window ..... CLOSED  
 Master switch..... OFF  
 Door ..... LOCKED  
 Tie-downs/chocks ..... SECURE

**ENGINE FIRE DURING START**  
 Starter ..... CRANK ENGINE  
 Mixture ..... IDLE CUT-OFF  
 Throttle ..... OPEN  
 Fuel pump ..... OFF  
 Fuel selector ..... OFF

**ENGINE POWER LOSS IN FLIGHT**  
 Fuel selector ..... SWITCH TANKS  
 Fuel pump ..... ON  
 Mixture ..... RICH  
 Carburetor heat..... ON  
 Engine gauges .CHECK for cause  
 Primer ..... LOCKED  
 Ignition switch ..... L, R, BOTH

When power is restored:  
 Carburetor heat..... OFF  
 Fuel pump ..... OFF

If power is not restored, proceed with power off landing

**POWER OFF LANDING**  
 Flaps ..... 40°  
 Final approach speed..... 63 KIAS  
 Magnetos ..... OFF  
 Master switch ..... OFF  
 Fuel selector ..... OFF  
 Mixture ..... IDLE CUT-OFF  
 Seat belts & harnesses ..... TIGHT  
 Door ..... WEDGE OPEN

**ENGINE ROUGHNESS**  
 Carburetor heat..... ON  
 If roughness continues after 1 min:  
 Carburetor heat..... OFF  
 Mixture ..... Adjust for max. smoothness  
 Fuel pump ..... ON  
 Fuel selector ..... SWITCH TANKS  
 Engine gauges ..... CHECK  
 Magnetos ..... L, R, BOTH  
 If operation is satisfactory on either one, continue on that magneto at reduced power and FULL RICH Mixture.  
 Prepare for power off landing.

**LOSS OF FUEL PRESSURE**  
 Fuel Pump ..... ON  
 Fuel Selector ..... PROPER TANK

**ELECTRICAL FIRE**  
 Master switch ..... OFF  
 Cabin heat & defroster ..... OFF  
 Vents ..... OPEN  
 Land as soon as practicable.

**ENGINE FIRE**  
 Fuel selector..... OFF  
 Throttle ..... CLOSED  
 Mixture ..... IDLE CUT-OFF  
 Fuel pump..... CHECK OFF  
 Heater & defroster ..... OFF  
 Proceed with POWER OFF LANDING procedure.

**ELECTRICAL FAILURES**  
 ALT Annunciator light illuminated:  
 Ammeter .... Check to verify inop. alternator.  
 If ammeter shows zero:  
 ALT switch..... OFF

Reduce electrical load to minimum:  
 ALT circuit breaker... CHECK and ..... reset as required  
 ALT switch..... ON

If power not restored  
 ALT Switch ..... OFF  
 Land as soon as practicable.  
 Anticipate complete electrical failure.

**ELECTRICAL OVERLOAD**  
 (Alt. 20 amps above known load)  
 Electrical load ..... REDUCE  
 If alternator loads are reduced:  
 ALT Switch ..... OFF  
 Land as soon as practicable.  
 Anticipate complete electrical failure.

**OPEN DOOR**  
 Airspeed ..... 89 KIAS or less  
 Cabin vents ..... CLOSE  
 Storm window ..... OPEN  
 If upper latch is open..... LATCH

If side latch is open, pull on arm rest while moving latch handle to latched position

If both latches are open, latch side latch then top latch

Airspeeds (KIAS)	V <sub>BEST GLIDE</sub> ..... 73	V <sub>R.SH.FLD</sub> ..... 52	V <sub>A</sub> (2,325lbs) ..... 111	V <sub>NE</sub> ..... 160	Usable Fuel: Full tanks: 2 x 24 gal = 48 gal To filler neck indicator tab: 2 x 17 gal = 34 gal	Max. gross weight: 2,325 lbs Max. baggage weight: 200 lbs  Max crosswind: 17 kts
	V <sub>S0</sub> ..... 44	V <sub>X</sub> ..... 63	(1,531lbs) ..... 88	V <sub>L.APP</sub> ..... 70		
	V <sub>S1</sub> ..... 50	V <sub>Y</sub> ..... 79	V <sub>FE</sub> ..... 103	V <sub>FE.APP (NORM&amp;SH.FIELD)</sub> 63		
	V <sub>R.NORM</sub> ..... 45-55	V <sub>ENROUTE CLIMB</sub> ..... 87	V <sub>NO</sub> ..... 126			