

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 systemDRAIN
 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

FlapsRETRACT
 Crew & passengers BRIEF
 SeatsADJUST & 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
 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 ONCHECK DROP
 Throttle idle.. SMOOTH RUNNING
 Carb. heat OFF .. RPM INCREASE
 Throttle 1000 RPM

BEFORE TAKEOFF

Seat backsERECT
 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
 Avionics / Transponder SET
 Circuit breakers IN
 Autopilot CHECK then OFF
 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 100 (87)

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
 Autopilot OFF

AFTER LANDING

Flaps RETRACT
 Fuel pump OFF
 Landing light 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 71 (62)
 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 100 (87) 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 MPH (KIAS)	V _{BEST GLIDE} 85 (73)	V _{R,SH.FLD} 66 (57)	V _A (2,325lbs) .124 (108)	V _{F,APP} 71 (62)	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 _{S0} 58 (50)	V _X 76 (66)	V _{FE} 125 (109)			
	V _{S1} 65 (56)	V _Y 87 (76)	V _{NO} 140 (122)			
	V _{R,NORM.} 70-80 (60-70)	V _{ENROUTE CLIMB} 100 (87)	V _{NE} 176 (153)			