

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 DRAIN
 Fuel quantity CHECK
 Right main tire ..35-40 psi CHECK
 Right main gear strut infl. 4.5"
 Right air inletx1CLEAR
 Oil level 9 QTS.
 Propeller & spinner CHECK
 Air inlets CHECK
 Alternator belt CHECK
 Nose wheel tire 29 psi CHECK
 Nose gear strut inflation..... 3.25"
 Fuel strainer DRAIN
 Left air inlet CHECK
 Fuel sump(s) DRAIN
 Fuel quantity CHECK
 Left main tire..... 35-40 psi 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
 Left static pad CLEAR
 Empennage CHECK
 Tail tie-down REMOVE
 Right side of fuselage..... CHECK
 Right static pad CLEAR
 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
 Alternate static source OFF
 Propeller FULL INCREASE
 Fuel selector DESIRED TANK

STARTING ENGINE

Master switch ON
 Electric fuel pump ON
 (FLOODED START OFF)
 Anti-collision light ON
 Primer AS REQUIRED
 (omit for FLOODED / HOT START)

Throttle 1/4" OPEN
 (HOT START 1/2" OPEN
 (FLOODED START .. FULL OPEN)

Mixture RICH
 (FLOODED START IDLE then RICH)

Propeller area CLEAR
 Starter ENGAGE

AFTER ENGINE START

Throttle 1000 RPM
 Oil pressure CHECK
 Fuel pump OFF
 Fuel pressure CHECK
 Mixture AS REQUIRED
 Avionics master/radios..... ON
 GNS 430 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 4.9-5.1"
 Propeller EXERCISE
 Governor CHECK
 Carb. heat ON CHECK DROP
 Throttle idle.. SMOOTH RUNNING
 Carb. heat OFF... RPM INCREASE
 Throttle 1000 RPM

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 100 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
 Landing light ON
 Fuel pump ON
 Fuel selector PROPER TANK
 Mixture SET
 Propeller SET
 Seat backs ERECT
 Seat belts & harnesses.. FASTEN

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..... 72 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.

PROPELLER OVERSPEED

Throttle RETARD
 Oil pressure CHECK
 Propeller FULL DECREASE
 ...then set if any control available
 Airspeed REDUCE
 Throttle as required to remain below 2700 RPM

ELECTRICAL FAILURES

ALT Annunciator light illuminated:
 Ammeter . 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 not reduced:
 ALT Switch OFF
 Land as soon as practicable.
 Anticipate complete electrical failure.

OPEN DOOR

Airspeed 83 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 _{BEST GLIDE} 85	V _{R,SH.FLD} 50-60	V _A (3,000 lbs) 124	V _{NE} 173
	V _{S0} 56	V _X 73	(1,761 lbs) 96	V _{I,APP} 75
	V _{S1} 65	V _Y 85	V _{FE} 102	V _{F,APP (NORM&SH.FIELD)} 72
	V _{R,NORM} 60-65	V _{ENROUTE CLIMB} 87	V _{NO} 137	

Usable Fuel:
 Full tanks: 2 x 36 gal = 72 gal
 To filler neck indicator tab:
 2 x 25 gal = 50 gal

Max. ramp weight: 3,011 lbs
 Max. T/O & ldg weight: 3,000 lbs
 Max. baggage weight: 200 lbs
 Max crosswind: 17 kts