

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
 Windshield CLEAN
 Flight controlsFREE & CORRECT
 Battery master switch..... ON
 RAL CHECK
 Instrument lights CHECK
 Fuel quantity gauges CHECK
 Electric fuel pump CHECK
 External lights CHECK
 Stall warning CHECK
 Pitot heat CHECK
 Flaps FULL
 Battery master switch OFF

PREFLIGHT (EXTERIOR)

Left flap, aileron, wing CHECK
 Left aileron counterweight
 UNOBSTRUCTED
 Wing inspection plates.. SECURE
 Tie-down & chocks REMOVE
 Pitot tube CHECK
 Fuel tank vent CHECK
 Fuel tank drain..... DRAIN
 Fuel sump drain DRAIN
 Fuel quantity CHECK
 Left main tire 34psi CHECK
 Fuel pump overflow drainCHECK
 Fresh air vents CHECK
 Air cleaner drain CHECK
 Oil breather vent CHECK
 Propeller & spinner CHECK
 Nose wheel tire 25psi CHECK
 Chocks REMOVE
 Engine cooling openings CHECK
 Oil level 6-8 QTS
 Alternator belt..... CHECK
 Right main tire 34psi CHECK
 Fuel sump drain DRAIN
 Fuel tank drain..... DRAIN
 Fuel quantity CHECK
 Fuel tank vent CHECK
 Tie-down & chocks REMOVE
 Wing inspection plates.. SECURE
 Right aileron counterweight
 UNOBSTRUCTED
 Right flap, aileron, wing . CHECK
 Right side of fuselage..... CHECK

Antennae..... SECURE
 Static Source CHECK
 Empennage CHECK
 Tail tie-down REMOVE
 Left side of fuselage CHECK
 Static Source CHECK
 Baggage SECURE
 Baggage door LOCKED
 General inspectionWALK AROUND

BEFORE ENGINE START

Crew & passengers..... BRIEF
 Seats ADJUST & LOCK
 Seat belts & harnesses.. FASTEN
 Parking brake SET
 Avionics OFF
 Carburetor heat OFF
 Alternate static source OFF
 Fuel selector DESIRED TANK

STARTING ENGINE

Master switch ON
 Electric fuel pump ON
 (OFF for FLOODED START)

Anti-collision light ON

Throttle 1/4-inch OPEN
 (Full OPEN for FLOODED START)

Mixture RICH
 (IDLE then RICH for FLOODED
 START)

Primer AS REQUIRED
 (omit for FLOODED / HOT START)

Propeller area CLEAR
 Starter ENGAGE

AFTER ENGINE START

Throttle 1000 RPM
 Oil pressure CHECK
 Fuel pump OFF
 Fuel pressure CHECK
 Mixture AS REQUIRED
 Flaps RETRACT
 Avionics/radios ON
 GPS CHECK
 ATIS/Clearance RECORD
 Flight instruments... SET/CHECK
 Altimeter SET
 Standby AI
 Aspen
 Altimeter

TAXIING

Parking brake RELEASE
 Brakes/flight instruments CHECK

ENGINE RUNUP

Parking brake SET
 Check area CLEAR
 Mixture RICH
 Fuel selector SWITCH TANK
 Throttle 1800 RPM
 Engine gauges CHECK
 Magnetos..... max 175 drop/50 diff.
 Ammeter CHECK
 Carb. heat ON CHECK DROP
 Throttle idle.. SMOOTH RUNNING
 Carb. heat OFF... RPM INCREASE
 Throttle 1000 RPM

BEFORE TAKEOFF

Seat belts & harnesses.. FASTEN
 Trim SET
 Flaps SET
 Fuel selector PROPER TANK
 Primer LOCKED
 Mixture SET
 Carburetor heat OFF
 Magnetos BOTH
 Flight controlsFREE & CORRECT
 Flight instruments CHECK
 Engine gauges CHECK
 Avionics / Transponder SET
 Circuit breakers IN
 Canopy LATCHED
 Takeoff briefing GIVEN

HOLDING SHORT / LINEUP

Flaps SET
 Canopy LATCHED
 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 90 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 FULLEST TANK
 Carburetor heat... AS REQUIRED
 Parking brake OFF
 Seat belts & harnesses.. FASTEN

AFTER LANDING

Flaps RETRACT
 Fuel pump OFF
 Landing light / strobes OFF
 Carburetor heat OFF

ENGINE SHUTDOWN

Avionics master/radios OFF
 Throttle CLOSED
 Mixture IDLE CUT-OFF
 Ignition 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
 If engine starts,
 Power 1800 RPM for few min
 Fuel selector OFF
 Master switch OFF
 Ignition switch OFF

If engine fails to start

Evacuate passengers
 Mixture IDLE CUT-OFF
 Master switch OFF
 Ignition switch OFF
 Fuel selector OFF
 Fire EXTINGUISH

ENGINE FAILURE IN FLIGHT

Airspeed 72 KIAS
 Carburetor heat ON
 Fuel selector SWITCH TANKS
 Mixture RICH
 Fuel pump ON
 Throttle 1/4 - inch
 Primer LOCKED
 Ignition switch
 L, R, BOTH, START

When power is restored:

Carburetor heat OFF
 Fuel pump OFF

If power is not restored, proceed with power off landing

POWER OFF LANDING

Airspeed 72 KIAS
 Mixture IDLE CUT-OFF
 Fuel selector OFF
 Ignition switch OFF
 Flaps AS REQUIRED
 Master switch OFF
 Seat belts & harnesses TIGHT
 Canopy UNLATCH

DITCHING

Heavy objects SECURE
 Flaps DOWN
 Approach
 High winds, heavy seas
 INTO THE WIND
 Light winds, heavy swells
 PARALLEL TO SWELLS
 Power 350 FPM Descent, 65 KIAS
 Canopy FULLY OPEN
 Touchdown NOSE HIGH

Face CUSHION
 Airplane EVACUATE
 Life vests and raft INFLATE

LOSS OF FUEL PRESSURE

Fuel Pump ON
 Fuel Selector PROPER TANK

ELECTRICAL FIRE

Master switch OFF
 Electrical switches OFF
 Vents/cabin air/heat OFF
 Fire extinguisher ACTIVATE
 Circuit breakers . DO NOT RESET
 Electrical equipmet
 ON one at a time
 Vents/cabin air/heat.. ON if no fire

ENGINE FIRE IN FLIGHT

Mixture IDLE CUT-OFF
 Fuel selector OFF
 Master switch OFF
 Fuel pump CHECK OFF
 Cabin heat and air OFF
 Airspeed 115 KIAS
 Proceed with POWER OFF
 LANDING procedure.

WING FIRE

Nav. light switch OFF
 Pitot heat switch OFF
 Land as soon as possible

ELECTRICAL FAILURES

Ammeter shows discharge
 Alternator circuit breaker. CHECK

If circuit breaker trips, wait 15
 seconds before resetting it.
 Field circuit breaker.....CHECK
 If field circuit breaker is tripped,
 land as soon as practical.
 If Field Circuit Breaker is not
 tripped, and ammeter continues to
 show discharge, set alternator
 side of master switch to OFF and
 land as soon as practical.

Airspeeds (KIAS)	V _{BEST GLIDE} 72	V _{R,SH.FLD} 55	V _A (2,400 lbs) 112	V _{NE} 172	Usable Fuel:	Max. canopy open speed 112 kts
	V _{SO} 53	V _X 70	(2,050 lbs) 112	V _{I,APP} 75-80	Full tanks: 2 x 26.3 gal = 52.6 gal	Max. weight: 2,400 lbs
	V _{S1} 56	V _Y 90	V _{FE} 103	V _{F,APP NORM.} 65-70	To filler neck indicator tab:	Max. baggage weight: 120 lbs
	V _{R,NORM} 55	V _{ENROUTE CLIMB} 90	V _{NO} 142	V _{F,APP SH.F.} 63	2 x 19 gal = 38 gal	Max crosswind: 16 kts