

PREFLIGHT (CABIN)

Inspections CURRENT
 AROW documents..... ON BOARD
 Compass corr. card LEGIBLE
 Hobbs/Tach..... RECORD
 Control wheel lock REMOVE
 Flight controlsFREE & CORRECT
 Ignition OFF
 Mixture IDLE CUT-OFF
 Avionics/electrical switches. OFF
 Battery master switch..... ON
 Fuel quantity gauges CHECK
 Flaps 40°
 External lights CHECK
 Battery master switch..... OFF
 Alternate static source OFF
 Windows CLEAN
 Baggage STOWED PROPERLY
 Parking brake SET

PREFLIGHT (EXTERIOR)

Left side of fuselage CHECK
 Rudder gust lock..... REMOVE
 Tail tie-down REMOVE
 Empennage surfaces CHECK
Right side of fuselage..... CHECK
 Right flap, aileron, wing .. CHECK
 Tie-down & chocks REMOVE
 Right main gear/tireCHECK/29psi
 Fuel sump DRAIN
 Fuel quantity CHECK
 Antennae SECURE
 Right air inlet CHECK
 Oil level 6-8 QTS.
 Fuel strainer DRAIN
 Propeller & spinner CHECK
 Alternator belt..... CHECK
 Air filter CHECK
 Nose gear strut inflation.. CHECK
 Nose wheel tire..... CHECK/31psi
 Static source..... CHECK
Left air inlet..... CHECK
 Fuel sump DRAIN
 Fuel quantity CHECK
 Left main gear / tire CHECK/29psi
 Tie-down & chocks REMOVE
 Pitot tube CHECK
 Fuel tank vent CHECK
 Stall warning opening CHECK
Left flap, aileron, wing..... CHECK
 General inspection.....
 WALK AROUND

BEFORE ENGINE START

Crew & passengers..... BRIEF
 Seats.....ADJUST AND LOCK
 Seat belts & harnesses...FASTEN
 Circuit breakers..... IN
 Parking brake SET
 Avionics OFF
 Fuel selector BOTH

STARTING ENGINE

*Mixture RICH
 Carburetor heat OFF
 Master switch ON
 Anti-collision light..... ON
 **Primer AS REQUIRED(2-6)
 ***Throttle..... 1/8" OPEN
 Propeller area CLEAR
 Ignition switch START

 *IDLE then RICH for FLOODED START
 **omit for FLOODED & HOT START
 ***CRACK for HOT START
 FULL OPEN for FLOODED START

AFTER ENGINE START

Throttle..... 1000 RPM
 Oil pressure CHECK
 Ammeter.....NORMAL CHARGE
 Flaps RETRACT
 Primer LOCKED
 Mixture AS REQUIRED
 Avionics master/radios ON
 ATIS/Clearance..... RECORD
 Flight instruments... SET/CHECK
 GPS Check:
 Database Date CHECK
 LCDI, LFLG, VCDI, VFLG . CHECK
 To/From, RMI, OBS, DTK. CHECK

TAXIING

Parking brake RELEASE
 Brakes/flight instruments CHECK

ENGINE RUNUP

Parking brake SET
 Check area CLEAR
 Fuel selector BOTH
 Mixture RICH
 Throttle 1700 RPM
 Magnetos ... max 125 drop/50 diff.
 Engine gauges..... CHECK
 Ammeter..... CHECK
 Over-voltage light... CHECK/TEST

Vacuum 4.6 - 5.4"
 Carb. heat ON CHECK DROP
 Throttle idle.. SMOOTH RUNNING
 Carb. heat OFF .. RPM INCREASE
 Throttle..... 1000 RPM

BEFORE TAKEOFF

Seat belts & harnesses...FASTEN
 Windows/Doors CLOSED
 Fuel selector BOTH
 Trim SET
 Flaps SET
 Mixture SET
 Throttle friction lock ADJUST
 Alternate static source OFF
 Carburetor heat OFF
 Circuit breakers..... IN
 Magnetos BOTH
 Primer LOCKED
 Engine gauges..... CHECK
 Flight controlsFREE & CORRECT
 Flight instruments..... CHECK
 Avionics / Transponder SET
 Takeoff briefing GIVEN

HOLDING SHORT / LINEUP

Flaps SET
 Windows/Doors CLOSED
 Takeoff time NOTED
 Mixture SET
 Transponder ALT
 Landing light..... ON

AFTER TAKEOFF / CLIMB

Flaps UP
 Engine gauges..... CHECK
 Cruise climb..... 80-90 MPH

CRUISE CHECK

Power SET
 Mixture ADJUST
 Landing light..... OFF

PRE-MANEUVER CHECK

Altitude CHECK
 Fuel selector BOTH
 Mixture RICH
 Landing light..... ON
 Magnetos BOTH
 Primer LOCKED
 Seat belts & harnesses...FASTEN
 Cockpit area..... SECURED
 Clearing turns..... EXECUTE

POST-MANEUVER CHECK

Landing light..... OFF
 Mixture SET

DESCENT
 Fuel selector BOTH
 Mixture ENRICHEN
 Carburetor heat ... AS REQUIRED
 Power SET

APPROACH & LANDING

ATIS RECORD
 Approach briefing GIVEN
 Fuel selector BOTH
 Mixture SET
 Carburetor heat ON
 Landing light..... ON
 Seat backs ERECT
 Seat belts & harnesses..FASTEN

AFTER LANDING

Flaps RETRACT
 Carburetor heat COLD
 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

Fuel selector L or R
 Hobbs/Tach..... RECORD
 Control wheel lock INSTALLED
 Windows CLOSED
 Master switch OFF
 Doors LOCKED
 Tie-downs SECURE

EMERGENCIES

ENGINE FIRE DURING START

Starter..... CRANK ENGINE

 If engine starts:
 Power ..1700 RPM for a few mins.
 Engine SHUT DOWN/INSPECT

If engine fails to start:
 Throttle..... OPEN
 Mixture IDLE CUT-OFF

Cranking..... CONTINUE
 Fire extinguisher OBTAIN
 Master switch OFF
 Ignition switch OFF
 Fuel selector OFF
 Fire..... EXTINGUISH with fire extinguisher
 Engine INSPECT

ENGINE POWER LOSS IN FLIGHT

Airspeed..... 80 MPH
 Carburetor heat ON
 Fuel selector BOTH
 Mixture RICH
 Ignition switch L, R, BOTH
 Primer LOCKED

If power is not restored, proceed with forced landing

FORCED LANDING

Mixture IDLE CUT-OFF
 Fuel selector OFF
 Ignition OFF
 Airspeed (flaps 0°) 70-80 MPH
 Extend flaps within gliding range
 Airspeed (flaps 40°) 65-75 MPH
 Master switch OFF
 Doors WEDGE OPEN
 Seat belts & harnesses..... TIGHT

DITCHING

Heavy objectsSECURE/JETTISON
 Approach:
 High winds, heavy seas – Into the wind
 Light winds, heavy swells – Parallel to the swells
 Flaps 40°
 Power300 FPM descent at 70 MPH
 Cabin doors UNLATCH
 TouchdownLEVEL ATTITUDE
 Face CUSHION
 Airplane..... EVACUATE
 (if necessary, open windows to equalize pressure to flood cabin)
 Life vests, raft..... INFLATE

ENGINE FIRE IN FLIGHT

Mixture IDLE CUT-OFF
 Fuel selector OFF
 Master switch OFF
 Ignition switch OFF

Cabin heat & air..... OFF (except overhead vents)
 Airspeedmin. 120 MPH
 Forced landing EXECUTE

ELECTRICAL FIRE

Master switch OFF
 Cabin heat & air..... OFF
 Avionics master OFF
 Electrical switches OFF
 Fire extinguisher ACTIVATE

If fire is out:

Cabin VENTILATE
 Master switch ON
 Circuit breakers.. DO NOT RESET
 Radios OFF
 Avionics master ON
 Switches/radios(one at a time)ON
 Cabin heat & air..... AS NEEDED

WING FIRE

Navigation light switch..... OFF
 Pitot heat switch..... OFF
 Strobe switch..... OFF
 Sideslip PERFORM

INSUFFICIENT RATE OF CHARGE

(Ammeter indicates discharge)
 Alternator OFF
 Electrical load..... REDUCE
 Land as soon as practical.

If low-voltage light illuminates again:

Alternator OFF
 Electrical load REDUCE
 Land as soon as practical.

EXCESSIVE RATE OF CHARGE

(Full scale deflection, over-voltage light illuminated)
 Master switch OFF then ON
 If the light comes ON again:
 Alternator OFF
 Alternator circuit breakerPULL
 Electrical load..... REDUCE
 Land as soon as practical.

Airspeeds MPH (KIAS)	V _{BEST GLIDE} 80 (70)	V _{R,NORM & SH. FIELD} 60 (52)	V _{ENROUTE CLIMB} 80-90 (70-78)	V _{NO} 145 (126)	Usable Fuel: Stand. tanks: 2 x 19 gal = 38 gal Long range tanks: 2 x 24 = 48 gal Max crosswind: 15 kts	Max. Gross weight: Normal category: 2,300 lbs Utility category: 2,000 lbs Max. baggage weight: 120 lbs
	V _{S0} 54 (47)	V _{INITIAL CLIMB} 75-85 (65-74)	V _{A (2,300lbs)} 112 (97)	V _{NE} 182 (158)		
	V _{S1} 61 (53)	V _X 68 (59)	V _{FE} 100 (87)	V _{APP (0°)} 70-80 (61-70)		
		V _Y 90 (78)		V _{APP (40°)} 65-75 (56-65)		