

**PREFLIGHT**

WX/WEIGHT/FP/AROW.....COMPLETE  
 TIES, LOCKS, CHOCKS.....REMOVED  
 PARKING BRAKE.....SET  
 IGNITION SWITCH.....OFF  
 MASTER.....ON  
 • FUEL GAUGES.....CHECK  
 • FLAPS.....EXTEND  
 • PITOT HEAT SWITCH.....ON/CHECK  
 • STROBES/NAVS/LANDING.....ON/CHECK  
 PITOT/LIGHTS/MASTER.....OFF  
 TRIM.....TAKE OFF  
 FIRE EXTINGUISHER.....SECURE/GREEN  
 FUSELAGE / ANTENNAS.....CHECK  
 EMPENNAGE.....MOVEMENT & SECURITY  
 FLAPS: HINGES,PINS,NUTS.....SECURED  
 ALERONS: HINGES/MOVEMENT.....CHECK  
 WING SURFACES/LEADING EDGE.....CHECK  
 TIRES, LINES, BRAKES, STRUT.....CHECK  
 FUEL.....SUPPLY, SUMP, STRAIN OIL.....4-6 QUARTS  
 PROP CLEAN FROM NICKS & CUTS.....CHECK  
 ENGINE COMPARTMENT.....CLEAR  
 AIR FILTER.....CLEAR  
 STATIC/PITOT/DRAIN.....CLEAR  
 STALL WARNING VENT.....CLEAR  
 STORAGE.....LOCKED  
 HOBBS.....LOGGED

**PASSENGER BRIEF: SAFEST**

Seatbelts, Air vents, Fire extinguisher  
 Exits, Sick, Talking

**PRE-START**

SEAT BACK, TRACK & BELTS.....LOCK / ON  
 FUEL SELECTOR/VALVE.....ON/BOTH  
 LIGHTS/ELECTRICAL/RADIOS.....OFF  
 PARKING BRAKES.....TEST/SET  
 CIRCUIT BREAKERS.....IN

**ENGINE START**

MIXTURE.....RICH  
 CARB HEAT.....COLD (IN)  
 PRIME.....WARM WX 1-2 ; COLD WX UP TO 6  
 • BLACK SMOKE: OVER PRIMED/FLOODED  
 • FLOODED: MIX LEAN, THROTTLE OPEN, CRANK SEV TIMES; REPEAT W/O PRIMING

THROTTLE.....OPEN 1/2 INCH  
 PROP.....CLEAR  
 MASTER.....ON  
 BEACON.....ON  
 IGNITION SWITCH.....START  
 ENGINE ENGAGES.....THROTTLE TO 1000 RPM  
 OIL PRESSURE.....IN THE GREEN WITHIN 30 SEC'S  
 • WINTER: 1 MINUTE  
 TIME.....NOTED

**PRE-TAXI / TAXI**

FLAPS.....RETRACTED  
 MIXTURE.....LEAN  
 RADIO/AVIONICS/TRANSPONDER.....ON/ALT  
 FREQ/ATIS/ALTIMETER.....SET  
 ALTIMETER.....WITHIN 75'  
 LIGHTS.....AS REQUIRED  
 TAXI CALL.....RADIO TEST  
 BRAKES.....TEST  
 INSTRUMENTS.....CHECK

**RUN UP**

BRAKES.....SET/HOLD  
 LIGHTS.....AS REQ'D  
 CABIN DOORS.....LATCHED  
 INSTRUMENTS.....SET  
 FLIGHT CONTROLS.....FREE & CORRECT  
 TRIM.....TAKE OFF  
 MIXTURE.....RICH  
 THROTTLE.....1700 RPM  
 MAGS TEST.....SLIGHT DROP  
 • Difference in drop between mags: < 75  
 CARB HEAT.....RPM DROP  
 AMMETER....."ZERO" +/- 1  
 • NIGHT: LOAD ALL LIGHTS 3-5 SEC'S  
 • NEEDLE WIDTH OF 0  
 SUCTION.....4.6-5.4 in. Hg  
 OIL PRESS/TEMP.....CHECK  
 FUEL TANKS.....CHECK  
 THROTTLE/LOCK.....IDLE CK / 1000

**ABORT PLAN READY**

TAKE OFF ROLL: Throttle Idle, Brake, Exit RWY  
 AFTER ROTATION W/USABLE: Throttle Idle, Land  
 AFTER ROTATION, W/O USABLE, <1000: Vg 70 kts, best spot 30° of nose, communicate, shut down, emg. landing  
 AFTER ROTATION >1000: Vg 70 kts, standard rate turn back to the field

**PRE-TAKE OFF**

LIGHTS.....AS REQUIRED  
 INSTRUMENTS.....SET  
 TRANSPONDER.....ALT  
 TIME.....NOTED  
 SEAT BELTS, DOORS, WINDOWS.....SECURED  
 BRAKE.....RELEASE

**TAKE OFF**

FLAPS.....UP  
 CARB HEAT.....COLD (IN)  
 THROTTLE.....FULL OPEN  
 INSTRUMENTS.....GREEN  
 AIRSPEED.....ALIVE  
 Vr.....55 MPH  
 Vy.....70-80 MPH

**ENROUTE**

CLIMB.....75-85 MPH  
 CRUISE.....POWER 2000 to 2750 RPM (< 75%)  
 ELEVATOR TRIM.....ADJUST  
 MIXTURE.....LEAN

**PRE-DESCENT/LANDING**

WX.....OBTAINED  
 ALTIMETER.....SET  
 RADIOS.....SET  
 NAV/GPS.....TUNE  
 SEAT BELTS/DOORS/WINDOWS.....SECURE  
 MIXTURE.....RICH  
 CARB HEAT.....ON  
 AIRSPEED FLAPS UP.....70-80 MPH  
 FLAPS EXTENDED.....60-70 MPH

**GO AROUND**

THROTTLE.....FULL OPEN  
 CARB HEAT.....COLD  
 FLAPS.....Retract to 20°  
 AIRSPEED.....65 MPH  
 FLAPS.....RETRACT IN INCREMENTS

**OPERATING SPEEDS: MPH**

VNE NEV.EXCEED	162	VG GLIDE	70
VNO CRUISE	120	VSO (1600 LBS)	48
VA MANEUVER	109	VS1 (1600 LBS)	55
VR ROTATE	55	SH. FLD APPR	65
VX	70-80	VFE	< 100
VY	75-85	APPR. FL. UP	70-80
CLIMB ENROUTE	65	APPR. FL. EXT	60-70
		XWIND	15

**CLEAR RUNWAY**

LIGHTS.....AS REQUIRED  
 CARB HEAT.....COLD  
 MIXTURE.....LEAN FOR TAXI  
 FLAPS.....RETRACTED  
 TRANSPONDER.....ALTITUDE  
 TRIM.....SET FOR TAKE OFF

**SHUTDOWN**

**LIGHTS ~ CAMERA ~ ACTION**

LIGHTS (EXCEPT BEACON).....OFF  
 AVIONICS.....OFF  
 MIXTURE, MAGS, MASTER, BEACON.....OFF

**POST FLIGHT CHECK**

HOBBS/TACH.....LOGGED  
 SQUAWKS.....LOGGED  
 WINDOWS.....CLEAN  
 CONTROL LOCK/BELTS.....SET  
 SHADE.....SET  
 TRASH/ITEMS.....REMOVED  
 TIES, LOCKS, CHALKS.....SECURE  
 DOORS.....LOCKED

**A/C INFORMATION**

MAX GROSS: 1600		BAGGAGE:	
		AREA 1 (behind seat): 120	
		AREA 2 (under windows) 40	
<b>FUEL: 100LL BLUE</b>	<b>ELECTRICAL: 14v DC</b>		
CAPACITY P/TANK: 13	BATTERY: 12V		
USEABLE P/TANK: 11	ALTERNATOR: 60 AMP		
<b>OIL CAPACITY: 6 QTS</b>	<b>TIRE PRESSURE</b>		
SERVICE TO 5 QTS	NOSE: 30 PSI		
OIL WEIGHT: SAE 40	MAINS: 21 PSI		

**EFFECTIVE 03-30-24**

**POWER LOSS IN FLIGHT / EMERGENCY LANDING**

A: AIRSPEED: 70 MPH  
 B: BEST SPOT TO LAND WIND DIR/VELOCITY

C: CHECK ENGINE  
 • CARB HEAT.....ON  
 • MIXTURE.....RICH  
 • FUEL.....BOTH  
 • PRIMER.....IN/LOCKED  
 • MAGS.....CHECK

D: DECLARE EMERGENCY  
 • TWR, APP, Unicom.....121.5  
 • SQUAWK.....7700  
 • E.L.T.....ON

E: ENGINE SECURE  
 • FUEL SELECTOR.....OFF  
 • MIXTURE.....FULL CUT-OFF  
 • THROTTLE.....IDLE CUT-OFF  
 • FULL FLAPS.....WHEN FIELD ASSURED  
 • AVIONICS, MASTER, MAGS.....OFF  
 • SEAT BELTS/HARNES.....SECURE  
 • DOORS.....UNLATCH/PROP  
 • FORCE LAND.....PROTECT BODY

**ENGINE FIRE: START UP**

**NOT STARTED**

THROTTLE.....OPEN  
 MIXTURE / FUEL / SELECTOR.....OFF  
 MAGS.....TURN 5 SECONDS & SHUTDOWN

**STARTED**

RUN A FEW MINUTES @ 1700 RPM  
 • DRAW FLAMES IN CYLINDER  
 MIXTURE / FUEL / SELECTOR.....OFF  
 EXTERNAL EXTINGUISHER

**ENGINE FIRE: IN FLIGHT**

MIXTURE.....CUTOFF  
 FUEL SELECTOR.....OFF  
 SLIP OR EMERGENCY DESCENT.....EXT.FLAMES  
 MASTER/MAGS/ELECTRICAL.....OFF  
 CABIN HEAT/AIR.....OFF  
 IF FIRE NOT EXTINGUISHED.....INCREASE SPEED  
 FORCED LANDING (W/O POWER).....EXECUTE

**ELECTRICAL**

MASTER/ELECTRICAL.....OFF  
 CABIN HEAT/AIR.....OFF  
 DEFROSTER.....OFF  
 LAND AS SOON AS PRACTICAL

IF FIRE OUT, TEST EACH ELECT. DEVICE

ONE AT A TIME

IF FIRE EXTINGUISHED, VENTILATE CABIN

IF NOT EXTINGUISHED: USE EXTINGUISHER, VENTILATE, EMERGENCY LANDING

**ENGINE**

FUEL SELECTOR.....OFF  
 THROTTLE/MIXTURE.....IDLE/CUT-OFF  
 VENTS.....CLOSE  
 HEATER.....OFF

**RADIO FAILURE**

AUDIO PANEL.....ON  
 CIRCUIT BREAKERS.....IN  
 VOLUME.....CHECK  
 ALT. SWITCH.....RECYCLE