

PREFLIGHT

WX/WEIGHT/FP/AROW.....COMPLETE
 TIES, LOCKS, CHOCKS.....REMOVED
 PARKING BRAKE.....SET
 IGNITION SWITCH.....OFF
 MASTER.....ON
 • PFD.....VERIFY ON / NO RED X'S
 • FUEL GAUGES.....CHECK
 • FLAPS.....EXTEND
 • PITOT HEAT SWITCH.....ON/CHECK (IFR)
 • 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.....CHECK
 WING SURFACES/LEADING EDGE.....CHECK
 TIRES, LINES, BRAKES, STRUT.....CHECK
 FUEL.....SUPPLY, SUMP, STRAIN OIL.....6-8 QUARTS
 • 8 IF LONG FLIGHT IS PLANNED

PROP CLEAN FROM NICKS & CUTS.....CHECK
 ENGINE COMPARTMENT.....CLEAR
 AIR FILTER.....CLEAN
 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.....AS REQUIRED
 THROTTLE.....OPEN 1/2 INCH
 PROP.....CLEAR
 MASTER.....ON
 PFD.....ON / NO RED X'S
 BEACON.....ON
 IGNITION SWITCH.....START
 ENGINE ENGAGES.....THROTTLE TO 1000 RPM
 OIL PRESSURE.....IN THE GREEN
 TIME.....NOTED

PRE-TAXI / TAXI

FLAPS.....RETRACTED
 MIXTURE.....LEAN
 RADIO/AVIONICS/TRANSPONDER.....ON/ALT
 FREQ/ATIS/ALTIMETER (PRIMARY & STBY).....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
 AUTO PILOT & FLIGHT DIRECTOR.....OFF
 FLIGHT CONTROLS.....FREE & CORRECT
 TRIM.....TAKE OFF
 MIXTURE.....RICH
 THROTTLE.....1700 RPM
 MAGS TEST.....DROP <125
 • Difference in drop between mags: < 50
 CARB HEAT.....RPM DROP
 AMMETER.....POSITIVE
 SUCTION.....4.6-5.4 in. Hg
 OIL PRESS/TEMP.....CHECK
 FUEL TANKS.....CHECK
 THROTTLE/LOCK.....IDLE CK / 1000

ABORT PLAN READY

ROLL BEFORE ROTATION: Any Anomaly
 • Throttle Idle, Brake, Exit RWY
AFTER ROTATION W/USABLE: Engine Fail/Fire
 • Throttle Idle, Land straight ahead
AFTER ROTATION, W/O USABLE, <1000: Vg 80 MPH, best spot 30° of nose, communicate, shut down, emg. landing
AFTER ROTATION >1000: Vg 80 MPH, standard rate turn back to the field

PRE-TAKE OFF

LIGHTS.....AS REQUIRED
 INSTRUMENTS.....SET
 TRANSPONDER.....ALT
 TIME.....NOTED
 TRIM.....SET FOR T/O
 SEAT BELTS, DOORS, WINDOWS.....SECURED
 BRAKE.....RELEASE

TAKE OFF

FLAPS.....UP
 CARB HEAT.....COLD (IN)
 THROTTLE.....FULL OPEN
 INSTRUMENTS.....GREEN
 AIRSPEED.....ALIVE
 V_R.....60 MPH
 V_Y.....85 MPH

ENROUTE

CLIMB.....80-90 MPH
 CRUISE.....POWER 2200 to 2700 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
 DESCENT AIRSPEED (FLAPS UP).....70-80 MPH
 DESCENT AIRSPEED (FLAPS DOWN).....65-75 MPH

GO AROUND

THROTTLE.....FULL OPEN
 CARB HEAT.....COLD
 FLAPS.....Retract to 20°
 AIRSPEED.....68 MPH
 FLAPS.....RETRACT INCREMENTS.....85 & POS. RATE
 TRIM.....AS REQUIRED

OPERATING SPEEDS: MPH

VNE NEV.EXCEED	174	VG GLIDE	80
VNO CRUISE	140	VSO STALL DIRTY	49
VA	122	VS1 STALL CLEAN	57
VR ROTATE	60	VFE FLAPS EXT	100
VX BEST ANGLE	65	APP: FLAPS UP	70-80
VY BEST RATE	85	APP: FLAPS DN	65-75
CLIMB ENROUTE	80-90	SHORT FLD LDG: 40°	69
XWIND	15	GO AROUND	65

OPERATING SPEEDS: KTS

VNE NEV.EXCEED	64	VG GLIDE	69
VNO CRUISE	121	VSO STALL DIRTY	42
VA	106	VS1 STALL CLEAN	49
VR ROTATE	52	VFE FLAPS EXT	86
VX BEST ANGLE	56	APP: FLAPS UP	61-69
VY BEST RATE	74	APP: FLAPS DN	56-65
CLIMB ENROUTE	69-78	SHORT FLD LDG: 40°	60
XWIND	13	GO AROUND	56

CLEAR RUNWAY

LIGHTS.....AS REQUIRED
 CARB HEAT.....COLD
 MIXTURE.....LEAN FOR TAXI
 FLAPS.....RETRACTED
 TRANSPONDER.....ALTITUDE
 TRIM.....SET FOR T/O

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
 SHAPE.....SET
 TRASH/ITEMS.....REMOVED
 TIES, LOCKS,.....SECURE
 DOORS.....LOCKED

A/C INFORMATION

MAX GROSS: 2300		BAGGAGE: 120	
FUEL: 100LL BLUE		ELECTRICAL: 14v DC	
CAPACITY P/TANK: 21		BATTERY: 12V	
USEABLE P/TANK: 19		ALTERNATOR: 60 AMP	
OIL CAPACITY: 8 QTS		TIRE PRESSURE	
OIL WEIGHT: SAE 30 OR		NOSE: 31PSI	
50		MAINS: 21 PSI	
VACUUM: 4.5 - 5.4 in. Hg.		SERVICE CEILING: 13,100	

EFFECTIVE 03-30-24

POWER LOSS IN FLIGHT / EMERGENCY LANDING

A: AIRSPEED: 69 KTS
 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/HARNESSES.....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 LAND (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