

PREFLIGHT

WX/WEIGHT/FP/AROW.....COMPLETE
 TIES, LOCKS, CHOCKS.....REMOVED
 PARKING BRAKE.....SET
 IGNITION & AVIONICS BUS 1 & BUS 2.....OFF
 MASTER.....ON
 • PFD.....VERIFY ON
 • FUEL QUANTITY ON PFD.....CHECK
 • LOW FUEL L/R ANNUNCIATORS.....NOT VISIBLE
 • OIL PRESSURE ANNUNCIATOR.....ON
 • LOW VACUUM ANNUNCIATOR.....ON
 • AVIONICS SWITCH: BUS 1: ON; FAN HEARD...OFF
 • AVIONICS SWITCH: BUS 2: ON; FAN HEARD...OFF
 • LOW VOLTS ANNUNCIATOR.....SHOWN
 • FLAPS.....EXTEND
 • PITOT HEAT SWITCH.....ON/CHECK
 • STROBES/NAVS/LANDING.....ON/CHECK
 PITOT/LIGHTS/MASTER.....OFF
 TRIM.....TAKE OFF
 FUEL SELECTOR.....BOTH
 ALTERNATE STATIC AIR VALVE.....OFF
 FIRE EXTINGUISHER.....SECURE/GREEN
 FUSELAGE / ANTENNAS.....CHECK
 EMPENNAGE.....MOVEMENT & SECURITY
 FLAPS: HINGES,PINS,NUTS.....SECURED
 AILERONS: HINGES/MOVEMENT.....CHECK
 WING SURFACES/LEADING EDGE.....CHECK
 TIRES, LINES, BRAKES, STRUT.....CHECK
 FUEL.....SUPPLY, SUMP, VENTS
 OIL.....5-8 QUARTS.....LONG FLIGHT: FILL TO 8
 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
 FUEL SHUTOFF VALVE.....ON
 LIGHTS/ELECTRICAL/RADIOS.....OFF
 PARKING BRAKES.....TEST/SET
 CIRCUIT BREAKERS.....IN

ENGINE START

THROTTLE.....OPEN ¼ INCH
 MIXTURE.....IDLE
 STANDBY BATTERY SWITCH: TEST 8-10 SECS - GREEN
 LIGHT ON THEN ARM - PFD COMES ON
 ENGINE INDICATING SYSTEM.....NO RED X'S
 VOLTS.....BUS "E" 24 MIN & BUS "M" < 1.5
 BATTERY S AMPS.....NEGATIVE DISCHARGE
 STBY BATT ANNUNCIATOR.....ON
 PROP AREA.....CLEAR
 MASTER SWITCH.....ON
 BEACON.....ON
 TOE BRAKES.....HOLD
 COLD: FUEL PUMP ON ~ RICH 3-5 SECS ~ OFF
 • IF WARM, DO NOT PRIME!
 IGNITION.....START
 MIXTURE.....SMOOTHLY ADVANCE
 THROTTLE.....1000 RPM
 OIL PRESSURE.....RISE IN 30 SEC'S OR LESS

AMPS (M BATT AND S BATT).....POS CHARGE
 LOW VOLTS ANNUNCIATOR.....NOT SHOWN
 AVIONICS SWITCH BUS 1 AND BUS 2.....ON
 TRANSPONDER....."ALT"
 FLAPS.....RETRACTED
 MIXTURE.....LEAN 1" FOR TAXI

PRE-TAXI / TAXI

FREQ/ATIS/ALTIMETER.....SET
 LIGHTS.....AS REQUIRED
 TAXI CALL.....RADIO TEST
 BRAKES.....TEST
 INSTRUMENTS.....CK

RUN UP

BRAKES.....SET/HOLD
 LIGHTS.....AS REQ'D
 CABIN DOORS.....LATCHED
 INSTRUMENTS.....SET / NO RED X'S
 AP.....ENGAGE, TEST, DISENGAGE
 FLIGHT DIR.....OFF
 FLIGHT CONTROLS.....FREE & CORRECT
 ALTIMETERS (PRIMARY & STANDBY).....SET
 ALTITUDE SELECT.....SET
 STANDBY FLIGHT INSTRUMENTS.....CHECK
 FUEL QUANTITY.....CHECK/NOT IN YELLOW
 TRIM/FLAPS.....SET FOR TAKEOFF

MAGS TEST

MIXTURE.....FULL RICH
 THROTTLE.....1800 RPM
 MAGS TEST.....DROP <150..DIFF B/T MAGS: < 50
 FUEL FLOW / OIL PRESS / OIL TEMP / VAC.....GREEN
 ENGINE INSTR.....AMMETERS, VOLTS.....CHECK
 ANNUNCIATORS.....OFF
 THROTTLE/LOCK.....IDLE CK / 1000
 RADIOS, COMM, NAV, GPS.....SET / CHECK
 MIXTURE: AS REQUIRED FOR DA.....CHECK & SET
 CDI SOFT KEY.....SELECT NAV SOURCE
 FUEL.....BOTH

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 68 KTS, best
 spot 30° of nose, communicate, shut down, emg. landing
AFTER ROTATION >1000: Vg 68 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
 THROTTLE.....FULL OPEN
 INSTRUMENTS.....GREEN
 AIRSPEED.....ALIVE
 V_R.....55 KTS
 V_Y.....70-80 KTS

ENROUTE

CLIMB.....70-85 KTS
 MIXTURE.....LEAN FOR ALTITUDE
 CRUISE.....POWER 2100 to 2700 RPM (< 75%)
 ELEVATOR TRIM.....ADJUST
 MIXTURE.....LEAN

**OPERATING SPEEDS: KTS
 ALL AIRSPEEDS BASED ON MAX WEIGHT**

VNE NEV.EXCEED	163	VG GLIDE	68
VNO CRUISE	129	VSO STALL DIRTY	40
VA MANEUVER	105	VS1 STALL CLEAN	48
VR ROTATE	55	VFE FLAPS 10°	110
VX BEST ANGLE	62	VFE 20°-30°	85
VY BEST RATE	74	SH.FIELD APP 30°	71
CLIMB ENROUTE	75-80	XWIND	15
SHORT FLD CLIMB	56		

PRE-DESCENT/LANDING

WX.....OBTAINED
 ALTIMETER.....
 RADIOS.....SET
 NAV/GPS.....TUNE
 SEATBELTS/DOORS/WINDOWS.....SECURE
 MIXTURE.....RICH
 AIRSPEED FLAPS UP.....65-75 KTS
 FLAPS EXTEND: 10° < 110 KTS & 10°-30° < 85 KTS

GO AROUND

THROTTLE.....FULL OPEN
 FLAPS.....Retract to 20
 AIRSPEED.....60 KTS
 FLAPS.....10° UNTIL OBST CLR'D

CLEAR RUNWAY

LIGHTS.....AS REQUIRED
 MIXTURE.....LEAN FOR TAXI
 FLAPS.....RETRACTED
 TRANSPONDER.....ALTITUDE
 TRIM.....SET FOR TAKEOFF

SHUTDOWN

LIGHTS.....OFF
 STBY BATTERY.....OFF
 AVIONICS.....OFF
 MIXTURE, MAGS, MASTER.....OFF

POST FLIGHT CHECK

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

A/C INFORMATION

MAX GROSS: 2558	BAGGAGE: 120
FUEL: 100LL BLUE CAPACITY P/TANK: 28g USEABLE P/TANK: 26.5g	ELECTRICAL: 28 V DC SYSTEM MAIN BATTERY: 24 V STANDBY BATTERY: 24 V ALTERNATOR: 60 AMP
OIL CAPACITY: 5-8 QTS OIL WEIGHT: 20W50	TIRE PRESSURE NOSE: 45 PSI MAINS: 38 PSI
VACUUM: 3.7 - 4.2 in. Hg.	SERVICE CEILING: 14,000

EFFECTIVE 03-30-24

**POWER LOSS IN FLIGHT
 EMERGENCY LANDING**

A: AIRSPEED: 68 KTS
 B: BEST SPOT TO LAND WIND DIR/VELOCITY
 C: CHECK ENGINE

- FUEL SELECTOR.....BOTH
- MIXTURE.....RICH
- PRIMER.....IN/LOCKED
- MAGS.....CHECK

D: DECLARE EMERGENCY

- TWR, APP, Unicom.....121.5
- SQUAWK.....7700
- E.L.T.....ON

E: ENGINE SECURE

- FUEL SHUT OFF VALVE.....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
 STARTED**

IGNITION SWITCH START

- DRAW FLAMES INTO CYLINDER
- IF STARTED: 1800 RPM FOR A FEW MINUTES

MIXTURE / FUEL / SELECTOR.....OFF
 EXTERNAL EXTINGUISHER

NOT STARTED

THROTTLE.....OPEN
 MIXTURE / FUEL / SELECTOR.....OFF
 MAGS.....TURN 5 SECONDS & SHUTDOWN
 FUEL SHUTOFF VALVE.....OFF
 AUXILIARY FUEL PUMP SWITCH.....OFF
 ENGINE.....SECURE

- MASTER OFF
- IGNITION OFF

PARKING BRAKE.....RELEASE
 AIRPLANE.....EVACUATE
 FIRE.....EXTINGUISH

ENGINE FIRE: IN FLIGHT

MIXTURE.....OFF
 FUEL SHUTOFF VALVE.....OFF
 AUX FUEL PUMP.....OFF
 MASTER SWITCH.....OFF
 CABIN HEAT/AIR.....OFF
 SLIP/EMG DESCENT OR 100 KTS.....OFFSET FLAMES
 FORCED LANDING.....EXECUTE

ELECTRICAL

MASTER & STBY BATTERY SWITCHES.....OFF
 CABIN HEAT/AIR.....OFF
 DEFROSTER.....OFF
 LAND AS SOON AS PRACTICAL

*IF FIRE CONTINUES, USE FIRE EXTINGUISHER, VENTILATE
 CABIN AND LAND AS SOON AS PRACTICAL
 EMERGENCY LANDING PROCEDURES*

RADIO FAILURE

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