

NORMAL PROCEDURES

PREFLIGHT

Gust Lock REMOVE
 If Empty Rear Seat FASTEN BELT
 Fuel Gauges CHECK
 ELT and Lights for Night CHECK
 Tie Downs & Chocks REMOVED
 Right Wing & Strut CHECK
 Right Wheel & Brake (24 PSI) CHECK
 Right Fuel Qty CHECK & SECURE
 Gascolator (1st Flight) DRAIN
 Oil Level 6-8 QTS
 Windshield CLEAN
 Prop/Spinner/Filter/Light CHECK
 Left Wing-same as right CHECK
 Pitot Tube/Stall Warning CHECK
 Static Port/Antennas CHECK
 Aft Belly Sump (1st Flight) SAMPLE
 Rudder & Elevator CHECK
 Tail Wheel (40 PSI) CHECK
 Tach. Time RECORD

ENGINE START

Passenger Brief COMPLETE
 Seats, Harness, Door SECURE
 Fuel Shut-Off Valve ON
 Brakes TEST & SET
 Electrics/Avionics OFF
 Beacon (Always On) ON
 Alternate Air COLD
 Throttle 1/2" OPEN
 Prop FULL FORWARD
 Mixture IDLE CUT-OFF
 Master ON
 Prime (*details below) AS REQ
 Prop Area CLEAR
 Control Stick FULL AFT
 Mags BOTH ON
 Starter (15 sec limit) ENGAGE
 Mixture (as engine starts) FULL RICH
 Throttle 1000 RPM
 Oil pressure CHECK
 Mixture (for taxi) LEAN
 Avionics ON & SET
 Brakes RELEASE

* Cold Start Prime: Turn on fuel pump and push mixture to full rich. Hold for 3 seconds then return mixture to idle cut-off and turn off fuel pump.

* Hot Start Prime: Not usually required.

* Flooded Start: With throttle full open and mixture idle cut-off turn prop 10 revs then do half prime and try start again.

RUN-UP

Flight Controls FREE & CORRECT
 Elevator Trim Position TAKEOFF
 Flight Instruments SET
 Fuel Shut-Off Valve ON
 Mixture (<3000') RICH
 Throttle 1800 RPM
 - Mags L/R (175/50) CHECK
 - Prop CYCLE TWICE
 - Alternate Air CYCLE
 - Engine Gauges GREEN
 - Throttle 1000 RPM

TAKE-OFF

Doors/Windows/Belts SECURE
 Transponder/Strobes/Lights ON
 Fuel Pump (optional) ON
 Throttle/Prop/Mixture FULL FORWARD
 Rotate 56 RPM
 Climb Speed 80-90 MPH
 Fuel Pump (at 1000') OFF
 Landing Light OFF

CRUISE

Power 23"/2400 OR AS REQ
 Mixture LEAN BELOW 75% PWR

AEROBATICS

Altitude FINISH ABOVE 3000' AGL
 Clear Area COMPLETE
 Engine 24" /2500 & GREEN
 Mixture RICH
 Entry Speed
 - Acrobatic V_A 130 MPH
 - Aileron or Barrel Roll 120 MPH
 - Loop 140 MPH
 - Immelmann 145 MPH
 - Hammerhead 145 MPH
 - Snap Roll 90 MPH

LANDING

Brakes CHECK FIRM
 Parking Brake OFF
 Fuel Pump (optional) ON
 GUMPS Check COMPLETE
 Final Approach 70-80 MPH

SHUTDOWN

S Avionics/Electrics OFF
L Mixture IDLE-CUTOFF
I Mags OFF
M Master OFF
 Tach Time RECORD
 Gust Lock (Seat Belt) SECURE
 Flight Plan CLOSED

EMERGENCY PROCEDURES

ENGINE FAILURE AT TAKEOFF

Throttle CLOSED
 Land ASAP

EMERGENCY LANDING

Best Glide Speed 75 MPH
 Landing field SELECTED
 Seats & Belts READY
 Door AJAR

Time permitting:

- Engine (details below) AIR START
 - Radio (121.5) MAYDAY
 - Transponder 7700
 - ELT ON

If No Luck Restarting Engine THEN

- Mixture IDLE CUTOFF
 - Fuel Shut-Off Valve OFF
 - Master & Mags OFF

Final Approach 75 MPH

Before Touchdown DO NOT STALL

DITCHING OVER WATER

Cabin Side Door JETTISON
 If High Swells LAND PARALLEL
 Else LAND INTO WIND
 Before Touchdown DO NOT STALL

EMERGENCY EXIT/BAIL OUT

Throttle CLOSED
 Door JETTISON
 Dive OUT & SLIGHTLY AFT
 Parachute OPEN WHEN CLEAR

ENGINE AIR START

Airspeed 80+ MPH
 Mags BOTH ON
 Throttle 3/4 FORWARD
 Mixture (<5000) FULL FORWARD
 Prop FULL FORWARD
 Fuel Shut-Off Valve CHECK ON
 Alternate Air FULL HOT
 Fuel Pump ON
 If No Restart THEN
 - Mixture IDLE THEN RICH
 If Prop Stops Windmilling THEN
 - Starter ENGAGE

V-SPEEDS (MPH @ Max Wt)

| | | | | | |
|--------------------|----|----------------|----|-----------------|------|
| V _S | 53 | V _R | 56 | V _A | 121 |
| V _{FINAL} | 75 | V _X | 64 | V _{NO} | 160? |
| V _{GLIDE} | 75 | V _Y | 76 | V _{NE} | 180 |

ENGINE FIRE – GROUND

Starter CONTINUE CRANKING
 Mixture IDLE CUTOFF
 Throttle FULL OPEN
 If Fire Persist THEN
 - Fuel Shut-Off Valve OFF
 - Mags & Electrics OFF
 Exit Plane ASAP
 Fire Extinguisher AS REQ

ENGINE FIRE – IN FLIGHT

Mixture IDLE CUTOFF
 Fuel Shut-off Valve OFF
 Mags & Electrics OFF
 Cabin Heat OFF
 Fire Extinguisher AS REQ
 Land ASAP

ELECTRICAL FIRE

Mags REMAIN ON
 Master & All Other Electrics OFF
 Cabin Vents/Window OPEN IF REQ
 Fire Extinguisher AS REQ
 Master (if power required) ON
 - Electric Switches 1 AT TIME
 Land ASAP

ALTERNATOR/ELECTIC FAILURE

Master OFF, then ON
 If Discharge Continues THEN
 - All Non-Essential Electric OFF
 - Fuses CHECK
 Land ASAP

ABNORMAL OIL PRESS/TEMP

Throttle REDUCE POWER
 Land ASAP

ICING CONDITIONS

Pitot Heat ON
 Cabin Heat OFF
 Direction and/or Altitude CHANGE

WEIGHT & BALANCE (LBS)

Empty Weight 1326
 Normal Max Gross Weight 1950
 - Half Fuel Payload (19.5 gals) 504
 - Full Fuel Payload (39 gals) 384
 Acrobatic Max Gross Weight 1800
 - Half Fuel Payload (19.5 gals) 354
 - Full Fuel Payload (39 gals) 234