

**PREFLIGHT**

1. Parking Brake .....SET
2. Flight Controls ..... FREE AND CORRECT
3. Landing gear knob ..... DOWN
4. Magnetos..... OFF
5. ALT/BAT Switch..... ON
6. Fuel Quantity ..... CHECK
7. Landing gear light ..... GREEN
8. Fuel Selector ..... ON
9. Circuit Breakers ..... CHECK
10. ALT/BAT Switch..... OFF
11. Aircraft Documents ..... ON BOARD
12. Exterior Inspection ..... PREPARED

**EXTERIOR INSPECTION**

- LEFT WING**
1. Left Main Landing Gear ..... CHECK
  2. Aileron, Wing Flap ..... VISUAL CHECK
  3. Stall Warning ..... CHECK
  4. Pitot-Static Probe ..... CLEAN, HOLES-OPEN
  5. Fuel Cap ..... SECURED

**NOSE**

6. Oil..... CHECK LEVEL ( 6-8 QUARTS)
7. Air Intakes ..... CLEAR
8. Propeller Blades ..... CHECK
9. Spinner ..... VISUAL INSPECTION
10. Lights..... VISUAL CHECK
11. Nose Gear ..... CHECK
12. Cowl Flap ..... CHECK
13. Fuel Drain ..... 4 SEC
14. Static Port Sources ..... CHECK

**RIGHT WING**

15. Right Main Landing Gear ..... CHECK
16. Fuel Cap..... SECURED
17. Aileron, Wing Flap ..... VISUAL CHECK

**FUSELAGE**

18. Antennas ..... VISUAL INSPECTION
19. Cargo door..... CLOSE/SECURED

**TAIL**

20. Stabilizers and Control Surfaces ..... CHECK

**BEFORE STARTING ENGINE**

1. Exterior inspection ..... COMPLETE
2. Baggage .....STOWED& SECURED
3. Seatbelts ..... FASTENED & ADJUSTED
4. Cabin doors ..... CLOSE & SECURED
5. Parking Brake ..... ON
6. Cowl Flap ..... OPEN

**ENGINE START**

1. Mixture..... CUT OFF
2. Propeller ..... FULL FWD
3. Throttle ..... OPEN ( 6 MM)
4. BAT Switch..... ON
5. Beacon ..... ON
6. Brakes ..... HOLD
7. Fuel Pump ..... ON
8. Mixture..... RICH ( 6 SEC) THEN CUT OFF
9. Propeller Area..... CLEAR
10. Starter ..... ENGAGE
11. Mixture ..... SLOWLY RICH
12. Throttle ..... IDLE

1. Fuel Pump..... OFF
2. ALT Switch ..... ON
3. Oil Pressure ..... CHECK
4. Throttle ..... 1000 RPM
5. Cowl Flap ..... CLOSE
6. Engine instruments..... CHECK

**FLOODED/WARM ENGINE START**

1. Mixture ..... CUT OFF
2. Propeller ..... FULL FWD
3. Throttle ..... OPEN ( 3 CM)
4. BAT Switch ..... ON
5. Beacon..... ON
6. Brakes..... HOLD
7. Fuel Pump..... ON
8. Propeller Area ..... CLEAR
9. Starter ..... ENGAGE
10. Mixture ..... SLOWLY RICH
11. Throttle ..... IDLE
12. Fuel Pump ..... OFF
13. ALT Switch ..... ON
14. Oil Pressure ..... CHECK
15. Throttle..... 1000 RPM
16. Cowl Flap ..... CLOSE
17. Engine instruments..... CHECK

**AFTER STARTING ENGINE**

1. Cabin Heat and Defrost..... AS REQUIRED
2. Flaps ..... CHECK/ RETRACT
3. Avionics Master Switch..... ON
4. Transponder..... STBY
5. Radios/NAV/GPS ..... SET
6. Autopilot ..... OFF
7. NAV Lights ..... AS REQUIRED
8. Pitot heat..... AS REQUIRED
9. Altimeter ..... SET QNH
10. Engine Instruments ..... CHECK
11. Clearance ..... RECEIVED

**TAXI**

1. Parking Brake/Taxi Light ..... OFF/ON
2. Flight Instruments & Brakes ..... CHECK

**RUN UP POSITION**

1. Parking Brake/Taxi light..... ON/OFF
2. Mixture ..... FULL RICH
3. Throttle..... 1800 RPM
4. Oil Temp ..... GREEN
5. Oil Pressure ..... GREEN
6. Alternator Load ( Ammeter) ..... CHECK
7. Vacuum Gauge ..... CHECK
8. Magnetos ..... CHECK (DROP 150 DIFF±50)
9. Propeller ..... HIGH/LOW/HIGH RPM
10. Throttle..... IDLE THEN 1000 RPM
11. Engine instruments ..... CHECK
12. Trims ..... SET T/O

**LINE UP**

1. Parking Brake/Taxi Light ..... OFF/ON
2. Flaps ..... 10°
3. Transponder ..... ALT
4. Landing/Strobe Lights ..... ON
5. Gyro ..... RWY HDG
6. Cowl Flap ..... AS REQUIRED

**TAKE-OFF**

1. Take-off power ..... SET
2. RPM ..... 2700
3. Rotation ..... 55 KIAS
4. Gear ..... UP
5. Climb Power ..... SET ( 25 MP 2500 RPM)
6. Speed ..... 65 - 75 KIAS
7. Landing/Taxi Light ..... OFF
8. Flaps ..... UP

**CLIMB**

1. Speed ..... 85 -100 KIAS
2. Climb Power ..... SET ( 25 MP 2500 RPM)
3. Mixture..... LEAN13 GPH
4. Cowl Flap..... AS REQUIRED

**CRUISE**

1. Cruise PowerSET( 15-25 MP 2100-2500 RPM)
2. Altimeters..... SET/CROSS CHECKED
3. Cowl Flap ..... CLOSE
4. Mixture..... ADJUST

**DESCENT**

1. Mixture..... FULL RICH
2. Throttle ..... AS REQUIRED

**FINAL**

1. Flaps..... 30° < 95 KIAS
2. Mixture/Propeller ..... FULL FORWARD
3. Gear ..... DOWN ( < 85 KIAS) GREEN
4. Landing/Taxi Lights..... ON
5. Approach Speed ..... 70-80 KIAS

**GO AROUND**

1. Throttle ..... FULL POWER
2. Flaps..... 20°
3. Airspeed ..... 65 – 75 KIAS

**RUNWAY VACATED**

1. Landing/Strobe Light..... OFF
2. Transponder ..... STBY
3. Cowl Flap..... OPEN
4. Flaps..... UP

**SHUT DOWN POSITION**

1. Parking Brake/Taxi light ..... ON/OFF
2. Electrical Equipment ..... OFF
3. Avionics Master Switch ..... OFF
4. Throttle ..... IDLE
5. Engine ..... COOLING
6. Mixture..... CUT OFF
7. Beacon ..... OFF
8. Magnetos ..... OFF
9. ALT/BAT Switch ..... OFF

CHECKLISTS MARKED WITH THE THICK VERTICAL LINE ON THE LEFT SHOULD BE MEMORAZIED

**ENGINE FAILURE DURING TAKE-OFF**

1. Throttle .....IDLE
2. Brakes ..... APPLY
3. Flaps.....UP
4. Mixture..... CUT OFF
5. Magnetos..... OFF
6. ATC .....ADVISE

**ENGINE FAILURE AFTER TAKE-OFF**

1. Airspeed .....70 KIAS
2. Mixture..... CUT OFF
3. Fuel Selector ..... OFF
4. Magnetos..... OFF
5. Flaps..... AS REQUIRED
6. ATC .....ADVISE
7. ALT/BAT Switch..... OFF

**ENGINE FAILURE IN FLIGHT**

1. Airspeed .....75 KIAS
2. Fuel Selector ..... BOTH
3. Mixture..... FULL RICH
4. Fuel Pump ..... ON
5. Magnetos..... BOTH OR START
6. ATC .....ADVISE
7. Transponder .....7700

**ENGINE FIRE ON GROUND**

1. Fuel Pump ..... OFF
2. Mixture..... CUT OFF
3. Magnetos..... OFF
4. ALT/BAT Switch..... OFF
5. Parking Brake ..... RELEASE
6. Airplane .....EVACUATE
7. Fire Extinguisher ..... USE

**ENGINE FIRE IN FLIGHT**

1. ATC .....ADVISE
2. Mixture..... CUT OFF
3. Fuel Selector ..... OFF
4. ALT/BAT Switch ..... OFF
5. Airspeed ..... 100 KIAS
6. Cabin Heat/Air ..... OFF
7. Emergency Landing ..... PERFORM

**EMERGENCY LANDING**

1. Airspeed Flaps UP.....75 KIAS
  2. Airspeed Flaps DOWN.....65 KIAS
  3. Mixture ..... CUT OFF
  4. Fuel Selector ..... OFF
  5. Magnetos..... OFF
  6. Gear ( if rough terrain) .....UP
  7. Flaps..... AS REQUIRED
- BELOW 500 FT**
8. ALT/BAT Switch..... OFF
  9. Doors..... UNLATCH
  10. Touchdown ..... SLIGHTLY TAIL LOW
  11. Brakes ..... APPLY

**FLIGHT INTO ICING CONDITIONS**

1. Pitot Heat .....ON
2. Cabin Heat ..... OFF
3. Direction and/or Altitude ..... CHANGE
4. ATC..... ADVISE

**ALTERNATOR LOW VOLTAGE**

1. Alternator ..... OFF
  2. Non-essential Electrical Equipment ..... OFF
- LAND AT NEAREST SUITABLE AIRPORT**

**ALTERNATOR HIGH VOLTAGE**

1. ALT/BAT Switch ..... OFF
  2. ALT/BAT Switch ..... ON
  3. Over-Voltage Light ..... OFF
- IF OVER-VOLTAGE LIGHT ILLUMINATES AGAIN**
- LAND AT NEAREST SUITABLE AIRPORT**

**LANDING GEAR FAILS TO RETRACT**

1. ALT/BAT Switch ..... ON
2. Landing gear knob ..... UP
3. Landing Gear Circuit Breaker ..... CHECK
4. Gear Indication Circuit Breaker ..... CHECK
5. Gear Up Light..... CHECK
6. Landing gear knob..... RECYCLE
7. Gear Motor ..... CHECK OPERATION

**LANDING GEAR FAILS TO EXTEND**

1. Landing Gear Circuit Breaker ..... PULL
2. Landing gear knob..... DOWN
3. Emergency Hand Pump .....USE(40 TIMES)
4. Landing gear light..... GREEN
5. Emergency Hand Pump ..... STOW
6. Landing Gear Circuit Breaker ..... IN
7. ATC..... ADVISE

**LANDING WITHOUT GEAR DOWN INDICATION**

1. Flaps .....30°
2. Final Checklist ..... COMPLETED
3. Gear Pressure ..... MANTAIN WITH PUMP
4. Touchdown .....SLIGHTLY TAIL LOW
5. Taxi ..... SLOWLY

**ELECTRICAL FIRE IN FLIGHT**

1. ALT/BAT Switch ..... OFF
  2. Electrical Equipment..... OFF
  3. Vents/Cabin Air/Heat.....CLOSED
- IF FIRE STOPPED AND ELECTRICS NEEDED**
4. ALT/BAT Switch ..... ON
  5. Circuit Breakers ..... CHECK
  6. Electrical Equipment.....ONE AT TIME
  7. Vents/Cabin Air/Heat..... OPEN
  8. ATC..... ADVISE

CHECK LISTS MARKED WITH THE THICK VERTICAL LINE ON THE LEFT SHOULD BE MEMORAZIED

**CABIN FIRE DURING FLIGHT**

1. ALT/BAT Switch..... OFF
  2. Vents/Cabin Air/Heat ..... CLOSED
  3. ATC .....ADVISE
- LAND AS SOON AS POSSIBLE**

**LANDING WITH BAD NOSE GEAR**

1. Movable Load .....TRANSFER TO AFT AREA
  2. Passenger ..... MOVE TO REAR SEAT
  3. Flaps..... 30°
  4. Final Checklist .....COMPLETED
  5. Gear Pressure .....MANTAIN WITH PUMP
- BELOW 500 FT**
6. ALT/BAT Switch..... OFF
  7. Mixture ..... CUT OFF
  8. Fuel Selector ..... OFF
  9. Magnetos..... OFF
  10. Doors..... UNLATCH
  11. Touchdown ..... SLIGHTLY TAIL LOW
  12. Airplane .....EVACUATE

**GEAR UP LANDING**

1. Landing gear knob .....UP
  2. Landing Gear Circuit Breaker..... IN
  3. Avionics Master Switch ..... OFF
  4. Electrical Equipment..... OFF
  5. Flaps..... 30°
  6. Airspeed .....65 KIAS
- BELOW 500 FT**
1. ALT/BAT Switch..... OFF
  2. Doors..... UNLATCH
  3. Touchdown ..... SLIGHTLY TAIL LOW
  4. Mixture..... CUT OFF
  5. Fuel Selector ..... OFF
  6. Magnetos..... OFF
  7. Airplane .....EVACUATE

**AIRSPEED FOR SAFE OPERATION**

- Best Rate-of-Climb Sp (V<sub>y</sub>) .....80 KIAS
- Best Angle-of-Climb Seed (V<sub>x</sub>) ..... 69 KIAS
- Stall Speed Normal Configuration (V<sub>s</sub>) .....57 KIAS
- Stall Speed Landing Configuration (V<sub>so</sub>) ..48 KIAS
- Best Glide Speed (V<sub>GLIDE</sub>) .....75 KIAS
- Max Flaps 10° Extension Speed (V<sub>FO</sub>) ...130 KIAS
- Max Flaps 40° Extension Speed (V<sub>FO</sub>) .....95 KIAS
- Max Structural Cruise Speed (V<sub>NE</sub>) .....135 KIAS
- Never Exceed Speed (V<sub>NE</sub>) .....170 KIAS
- Maneuvering Speed (V<sub>A</sub>)..... 112 KIAS
- Normal Climb Out .....78 – 86 KIAS
- Short Field T/O Flaps 15° .....60 KIAS
- Final App Speed Flaps 30° .....60 – 70 KIAS
- Final App Speed Flaps UP .....70 – 78 KIAS
- Max Demo Crosswind.....15 KIAS