

## BEFORE START

1. Preflight Inspection.....COMPLETE
2. Passenger Briefing.....COMPLETE
3. Seat, Belts, Harnesses, Doors.....ADJUSTED/LOCKED
4. Fuel Selector Valve .....BOTH
5. Avionics Power Switch, Electrical Equipment.....OFF
6. Beacon .....ON
7. Brakes..... TEST AND SET
8. Cowl Flaps.....OPEN
9. Landing Gear Lever.....DOWN
10. Circuit Breakers..... CHECK IN

## ENGINE START

1. Mixture ..... RICH
2. Propeller..... HIGH RPM
3. Carburetor Heat..... COLD
4. Throttle..... OPEN ¼ INCH
5. Prime ..... AS NECESSARY
6. Propeller Area.....CLEAR
7. Master Switch..... ON (both sides)
8. Starter..... ENGAGE
9. Throttle.....1000 RPM
10. Oil Pressure.....CHECK
11. Mixture.....LEAN
12. Avionics Master.....ON
13. Flaps.....UP
14. Lights.....AS REQUIRED
15. Avionics/ATIS.....CHECK
16. Flight Instruments.....SET

## DURING TAXI

1. Brakes .....CHECK
2. Flight Instruments.....CHECK



## ENGINE RUN UP

1. Brakes.....SET
2. Flight Controls.....FREE & CORRECT
3. Flight Instruments..... SET
4. Mixture.....RICH
5. Aux Fuel Pump.....ON (rise in fuel pressure), OFF
6. Elevator & Rudder Trim.....TAKEOFF
7. Throttle.....1800 RPM
8. Right and Left Magnetos.....CHECK
  - Max Drop 150 RPM
  - Max Difference 50RPM
9. Propeller .....CYCLE
  - increase in M.A.P.
  - decrease in RPM
  - decrease in Oil Pressure
  - check windshield
10. Carburetor Heat.....CHECK RPM drop
11. CHT, Oil Temp & Pressure.....GREEN
12. Alternator Check.....CHECK
13. Check Suction.....GREEN
14. Throttle w/ carb heat .....IDLE
  - Check for Smooth Operation
15. Throttle .....1000 RPM
16. Carb Heat.....OFF
17. Mixture.....LEAN
18. Radios.....SET
19. Departure Briefing.....COMPLETE
20. Brakes.....RELEASE

## BEFORE TAKEOFF

1. Trim.....ADJUSTED
2. Lights.....AS REQUIRED
3. Heading Indicator.....SET
4. Transponder.....SET TO ALT
5. Propeller.....HIGH RPM
6. Mixture.....AS REQUIRED
7. Flaps .....0°

## NORMAL TAKEOFF

1. Wing Flaps..... 0°
2. Carburetor Heat.....COLD
3. Power.....FULL THROTTLE & 2700 RPM
4. Rotate.....55 KIAS
5. Climb Speed.....70-80 KIAS
6. Brakes.....APPLY momentarily when airborne
7. Landing Gear .....RETRACT

## SHORT FIELD TAKEOFF

1. Wings.....0°
2. Carburetor Heat.....COLD
3. Brakes.....APPLY
4. Power.....FULL THROTTLE & 2700 RPM
5. Brakes.....RELEASE
6. Rotate.....55 KIAS
7. Climb Speed.....63 KIAS
8. Brakes.....APPLY momentarily when airborne
9. Landing Gear .....RETRACT

## CLIMB

1. Flaps .....UP
2. Airspeed.....85-95 KIAS
3. Power.....25 Inches Hg & 2500 RPM
4. Mixture.....RICH (lean above 3,000)
5. Cowl Flaps.....OPEN
6. Lights.....AS REQUIRED

## CRUISE

1. Cruise Power.....15-25 In. Hg, 2100-2700 RPM
2. Elevator & Rudder Trim.....SET
3. Mixture.....LEANED AS REQUIRED
4. Cowl Flaps.....CLOSED
5. Lights.....AS REQUIRED

## DESCENT

1. Power.....AS DESIRED
2. Carburetor Heat.....FULL HEAT as required
3. Mixture.....ADJUST
4. Cowl Flaps.....CLOSED
5. Fuel Selector Valve.....BOTH

## BEFORE LANDING

1. Seats, Belts,.....ADJUST & LOCK
2. Fuel Selector.....BOTH
3. Landing Gear..OBSERVE DOWN & CHECK LIGHT
4. Mixture.....RICH
5. Carburetor Heat.....ON
6. Throttle.....AS REQUIRED
7. Propeller.....HIGH RPM
8. Lights.....AS REQUIRED
9. Autopilot.....OFF

## AFTER LANDING

1. Throttle.....1000 RPM
2. Cowl Flaps.....OPEN
3. Trim.....SET
4. Flaps.....UP
5. Mixture.....LEAN
6. Transponder.....STANDBY
7. Carburetor Heat.....OFF
8. Lights.....AS REQUIRED

## ENGINE SHUTDOWN

1. Parking Brake.....AS REQUIRED
2. Throttle.....1000 RPM
3. Avionics Power Switch.....OFF
4. Electrical Equipment.....OFF
5. Magnetos.....CHECK FOR GROUNDING
6. Mixture.....IDLE CUT OFF
7. Throttle.....CLOSE as RPM drops
8. Ignition Switch.....OFF AND OUT
9. Master Switch.....OFF
10. Control lock.....INSTALL
11. Fuel Selector.....LEFT OR RIGHT
12. Flight Plan.....CLOSED

# ENGINE FAILURES

## DURING TAKEOFF ROLL

Throttle.....IDLE  
Brakes.....APPLY  
Flaps.....RETRACT  
Mixture.....IDLE CUT-OFF  
Ignition Switch.....OFF  
Master Switch.....OFF

## IMMEDIATELY AFTER TAKEOFF

Airspeed .....70/65 (Flaps down)  
Mixture.....IDLE CUT-OFF  
Fuel Shutoff Valve.....OFF  
Ignition Switch.....OFF  
Flaps.....AS REQUIRED  
Master Switch.....OFF  
Cabin Doors.....UNLATCH  
Land.....STRAIGHT AHEAD

## IN FLIGHT

Airspeed.....75 KIAS  
Carburetor Heat.....ON  
Fuel Selector.....BOTH  
Mixture.....RICH  
Ignition Switch.....START/BOTH  
Primer.....IN and LOCKED  
'Power Off Landing' .....EXECUTE



# FIRES

## ENGINE FIRE DURING START

Ignition.....CONTINUE CRANKING

**IF ENGINE STARTS:**  
Power.....1700 RPM for 3 min  
Engine.....SHUTDOWN

Throttle.....FULL OPEN  
Mixture.....IDLE CUT-OFF  
Starter.....CONTINUE CRANKING  
Fuel Shutoff Valve.....OFF  
Auxiliary Fuel Pump.....OFF  
Ignition Switch.....OFF  
Master Switch.....OFF  
Fire Extinguisher.....ACTIVATE  
Airplane.....EVACUATE  
Fire.....EXTINGUISH  
Fire Damage.....INSPECT

## ENGINE FIRE IN FLIGHT

Mixture.....IDLE CUT-OFF  
Fuel Shutoff Valve.....OFF  
Auxiliary Fuel Pump.....OFF  
Master Switch.....OFF  
Cabin Heat and Air.....OFF  
-EXCEPT FOR THE OVERHEAD VENTS  
Airspeed.....105 KIAS  
'Power Off Landing' .....EXECUTE

# ELECTRICAL FIRE IN FLIGHT

Master Switch.....OFF  
Avionics Master Switch.....OFF  
All Electrical Equipment.....OFF  
Vents/Cabin Air/Heat.....OFF  
Fire Extinguisher.....ACTIVATE

**AFTER FIRE IS EXTINGUISHED:**  
Vents/Cabin Air/Heat..... OPEN  
Circ. Breakers.....DO NOT RESET  
Master Switch.....ON  
STBY Battery.....ON  
Avionics Master.....ON

## CABIN FIRE

Master Switch.....OFF  
Vents/Cabin Air/Heat.....CLOSED  
Fire Extinguisher.....ACTIVATE

**AFTER FIRE IS EXTINGUISHED:**  
Vents/Cabin Air/Heat..... OPEN

## WING FIRE

Landing + Taxi Lights.....OFF  
Nav + Strobe Lights.....OFF  
Pitot Heat.....OFF  
Perform SIDESLIP & Land ASAP

# LANDING GEAR

## GEAR EXTENSION FAILURE

Master Switch.....ON  
Landing gear lever.....DOWN  
Landing gear & Gear Pump circuit breakers.....IN  
Emergency Hand Pump.....EXTEND & PUMP  
Gear Down light.....ON  
Pump Handle.....STOW

# GEAR UP LANDING

Landing gear lever.....UP  
Landing gear & Gear Pump circuit breakers.....IN  
Runway.....SELECT  
Wing Flaps.....30°  
Airspeed.....65 KIAS  
Doors.....UNLATCH  
Avionics Switch & Master Switch.....OFF  
Touchdown.....SLIGHTLY TAIL LOW  
Mixture.....IDLE CUT-OFF  
Ignition Switch.....OFF  
Fuel Selector Valve.....OFF  
Airplane.....EVACUATE

# POWER OFF LANDING

Passenger Seat Backs.....UPRIGHT  
Seats + Seatbelts.....SECURE  
Airspeed.....70/65 (Flaps Down)  
Mixture.....IDLE CUT-OFF  
Fuel Shutoff Valve.....OFF  
Ignition Switch.....OFF  
ATC or 121.5.....DECLARE EMERGENCY  
Flaps.....AS REQUIRED  
Master Switch.....OFF  
Doors.....UNLATCH  
Touchdown.....SLIGHTY TAIL LOW  
Brakes.....APPLY HEAVILY  
Landing Gear.....AS REQUIRED

**Refer to the POH for any other emergency procedures**