

NORMAL PROCEDURES**PREFLIGHT****CABIN:**

1. POH & Documents – AVAILABLE
2. Seat Belt – REMOVE FROM YOKE
3. Ignition Switch -- OFF
4. Avionics & Electrical Switches -- OFF
5. Master Switch -- ON
6. Fuel Quantity Indicators -- CHECK
7. Lights -- CHECK IF NEEDED
8. Master Switch -- OFF
9. Flaps -- CHECK MOVEMENT
10. Fuel Selector – LOWEST TANK
11. Pitot & Static Drains -- DRAINED
12. Hobbes & Tachometer -- CHECK

WALKAROUND:**(RIGHT WING)**

1. Flap & Aileron – CHECK
2. Leading Edge -- CHECK
3. Wing Tie Down – DISCONNECT
4. Fuel Quantity – CHECK
5. Fuel Tank Vent Opening – CHECK
6. Tire & Brakes-- CHECK
7. Fuel Drain(s) -- CHECK

(NOSE)

1. Oil -- CHECK
2. Prop & Spinner -- CHECK
3. Cooling Inlet – CHECK
4. Carb Air Inlet – CHECK
5. Alternator Belt -- CHECK FOR TENSION
6. Nose Wheel Strut & Tire -- CHECK
7. Brake Fluid -- CHECK
8. Cowling -- CHECK & SECURE FASTENERS
9. Fuel Drain -- CHECK

(LEFT WING)

1. Fuel Drain -- CHECK
2. Fuel Quantity -- CHECK
3. Tire & Brakes—CHECK
4. Pitot Tube & Static Source—CHECK
5. Fuel Tank Vent Opening – CHECK
6. Wing Tie Down – DISCONNECT
7. Stall Warning Vane – CHECK

8. Leading Edge -- CHECK

9. Aileron & Flap -- CHECK

(EMPENNAGE)

1. Fresh Air Inlet -- CLEAR
2. Tail Tie Down -- DISCONNECT
3. Control Surfaces -- CHECK

PRE-ENGINE START

1. Preflight – COMPLETE
2. Passenger Briefing -- COMPLETE
3. Seats, Belts & Harnesses – ADJUSTED
4. Fuel Selector -- LOWEST TANK
5. Avionics & Electrical Switches -- OFF
6. Brakes -- TEST & SET
7. Circuit Breakers -- CHECK

ENGINE START

1. Mixture -- RICH
2. Carb Heat -- OFF
3. Prime -- AS REQUIRED
4. Throttle -- OPEN SLIGHTLY
5. Prop area -- CLEAR
6. Master Switch -- ON
7. Fuel Pump -- ON
8. Anti-Collision Lights -- ON
9. Ignition -- START
10. Throttle -- 1000 RPM
11. Oil Pressure -- CHECK
12. Nav & Strobe Lights -- ON AS REQUIRED
13. Fuel Pump -- OFF/CHECK FUEL PRESSURE
14. Flaps -- UP
15. Avionics -- ON & TUNED
16. Transponder -- STBY
17. ATIS -- 127.75 (DXR)
18. Ground Control -- 121.6 (DXR)

BEFORE TAKEOFF

1. Brakes -- SET
2. Fuel Selector – SWITCH TO FULLEST TANK
3. Seats, Belts & Harnesses -- CHECK SECURE

4. Doors – CLOSED & LATCHED
5. Flight Controls -- FREE & CORRECT
6. Flight Instruments -- SET
7. Primer – IN & LOCKED
8. Fuel Quantity -- CHECK
9. Fuel Pump -- OFF/CHECK FUEL PRESSURE
10. Mixture -- RICH
11. Elevator Trim -- SET FOR TAKEOFF
12. Throttle -- 2000 RPM
 - a. Magnetos -- CHECK < 175 RPM DROP, 50 RPM DIFFERENTIAL
 - b. Suction Gage -- CHECK 5" ± .1"
 - c. Ammeter -- CHECK
 - d. Carb Heat – ON/CHECK RPM DROP
 - e. Throttle – IDLE/CHECK FOR SMOOTH OPERATION
 - f. Carb Heat -- OFF
13. Throttle – 1000 RPM
14. Throttle Friction Lock -- SET
15. Radios – SET
16. Lights -- AS REQUIRED OR DESIRED
17. Door -- CLOSED & LATCHED
18. Autopilot (if installed) – OFF
19. Emergency Procedures – REVIEWED
20. Departure Plans -- REVIEWED
21. Takeoff Checklist – REVIEWED
22. Tower – 119.4 (DXR)

TAKEOFF**NORMAL:**

1. Fuel Pump -- ON
2. Flaps -- UP
3. Carb Heat -- OFF
4. Transponder – ON/ALT
5. Landing Light -- ON
6. Time -- NOTE
7. Heading Indicator -- CHECK W/RWY
8. Throttle -- FULL OPEN
9. Instruments -- CHECK FOR PROPER INDICATIONS
10. Rotate – 48-53 Kts
11. Climb Speed – 74 Kts (85 mph) (V_y)

SHORT FIELD:

1. Fuel Pump -- ON
2. Flaps -- 25° (2nd Notch)
3. Carb Heat -- OFF
4. Transponder -- ON/ALT
5. Landing Light -- ON
6. Time -- NOTE
7. Heading Indicator -- CHECK W/RWY
8. Brakes -- APPLY
9. Throttle -- FULL OPEN
10. Brakes -- RELEASE
11. Instruments -- CHECK FOR PROPER INDICATIONS
12. Rotate -- 48 Kts
13. Climb Speed -- 64 Kts (V_x)
14. Flaps -- RETRACT AFTER OBSTACLES ARE CLEARED & REACHING 74 Kts

ENROUTE CLIMB

1. Airspeed -- 87 Kts
2. Throttle -- FULL OPEN
3. Fuel Pump -- OFF
4. Mixture -- AS NECESSARY FOR ALTITUDE

CRUISE

1. Throttle -- ADJUST FOR PLANNED RPM
2. Trim -- ADJUST
3. Mixture -- LEAN AS NECESSARY
4. Landing Light -- OFF
5. Fuel Pump -- OFF
6. Heading Indicator -- CHECK WITH COMPASS
6. Fuel Selector -- AS DESIRED

DESCENT

1. Throttle -- AS DESIRED
2. Mixture -- ADJUST FOR ALTITUDE (FULL RICH AT IDLE POWER)

PRE-LANDING

1. Seats, Belts & Harnesses -- CHECK
2. Mixture -- RICH OR AS NEEDED
3. Fuel Selector -- FULLEST TANK
4. Fuel Pump -- ON
5. Landing Light -- ON

LANDING**NORMAL:**

1. Fuel Pump -- ON
2. Airspeed:
 - Downwind -- 85 Kts(98mph)
 - Base -- 75 Kts(86mph)
 - Final -- 65 Kts(75mph)
3. Flaps:
 - Downwind -- 10°
 - Base -- 25°
 - Final -- 40°

SHORT FIELD:

1. Fuel Pump -- ON
2. Airspeed:
 - Downwind -- 75 Kts(86mph)
 - Base -- 65 Kts(75mph)
 - Final -- 63 Kts(73mph)
3. Flaps:
 - Downwind -- 10°
 - Base -- 25°
 - Final -- 40°
4. Throttle -- IDLE AFTER CLEARING OBSTACLE
5. Brakes -- APPLY HEAVILY OR AS NEEDED
6. Flaps -- RETRACT IMMEDIATELY
7. Control Yoke -- HOLD FULL AFT

GO-AROUND

1. Pitch -- UP
2. Throttle -- FULL OPEN
3. Carb Heat -- OFF
4. Flaps -- RETRACT TO 25°
4. Airspeed -- 64 Kts (74mph)
5. Flaps -- RETRACT SLOWLY AFTER REACHING SAFE ALTITUDE & 74 Kts (85mph)

AFTER LANDING

1. Carb Heat -- OFF
2. Flaps -- RETRACT
3. Landing Light -- OFF
4. Fuel Pump -- OFF
5. Transponder -- STBY

SHUTDOWN

1. Brakes -- SET
2. Avionics & Electrical Equipment -- OFF
- *LEAVE BEACON LIGHT (NAV IF REQUIRED) ON UNTIL PROP STOPS***
3. Magnetos -- CHECK FOR ENGINE CUTOFF
4. Mixture -- IDLE CUT-OFF
5. Anti-Collision Lights -- OFF
6. Ignition Switch -- OFF
7. Master Switch -- OFF
8. Seat Belt -- WRAP ON YOKE
9. Tie-Downs -- CONNECTED
10. Pitot Cover -- INSTALL
11. Hobbes & Tachometer Readings -- RECORD
12. Flight Plan -- CLOSE

V-Speeds

V _r -48 Kts (55mph)	V _x -64 Kts (74mph)
V _y -74 Kts (85mph)	V _{s1} -50 Kts
V _{so} -50 Kts (57mph)	V _g - 73 Kts (80 mph)
V _a - 94-112 Kts	V _{no} -122 Kts (140mph)
V _{fe} - 100 Kts (115mph)	V _{final} - 65 Kts (75mph)
V _{ne} - 149 Kts (171mph)	

Max. Crosswind - 15 Kts

Communication

DXR ATIS - 127.75
 DXR Ground - 121.60
 DXR Tower - 119.40
 NY Approach - 126.40
 Bridgeport FSS - 122.20

EMERGENCY PROCEDURES**ENGINE FAILURE****TAKEOFF RUN:**

1. Throttle -- IDLE
2. Brakes -- APPLY AS NEEDED
3. Flaps -- RETRACT
4. Mixture -- IDLE CUT-OFF
5. Ignition Switch -- OFF
6. Electrical Equipment -- OFF
7. Fuel Pump -- OFF
8. Master Switch -- OFF

IMMEDIATELY AFTER TAKEOFF:

1. Airspeed -- 70 Kts (80mph)
2. Mixture -- IDLE CUT-OFF
3. Fuel Selector -- OFF
4. Fuel Pump -- OFF
5. Ignition Switch -- OFF
6. Flaps -- AS REQUIRED (FULL RECOMMENDED)
7. Master Switch -- OFF
8. Landing -- MAKE STRAIGHT AHEAD IN SUITABLE SPOT IF AVAILABLE

DURING FLIGHT:

1. Airspeed -- 70 (80mph) Kts
2. Carb Heat -- ON
3. Fuel Selector -- SWITCH TANKS IF FUEL REMAINS IN OTHER TANK
4. Fuel Pump -- ON
5. Mixture -- RICH
6. Primer -- IN & LOCKED
7. Ignition Switch -- BOTH, LEFT, RIGHT (OR START IF PROP IS STOPPED)

** If Engine doesn't restart, locate a suitable landing spot & follow Emergency Landing checklist.*

FORCED LANDINGS**WITHOUT POWER:**

1. Airspeed -- 73 Kts
2. Seats, Belts & Harnesses -- SECURE
3. Mixture -- IDLE CUT-OFF
4. Fuel Selector -- OFF
5. Ignition Switch -- OFF
6. Flaps -- AS REQUIRED (FULL RECOMMENDED)
7. If Time Permits:
 - a. Transponder -- SQUAWK 7700
 - b. Radio -- TRANSMIT MAYDAY TO ATC (OR 121.5 AS A LAST RESORT) WITH LOCATION & INTENTIONS
8. Electrical Equipment -- OFF
9. Master Switch -- OFF
10. Doors -- UNLATCH PRIOR TO TOUCHDOWN
11. Touchdown -- SLIGHTLY TAIL LOW
12. Brakes -- APPLY HEAVILY
13. Cabin -- EVACUATE AS SOON AS POSSIBLE

PRECAUTIONARY WITH POWER:

1. Airspeed -- 70 (80mph) Kts
2. Flaps -- 25°
3. Seats, Belts & Harnesses -- SECURE
4. Landing Sight -- FLY OVER NOTING CONDITIONS
5. Flaps -- RETRACT UPON SAFE ALTITUDE AND AIRSPEED
6. If Time Permits & Necessary:
 - a. Transponder -- SQUAWK 7700
 - b. Radio -- TRANSMIT MAYDAY TO ATC (OR 121.5 AS A LAST RESORT) WITH LOCATION & INTENTIONS
7. Electrical Equipment -- OFF
8. Flaps -- AS REQUIRED (FULL RECOMMENDED)
9. Master Switch -- OFF
10. Doors -- UNLATCH PRIOR TO TOUCHDOWN
11. Touchdown -- SLIGHTLY TAIL LOW
12. Brakes -- APPLY HEAVILY

DITCHING

1. Radio -- TRANSMIT MAYDAY TO ATC (OR 121.5 AS A LAST RESORT) WITH LOCATION & INTENTIONS
2. Transponder -- SQUAWK 7700
3. Heavy Objects -- SECURE OR JETTISON
4. Approach:
 - High Winds, Heavy Seas -- INTO THE WIND
 - Light Winds, Heavy Swells -- PARALLEL TO THE SWELLS
5. Flaps -- 25°-40°
6. Power -- ESTABLISH 300 FT/MIN DESCENT AT 67 Kts (77mph)
 - *If no power is available, approach at 70 Kts (80mph) & 10° flaps
7. Cabin Doors -- UNLATCH
8. Touchdown -- LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT
9. Face -- CUSHION WITH AVAILABLE OBJECT
10. Cabin -- EVACUATE..IF NECESSARY, OPEN WINDOW AND FLOOD CABIN TO EQUALIZE PRESSURE SO DOORS CAN BE OPENED
11. Life Vest & Raft -- INFLATE IF ON BOARD

FIRES**DURING START ON GROUND:**

1. Cranking -- CONTINUE, AS TO ACQUIRE START THUS SUCKING FLAMES INTO ENGINE
- * If Engine Starts:**
2. Power -- 2000 RPM FOR A FEW MINUTES
 3. Engine -- SHUTDOWN & INSPECT FOR DAMAGE
- * If Engine Fails to Start:**
4. Throttle -- FULL OPEN
 5. Mixture -- IDLE CUT-OFF
 6. Fuel Pump -- OFF

8. Fire Extinguisher -- OBTAIN (HAVE GROUND ATTENDANT OBTAIN IF NOT INSTALLED)
9. Engine -- SECURE
 - a. Master Switch -- OFF
 - b. Ignition Switch -- OFF
 - c. Fuel Selector -- OFF
10. Fire -- EXTINGUISH

ENGINE FIRE IN FLIGHT:

1. Mixture -- IDLE CUT-OFF
2. Fuel Selector -- OFF
3. Fuel Pump -- OFF
4. Master Switch -- OFF
5. Ignition Switch -- OFF
6. Cabin Heat & Air -- OFF (EXCEPT OVERHEAD VENTS)
7. Airspeed -- 100 Kts
*** IF FIRE IS NOT EXTINGUISHED, INCREASE GLIDE SPEED TO PROVIDE INCOMBUSTIBLE MIXTURE ***
8. Forced Landing -- FORCED LANDING WITHOUT POWER

ELECTRICAL FIRE IN FLIGHT:

1. Master Switch -- OFF
2. Electrical Equipment -- OFF
3. Vents -- OPEN
4. Cabin Heat -- OFF
5. Fire Extinguisher -- ACTIVATE IF AVAILABLE
*** VENTILATE CABIN AFTER DISCHARGING EXTINGUISHER ***
- * If Fire appears out & Electrical Equipment is Necessary:**
6. Master Switch -- ON
7. Circuit Breakers -- CHECK FOR FAULTY CIRCUIT (DO NOT RESET)
8. Radio Switches -- OFF
9. Radio/Electrical Switches -- ON..ONE AT A TIME UNTIL SHORT CIRCUIT IS LOCALIZED
10. Vents/Cabin Air/Heat -- ON WHEN DETERMINED THAT FIRE IS COMPLETELY OUT

13. Ignition Switch -- OFF

CABIN FIRE:

1. Master Switch -- OFF
2. Vents/Cabin Air/Heat -- CLOSED
3. Fire Extinguisher -- ACTIVATE IF AVAILABLE
*** VENTILATE CABIN AFTER DISCHARGING EXTINGUISHER ***
4. Flight -- TERMINATE AS SOON AS POSSIBLE

WING FIRE:

1. Navigation Lights -- OFF
2. Pitot Heat -- OFF
3. Strobe Lights -- OFF
4. Flight -- PERFORM SIDE SLIP TO KEEP FLAMES AWAY FROM THE FUEL TANKS & CABIN. LAND AS SOON AS POSSIBLE, USING FLAPS ONLY AS REQUIRED FOR FINAL APPROACH & TOUCHDOWN

ELECTRICAL MALFUNCTIONS**EXCESSIVE LOAD ON ALTERNATOR GAUGE:**

1. Alternator -- ON
2. Battery Switch -- OFF
3. Nonessential Electrical Equipment -- OFF
*** If Alternator Loads are not Reduced:**
4. Alternator -- OFF
5. Battery Switch -- AS REQUIRED
6. Flight -- TERMINATE AS SOON AS PRACTICAL

ALTERNATOR FAILURE: (ZERO READING ON AMMETER)

1. Electrical Equipment -- OFF
2. Alternator Switch -- OFF 30 SECS.
3. Circuit Breaker -- CHECK & RESET AS REQUIRED
4. Alternator Switch -- ON
5. Alternator Gauge -- CHECK OPERATION
6. Electrical Equipment -- ON
*** If Ammeter Returns to Zero Again:**
7. Alternator Switch -- OFF

7. Cranking -- CONTINUE
8. Nonessential Radio & Electrical Equipment -- OFF
9. Flight -- TERMINATE AS SOON AS PRACTICAL

LANDING WITH FLAT TIRE

1. Approach -- Normal
2. Communication -- ADVISE OF SITUATION
3. Touchdown -- GOOD TIRE(S) FIRST, HOLDING AIRPLANE OFF FLAT ONE AS LONG AS POSSIBLE

ICING

1. Pitot Heat -- ON IF INSTALLED
2. Route -- 180° TURN OR CHANGE IN ALTITUDE FOR WARMER AIR
3. Heat -- FULL ON
4. Throttle -- INCREASE TO MINIMIZE ICE ON PROPS
5. Carb Heat -- ON AS REQUIRED
6. Mixture -- LEAN IF CARB HEAT IS USED CONTINUOUSLY
7. Flight -- TERMINATE AS SOON AS POSSIBLE
8. Airspeed -- CAUTION FOR HIGHER STALL SPEED WITH SIGNIFICANT ICE BUILDUP
9. Flaps -- KEEP RETRACTED
10. Approach -- USE FORWARD SLIP FOR IMPROVED VISIBILITY
11. Approach Airspeed -- HIGHER THAN NORMAL
12. Touchdown -- IN LEVEL ATTITUDE

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1. Airspeed -- 89 Kts
2. Cabin Vents -- CLOSE
3. Storm Window -- OPEN
4. Latch -- CLOSE (SIDE BEFORE UPPER)

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