

NOTE

Visually check airplane for general condition during walk-around inspection. Airplane should be parked in a normal ground attitude (refer to Figure 1-1) to ensure that fuel drain valves allow for accurate sampling. Use of refueling steps and assist handles will simplify access to the upper wing surface for visual inspection and refueling. In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also, make sure that control surfaces contain no internal accumulation of ice or debris. Prior to flight, check that pitot heater (if installed) is warm to touch within 30 seconds of battery and pitot heat switches on. If a night flight is planned, check operation of all lights, and make sure a flashlight is available. Check the surrounding area for debris which may be drawn into or blown about by the propeller. If necessary, position the airplane to avoid creating a hazard to buildings, vehicles or persons by the propeller blast

PREFLIGHT INSPECTION**CABIN**

1. Documents/Hobbs/Tach/Squawks—CHECK
2. For IFR **VOR 30 Day Accuracy** – CHECK
3. Pilot's Operating Handbook and **Flyaway logbook** -IN AIRPLANE
4. Control Wheel Lock--REMOVE
5. Ignition Switch--OFF place keys on glare shield
6. **Avionics Master Switch--OFF**
7. Circuit Breakers--IN
8. **Master Switch--ON**

WARNING

WHEN TURNING ON THE MASTER SWITCH, USING AN EXTERNAL POWER SOURCE OR PULLING THE PROPELLER THROUGH BY HAND, TREAT THE PROPELLER AS IF THE IGNITION SWITCH WERE ON. DO NOT STAND NOR ALLOW ANYONE ELSE TO STAND WITHIN THE ARC OF THE PROPELLER, SINCE A BROKEN WIRE OR A COMPONENT MALFUNCTION COULD CAUSE THE PROPELLER TO ROTATE.

9. Flashing Beacon--ON / CHECK
10. Fuel Quantity Indicators—**CHECK QUANTITIES AND ENSURE LOW FUEL ANNUNCIATORS (L LOW FUEL R) ARE EXTINGUISHED.**
11. **Avionics Master Switch –ON**
12. Avionics Cooling Fan –**CHECK FOR AUDIBLE OPERATION**
13. **Avionics Master Switch- OFF**
14. Static Pressure Alternate Air Source Valve –OFF
15. Annunciator Panel Switch – PLACE AND HOLD IN TST POSITION and ensure that all Annunciator illuminates
16. Annunciator Panel Test Switch –RELEASE. Check that appropriate annunciators remain on.

NOTE

When Master Switch is turned on, some annunciators will flash for approximately 10 seconds before illuminating steadily. When panel TST switch is toggled up and held in position, all remaining lights will flash until the switch is released

17. Fuel Selector Valve – **CHECK, Movement. Left, Right, Off, SET TO BOTH**
18. Fuel Shut Off Valve – ON (Push full in)
19. Flaps—EXTEND
20. Pitot Heat – ON. (Carefully check that pitot tube is warm to the touch within 30 seconds)
21. Pitot Heat - OFF
22. Exterior and Interior Lights (for night flight)--CHECK
23. **Master Switch--OFF**
24. Baggage Door—CHECK, Lock with Key.

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EMPENNAGE

1. Rudder Gust Lock—REMOVE (if installed)
2. Tail Tie-Down--DISCONNECT
3. Control Surfaces--CHECK freedom of movement and security
4. Trim Tab --CHECK security
5. Antennas --CHECK for security of attachment and general condition

RIGHT WING Trailing Edge

1. Flap--CHECK for security and damage
2. Aileron--CHECK freedom of movement and security

RIGHT WING

1. Wing Tip and Lights--CHECK
2. Wing Tie-Down--DISCONNECT
3. Main Wheel/Tire--CHECK brakes, tire condition/inflation, chocks
4. Fuel Tank Sump Quick Drain Valves—DRAIN at least a cupful of fuel from each location to check for water, sediment and proper grade of fuel before each flight and after each refueling. If water is observed, take additional samples until clear and then rock the wings and lower the tail to the ground to move any additional contaminants to the sampling points. Take repeated samples from all drain points until all contamination has been removed. **If contamination is still present, refer to warning below and do not fly airplane.**

WARNING

IF AFTER REPEATED SAMPLING, EVIDENCE OF CONTAMINATION STILL EXISTS, THE AIRPLANE SHOULD NOT BE FLOWN. TANKS SHOULD BE DRAIEND AND SYSTEM PURGED BY QUALIFIED MMAINTENANCE PERSONNEL. ALL EVIDENCE OF CONTAMINATION MUST BE REMOVED BEFORE FURTHER FLIGHT

5. Fuel Quantity--CHECK VISUALLY for desired level
6. Fuel Filler Cap—SECURE (**this should be a vented cap**)

NOSE

1. Fuel Strainer Quick Drain Valves—DRAIN at least a cupful of fuel from valve to check for water, sediment and proper grade of fuel before each flight and after each refueling. If water is observed, take additional samples until clear and then rock the wings and lower the tail to the ground to move any additional contaminants to the sampling points. Take repeated samples from all drain points until all

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- contamination has been removed. **If contamination is still present, refer to warning below and do not fly airplane.**
2. Engine Oil Level—CHECK oil level and then check dipstick/filler cap secure. **do not operate with less than six quarts.** Fill to eight quarts for extended flight
 3. Engine Cooling Air Inlets- CLEAR of obstructions, check for cylinder baffle integrity, oil leaks, and alternator belt security.
 4. Propeller and Spinner--CHECK for nicks and security
 5. Landing/Taxi Lights--CHECK condition and cleanliness
 6. Air Filter--CHECK for restrictions, dust, or foreign matter
 7. Nose Wheel Strut and Tire--CHECK condition, inflation, and security
 8. Nose Tie-Down--DISCONNECT, remove chocks
 9. Static Port (left side of fuselage)--CHECK for BLOCKAGE

LEFT WING

1. Fuel Quantity--CHECK VISUALLY for desired level
2. Fuel Filler Cap-SECURE and VENT UNOBSTRUCTED
3. Fuel Tank Fuel Tank Sump Quick Drain Valves—DRAIN at least a cupful of fuel from each location to check for water, sediment and proper grade of fuel before each flight and after each refueling. If water is observed, take additional samples until clear and then rock the wings and lower the tail to the ground to move any additional contaminants to the sampling points. Take repeated samples from all drain points until all contamination has been removed. **If contamination is still present, refer to warning below and do not fly airplane.**
4. Main Wheel/Tire--CHECK brakes, tire condition/inflation, chocks

LEFT WING Leading Edge

1. Pitot Tube Cover--REMOVE, check opening for stoppage
2. Fuel Tank Vent Opening--CHECK for stoppage
3. Stall Warning Opening--CHECK for stoppage. To check operation, place a handkerchief over the vent opening and apply suction; a sound from the warning horn will confirm system operation
4. Wing Tie-Down--DISCONNECT
5. Wing Tip and Lights--CHECK

LEFT WING Trailing Edge

1. Aileron--CHECK freedom of movement and security
2. Flap--CHECK for security and damage

SECTION 4 NORMAL PROCEDURES

SPEEDS FOR NORMAL OPERATION (Section 4 POH)

Unless otherwise noted, the following speeds are based on a maximum weight of 2450 pounds and may be used for any lesser weight.

	<u>KNOTS IAS</u>
Takeoff, Flaps Up:	
Normal Climb Out.....	75-85
Short Field Takeoff, Flaps 10°, Speed at 50 Feet.....	56
Enroute Climb, Flaps Up:	
Normal, Sea Level.....	75-85
Normal, 10,000 Feet.....	70-80
Best Rate of Climb, Sea Level	74
Best Rate of Climb, 10,000 Feet	72
Best Angle of Climb, Sea Level	62
Best Angle of Climb, 10,000 Feet	67
Landing Approach:	
Normal Approach, Flaps Up	65-75
Normal Approach, Flaps 30°	60-70
Short Field approach, Flaps 30°	61
Balked Landing:	
Maximum Power, Flaps 20°	60
Maximum Recommended Turbulent Air Penetration Speed:	
2550 Lbs	105
2200 Lbs	98
1900 Lbs	90
Maximum Demonstrated Crosswind Velocity:	
Takeoff or Landing.....	15 Knots

BEFORE STARTING ENGINE

1. Surrounding Area--CHECK FOR PERSONNEL AND HAZARDS; REMOVE CHOCKS AND TOW BAR. IF REQUIRED MOVE AIRCRAFT TO AVOID PROPWASH ON PARKING AREA/HANGAR
2. Preflight Inspection--COMPLETE
3. Seats--ADJUST AND LOCK. Ensure Inertia Reels locking.
4. Seat Belts and Shoulder Harnesses--ADJUST and LOCK
5. Passengers--BRIEFED
6. Fuel Selector Valve—CHECK BOTH
7. Fuel Shutoff Valves – ON (push full in)
8. Electrical Equipment, Autopilot – CHECK OFF
9. Circuit Breakers--CHECK IN
10. Avionics Circuit Breakers—CHECK IN
11. **Avionics Master Switch – CHECK OFF**

CAUTION

AVIONICS MASTER SWITCH MUST BE OFF DURING ENGINE START TO PREVENT POSSIBLE DAMAGE TO AVIONICS

12. Flashing Beacon Switch--CHECK ON
13. Brakes--TEST and SET

STARTING ENGINE

1. Throttle--OPEN 1/4 INCH
2. Mixture – IDLE CUT OFF
3. Propeller Area--CLEAR
4. Master Switch -- ON
5. Auxiliary Fuel Pump Switch –ON

NOTE

IF ENGINE IS ALREADY WARM OMIT STEP 6 TO AVOID FLOODING ENGINE

6. Mixture – ADVANCE Mixture until just starts to rise and then return to IDLE CUT OFF position (this primes cold engine)
7. Auxiliary Fuel Pump Switch –OFF
8. Ignition Switch –START (release when engine starts)

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NOTE

CRANK STARTER FOR 10 SECONDS, FOLLOVED BY 20 SECOND COOL DOWN PERIOD. THIS CYCLE CAN BE REPEATED TWICE THEN COOL DOWN FOR 10 MINUTES. THREE MORE 10 START CYCLE ATTEMPTS CAN BE MADE AS ABOVE.

9. Mixture – ADVANCE smoothly to RICH when engine fires

NOTE

IF ENGINE FLOODS, TURN OFF AUXILIARY FUEL PUMP, PLACE MIXTURE ATY IDLE CUT OFF, OPEN THROTTLE ONE-HALF FULL, AND CRANK ENGINE. WHEN ENGINE FIRES, ADVANCE MIXTURE TO FULL RICH AND RETARD THROTTLE PROMPTLY.

10. Oil Pressure -- CHECK
11. flashing Beacon and Navigation Lights--ON as required
12. **Avionics Master Switch – ON**
13. Radios -- SET & CHECK OPERATION.
14. Transponder -- SQUAWK STBY
15. Electrical Equipment--ON as required
16. Flaps--RETRACT

TAXI CHECK

1. Radio—**Contact FSS and Activate Flight Plan** prior to taxi
2. Taxi- REQUEST TAXI CLEARANCE or announce intentions
2. Brakes--CHECK during initial movement
3. Maintain 1200 RPM for all ground operations and lean mixture for maximum RPM during taxi (See POH page 4-27)
3. Nose Wheel Steering--CHECK
4. Ailerons--POSITION for crosswind taxi
5. Magnetic Compass, Directional Gyro, Turn Coordinator—CHECK

BEFORE TAKEOFF

1. Parking Brake--SET
2. Seats, Seat Belts, Shoulder Harnesses--CHECK SECURE

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3. Cabin Doors and Windows--CLOSED and LOCKED
4. Flight Controls--FREE, and CORRECT
5. Flight Instruments--SET (Attitude Ind, Directional Gyro, Altimeter)
6. Fuel Quantity--CHECK
7. Mixture--RICH (below 3000 feet)
8. Fuel Selector Valve--RECHECK ON
9. Elevator and Rudder Trim (if installed)--SET FOR TAKEOFF
10. Throttle--1800 RPM
 - a. Magnetos--CHECK (RPM drop should not exceed 150 RPM on either magneto or 50 RPM differential between magnetos)
 - b. Engine Instruments and Ammeter--CHECK
 - c. Suction Gauge--CHECK
11. Annunciator Panel—ENSURE no annunciators are illuminated
12. Throttle--1200 RPM or less. Relean mixture for extended taxi.
13. **Auto pilot checklist- COMPLETE (Deactivate if not in use)**
14. Throttle Friction Lock –ADJUST
15. Navigation Lights and Strobes--ON as required
16. Flaps--AS REQUIRED
17. Radios (comm and nav)—SET(GPS—observe self test, enter flight plan if needed
18. Call Tower for Takeoff Clearance or announce takeoff intentions.
19. Transponder -- SET CODE & SQUAWK ALTITUDE
20. Record Time Off

LINE-UP CHECK

1. **Taxi into position –Perform Visual Check of runway final approaches for conflicting Traffic**
2. Compass and Directional Gyro Heading—CHECK
3. Mixture Rich if Leaned for Taxi
4. Landing / Taxi Lights--AS REQUIRED
5. Brakes—RELEASE

TAKEOFF

NORMAL TAKEOFF

1. Wing Flaps--UP
2. Throttle--FULL OPEN
3. Mixture—RICH (above 3000 ft LEAN to obtain maximum RPM)
4. Elevator Control--LIFT NOSE WHEEL (at 55 KIAS)
5. Climb Speed--75-85 KIAS

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SHORT FIELD TAKEOFF

1. Wing Flaps--10°
2. Brakes--APPLY
3. Throttle--FULL OPEN
4. Mixture--RICH (above 3000 feet LEAN to obtain maximum RPM)
5. Brakes--RELEASE
6. Elevator Control--SLIGHTLY TAIL LOW Nose up at 51 KIAS
7. Climb Speed-56 KIAS (until all obstacles are cleared then Vy)

SOFT FIELD TAKEOFF

1. Wing Flaps--10°
2. Carburetor Heat--COLD
3. Use ROLLING TAKEOFF Technique
4. Throttle--FULL OPEN
5. Elevator Control--LIFT AIRCRAFT off ground as soon as practical
6. LEVEL AIRCRAFT just above runway surface
7. ACCELERATE to Appropriate Airspeed for Climb
8. Wing Flaps--RETRACT slowly after reaching 60 KIAS

ENROUTE CLIMB

1. Airspeed--75-85 KIAS

NOTE

If a maximum performance climb is necessary,
use speeds shown in the Rate of Climb chart in Section 5

2. Throttle--FULL OPEN
3. Mixture-- RICH (above 3000 feet, LEAN to obtain maximum RPM)

CRUISE

1. Power--2100-2700 RPM (No More than 75%)
2. Elevator and Rudder Trim (if installed)--ADJUST
3. Mixture--LEAN for maximum RPM
4. Directional Gyro--CHECK / SET

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NOTE

LEAN MIXTURE FOR MAXIMUM RPM DURING ALL OPERATIONS AT ANY ALTITUDE, INCLUDING THOSE BELOW 3000 FT WHEN USING 75% OR LESS POWER.

DESCENT

1. Power--AS DESIRED
2. Mixture--ADJUST for smooth operation (full rich for idle power)
3. Fuel Selector Valve—BOTH

BEFORE LANDING

1. Pilot and Passenger Seat Backs – MOST UPRIGHT POSITION
2. Seats, Seat Belts, Shoulder Harnesses--SECURE
3. Fuel Selector Valve--BOTH
4. Mixture—RICH
5. Landing/Taxi lights –ON
6. Autopilot –OFF

LANDING

NORMAL LANDING

1. Airspeed--65-75 KIAS (flaps up)
2. Wing Flaps--AS DESIRED
(0° - 10° below 110 KIAS, 10° - 30° below 85 KIAS)
3. Airspeed--60-70 KIAS (flaps down)
4. Touchdown--MAIN WHEELS FIRST
5. Landing Roll--LOWER NOSE WHEEL GENTLY
6. Braking--MINIMUM REQUIRED

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SHORT FIELD LANDING

1. Airspeed 65-75 KIAS (flaps up)
2. Wing Flaps--FULL DOWN (30°)
3. Airspeed--61 KIAS (until flare)
4. Power--REDUCE to idle after clearing obstacle
5. Touchdown--MAIN WHEELS FIRST
6. Brakes--APPLY HEAVILY
7. Wing Flaps—RETRACT

SOFT FIELD LANDING

1. Normal Approach and Landing Configuration
2. Power—AS REQUIRED on final approach and through touchdown (Approx 1400-1500 RPM)
3. Touchdown—SOFTLY on main wheels. Maintain nose high attitude with minimum weight on nose wheel through roll-out
4. Brakes—NONE unless absolutely necessary

BALKED LANDING

1. Throttle--FULL OPEN
2. Wing Flaps--20° (Immediately)
3. Climb Speed--60 KIAS
4. Wing Flaps--10° until obstacles are cleared. RETRACT (after reaching a safe altitude and 60 KIAS)

AFTER LANDING

1. Wing Flaps--UP
2. Transponder--STBY
3. Radio Call--TAXI INSTRUCTIONS --Announce intentions.
4. Strobe Lights—OFF
5. Landing/Taxi Lights—OFF (as required at night)
6. Close Flight Plan after Tower frequency release

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NOTE

THE FOLLOWING PROCEDURE IS PROVIDED FOR AIRCRAFT SHUTDOWN AT THE FUEL TANKS FOR REFUELING AS REQUIRED BY SOP.

1. Parking Brake—SET as required
2. Flight Plan--CLOSED
3. **Avionics Master Switch -- OFF**
4. Electrical Equipment, autopilot —OFF
5. Mixture--IDLE CUT-OFF
6. Ignition Switch--OFF REMOVE KEYS AND PLACE ON GLARE SHIELD
7. Master Switch--OFF
8. Fuel Selector –**SET to RIGHT OR LEFT**
9. Chock Airplane -CHECK
10. Connect Fueling Grounding Wire --CHECK
11. Unlock Pump –TURN ON
12. Position Ladder and Fuel Hose-CHECK
13. Refueling- **TO BOTTOM OF FILLER NECKS**
14. After Refueling –NOTE fuel quantity for log
15. Replace hose at pump, lock pump, get keys, move hose to safe area-
16. Disconnect and roll up Grounding wire- CHECK
17. Remove Chocks- CHECK
18. Attach tow bar, and move aircraft to parking position-CHECK

SECURING AIRCRAFT

1. Parking Brake—SET as required
2. Tiedown Wings, then tighten tail tiedown -CHECK
3. Chock Main wheel- CHECK
4. Hobbs, Tach, fuel and Squawks--RECORD
5. Control Lock--INSTALL
6. Clean Cabin, Store Belts, Replace Sun Screens and Covers --CHECK
7. Collect Keys and Airplane Book, pilot gear –CHECK
8. Log Aircraft back in—CHECK. Note Squawks, fuel, oil, flight time.
9. Return keys to Key box - CHECK

SECTION 3

EMERGENCY PROCEDURES

AIRSPEEDS FOR EMERGENCY OPERATION

Engine Failure After Takeoff:	<u>KNOTS IAS</u>
Wing Flaps Up	70
Wing Flaps Down.....	65
Maneuvering Speed:	
2550 Lbs.....	105
2200 Lbs.....	98
1900 Lbs.....	90
Maximum Glide.....	68
Precautionary Landing With Engine Power	65
Landing Without Engine Power:	
Wing Flaps Up	70
Wing Flaps Down.....	65

OPERATIONAL CHECKLISTS

ENGINE FAILURES

ENGINE FAILURE DURING TAKEOFF RUN

1. Throttle--IDLE
2. Brakes--APPLY HEAVILY
3. Wing Flaps--RETRACT
4. Mixture--IDLE CUTOFF
5. Ignition Switch--OFF
6. Master Switch--OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

1. Airspeed-- 70 KIAS (flaps up)
65 KIAS (flaps down)
2. Mixture--IDLE CUTOFF
3. Fuel Selector Valve--OFF
4. Ignition Switch--OFF
5. Wing Flaps--AS REQUIRED
6. Master Switch--OFF

ENGINE FAILURE DURING FLIGHT

1. Airspeed-- 68 KIAS
2. Fuel Selector Valve--BOTH
3. Mixture--RICH
4. Master Switch--ON
5. Ignition Switch--BOTH (or START if prop is stopped)
6. Primer--IN and LOCKED
7. Radio--TRANSMIT "MAYDAY" CALL 121.5 MHz
8. Transponder—7700

FORCED LANDINGS**EMERGENCY LANDING WITHOUT ENGINE POWER**

1. Airspeed-- 70 KIAS (flaps UP)
65 KIAS (flaps DOWN)
2. Mixture--IDLE CUTOFF
3. Fuel Selector Valve--OFF
4. Ignition Switch--OFF
5. Wing Flaps--AS REQUIRED (30° recommended)
6. Master Switch--OFF
7. Seat Belts--FASTENED
8. Doors--UNLATCH PRIOR TO TOUCHDOWN
9. Touchdown--SLIGHTLY TAIL LOW
10. Brakes--APPLY HEAVILY

PRECAUTIONARY LANDING WITH ENGINE POWER

1. Wing Flaps 20°
2. Airspeed--65 KIAS
3. Selected Field--FLY OVER, noting terrain and obstructions, then retract flaps upon reaching a safe altitude and airspeed
4. Radios and Electrical Switches--OFF
5. Wing Flaps--30° (on final approach)
6. Airspeed--65 KIAS
7. Master Switch--OFF
8. Doors--UNLATCH PRIOR TO TOUCHDOWN
9. Touchdown--SLIGHTLY TAIL LOW
10. Ignition Switch--OFF
11. Brakes--APPLY HEAVILY

DITCHING

1. Radio--TRANSMIT MAYDAY on 121.5 MHz , giving location and intentions and SQUAWK 7700
2. Heavy Objects --SECURE OR JETTISON
3. Approach--High Winds, Heavy Seas--INTO THE WIND
Light Winds, Heavy Swells--PARALLEL TO SWELLS
4. Wing Flaps--30° recommended
5. Power--ESTABLISH 300 FPM DESCENT AT 65 KIAS

NOTE

If no power is available, approach at 70 KIAS (flaps up)
or 6 KIAS with 10° flaps

6. Cabin Doors--UNLATCH
7. Touchdown--LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT
8. Face--CUSHION at touchdown with folded coat
9. Airplane--EVACUATE through cabin doors. If necessary, open window and flood cabin to equalize pressure so doors can be opened.
10. Life Vests and Raft—INFLATE

FIRES**DURING START ON GROUND**

1. Cranking--CONTINUE to get a start which would suck the flames and accumulated fuel through the carburetor and into the engine.

If Engine Starts:

2. Power--1700 RPM for a few minutes
3. Engine--SHUT DOWN and inspect for damage

If Engine Fails to Start:

4. Throttle--FULL OPEN
5. Mixture--IDLE CUT-OFF
6. Cranking--CONTINUE
7. Fire Extinguisher--OBTAIN
(have ground attendants obtain if not installed)
8. Engine--SECURE
 - a. Master Switch--OFF
 - b. Ignition Switch--OFF
 - c. Fuel Selector Valve--OFF
9. Fire--EXTINGUISH using fire extinguisher, wool blanket or dirt
10. Fire Damage--INSPECT, repair damage or replace damaged components or wiring before conducting another flight

ENGINE FIRE IN FLIGHT

1. Mixture--IDLE CUT-OFF
2. Fuel Selector Valve--OFF
3. Master Switch--OFF
4. Cabin Heat and Air--OFF (except overhead vents)
5. Airspeed--100 KIAS (If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture)
6. Forced Landing--EXECUTE (as described in Emergency Landing without Engine Power)

ELECTRICAL FIRE IN FLIGHT

1. Master Switch--OFF
2. Avionics Power Switch--OFF
3. All Other Switches (except ignition switch)--OFF
4. Vents / Cabin Air / Heat--CLOSED
5. Fire Extinguisher--ACTIVATE (if available)

WARNING

After discharging an extinguisher in a closed cabin, ventilate the cabin

If fire appears out and electrical power is necessary for continued flight:

6. Master Switch--ON
7. Circuit Breakers--CHECK for faulty circuit, do not reset
8. Radio Switches--OFF
9. Avionics Power Switch--ON
10. Radios / Electrical Switches--ON one at a time, with delay after each until short circuit is located
11. Vents / Cabin Air / Heat--OPEN when it is ascertained that fire is completely extinguished

CABIN FIRE

1. Master Switch--OFF
2. Vents / Cabin Air / Heat--CLOSED (to avoid drafts)
3. Fire Extinguisher--ACTIVATE (if available)

WARNING

After discharging an extinguisher in a closed cabin, ventilate the cabin

4. Land the airplane as soon as possible to inspect for damage

WING FIRE

1. Navigation Light Switch--OFF
2. Pitot Heat Switch (if installed) --OFF
3. Strobe Light Switch (if installed) -- OFF

NOTE

Perform a side slip to keep flames away from fuel tank and cabin, and land as soon as possible using flaps only as required on final approach.

ICING**INADVERTENT ICING ENCOUNTER**

1. Turn pitot heat switch ON (if installed)
2. Turn back or change altitude to obtain an outside temperature that is less conducive to icing
3. Pull cabin heat control full out and open defroster outlets to obtain maximum windshield defroster airflow. Adjust cabin air control to get maximum defroster heat and airflow
4. Open the throttle to increase engine speed and minimize ice build-up on propeller blades
5. Watch for signs of an unexplained loss in engine speed could be caused by air intake filter ice.
6. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site
7. With an ice accumulation of 1/4 inch or more on the wing leading edges, be prepared for a significantly higher stall speed.
8. Leave wing flaps retracted. With a severe build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in loss of elevator effectiveness.
9. Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach
10. Perform a landing approach using a forward slip, of necessary for improved visibility
11. Approach at 65-75 KIAS depending upon the amount of the accumulation
12. Perform a landing in a level attitude

STATIC SOURCE BLOCKAGE**(Erroneous Instrument Reading Suspected)**

1. Alternate Static Source Valve--PULL ON
2. Airspeed--Consult calibration tables in Section V

LANDING WITH A FLAT MAIN TIRE

1. Approach--NORMAL
2. Touchdown--GOOD TIRE FIRST, hold airplane off flat tire as long as possible

**ELECTRICAL POWER SUPPLY SYSTEM
MALFUNCTIONS****AMMETER SHOWS EXCESSIVE RATE OF CHARGE****(Full Scale deflection)**

1. Alternator--OFF
2. Alternator Circuit Breaker--PULL
3. Nonessential Electrical Equipment--OFF
4. Flight--TERMINATE as soon as practical

LOW VOLTAGE LIGHT ILLUMINATES DURING FLIGHT**(Ammeter Indicates Discharge)****NOTE**

Illumination of the low-voltage light may occur during low RPM conditions with an electrical load on the system such as during a low RPM taxi. Under these conditions, the light will go out at higher RPM. the master switch need not be recycled since an over-voltage condition has not occurred to de-activate the alternator system.

1. Avionics Master Switch--OFF
2. Alternator Circuit Breaker--CHECK IN
3. Master Switch--OFF (both sides)
4. Master Switch--ON
5. Low Voltage Light--CHECK OFF
6. Avionics Master Switch--ON

If Low Voltage Light Illuminates Again:

7. Alternator--OFF (Left side of master switch)
8. Non-essential Radio and Electrical Equipment--OFF
9. Flight--TERMINATE as soon as practical