



CT182T
EMERGENCY PROCEDURES





Airspeeds For Emergency Operations

Engine failure after takeoff

| | |
|-----------------------|---------|
| Wing Flaps UP | 75 KIAS |
| Wing Flaps 10° - FULL | 70 KIAS |

MANEUVERING SPEED

| | |
|---|----------|
| 3100 POUNDS | 110 KIAS |
| 2600 POUNDS | 101 KIAS |
| 2100 POUNDS | 91 KIAS |
| MAXIMUM GLIDE | |
| 3100 POUNDS | 75 KIAS |
| 2600 POUNDS | 69 KIAS |
| 2100 POUNDS | 62 KIAS |
| PRECAUTIONARY LANDING WITH ENGINE POWER | 70 KIAS |
| LANDING WITHOUT ENGINE POWER | |
| Wing Flaps UP | 75 KIAS |
| Wing Flaps 10° - FULL | 70 KIAS |

Emergency Procedures

Procedures in the Emergency Procedures Checklist portion of this section shown in bold faced type are immediate action items which should be committed to memory.

Engine Failures

Engine Failure During Takeoff Roll

1. Throttle Control - IDLE (pull full out)
2. Brakes - APPLY
3. Wing Flaps - RETRACT
4. Mixture Control - IDLE CUTOFF (pull full out)
5. MAGNETOS Switch - OFF
6. STBY BATT Switch - OFF
7. MASTER Switch (ALT and BAT) - OFF

Engine Failure Immediately After Takeoff

1. Airspeed - 75 KIAS - Flaps UP 70 KIAS - Flaps 10° - FULL
2. Mixture Control - IDLE CUTOFF (pull full out)
3. FUEL SELECTOR Valve - PUSH DOWN and ROTATE to OFF
4. MAGNETOS Switch - OFF
5. Wing Flaps - AS REQUIRED (FULL recommended)
6. STBY BATT Switch - OFF
7. MASTER Switch (ALT and BAT) - OFF
8. Cabin Door - UNLATCH
9. Land - STRAIGHT AHEAD



Engine Failure During Flight (Restart Procedures)

1. Airspeed - 75 KIAS (best glide speed)
2. FUEL SELECTOR Valve - BOTH
3. FUEL PUMP Switch - ON
4. Mixture Control - RICH (if restart has not occurred)
5. MAGNETOS Switch - BOTH (or START if propeller is stopped)

NOTE: If the propeller is windmilling, engine will restart automatically within a few seconds. If propeller has stopped (possible at low speeds), turn MAGNETOS switch to START, advance throttle slowly from idle and lean the mixture from full rich as required to obtain smooth operation.

6. FUEL PUMP Switch - OFF

NOTE: If the indicated fuel flow (FFLOW GPH) immediately drops to zero, a sign of failure of the engine-driven fuel pump, return the FUEL PUMP switch to the ON position.

Forced Landings

Emergency Landing Without Engine Power

1. Pilot and Passenger Seat Backs - MOST UPRIGHT POSITION
2. Seats and Seat Belts - SECURE
3. Airspeed - 75 KIAS - Flaps UP 70 KIAS - Flaps 10° - FULL
4. Mixture Control - IDLE CUTOFF (pull full out)
5. FUEL SELECTOR Valve - PUSH DOWN and ROTATE to OFF
6. MAGNETOS Switch - OFF
7. Wing Flaps - AS REQUIRED (FULL recommended)
8. STBY BATT Switch - OFF
9. MASTER Switch (ALT and BAT) - OFF (when landing is assured)
10. Doors - UNLATCH PRIOR TO TOUCHDOWN
11. Touchdown - SLIGHTLY TAIL LOW
12. Brakes - APPLY HEAVILY

Precautionary Landing With Engine Power

1. Pilot and Passenger Seat Backs - MOST UPRIGHT POSITION
2. Seats and Seat Belts - SECURE
3. Airspeed - 75 KIAS
4. Wing Flaps - 20°
5. Selected Field - FLY OVER (noting terrain and obstructions)
6. Wing Flaps - FULL (on final approach)
7. Airspeed - 70 KIAS
8. STBY BATT Switch - OFF
9. MASTER Switch (ALT and BAT) - OFF (when landing assured)
10. Doors - UNLATCH PRIOR TO TOUCHDOWN
11. Touchdown - SLIGHTLY TAIL LOW
12. Mixture Control - IDLE CUTOFF (pull full out)
13. MAGNETOS Switch - OFF
14. Brakes - APPLY HEAVILY



Ditching

1. Radio - TRANSMIT MAYDAY on 121.5 MHz, (give location, intentions and SQUAWK 7700)
2. Heavy Objects (in baggage area) - SECURE OR JETTISON (if possible)
3. Pilot and Passenger Seat Backs - MOST UPRIGHT POSITION
4. Seats and Seat Belts - SECURE
5. Wing Flaps - 20° to FULL
6. Power - ESTABLISH 300 FT/MIN DESCENT AT 65 KIAS

NOTE: If no power is available, approach at 70 KIAS with Flaps UP or at 65 KIAS with Flaps 10°.

7. Approach -High Winds, Heavy Seas - INTO THE WIND Light Winds,
Heavy Swells - PARALLEL TO SWELLS
8. Cabin Doors - UNLATCH
9. Touchdown - LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT
10. Face - CUSHION AT TOUCHDOWN (with folded coat)
11. ELT - ACTIVATE
12. Airplane - EVACUATE THROUGH CABIN DOORS

NOTE: If necessary, open window and flood cabin to equalize pressure so doors can be opened.

13. Life Vests and Raft - INFLATE WHEN CLEAR OF AIRPLANE

Fires

During Start On Ground

1. MAGNETOS Switch - START (continue cranking to start the engine) IF ENGINE STARTS
2. Power - 1800 RPM (for a few minutes)
3. Engine - SHUTDOWN (inspect for damage) IF ENGINE FAILS TO START
2. Throttle Control - FULL (push full in)
3. Mixture Control - IDLE CUTOFF (pull full out)
4. MAGNETOS Switch - START (continue cranking)
5. FUEL SELECTOR Valve - PUSH DOWN and ROTATE to OFF
6. FUEL PUMP Switch - OFF
7. MAGNETOS Switch - OFF
8. STBY BATT Switch - OFF
9. MASTER Switch (ALT and BAT) - OFF
10. Engine - SECURE
11. Parking Brake - RELEASE
12. Fire Extinguisher - OBTAIN (have ground attendants obtain if not installed)
13. Airplane - EVACUATE
14. Fire - EXTINGUISH (using fire extinguisher, wool blanket, or dirt)
15. Fire Damage - INSPECT (repair or replace damaged components and/or wiring before conducting another flight)



Engine Fire In Flight

1. Mixture Control - IDLE CUTOFF (pull full out)
2. FUEL SELECTOR Valve - PUSH DOWN and ROTATE to OFF
3. FUEL PUMP Switch - OFF
4. MASTER Switch (ALT and BAT) - OFF
5. Cabin Vents - OPEN (as needed)
6. CABIN HT and CABIN AIR Control Knobs - OFF (push full in)
7. Airspeed - 100 KIAS (If fire is not extinguished, increase glide speed to find an airspeed, within airspeed limitations, which will provide an incombustible mixture)
8. Forced Landing - EXECUTE (refer to EMERGENCY LANDING WITHOUT ENGINE POWER)

Electrical Fire In Flight

1. STBY BATT Switch - OFF
2. MASTER Switch (ALT and BAT) - OFF
3. Cabin Vents - CLOSED (to avoid drafts)
4. CABIN HT and CABIN AIR Control Knobs - OFF (push full in) (to avoid drafts)
5. Fire Extinguisher - ACTIVATE (if available)
6. AVIONICS Switch (BUS 1 and BUS 2) - OFF
7. All Other Switches (except MAGNETOS switch) - OFF WARNING AFTER THE FIRE EXTINGUISHER HAS BEEN USED, MAKE SURE THAT THE FIRE IS EXTINGUISHED BEFORE EXTERIOR AIR IS USED TO REMOVE SMOKE FROM THE CABIN.
8. Cabin Vents - OPEN (when sure that fire is completely extinguished)
9. CABIN HT and CABIN AIR Control Knobs - ON (pull full out) (when sure that fire is completely extinguished) IF FIRE HAS BEEN EXTINGUISHED AND ELECTRICAL POWER IS NECESSARY FOR CONTINUED FLIGHT TO NEAREST SUITABLE AIRPORT OR LANDING AREA
10. Circuit Breakers - CHECK (for OPEN circuit(s), do not reset)
11. MASTER Switch (ALT and BAT) - ON
12. STBY BATT Switch - ARM
13. AVIONICS Switch (BUS 1) - ON
14. AVIONICS Switch (BUS 2) - ON

Cabin Fire

1. STBY BATT Switch - OFF
2. MASTER Switch (ALT and BAT) - OFF
3. Cabin Vents - CLOSED (to avoid drafts)
4. CABIN HT and CABIN AIR Control Knobs - OFF (push full in) (to avoid drafts)
5. Fire Extinguisher - ACTIVATE (if available)

WARNING

AFTER THE FIRE EXTINGUISHER HAS BEEN USED, MAKE SURE THAT THE FIRE IS EXTINGUISHED BEFORE EXTERIOR AIR IS USED TO REMOVE SMOKE FROM THE CABIN.

6. Cabin Vents - OPEN (when sure that fire is completely extinguished)
7. CABIN HT and CABIN AIR Control Knobs - ON (pull full out) (when sure that fire is completely extinguished)
8. Land the airplane as soon as possible to inspect for damage.



Wing Fire

1. LAND and TAXI Light Switches - OFF
2. NAV Light Switch - OFF
3. STROBE Light Switch - OFF
4. PITOT HEAT Switch - OFF

NOTE

Perform a sideslip to keep the flames away from the fuel tank and cabin. Land as soon as possible using flaps only as required for final approach and touchdown.

Icing

Inadvertent Icing Encounter During Flight

1. PITOT HEAT Switch - ON
2. PROP HEAT Switch - ON
3. Turn back or change altitude (to obtain an outside air temperature that is less conducive to icing)
4. CABIN HT Control Knob - ON (pull full out)
5. DEFROST Control Knob - ON (rotate clockwise) (to obtain maximum defroster airflow)
6. Increase engine speed to minimize ice build-up on propeller blades. If excessive vibration is noted, momentarily reduce engine speed to 2200 RPM with the propeller control, and then rapidly move the control forward.

NOTE

- Cycling the RPM flexes the propeller blades and high RPM increases centrifugal force, causing ice to shed more rapidly.
 - If the amber PROP HEAT annunciator comes ON, cycle the PROP HEAT Switch OFF then ON. If it comes on again, place the PROP HEAT Switch to OFF and continue using the RPM cycling technique to minimize ice build up on the propeller blades. Have propeller heat system inspected by qualified personnel before next flight.
7. Watch for signs of induction air filter icing. A loss of manifold pressure could be caused by ice blocking the air intake filter.
Adjust the throttle as necessary to hold manifold pressure.
Adjust mixture as necessary for any change in power settings.
 8. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable off airport landing site.
 9. With an ice accumulation of 0.25 inch or more on the wing leading edges, be prepared for significantly higher power requirements, higher approach and stall speeds, and a longer landing roll.
 10. Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness.
 11. Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach.
 12. Perform a landing approach using a forward slip, if necessary, for improved visibility.
 13. Approach at 80 to 90 KIAS depending upon the amount of ice accumulation.
 14. Perform landing in level attitude.
 15. Missed approaches should be avoided whenever possible because of severely reduced climb capability.
 16. PROP HEAT Switch - OFF (when propeller heat is no longer required)

**CAUTION**

DO NOT OPERATE THE PROP HEAT SYSTEM MORE THAN 15 SECONDS ON THE GROUND WITHOUT ENGINE POWER.

Static Source Blockage (Erroneous Instrument Reading Suspected)

1. ALT STATIC AIR Valve - ON (pull full out)
2. Cabin Vents - CLOSED
3. CABIN HT and CABIN AIR Control Knobs - ON (pull full out)
4. Airspeed - Refer to Section 5, Figure 5-1 (Sheet 2) Airspeed Calibration, Alternate Static Source correction chart.
5. Altitude - Refer to Section 5, Figure 5-2, Altimeter Correction, Alternate Static Source correction chart.

Excessive Fuel Vapor

Fuel Flow Stabilization Procedures (If Flow Fluctuations Of 1 Gph Or More, Or Power Surges Occur.)

1. FUEL PUMP Switch - ON
2. Mixture Control - ADJUST (as necessary for smooth engine operation)
3. Fuel Selector Valve - SELECT OPPOSITE TANK (if vapor symptoms continue)
4. FUEL PUMP Switch - OFF (after fuel flow has stabilized)

Abnormal Landings

Landing With A Flat Main Tire

1. Approach - NORMAL
2. Wing Flaps - FULL
3. Touchdown - GOOD MAIN TIRE FIRST (hold airplane off flat tire as long as possible with aileron control)
4. Directional Control - MAINTAIN (using brake on good wheel as required)

Landing With A Flat Nose Tire

1. Approach - NORMAL
2. Wing Flaps - AS REQUIRED
 - 120 to 140 KIAS - Flaps UP to 10°
 - 100 to 120 KIAS - Flaps 10° to 20°
 - Below 100 KIAS - Flaps FULL
3. Touchdown - ON MAINS (hold nosewheel off the ground as long as possible)
4. When nosewheel touches down, maintain full up elevator as airplane slows to stop.