

## **EMERGENCY PROCEDURES**

**Cessna: C172P** (Air Plains 180 HP)  
CVD: 13 May 21 (GPS)

### **Engine Failure During Takeoff Roll**

1. **Throttle** ..... **Idle**
2. **Brakes** ..... **Apply**
3. Wing Flaps ..... Retract
4. Mixture ..... Idle Cut Off
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 Cut Off
3. Fuel Selector ... Off (Push & Rotate)
4. Ignition ..... Off
5. Wing Flaps ..... As Required
6. Master Switch ..... Off

### **Engine Failure During Flight (Restart)**

1. **Airspeed** ..... **75 KIAS**
2. **Carb Heat** ..... **On**
3. **Fuel Selector** ..... **Both**
4. Mixture ..... Rich
5. Ignition ..... Both  
(or START if propeller is stopped)
6. Primer ..... In & Locked

### **Forced Landing Without Engine Power**

1. Seats, Seat Belts, and Shoulder Harnesses... Set & Secure
2. Airspeed..... 70 KIAS (Flaps Up)  
65 KIAS (Flaps Down)
3. Mixture ..... Idle Cut Off
4. Fuel Selector..... Off (Push & Rotate)
5. Ignition ..... Off
6. Wing Flaps ..... As Required  
(30° Recommended)
7. Master Switch ..... Off
8. Doors ..... Unlatched  
(Prior To Touchdown)
9. Touchdown ..... Slightly Tail Low
10. Brakes ..... Apply Heavily

### **Precautionary Landing With Engine Power**

1. Seats, Seat Belts, and Shoulder Harnesses..... Set & Secure
2. Wing Flaps ..... 20°
3. Airspeed..... 65 KIAS
4. Select Field ..... Perform Fly Over Inspection
5. Avionics & Electrical Switches... Off
6. Flaps ..... 30° on Final Approach
7. Airspeed..... 65 KIAS
8. Master Switch ..... Off
9. Doors ..... Unlatched  
(Prior To Touchdown)
10. Touchdown ..... Slightly Tail Low
11. Ignition Switch ..... Off
12. Brakes ..... Apply Heavily

### **Engine Fire During Start**

1. **Continue Cranking Engine**
2. If Engine Starts:..... Power  
1700 RPM for a few minutes
3. Engine..... Shutdown and Inspect

If Engine Fails to Start:

4. **Throttle** ..... **Full Open**
5. **Mixture** ..... **Idle Cut Off**
6. **Cranking** ..... **Continue**
7. Fire Extinguisher ..... Obtain
8. Master Switch ..... Off
9. Ignition Switch ..... Off
10. Fuel Selector..... Off (Push & Rotate)
11. Fire ..... Extinguish
12. Fire Damage..... Inspect  
(repair damage prior to next flight)

### **Engine Fire in Flight**

1. **Mixture** ..... **Idle Cut Off**
2. **Fuel Selector**... **Off (Push & Rotate)**
3. Master Switch ..... Off
4. Cabin Heat & 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 w/o Engine  
Power ..... Execute

### **Electrical Fire in Flight**

1. **Master Switch**..... **Off (Leave Ignition On)**
2. **Vents/Cabin Air/Heat** ..... **Closed**
3. **Fire Extinguisher**..... **Activate**

**Warning**  
After discharging an  
extinguisher within a closed  
cabin, ventilate the cabin.

4. **All Other Switches (Except Ignition)** ..... **Off**
5. Avionics Power Switch..... Off

6. All other switches (except ignition Switch)... Off

### **If fire is extinguished & electrical power is necessary**

7. Master Switch ..... On
8. Circuit Breakers ..... Check for Faulty circuit (Do Not Reset)
9. Radio Switches ..... Off
10. Avionics Power Switch ..... On
11. Radio & Electrical Switches ..... On  
(one at a time w/ delay after each to locate short).
12. **Vents/Cabin Air/Heat** ..... **Open**  
(when assured fire is extinguished)

### **Cabin Fire**

1. **Master Switch** ..... **Off (Leave Ignition On)**
2. **Vents/Cabin Air/Heat**. **Closed**
3. **Fire Extinguisher** ..... **Activate**

**Warning**  
After discharging an  
extinguisher within a closed  
cabin, ventilate the cabin.

4. Land .. As soon as possible and inspect damage

### **Wing Fire**

1. **Landing/Taxi Lights**..... **Off**
2. **Pitot Heat** ..... **Off**
3. **Navigation Lights** ..... **Off**
4. **Strobe Lights** ..... **Off**

### **Note**

Sideslip to keep flames away from the fuel tank and cabin, and land as soon as possible using flaps only as required for final approach and touchdown.

## Icing

1. Pitot Heat..... On
2. Turn back or change altitude to obtain an outside air temp that is less conducive to icing.
3. Pull cabin heat control to full out and open defroster outlet to obtain maximum windshield defroster airflow.
4. Open the throttle to increase engine speed and minimize ice build-up on propeller blades
5. Watch for signs of carburetor air filter ice and apply carburetor heat as required. An unexplained loss in engine speed could be caused by carburetor ice or air intake filter ice. Lean the mixture if carb heat is used continuously.
6. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site.
7. With ice accumulation of ¼ inch or more on the wing leading edges, be prepared for significantly higher stall speed.
8. 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.
9. Open left window and if practical scrape ice from a portion of the windshield for visibility in landing approach.
10. Perform landing approach using a forward slip, if necessary, for improved visibility.

11. Approach at 80 to 90 KIAS depending upon the amount of accumulation.
12. Perform a landing in level attitude.

## Ditching

1. Radio .....Transmit Mayday on 121.5 giving location and intentions and squawk 7700.
2. Heavy Objects..... Secure or Jettison.
3. Seats, Seat Belts, and Shoulder Harnesses.....Set & Secure
4. Approach:
  - High winds, heavy seas ...Into the Wind.
  - Light winds, heavy swells..... Parallel to swells.
5. Wing Flaps ..... 20° to 30°
6. Power..... Est. a 300 FPM descent at 55 KIAS.

### Note

If no power is available, approach at 70 KIAS with flaps up or at 65 KIAS with 10° flaps.

7. Cabin Doors .....Unlatch
8. Touchdown .....Level attitude at established descent rate.
9. Face.....Cushion at touchdown with folded coat or seat cushion.
10. Airplane .....Evacuate through Cabin doors. If necessary, open window and flood cabin to equalize pressure so doors can be opened.
11. Life vests and raft ..... Inflate

## Airspeeds for Emergency Operations

### Engine Failure After Takeoff:

Wing Flaps Up -- 70 KIAS  
Wing Flaps Down -- 65 KIAS

### Maneuvering Speed:

2550 Lbs – 105 KIAS  
2150 Lbs – 95 KIAS  
1750 Lbs – 85 KIAS

### Maximum Glide:

2550 Lbs – 68 KIAS  
2150 Lbs – 62 KIAS  
1750 Lbs – 56 KIAS

### Precautionary Landing With

Engine Power – 65 KIAS

### Landing Without Engine Power:

Wing Flaps Up – 70 KIAS  
Wing Flaps Down – 65 KIAS

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only. The applicable Pilot Operating Handbook and STC installations remain the official documentation for this aircraft. The pilot in command is responsible for complying with all items in the Pilot Operating Handbook and applicable STCs.

**For all other  
Emergency  
Abnormal  
Procedures.  
See the  
POH  
Section 3.**