EMERGENCY PROCEDURES

N781FM

1981 Cessna 172P
Air Plains 180 HP Conversion

Engine Failure During Takeoff Roll

1. **Throttle……Idle**
2. **Brakes……..Apply**
3. Flaps ……Retract
4. Mixture……..Idle Cut Off
5. Ignition 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
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 opped)

6. Prime……In & Locked

Forced Landing Without Engine Power

1. Airspeed….70 KIAS (Flaps Up) 65 KIAS (Flaps Down)
2. Mixture……Idle Cut Off
3. Fuel Selector……Off
4. Ignition……Off
5. Wing Flaps…….As Required (30º Recommended)
6. Master witch……Off
7. Doors……Unlatched Prior To Touchdown
8. Touchdown……Slightly Tail Low
9. Brakes……...Apply Heavily

Precautionary Landing With Engine Power

1. Wing laps……..20°
2. Airspeed……65 KIAS
3. Select Field……Perform Fly Over Inspection
4. Radio & Electrical Switches …….Off
5. Flaps……..30º on Final Approach
6. Airspeed……..65 KIAS
7. Avionics & Master Switches……. Off
8. Doors……Unlatched Prior ToTouchdown
9. Touchdown……..Slightly Tail Low
10. Ignition Switch……Off
11. 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/Ignition/Fuel……Off**
9. **Fire……Extinguish**
10. Fire Damage……Inspect

Engine Fire in Flight

1. **Mixture……Idle Cut Off**
2. **Fuel Selector……Off**
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 Ldg w/o Eng Power.Execute

Electrical Fire in Flight

1. **Master Switch ..... Off (Leave Ignition On)**
2. **All Other Switches ……Off (Except Ignition)**
3. **Vents/Cabin Air/Heat.....Closed**
4. **Fire Extinguisher.....Activate**

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

If fire is extinguished & electrical power is necesary

5. Master Switch.....On
6. Circuit Breakers..... Check for Faulty circuit (Do Not Reset)
7. Radio/Electrical Switches on one at a time w/ delay after each to locate short.
8. Vent cabin 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. **Navigation Lights ..... Off**
2. **Strobe Lights ..... Off**
3. **Pitot Heat ..... Off**
4. **Landing/Taxi 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 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
10. Perform landing approach, if necessary for improved visibility use a forward slip
11. Approach at 80 to 90 KIAS depending upon the amount of accumulation ice.
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. Flaps……20º to 30º
4. Power……Est. a 300 FPM descent at 55 KIAS
5. Approach ……High winds, heavy seas Into the Wind
   Light winds, heavy swells…….
   Parallel to swells

Note

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

6. Cabin Doors……Unlatch
7. Touchdown……Level attitude at established descent rate
8. Face……Cushion at touchdown with folded coat or seat cushion.
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

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

LANDING WITHOUT ELEVATOR CONTROL

Trim for horizontal flight (with an air-Speed of approximately 65 KIAS and Flaps set to 20 deg.) by using throttle And elevator trim controls. **Then DO NOT change the elevator trim control setting;** control the glide angle by adjusting power exclusively.

At flareout, the nose-down moment Resulting from power reduction is an Adverse factor and the airplane may hit On the nose wheel. Consequently, at Flareout, the elevator trim control should be adjusted toward the full nose-Up position and the power adjusted so that the airplane will rotate to the hori-Zontal attitude for touchdown.
Close the throttle at touchdown

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.

I certify this checklist has been reviewed for accuracy.

James Spore

1/1/06

Director of Maintenance Date

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 – 65 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