

## **EMERGENCY PROCEDURES**

**Cessna: C172S (NAVIII)**

CVD: 28 Jan 20 (G1000 & GFC700)

### **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. & Bat) ...** **OFF**

#### **ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF**

1. **Airspeed ... 70 KIAS (Flaps Up)**  
**...65 KIAS (Flaps 10°-Full)**
2. Mixture Control ...**IDLE CUTOFF**  
(pull full out)
3. **FUEL Shutoff Valve...OFF** (pull full out)
4. **MAGNETOS Switch.....OFF**
5. Wing Flaps..... **AS REQUIRED**  
(Full Flaps Recommended)
6. **Stby Batt Switch.....OFF**
7. **Master Switch (Alt. & Bat) ...OFF**
8. **Cabin Door .....** **UNLATCH**
9. **Land .....** **STRAIGHT AHEAD**

#### **ENGINE FAILURE DURING FLIGHT (Restart Procedures)**

1. **Airspeed .....** **68 KIAS**  
**.....(best glide speed)**
2. **Fuel Shutoff Valve.... ON** (push full in)
3. **Fuel Pump Switch .....** **ON**
4. **Mixture Control .....** **RICH**
5. **MAGNETOS Switch.....BOTH**  
(or **START** if propeller is stopped)

#### **Note**

If 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 & Passenger Seat Back...  
....**MOST UPRIGHT POSITION**
2. Seats and Seat Belts. **SECURE**
3. Airspeed....**70 KIAS (Flaps UP)**  
**65 KIAS (Flaps 10° to Full)**
4. Mixture Control ... **IDLE CUTOFF**
5. **FUEL Shutoff Valve...OFF** (pull full out)
6. **MAGNETO Switch .....** **OFF**
7. Wing Flaps ..... **AS REQUIRED**  
(Full Recommended)
8. **Stby Batt Switch..... OFF**
9. **Master Switch (Alt & Bat) . OFF**  
(when landing is assured)
10. **Doors..... UNLATCHED**  
**PRIOR TO TOUCHDOWN**
11. **Touchdown...Slightly TAIL LOW**
12. **Brakes .....** **APPLY HEAVILY**

#### **PRECAUTIONARY LANDING WITH ENGINE POWER**

1. Pilot & Passenger Seats.....  
**MOST UPRIGHT POSITION**
2. Seats and Seat Belts.... **SECURE**
3. Airspeed.....**65 KIAS**
4. Wing Flaps ..... **20°.**

5. Selected Field..... **FLY OVER**  
(noting terrain and obstructions).
6. Wing Flaps .....**FULL**  
(on final approach)
7. Airspeed..... **65 KIAS**
8. **Stby Batt Switch .....** **OFF**
9. **Master Switch (Alt & 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, give location and intentions and Squawk 7700
2. Heavy Objects (in baggage area) **SECURE** or **JETTISON** (if possible)
3. Pilot & 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 55 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. **MAGNETO Switch..... START**  
(continue cranking to start engine)
- #### **IF ENGINE STARTS**
2. Power...**1800 RPM** for a few minutes
  3. Engine..... **SHUTDOWN**  
(Inspect for damage)
- #### **IF ENGINE FAILS TO START .....**
1. **Throttle Control.. FULL (Push In)**
  2. **Mixture Control ....IDLE CUTOFF**  
(pull full out)
  3. **Magnetos Switch .....** **START**  
(continue cranking)
  4. **Fuel Shutoff Valve.....OFF**  
(pull full out)
  5. **Fuel Pump Switch..... OFF**
  6. **MAGNETOS Switch .....** **OFF**
  7. **Stby Batt Switch .....** **OFF**
  8. **MASTER Switch (Alt & Bat) ... OFF**
  9. Engine ..... **SECURE**
  10. **Parking Brake .....** **RELEASE**
  11. **Fire Extinguisher .....** **OBTAIN**
  12. **Airplane..... EVACUATE**
  13. **Fire ... EXTINGUISH** using fire extinguisher, wool blanket, or dirt
  14. **Fire Damage .....** **INSPECT**

## ENGINE FIRE IN FLIGHT

1. Mixture Control.....IDLE CUTOFF (pull full out)
2. Fuel Shutoff Valve.....OFF (pull full out)
3. Fuel Pump Switch ..... OFF
4. Master Switch (Alt & Bat) ..... OFF
5. Cabin Vents OPEN (as needed)
6. Cabin Heat and Air..... OFF (push full in)(to avoid drafts)
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 & Bat)..... OFF
3. Cabin Vents ..... CLOSED
4. Cabin Air/Heat . OFF (push full in)
5. Fire Extinguisher... ACTIVATE
6. Avionics Switch (Bus 1&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 Cabin.

8. Cabin Vents..... OPEN
9. Cabin Air & Heat... 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 Breaker.....CHECK for Open circuit(s) .... Do Not Reset
11. MASTER Switch (Alt & Bat)... ON
12. STBY BATT Switch....ON

13. AVIONICS Switch Bus 1 .....ON
14. AVIONICS Switch Bus 2 .....ON

## CABIN FIRE

1. Stby Bat. Switch ..... OFF
2. Master Switch (Alt & Bat) ..... OFF
3. Cabin Vents ..... CLOSED
4. Cabin Air/Heat . OFF (push full in)

**Warning**  
After The Fire Extinguisher Has Been Used, Make Sure That The Fire Is Extinguished Before Exterior Air Is Used To Remove Smoke From Cabin.

5. Fire Extinguisher... ACTIVATE
6. Cabin Vents..... OPEN
7. Cabin Air & Heat ... ON (pull full out) When sure fire is completely extinguished
8. Land the Airplane as soon as possible to inspect for damage

## WING FIRE

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

### NOTE

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 the final approach and landing.

## High Main Battery Charge Current (M Bat Amps More Than 40)

1. Master Switch (Alt Only)... OFF
2. Electrical Load...Reduce Immediately as follows
3. Avionics Switch (Bus1) .... OFF
4. Pitot Heat Switch...Off
5. Beacon Light Switch...Off
6. Landing Light Switch...Off
7. Taxi Light Switch...Off
8. Nav Light Switch...Off
9. Strobe Light Switch...Off
10. CABIN PWR 12 V Switch...off

## Air Data System FAILURES

### Red X – PFD Airspeed Indicator

1. ADC/AHRS Circuit Breakers....check IN (ESS Bus and AVN Bus 1)  
If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Standby Airspeed Indicator..... USE

### Red X – PFD Altimeter

1. ADC/AHRS Circuit Breakers....check IN (ESS Bus and AVN Bus 1)  
If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Standby Altimeter ..... USE

### Attitude And Heading Reference System (AHRS) Failure

### Red X – PFD Attitude Indicator

1. ADC/AHRS Circuit Breakers....check IN (ESS Bus and AVN Bus)  
If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Standby Attitude Indicator . USE

### Red X – PFD Horizontal Situation Indicator (HSI)

1. ADC/AHRS Circuit Breakers ....check IN (ESS Bus & AVN Bus)  
If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Magnetic Compass..... USE

### Autopilot or Electric Trim Failure

AP or PTRM Annunciator(s) Come On:

1. Control Wheel... Grasp firmly (regain control of airplane)
2. A/P Trim DISC Button...Press & Hold (throughout recovery)

3. Elevator and Rudder Trim Controls ..... Adjust Manually (as necessary)
4. Autopilot Circuit Breaker Open ..... (pull Out)
5. A/P Trim DISC ..... Release

**Warning**  
Following an autopilot, autotrim or manual electric trim system malfunction, do not engage the autopilot until the cause of the malfunction has been corrected.

### LOW VACUUM Annunciator

1. Vacuum Indicator (VAC)...CHECK  
If Vacuum pointer is out of the green band during flight or the Gyro flag is shown on the Standby Attitude Indicator the standby Attitude Indicator must not be used for Attitude information

**FOR ALL OTHER EMERGENCY/ABNORMAL PROCEDURES. SEE THE POH – SECTION 3.**

### General

- Guard Frequency.....121.5
- Flight Service (FSS) common...122.2
- VFR Transponder.....1200
- Lost Comm.....7600
- Emergency.....7700

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.