



## Preflight Inspection (Continued)

### NOSE

WINDSHIELD .....CHECK FOR CLEANLINESS  
FUEL SUMPS (3) .....TAKE SAMPLE

Check for water & sediment.

OIL LEVEL.....CHECK & SECURE CAP  
Do not operate with less than 6.5 quarts for local training or less than 8 quarts for extended flights. Do not over-tighten oil cap.

OIL ACCESS DOOR.....SECURE  
ENGINE COOLING AIR INLETS .....CHECK  
PROPELLER & SPINNER.....CHECK  
ENGINE AIR FILTER.....CHECK  
NOSE WHEEL STRUT (Approx. 3" Extension) .....CHECK  
NOSE WHEEL TIRE.....CHECK  
STATIC SOURCE OPENING.....CHECK

### LEFT WING & LEADING EDGE

FUEL TANK SUMPS (5) .....CHECK  
FUEL QUANTITY .....CHECK VISUALLY  
FUEL FILLER CAP .....SECURE  
PITOT TUBE COVER.....REMOVE  
PITOT TUBE.....CHECK UNOBSTRUCTED  
STALL HORN OPENING .....CHECK UNOBSTRUCTED  
FUEL TANK VENT .....CHECK

### LEFT WING TRAILING EDGE

AILERON.....(Freedom & security) CHECK  
FLAP .....(Security) CHECK  
MAIN WHEEL TIRE, BRAKE DISC & PADS .....CHECK  
GENERAL WALKAROUND / REMOVE TIEDOWNS /  
CHOCKS.....CHECK

## Before Starting Engine

PREFLIGHT INSPECTION .....COMPLETE  
WT&BAL, DOCS, PERFORMANCE .....CHECK  
PASSENGER BRIEF .....COMPLETE

Doors, Seats & Seatbelts (Positive Latch),

Fire Extinguisher, No Smoking, PIC Authority

SEAT & SEAT BELTS .....ADJUST AND LOCK  
CIRCUIT BREAKERS .....CHECK IN  
BREAKS.....TEST & SET  
ELECTRICAL SWITCHES.....OFF  
IGNITION SWITCH.....OFF  
AVIONICS MASTER SWITCH.....OFF  
ALTERNATE STATIC SOURCE.....OFF  
FUEL SELECTOR VALVE.....BOTH  
FUEL SHUTOFF VALVE .....(push full in) ON  
MASTER SWITCH .....ON  
BEACON .....ON  
POSITION LIGHT .....(night only) ON

Strobes may be left off if this is in the interest of safety.

## Engine Start

THROTTLE..... ¼" OPEN

### WARM ENGINE SKIP "COLD ENGINE" PROCEDURE

#### COLD ENGINE

FUEL PUMP ..... ON  
MIXTURE ..... RICH 3-5 SECONDS  
UNTIL STABLE FUEL FLOW, THEN CUTOFF  
FUEL PUMP ..... OFF

PROP AREA..... CLEAR  
IGNITION .....(ATP 8 Second Max) START  
MIXTURE .....(Advance smoothly as engine starts) RICH

#### WHEN ENGINE STARTS

THROTTLE..... 1000 RPM  
OIL PRESSURE .....(In 15 seconds) CHECK GREEN  
MIXTURE ..... LEAN FOR RPM RISE  
THROTTLE..... 1000 RPM  
FLAPS ..... UP

## After Start

HEADSETS ..... ON  
AVIONICS MASTER SWITCH..... ON  
COMS ..... ATIS/AWOS/CLEARANCE IF REQ  
ALTIMETER ..... SET  
GPS ..... SET  
NAVS..... SET / COURSE

## Taxi

PARKING BREAK..... SET  
AIRPORT DIAGRAM .....OUT / AVAILABLE  
TAXI CLEARANCE .....OBTAIN / BRIEF  
LANDING & TAXI LIGHTS ..... ON\*  
TAXI AREA..... CLEAR  
BRAKES ..... CHECK  
FLIGHT INSTRUMENTS (AI/TC/HI/VSI).....CK

Check in turns.

STERILE COCKPIT .....  
.....NO NON-ESSENTIAL CONVERSATION

\*Turn off your taxi or landing lights when stopped, yielding, or as a consideration to other pilots, drivers or ground personnel. At all other times LANDING and TAXI lights are to remain on for all aircraft movement and flight.

## Run Up

SEAT BACKS ..... MOST UPRIGHT POSITION  
SEAT BELT & SHOULDER HARNESS .....FASTENED  
DOORS & WINDOWS ..... CLOSED & LOCKED  
ANNUNCIATOR PANEL LIGHTS.....CHECK  
MIXTURE ..... RICH / FULL FWD  
THROTTLE..... 1800 RPM  
MAGNETOS .....CHECK

(Drop should not exceed 150 RPM on either magneto or a difference of 50 RPM between the two.)

ENGINE INSTRUMENTS & AMMETER.....CHECK  
SUCTION GAUGE .....CHECK  
THROTTLE..... IDLE / CHECK 600-800 RPM  
THROTTLE..... 1000 RPM  
MIXTURE .....LEAN FOR RPM RISE

### Pre-Takeoff Brief

#### Engine failure or abnormality during takeoff roll:

IMMEDIATELY CLOSE THROTTLE, STOP STRAIGHT AHEAD & AVOID OBSTACLES  
If not enough runway remains to stop:

MIXTURE .....CUTOFF  
FUEL SHUTOFF VALVE .....PULL OUT / OFF  
BATTERY MASTER SWITCH .....OFF  
IGNITION SWITCH .....OFF  
AVOID OBSTACLES

#### Engine failure immediately after takeoff:

LAND ON REMAINING RUNWAY / WITHIN 30° OF CENTERLINE.  
AVOID OBSTACLES. DO NOT ATTEMPT 180° TURN.

AIRSPEED .....LOWER NOSE & ESTABLISH PITCH FOR BEST GLIDE  
FLAPS .....AS NECESSARY  
POWER.....AS AVAILABLE  
TIME PERMITTING.....DECLARE AN EMERGENCY  
FUEL SHUTOFF VALVE .....PULL OUT / OFF  
MIXTURE .....IDLE CUTOFF  
IGNITION .....OFF  
BATTERY MASTER .....OFF

PRE-TAKEOFF BRIEF ..... COMPLETE  
FLIGHT CONTROLS ..... FREE & CORRECT  
FLIGHT INSTRUMENTS ..... CHECK & SET  
AUTOPILOT (If Installed) ..... OFF  
FUEL GAUGE / QTY ..... CHECK / SUFFICIENT  
FUEL SELECTOR ..... BOTH  
TRIM ..... SET T/O  
FLAPS ..... SET  
GPS .....(As req. for departure) SET  
HEADING INDICATOR ..... SET

### DEPARTURE BRIEF

Initial Altitude & Heading

Brief Departure Procedure ..... COMPLETE

## Before Takeoff

MIXTURE ..... FULL FWD (Or set for altitude)  
ENGINE INSTRUMENTS ..... CHECK

### FINAL ITEMS WHEN #1 FOR TAKEOFF

STROBE LIGHT ..... ON  
TRANSPONDER ..... ALT

## Engine Failure During Flight

AIRSPPEED ..... BEST GLIDE  
 NOTE WIND DIRECTION AND SPEED  
 PICK & FLY TOWARDS LANDING SITE  
 FLAPS ..... UP  
 MIXTURE ..... RICH  
 FUEL SELECTOR VALVE ..... BOTH  
 FUEL SHUTOFF VALVE ..... PUSH IN / ON  
 AUX FUEL PUMP SWITCH ..... ON  
 MAGNETOS ..... BOTH

**IF PROP NOT WINDMILLING**

IGNITION SWITCH ..... START  
 MAGNETOS ..... CHECK ALL

## Precautionary Landing with Engine Power

LANDING AREA ..... SELECT & INSPECT  
 RADIO & ELECTRICAL SWITCHES ..... OFF

**ON FINAL APPROACH**

FLAPS ..... (30° Recommended) AS REQ  
 MASTER SWITCH ..... OFF  
 DOORS ..... (Prior to touchdown) UNLATCH  
 IGNITION SWITCH ..... OFF  
 BRAKES ..... APPLY HEAVILY

## Emergency Landing No Engine Power

LANDING AREA ..... SELECT & INSPECT  
 AIRSPPEED ..... BEST GLIDE  
 RADIO & ELECTRICAL SWITCHES ..... OFF  
 MIXTURE ..... CUTOFF  
 FUEL SHUTOFF VALVE ..... PULL OUT / OFF  
 IGNITION SWITCH ..... OFF  
 FLAPS ..... (30° Recommended) AS REQ  
 MASTER SWITCH ..... OFF  
 DOORS ..... (Prior to touchdown) UNLATCH  
 BRAKES ..... APPLY HEAVILY

## Pattern Work

*Touch & Go's Prohibited Except With Instructor*

### Before Landing Checklist

FUEL SELECTOR ..... BOTH  
 MIXTURE ..... FWD

### Go Around / Missed Approach

THROTTLE ..... FULL  
 FLAPS ..... (If > 20°) RETRACT 20°  
 PITCH ..... EST CLIMB  
 FLAPS ..... (> 60 KIAS) RETRACT 10°  
 AIRSPPEED .....  $V_y / V_x / AS REQ$

**AT SAFE ALTITUDE & > 65 KIAS**

FLAPS ..... UP  
 FLY ASSIGNED/PUBLISHED HEADING & ALTITUDE

### Touch and Go

MAINTAIN CENTERLINE  
 FLAPS ..... UP  
 THROTTLE ..... FULL

#### Standardized Speeds

80 KIAS	FLAPS 10° - 1500 RPM
70 KIAS	FLAPS 20° - ON BASE
65 KIAS	FLAPS 30° - ON FINAL UNTIL ROUNDOUT
When landing assured.	
SOFT FIELD	61 KIAS - FLAPS 30°
SHORT FIELD	61 KIAS - FLAPS 30°

### After Landing (Stopped)

TRIM ..... CENTERED  
 FLAPS ..... UP  
 STROBE ..... (if in interest of safety) OFF  
 LANDING & TAXI LIGHTS ..... ON  
 MIXTURE ..... LEAN FOR RPM RISE  
 TAXI CLEARANCE ..... OBTAIN & BRIEF

### Before Takeoff

MIXTURE ..... FULL FWD (Or set for altitude)  
 ENGINE INSTRUMENTS ..... CHECK

#### FINAL ITEMS WHEN #1 FOR TAKEOFF

DOORS & WINDOWS ..... CLOSED & LOCKED  
 STROBE LIGHT ..... ON  
 TRANSPONDER ..... ALT

## CESSNA 172 R-S Emergency & Abnormal Checklist

This checklist is only for training purposes in AIRMAN aircraft and is not intended to replace the POH/AFM. Refer also to the POH/AFM in an actual emergency.

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### Engine Failure During Takeoff Roll

THROTTLE ..... CLOSE  
 BRAKES ..... APPLY  
 FLAPS ..... UP  
 MIXTURE ..... CUTOFF  
 IGNITION SWITCH ..... OFF  
 MASTER SWITCH ..... OFF

### Engine Failure During Takeoff

MAINTAIN AIRCRAFT CONTROL  
 LAND ON REMAINING RUNWAY OR  
 WITHIN 30° OF CENTERLINE. AVOID OBSTACLES.  
 DO NOT ATTEMPT 180° TURN.  
 AIRSPPEED .... LOWER NOSE & PITCH FOR BEST GLIDE  
 POWER ..... AS AVAILABLE  
 TIME PERMITTING ..... DECLARE EMERGENCY  
 MIXTURE ..... CUTOFF  
 FUEL SHUTOFF VALVE ..... PULL OUT / OFF  
 IGNITION SWITCH ..... OFF  
 FLAPS ..... (30° Recommended) AS REQ  
 MASTER SWITCH ..... OFF  
 DOORS ..... UNLATCH

## Spin Recovery

In the event the aircraft enters an unintentional spin, proceed as follows.  
THROTTLE..... IMMEDIATELY CLOSED  
AILERONS ..... NEUTRALIZE  
RUDDER ..... FULL, OPPOSITE ROTATION  
ELEVATOR CONTROL .....  
..... BRISKLY FORWARD PAST CENTER

### ONCE ROTATION STOPS

RUDDER ..... NEUTRALIZE  
SLOWLY RECOVER FROM DIVE

### WHEN STRAIGHT AND LEVEL

THROTTLE..... FULL

## Cabin Fire

MASTER SWITCH ..... OFF  
VENTS, CABIN HEAT & AIR..... CLOSED  
FIRE EXTINGUISHER ..... ACTIVATE

### WHEN FIRE IS OUT

CABIN ..... VENTILATE  
LAND AS SOON AS POSSIBLE

## Wing Fire

LANDING/TAXI LIGHT SWITCHES ..... OFF  
NAV LIGHT SWITCH ..... OFF  
STROBE LIGHT SWITCH ..... OFF  
PITOT HEAT SWITCH ..... OFF

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.

## Electrical Fire

MASTER SWITCH ..... OFF  
ALL ELECTRICAL SWITCHES  
(Except ignition switch) ..... OFF  
VENTS, CABIN HEAT & AIR..... CLOSED  
FIRE EXTINGUISHER ..... ACTIVATE

### WHEN FIRE IS OUT

CABIN ..... VENTILATE

### IF FIRE APPEARS OUT & ELECTRICAL POWER REQ'D

MASTER SWITCH ..... ON  
CIRCUIT BREAKERS ..... (Do not reset) CHECK  
MASTER AVIONICS SWITCH ..... ON  
RADIOS ..... (One at a time with a delay after each) ON  
LAND AS SOON AS POSSIBLE

## Engine Fire In Flight

MIXTURE ..... IDLE CUT OFF  
FUEL SHUTOFF VALVE ..... OFF (Pull Full Out)  
AUX FUEL PUMP SWITCH..... OFF  
MASTER SWITCH ..... OFF  
CABIN HEAT & AIR (Except overhead vents) ..... OFF  
AIRSPEED.....  
..... INCREASE AS REQ TO EXTINGUISH FIRE  
EXECUTE FORCED LANDING

## Engine Fire During Start

Continue cranking to get the engine started which would suck the flames and accumulated fuel into the engine.

### IF ENGINE STARTS

POWER..... (For a few minutes) 1700 RPM  
ENGINE ..... SHUTDOWN

### IF ENGINE FAILS TO START

THROTTLE..... FULL OPEN  
MIXTURE ..... IDLE CUT OFF  
CRANKING ..... CONTINUE  
FUEL SHUTOFF VALVE ..... OFF (Pull Full Out)  
AUX FUEL PUMP..... OFF  
FIRE EXTINGUISHER..... OBTAIN  
MASTER SWITCH ..... OFF  
IGNITION SWITCH..... OFF  
EVACUATE AIRCRAFT  
& SECURE FIRE EXTINGUISHER

## Cleaning Fouled Spark Plugs

(CAUTION: Hold brakes securely and remain vigilant for aircraft movement; only perform runup on surface free from gravel/dirt.)

THROTTLE..... 2000 RPM  
MIXTURE ..... LEAN FOR SLIGHT RPM DROP  
MAINTAIN FOR 60 SECONDS  
MIXTURE ..... FULL FORWARD  
THROTTLE..... 1800 RPM  
PERFORM MAGNETO CHECK

### Note:

While performing the above checklist, do not allow oil temperature to reach redline and be vigilant of oil pressure.

## Ammeter: Excessive Rate of Charge

for Ammeter Full-Scale Deflection

ALTERNATOR ..... OFF  
NON-ESSENTIAL ELEC. EQUIPMENT..... OFF  
LAND AS SOON AS POSSIBLE  
Compass may be off as much as 25°.

## Ammeter Shows Discharge

ALTERNATOR ..... OFF  
NONESSENTIAL ELEC. EQUIPMENT ..... OFF  
LAND AS SOON AS POSSIBLE

## Low Voltage Light During Flight

RADIOS, AVIONICS POWER SWITCH..... OFF  
MASTER SWITCH ..... OFF  
MASTER SWITCH ..... ON  
LOW VOLTAGE LIGHT ..... CHECK OFF  
RADIOS, AVIONICS POWER SWITCH..... ON

### IF LOW VOLTAGE LIGHT RE-ILLUMINATES

ALTERNATOR ..... OFF  
NON-ESSENTIAL ELECT. EQUIPMENT ..... OFF  
LAND AS SOON AS POSSIBLE

## Static Source Blockage

ALTERNATE STATIC SOURCE VALVE .....  
..... PULL ON  
AIRSPEED .....  
..... CONSULT TABLES IN POH/AFM SECTION 5