

Emergency Procedures

Fire Engine Failure

Engine Fire During Start

Cont. Cranking until Engine Starts
 Throttle..... 1700 RPM
 After 2 minutes.....SHUT DOWN
 Master Switch.....OFF
 Fuel Selector.....OFF
 Magnetos.....OFF
 Door.....Open and Evacuate Aircraft

Engine Fire During Taxi

Aircraft.....STOP
 Mixture.....Idle Cut Off
 Fuel Selector.....OFF
 Master Switch.....OFF
 Magnetos.....OFF
 Door.....Open and Evacuate Aircraft

Engine Fire During Flight

Mixture.....Idle Cut Off
 Fuel Selector.....OFF
 Airspeed..... **100 kts+**
 Best Landing Site.....Selected
 Flaps.....As Required
 MayDay.....Transmit (121.5)
 Transponder.....7700
 Master.....OFF
 Seatbelts.....Secure
 Door.....AJAR
 Land.....Evacuate Aircraft

Electrical Fire

MayDay.....Transmit (121.5)
 Master Switch.....OFF
 Vents.....CLOSED
 Land.....AS SOON AS PRACTICAL
 See "Securing Engine" Procedure

Altitude Sufficient for Restart?

No: (Proceed to Securing Engine)

Yes: Attempt Restart

Airspeed.....65 kts
 Mixture.....Enrichen As Required
 Throttle.....Adjust / Set
 Carb Heat.....ON
 Magnetos.....Left / Right / Both
 Best Landing Site.....Selected

Did Engine Restart?

Yes:
 LAND AS SOON AS PRACTICAL

No:

MayDay.....Transmit (121.5)
 Transponder.....7700

Securing Engine

Best Landing Site.....Selected
 Airspeed.....65 kts... 60 kts full flaps
 Mixture.....Idle Cut Off
 Magnetos.....OFF
 Seatbelts.....Secure
 Flaps.....As Required
 Master Switch.....OFF
 Door.....AJAR
 Land.....Evacuate Aircraft



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Cessna 172

Preflight

Cockpit

Hobbs/Tach.....Check
 Control Lock.....Remove
 Batt Master.....ON
 Flaps.....Extend
 Lights.....Check
 Batt Master.....OFF
 Static Drain (IFR)*.....Closed
 Certs/Documents.....Check

Tail

Antennas.....Check
 Elevator.....Check
 Rudder.....Check

Right Wing

Flap Hinges.....Check
 Aileron.....Check
 Lights.....Check
 Leading Edge.....Check
 Fuel Vent.....Clear
 Strut.....Check
 Tire.....Check
 Brake.....Check
 Fuel Strainer.....Sample
 Fuel Quantity.....Check

Nose

Oil Quantity.....4-6 qts
 Prop Blade.....Check
 Alternator Belt.....Check
 Air Intake.....Clear
 Landing Light.....Check
 Nose Gear Strut.....Check
 Nose Gear Tire.....Check
 Static Source.....Clear

Left Wing

Strut.....Check
 Brake.....Check
 Tire.....Check

Left Wing (continued)

Fuel Strainer.....Sample
 Fuel Quantity.....Check
 Pitot Tube.....Clear
 Stall Indicator.....Check
 Fuel Vent.....Clear
 Leading Edge.....Check
 Lights.....Check
 Aileron.....Check
 Flap Hinges.....Check

Final Tarmac / Ramp Check

Ramp/TieDown/Chocks.....All Clear

Engine Start

Pre-Engine Start

Seats.....Adjusted
 Headsets.....Plugged In
 Seat Belts.....On
 Keys.....In and Ready
 Batt Master.....ON
 Beacon.....ON
 Nav Lights (night).....(As Required)
 Fuel Selector.....Both
 Mixture.....Rich
 Throttle.....Pump (Twice)
 Throttle.....Closed, then 1/4" Open

Engine Start

Brakes.....Engaged
 Prop Area.....Clear
 Starter.....START
 Throttle....Pump 1x or 2x as Needed
 Throttle.....1000 RPM
 Oil Pressure.....Check
 Mixture.....Lean 50%
 Alternator.....ON
 Circuit Breaker.....Check All In
 Radio Master.....ON

Run Up

Pre-Taxi

Brakes.....Check
ATIS/ASOS (if available).....Listen

Taxi (IFR)

Heading Indicator.....Turns
Turn Coordinator...Turns & Ball Skids

Engine Run Up

Brakes.....Engaged
Mixture.....Rich (or As Required)
Throttle.....1700 RPM
Eng. Instruments.....Check
Right Magneto.....<125 RPM drop
.....Back to Both.....
Left Magneto.....<125 RPM drop
.....Back to Both.....
Vacuum Gage.....Within Limits
Low Voltage Light.....Check
AMP Meter.....Check
Carb Heat.....Cycle & Check
Throttle.....Idle Check
Throttle.....1000 RPM
Mixture.....Lean 50%
Flight Controls.....Free and Correct
Flight Instruments.....Set
Trim.....Set
Flaps.....Set as Required

Avionics

Radios.....Set

Before Takeoff

Doors/Windows.....Secured
Lights.....As Required
DG.....Set and Check
Mixture.....Rich (As Required)

Takeoff

Rotate.....Vr = 55 kts
Climb.....Vy = 75 kts
Flaps.....UP
Mixture.....Lean at 3,000ft

Cruise

Cruise-Climb

Climb Speed.....70-85 kts
Mixture.....Lean As Required

Cruise

Power.....2200 to 2700 RPM
Mixture.....Lean (Rich of Peak)

Approach

Decent

Power.....Reduce as Required
Mixture.....Enrichen as Needed
ATIS/ASOS.....Listen
Flight Instruments.....Check / Set
Lights.....As Required
Carb Heat.....As Needed

Final Approach

Mixture.....Set for "Go-Around" Power
Flaps.....Extend as Needed
Airspeed.....60 KIAS (Flaps Down)
Seat Belts.....Secure

After Landing

Exiting Runway

Mixture.....1" Lean
Flaps.....Retract
Lights.....As Required
Carb Heat.....OFF

Engine Shutdown

Radios.....ALL OFF
Mixture.....Idle Cut Off
Throttle.....Idle
Ignition Key.....OFF and Out
Lights.....OFF
Master / Alternator.....OFF

Securing Aircraft

Inside

Hobbs/Tach.....Record
Control Lock.....Installed
Fuel Selector.....L or R (not Both)
Windows.....Closed & Latched
Flight Controls.....Secured

External

Pilot/Passenger Door.....Locked
Tiedown/Chocks.....Installed

Special Start Procedures

HOT Start

Throttle.....1/2" Open
Mixture.....Rich
Brakes.....Engaged
Prop Area.....Clear
Starter.....START
Throttle.....1000 RPM
Oil Pressure.....Check
Mixture.....Lean 50%

Flooded Start

Master Switch.....OFF
Wait.....4 Minutes
Master Switch.....ON
Mixture.....Lean (cut off)
Throttle.....Full Open
Breaks.....Engaged
Prop Area.....Clear
Starter.....START
Throttle.....1000 RPM
Oil Pressure.....Check
Mixture.....Lean 50%

Unusual Procedures

Engine Roughness

Carb Heat.....ON
Mixture.....Adjust As Needed
Throttle.....Adjust As Needed
If Roughness Continues
Engine Instruments.....Check
Magnetos.....Switch to Left/Right
If either Mag is Satisfactory
Continue on that Mag
Throttle.....Reduce Power
LAND AS SOON AS PRACTICAL

Loss of Oil Pressure

LAND AS SOON AS PRACTICAL
Prepare for Imminent Engine Failure

Electrial Overload

Alternator.....OFF
REDUCE ELECTRIAL LOAD
LAND AS SOON AS PRACTICAL

SPIN Recovery (PARE)

Power.....Idle
Ailerons.....Neutral
Rudder.....Opposite of Rotation
Elevator.....Forward / Break Stall

V-Speeds (KIAS)

Vr - 55	Vg - 65
Vx - 60	Vne - 158
Vy - 80	Va - 97 (2300 lbs)
Vso - 33	- 89 (1950 lbs)
Vno - 127	- 80 (1600 lbs)
Vfe - 110 (10°)	
- 85 (10°-40°)	