



C-172SP (G-1000) Condensed Checklist

BEFORE STARTING CHECK

Preflight Inspection	Complete
Passenger Briefing	Complete
Seats and Seat Belts	Adjust and Lock
Brakes	Test and set
Circuit Breakers	Check In
Electrical equipment	Off
Avionics Switch (BUS 1 & 2)	Off
Fuel Selector Valve	Both
Fuel Shutoff Valve	On

ENGINE START CHECK

Throttle Control	Open ¼ Inch
Mixture Control	Idle Cutoff
Standby Battery	a. Test (20 sec) b. Arm
EIS	No Red X's
Essential Bus Volts	Check (24V Min)
M Bus Volts	Check (1.5V Min)
Standby Battery Amps	Check (Discharge)
Propeller Area	Clear
Master Switch (ALT and BAT)	On
Beacon Light Switch	On

COLD START

Fuel Pump Switch	On
Mixture Control	Full Rich (3-5 Secs)
Fuel Flow	Stabilize
Mixture Control	Idle Cutoff
Fuel Pump Switch	Off
Magnetos	Start
Mixture Control	Full rich upon start

HOT START

Fuel Pump	As necessary
Magnetos	Start
Mixture Control	1/3 Open (as engine fires)

FLOODED START

Mixture Control	Idle Cutoff
Throttle	Half Open
<i>When engine fires...</i>	
Mixture Control	Full Rich
Throttle	PROMPTLY to Idle

AFTER START

Oil pressure	Check (30-60 secs)
Ammeter (M and S BATT)	Check for Charge
LOW VOLTS Annunciator	Check
Mixture	Leaned for taxi
Avionics Switch BUS 1&2	On
<i>FMS Initialization</i>	
<i>Profile Selection</i>	<i>AUX 4</i>
<i>RAIM Availability</i>	<i>Compute</i>
<i>Fuel Totalizer Quantity</i>	<i>Checked/Reset</i>

PRE-TAXI CHECK

Flight Instruments	Check
Lights	As required
Radio	Check
Parking brake	Off
Brakes	Check

BEFORE TAKEOFF CHECK

Parking Brakes	On
Pilot and Passenger Seat Backs	Upright
Seats and Seat Belts	Check Secure
Doors/Windows	Closed/locked
Flight controls	Free and correct
Flight Instruments (PFD)	Check (No Red X's)
Altimeters	a. PFD (BARO) b. Stby Altimeter
Standby Flight Instruments	Check
Fuel Quantity	Verify Level
Mixture Control	Rich
Fuel selector valve	Set both

A/P Test

<i>Autopilot</i>	<i>Engage</i>
<i>Flight Controls</i>	<i>Check (overpower)</i>
<i>A/P TRIM DISC</i>	<i>Press (Note tone)</i>
Flight Director	Off
Elevator Trim	Set for takeoff

Run-up

Throttle	1800 RPM
Magnetos	Check (150/50 RPM)
VAC Indicator	Check
Engine Indicators	Check
Ammeters and Voltmeters	Check
Annunciators	Check None
Throttle Control	Check Idle
Throttle Control	1000 RPM

Throttle Friction	Check
Clearance	Obtain

FMS/GPS Set Up

<i>Flight Plan</i>	<i>Input</i>
<i>Map</i>	<i>Setup</i>
<i>COM/NAV Freqs</i>	<i>Set</i>
<i>CDI/BRG1/BRG2</i>	<i>Proper NAV Source</i>
<i>Speed/Altitude Bugs</i>	<i>Set</i>
Transponder	Code set
Cabin Power 12V Switch	Off
Wing Flaps	0°-10°
Strobe Lights	On
Departure Plan	Complete
Parking brake	Off

Flaps	0°-10°
Mixture	Rich
Lights	As required

CLIMB CHECK (500' AGL)

Airspeed	70-85 KIAS
Throttle Control	Full
Mixture	Lean for peak RPM

CRUISE CHECK

Power	2100-2300 RPM
Mixture	Leaned
FMS/GPS	Review and Brief
Engine Gauges	Check
Lights	As required

DESCENT CHECK

Power	As desired
Mixture	Adjust with altitude
ALT SEL	Set
CDI Softkey	Select NAV Source
Fuel Selector Valve	Both

BEFORE LANDING

Pilot and Passenger Seat Backs	Both
Seats and Seat Belts	Secured and Locked
Fuel Selector Valve	Both
Mixture Control	Rich
LAND and TAXI Lights	On
Autopilot	Off
Cabin Power 12V Switch	Off

AFTER LANDING CHECK

Wing flaps	Up
Lights/strobes	As required
Transponder	Check Standby/Ground
Mixture	Leaned for taxi

SECURING AIRPLANE CHECK

Parking Brake	Set
Throttle	Idle
Electrical Equipment	Off
Avionics Switch (BUS 1&2)	Off
Mixture Control	Idle Cutoff
Magnetos	Off
Standby BATT Switch	Off
Control Lock	Install
Fuel Selector	LEFT or RIGHT

SPEED REFERENCE (KIAS)

V _R	55
V _{SO}	40
V _{S1}	48
V _X	62
V _Y	74
Cruise Climb	90
V _A (2550)	105
V _A (2200)	98
V _A (1900)	90
V _G	68
V _{FE} 10°	110
V _{FE} 10° - FULL	85
V _{NO}	129
V _{NE}	163

Short Field Climb	56
Normal Approach	65
Short Field Approach	61

EMERGENCY PROCEDURES

ENGINE FAILURE DURING TAKEOFF ROLL

THROTTLE CONTROL	IDLE
BRAKES	APPLY
WING FLAPS	RETRACT
MIXTURE CONTROL	IDLE CUTOFF
MAGNETOS	OFF
STANDBY BATT	OFF
MASTER SWITCH	OFF

ENGINE FAILURE AFTER TAKEOFF

AIRSPPEED	70 KIAS (FLAPS UP)
	65 KIAS (FLAPS 10°)
MIXTURE CONTROL	IDLE CUTOFF
FUEL SHUTOFF VALVE	OFF
MAGNETOS	OFF
WING FLAPS	FULL
STANDBY BATT	OFF
MASTER SWITCH (ALT AND BAT)	OFF
CABIN DOOR	UNLATCH
LAND	STRAIGHT AHEAD

ENGINE FAILUIRE DURING FLIGHT

AIRSPPEED	68 KIAS
FUEL SHUTOFF VALVE	ON
FUEL SELECTOR VALVE	BOTH
FUEL PUMP VALVE	ON
MIXTURE CONTROL	RICH
MAGNETOS	BOTH (OR START)
FUEL PUMP SWITCH	OFF

EMERGENCY LANDING WITHOUT POWER

PILOT AND PASSENGER SEAT BACKS	UPRIGHT
SEATS AND SEAT BELTS	SECURE
AIRSPPEED	70 KIAS (FLAPS UP)
	65 KIAS (FLAPS 10°)
MIXTURE CONTROL	IDLE CUTOFF
FUEL SHUTOFF	OFF
MAGNETOS	OFF

WING FLAPS	FULL
STANDBY BATT SWITCH	OFF
MASTER SWITCH (ALT OR BAT)	OFF
DOORS	UNLATCH
TOUCHDOWN	TAIL LOW

PRECAUTIONARY LANDING WITH POWER

PILOT AND PASSENGER SEAT BACKS	UPRIGHT
SEATS AND SEAT BELTS	SECURE
AIRSPPEED	65 KIAS
WING FLAPS	20°
SELECTED FIELD	FLY OVER
WING FLAPS	FULL
AIRSPPEED	65 KIAS
STANDBY BATT	OFF
MASTER SWITCH (ALT OR BAT)	OFF
DOORS	UNLATCH
TOUCHDOWN	TAIL LOW
MIXTURE	IDLE CUTOFF
MAGNETOS	OFF

FIRES

ENGINE FIRE IN FLIGHT

MIXTURE CONTROL	IDLE CUTOFF
FUEL SHUTOFF VALVE	OFF
FUEL PUMP	OFF
MASTER SWITCH (ALT OR BAT)	OFF
CABIN VENTS	OPEN
CABIN HEAT AND AIR	OFF (PUSH IN)
AIRSPPEED	100 KIAS+
FORCED LANDING	EXECUTE

ELECTRICAL FIRE IN FLIGHT

STANDBY BATT	OFF
MASTER SWITCH (ALT OR BAT)	OFF
CABIN VENTS	CLOSED
CABIN HEAT AND AIR	OFF (PUSH IN)
FIRE EXTINGUISHER	USE
AVIONICS SWITCH	OFF
ALL OTHER SWITCHES (NOT MAGS)	OFF
CABIN VENTS	OPEN
CABIN HEAT AND AIR	ON