

Cessna 172

Preflight Inspection

Cockpit

Aircraft docs (ARROW)	Check
Weight & Balance	Check
Parking Brake	Set
Control lock	Remove
Hobbs/Tach	Checked
Ignition	Off
Alt Static Pressure Valve	Off
Avionics Power Switch	Off
Master Switch	On
Fuel quantity indicators	Check
Pitot Heat / Nav / Lndg Light	On
Pitot Tube	Test for Heat
Nav / Ldg Lights / Beacon	Check
Pitot Heat / Nav / Lndg Light	Off
Flaps	Extend 40°
Master Switch	Off

Fuel and Oil

Left fuel tank	Check Quantity
Left fuel sump	Sample
Right fuel tank	Check Quantity
Right fuel sump	Sample
Fuel caps	Secure
Main fuel sump	Drain
Oil	Check

Fuselage and Empenage

Baggage Door	Closed & Locked
Rivets	Check
Tail Tie-Down	Disconnect
Control surfaces	Free & Secure
Trim Tab	Check Security
Antennas	Check Security

Right wing

Flaps	Check
Aileron	Free and Check
Wingtip	Check
Wing tie-down	Disconnect
Main gear	Inflated/Condition
Brakes	Check
Door pins	Check

Preflight

Nose

Nose Gear	Check
Propeller and spinner	Check
Alternator belt	Check
Engine Air intake	Check
Carburetor air filter	Check
Landing lights	Check
Nose wheel strut & tire	Check
Static source opening	Check

Left Wing

Door pins	Check
Main wheel tire	Inflated/Cond
Brakes	Check
Pitot Tube	Clear
Stall warning	Check
Fuel vent	Clear
Wing tie-down	Disconnect
Wingtip	Check
Aileron	Free and Checked
Flaps	Check

Before starting engine

Preflight inspection	Complete
Passenger Briefing	Complete
Seats & belts	Adjust & Lock
Doors	Closed & Locked
Brakes	Test & Set
Circuit breakers	Check In
Electrical Equip	Off
Radio Power Switch	Off
Autopilot	Off
Fuel Selector Valve	Both

Starting Engine

Pray	Safety and Fun!
Throttle	Open 1/8 inch
Mixture	Rich
Carb heat	Cold
Prime	As required; locked
Key	In Ignition
Propeller area	Clear & Verbalize
Master Switch	On
Beacon	On
Ignition	Start
Throttle	Adjust 1000 rpm
Oil Pressure	Check normal

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Radios	On
Transponder	1200 - Standby
Flaps	Up
Ammeter	Check Charging
External Lights	As needed
ATIS/AWOS/ASOS	Obtain
Instruments	Checked and Set
ATC/Unicom	Contact
Brakes	Check
Taxi Check	Complete

Before Takeoff Run-Up Check

Parking brake	Set
Elevator Trim	Set for TAKEOFF
Flight controls	Free & Correct
Mixture	Rich
Throttle	1700 rpm
Magnetos (125/50)	Check
Suction gage (4.6-5.4)	Check
Engine Instruments	Green
Ammeter	Holds Load
Mixture	Set for Density Alt
Carb heat	On (Out)
Throttle	Idle
Carb heat	Cold (In)
Throttle	1000 rpm
Throttle Friction Lock	Adjust
Comm/Nav/Radios/Avionics	Set
Flaps	Set for Takeoff (0°-10°)
Parking Brake	Release

Takeoff Line-Up Check

Doors/Windows	Secure
Magnetos	Both
Carb heat	Cold
Mixture	Set
Transponder	Set ALT

Rotate	65 MPH
Best Rate of Climb (Vy)	85 MPH

Cruise Check

Throttle	As required
Mixture	Leaned
Engine Instruments	Green

In Flight

Descent checklist

Seatbelts	Fastened
Fuel selector	Both
Carb Heat	On
Mixture	Enriched

Approach

ATIS	Checked
Magnetos	Both
Carb Heat	On
Mixture	Full Rich
Flight instruments	Checked & Set
Radios	Set
Landing light	On
Final Aprch	70 MPH (Flaps Dn) 80 MPH (Flaps Up)

After Landing Check

Flaps	Up
Carb Heat	Cold
Transponder	Standby
Landing light	Off
ATC Ground	Contact

Parking

Throttle	1000 RPM
Avionics	Off
Electrical	Off
Mixture	Cut-off
Ignition switch	Off
Master switch	Off

Securing the aircraft

Control Lock	Install
Hobbs/Tach/Time	Record
Windows Shade	Install
Door/Window	Secure
Tie-downs	Secure

Meritt Island (COI) Freq

CTAF	123.05
Daytona APC	134.95 / 132.65
St. Pete FSS	123.60
Fuel	321-453-2222
COI NDB	247
Patrick VOR	115.00

Procedures

Short field take-off

Take-off checklist	Complete
Brakes	Set and hold
Flaps	10°
Throttle	Full
Brakes	Release
Rotate	60 MPH
Initial Climb	70 MPH
Flaps	Retract past 50ft obstacle
Climb Airspeed	85 MPH

Short field landing

Pre-landing check	Complete
Approach	70 MPH
Flaps	40°
Throttle	Maintain 4° glidepath
Near Touchdown	↑Pitch, ↓Pwr
Flaps	Up
Elevator	Full backpressure
Braking	Heavy as required

Soft field take-off

Take-off checklist	Complete
Flaps	10°
Taxi	Keep rolling
Weight	Wheels to Wings ASAP
Ground Effect	Maintain
Airspeed	85 MPH
Flaps at 200ft	retract

Soft field landing

Pre-landing check	Complete
Throttle	1500 RPM
Flaps	10°
Airspeed	70 MPH
Touchdown	Mains first, softly
Elevator	Up
Braking	Only as required

Go-around

Throttle	Full
Pitch	Level
Carb Heat	Cold
Flaps	40° → 20°
Positive Rate of Climb	
Flaps	→ 10° → 0°
Climb Out	85 MPH

Emergency

Engine failure

TAKEOFF

Throttle	Idle
Brakes	Apply
Flaps	Retract
Mixture	IDLE cut-off
Ignition	Off
Master switch	Off

AFTER TAKEOFF

Airspeed + TRIM	75 MPH
Mixture	Idle Cut-off
Fuel shutoff valve	Off
Ignition	Off
Flaps	As Required
Master switch	Off
Cabin Doors	Unlatch
Land	Straight Ahead

DURING FLIGHT

Airspeed + TRIM	75 MPH
Carb Heat	On
Mixture	Rich

LOOK FOR A FIELD

Fuel selector valve	Both
Ignition	BOTH (Try Restart)
Primer	In & Locked

EMERGENCY LANDING WITHOUT POWER

Mayday	Transmit 121.5
Transponder	Squawk 7700
Fuel selector valve	Off
Mixture	Idle Cut-off
Ignition	Off
Flaps	As Required
Master switch	Off
Cabin Doors	Unlatch
Touchdown	Flat Attitude

Engine Fire During Start

Mixture	Cutoff
Throttle	Full
Crank	Continue
Fuel Selector	Off
Ignition	Off
Master	Off
Engine	Shutdown & Extinguish

Emergency

Engine Fire during flight

Mixture	Idle Cut-off
Fuel shutoff valve	Off
Master Switch	Off
Cabin Heat/Air	Closed
Airspeed	110 MPH
Emergency Landing	Execute

Electrical Fire

Master Switch	Off
All switch (except Mags)	Off
Vents	Closed
Fire Extinguisher	Activate
Mater Switch	On
Radio/Switches	On one at a time
Vents	Open and Ventilate

Electrical Failure

Load meter	Verify
Alternator	Off
Reduce load to minimum	
Circuit Breakers	Check & Reset
Alternator	On

If still no power:

Alternator	Off
Reduce load and land	

Electrical Overload

Master Switch	Off
Master Switch	On
Over-voltage light	Check Off
else TERMINATE flight ASAP	

Spin Recovery

Throttle	IDLE
Ailerons	NEUTRAL
Rudder	Full opposite
Control wheel	Full forward
Once Spin Rotation Stops	
Rudder control/wheel	Neutral
Pitch	Level

Carburetor Icing

Throttle	Full
Carb Heat	On
Mixture	Adjust

Engine Roughness

Magnetos	Check
Mixture	Lean as necessary

Reference

V-Speeds (MPH)

Rotate	V _r	65
Max Angle (Sea Level)	V _x	70
Best Climb Rate (Sea Level)	V _y	85
Maneuver	V _a	94-114
Flaps	V _{fe}	103
Normal max	V _{no}	147
Never exceed	V _{ne}	182
Stall (clean)	V _s	56
Stall (land)	V _{so}	47
Final Approach	Full Flaps	70
	No flaps	80
Best Glide	Full Flaps	70
	No Flaps	75

Phonetic Alphabet

Alpha	November
Bravo	Oscar
Charlie	Papa
Delta	Quebec
Echo	Romeo
Foxtrot	Sierra
Golf	Tango
Hotel	Uniform
India	Victor
Juliet	Whiskey
Kilo	Xray
Lima	Yankee
Mike	Zulu

Light Signals:

Signal	On Ground	In Flight
Steady Green	Takeoff	Land
Flashing Green	Taxi	Return to land
Steady Red	Stop	Give way
Flashing Red	Clear runway	Do not land
Flashing white	Return to ramp	--
Red/Green alternating	WARNING – USE CAUTION	

Procedures

Emergency

Emergency

Reference