



Aircraft Checklist

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POH/AFM takes priority over this checklist.

CESSNA 172M MPH STEAM GAUGES NORMAL OPERATIONS EMERGENCY PROCEDURES (REVERSE)

Updated September 9th, 2022 (Rev. 7-B)

RUNWAY ENTRY

Time for Lights, Camera, Action, Traffic

Timer START
Lights LANDING & STROBES ON
Transponder VERIFY CODE/ALT
Mixture RICH
Carb Heat COLD
Traffic VERIFY RWY/APCH CLEAR
Runway Number CONFIRM
Heading/Compass MATCHES RWY

NORMAL TAKEOFF

Flaps UP
Throttle FULL
Engine Instruments "GREEN"
Engine RPM AT LEAST "2200 RPM"
Airspeed "ALIVE"
Rotate 65 MPH "ROTATE"
Climb 90 MPH

SHORT FIELD TAKEOFF

Flaps UP
Brakes HOLD
Throttle FULL
Engine Instruments "GREEN"
Engine RPM AT LEAST "2200 RPM"
Brakes RELEASE
Airspeed "ALIVE"
Rotate 60 MPH "ROTATE"
Climb 72 MPH
Obstacle CLEARED
Flaps UP
Climb 90 MPH

SOFT FIELD TAKEOFF

Flaps 10°
Brakes NONE
Control Wheel FULL AFT
Throttle SLOWLY ADVANCE FULL
Engine Instruments "GREEN"
Engine RPM AT LEAST "2200 RPM"
Airspeed "ALIVE"
Main Gear LIFT OFF
Ground Effect MAINTAIN TO 70 MPH
Flaps UP
Climb 90 MPH

AFTER TAKEOFF (400' AGL)

Airspeed 90 MPH
Flaps UP
Engine Instruments GREEN
Landing/Taxi Light AS REQ'D

CRUISE

Throttle 2300-2400 RPM
Trim AS REQUIRED
Engine Instruments CHECK
Mixture LEAN AS REQUIRED
EGT 50°F/30°C Rich of Peak

PRE-MANEUVER CHECKS

Clear the area CHECK
Heading ESTABLISHED & BUGGED
Altitude ESTABLISHED & BUGGED
Place to land CHECK
Set Power & Config. CHECK
• Fuel Selector BOTH
• Mixture RICH
• Lights ON

DESCENT / APPROACH

ATIS/AWOS CHECK
Altimeter SET
Heading Indicator ADJUST
Clearance OBTAIN
Radios/GPS TUNE/IDENT
Approach Briefing COMPLETE
Fuel Selector BOTH
Lights AS REQUIRED
Mixture SLIGHTLY ENRICH

PRE-LANDING

Fuel Selector BOTH
Mixture RICH
Carb Heat ON BELOW 2000 RPM
Lights AS REQUIRED
Flaps AS REQUIRED
Seatbelts FASTENED

NORMAL LANDING

Flaps 30°
Airspeed 75 MPH
Touch Down MAIN WHEELS FIRST
Brakes MINIMUM REQUIRED

SHORT FIELD LANDING

Flaps FULL
Airspeed 70 MPH
Touch Down MAIN WHEELS FIRST
Flaps UP
Brakes MAXIMUM
Control Wheel FULL AFT

SOFT FIELD LANDING

Flaps FULL
Airspeed 75 MPH
Carb Heat COLD ON SHORT FINAL
Touch Down NOSE HIGH WITH PWR
Brakes NONE
Control Wheel FULL AFT

AFTER LANDING

Flaps UP
Mixture LEAN 1"
Carb Heat COLD
Elevator Trim SET FOR TAKEOFF
Lights LANDING / STROBES OFF
Radios CONTACT GND / CALL CLR
Flight Plan CLOSE IF REQ'D

SHUTDOWN / SECURE

Brakes AS REQUIRED
Avionics Master OFF
Mixture IDLE/CUTOFF
Wait for engine to shut off
Magnetos OFF / REMOVE KEY
Master Switch OFF
Fuel Selector LEFT OR RIGHT
Control Wheel Lock INSTALLED
Aircraft TIE DOWN
Aircraft Log COMPLETE
Cowl Plugs/Covers INSTALLED
Windshield CLEAN AS REQ'D
Chocks AS REQ'D

SPEEDS

V_R 65 MPH
V_X 72 MPH
V_Y 90 MPH
V_{FE} 100 MPH
V_A (2300 lb) 122 MPH
V_S 49 MPH
V_{SO} 57 MPH
Pattern 105 MPH
Abeam Numbers 95 MPH
Base 85 MPH
Final 75 MPH
V_G 75 MPH
Glide distance 1.5 NM / 1000 FT.

FREQUENCIES

Potomac Approach
Potomac (SFRA West) 127.325
Potomac 128.525
KHEF (Manassas)
ATIS 125.175
Tower 133.1
Ground 121.8
KHWY (Warrenton)
AWOS 120.35
CTAF 122.70
KCJR (Culpeper)
AWOS 119.32
CTAF 123.07
CSN (Casanova VORTAC)
CSN 116.30

ENGINE FIRE DURING START Cranking CONTINUE If Engine Starts Throttle 1700 RPM FOR 20 SEC Engine SHUTDOWN AND INSPECT If Engine Fails To Start Throttle FULL OPEN Mixture IDLE CUTOFF Cranking CONTINUE Fuel Selector Valve OFF Fire Extinguisher OBTAIN Engine MASTER AND IGNITION OFF Aircraft EVACUATE Fire EXTINGUISH Damage INSPECT	ENGINE FIRE IN FLIGHT Mixture IDLE CUTOFF Fuel Selector Valve OFF Master Switch OFF Cabin Heat and Air OFF Airspeed INCREASE / 120+ MPH Forced Landing EXECUTE CABIN FIRE Master Switch OFF Air Vents and Windows CLOSED Fire Extinguisher ACTIVATE Cabin VENTILATE Land AS SOON AS POSSIBLE WING FIRE Nav Lights OFF Pitot Heat OFF Strobe Lights OFF <i>Side slip to keep flames away from the fuel tank and land as soon as possible. Only use flaps as required for final approach and touchdown</i> OVER VOLTAGE LIGHT Master Switch (Alt Only) OFF Electrical Load REDUCE AS FOLLOWS Avionics OFF Pitot Heat OFF All Lights OFF Comm 1 and Nav 1 TUNE TO ACTIVE Land AS SOON AS PRACTICAL AMMETER DISCHARGE (ABOVE 1700 RPM) Master (ALT Only) OFF Alternator Circuit Breaker CHECK IN Master Switch ON Ammeter CHECK Ammeter CHECK CHARGING (+) If Amp Discharge Remains Master Switch (ALT Only) OFF Electrical Load REDUCE AS FOLLOWS Avionics Master OFF Pitot Heat OFF All Lights OFF Comm 1 and Nav 1 TUNE TO ACTIVE Land AS SOON AS PRACTICAL ELECTRICAL FIRE IN FLIGHT Master Switch OFF Vents/Cabin Air/Heat OFF Fire Extinguisher ACTIVATE Avionics Master OFF All Other Switches OFF Cabin VENTILATE Master Switch ON Circuit Breakers CHECK Avionics Master ON Electrical Equip ON ONE AT A TIME	LIGHT SIGNALS (GROUND) Cleared for Takeoff STEADY GREEN Cleared to Taxi FLASHING GREEN Stop STEADY RED Taxi clear of runway FLASHING RED Return to airport starting point FLASHING WHITE General Warning, Exercise Caution ALTERNATING RED AND GREEN LIGHT SIGNALS (FLIGHT) Cleared to Land STEADY GREEN Return to Land FLASHING GREEN Give way and Circle STEADY RED Do not land FLASHING RED General Warning, Exercise Caution ALTERNATING RED AND GREEN																											
ENGINE FAILURE PRIOR TO TAKEOFF Throttle IDLE Brakes APPLY Flaps RETRACT Mixture IDLE CUTOFF Ignition Switch OFF Radio Call IF ABLE Master Switch OFF	POWER SETTINGS <i>Power settings to be used as a guide only Carb Heat should be used below 2000RPM</i> Climb FULL POWER Cruise 2300-2400 RPM Descent 2100 RPM Precision Approach 1800 RPM Non-Precision Approach 1500 RPM Pattern 2100 RPM Abeam Numbers 1500 RPM																												
ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF Airspeed Flaps Up 80 MPH Airspeed Flaps Down 75 MPH Landing Site SELECT Mixture IDLE CUTOFF Fuel Selector OFF Ignition Switch OFF Flaps AS REQUIRED Radio Call IF ABLE Master Switch OFF Doors UNLATCH		<div> Yellow highlighted items are immediate action items that should be committed to memory. </div>																											
ENGINE FAILURE DURING FLIGHT A..... AIRSPEED 3 turns nose-up trim, 75 mph B..... BEST PLACE TO LAND C..... CHECKLIST Fuel Selector BOTH Mixture RICH Throttle ADJUST Carb Heat ON Mags L/R/BOTH Primer IN AND LOCKED D..... DECLARE Mayday ON 121.5 Squawk 7700 E..... PREPARE TO EXIT Fuel Selector OFF Mixture OFF Mags OFF Master Switch OFF WHEN ABLE Doors UNLATCH Passenger Brief COMPLETE	PIVOTAL ALTITUDE <table> <tr> <th colspan="2">Groundspeed</th><th>Approximate Pivotal Altitude</th></tr> <tr> <th>Knots</th><th>MPH</th><th></th></tr> <tr><td>87</td><td>100</td><td>670</td></tr> <tr><td>91</td><td>105</td><td>735</td></tr> <tr><td>96</td><td>110</td><td>810</td></tr> <tr><td>100</td><td>115</td><td>885</td></tr> <tr><td>104</td><td>120</td><td>960</td></tr> <tr><td>109</td><td>125</td><td>1050</td></tr> <tr><td>113</td><td>130</td><td>1130</td></tr> </table>	Groundspeed		Approximate Pivotal Altitude	Knots	MPH		87	100	670	91	105	735	96	110	810	100	115	885	104	120	960	109	125	1050	113	130	1130	
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CESSNA 172M MPH

STEAM GAUGES

PREFLIGHT CHECKLIST

Updated September 6th, 2022 (Rev. 7-B)

COCKPIT SAFETY CHECK

Magnetos OFF, KEY OUT
Mixture IDLE CUTOFF
Throttle CLOSED

PREFLIGHT PREPARATION

Weather CHECK
Inspections/ADs/Squawks CHECK
Flight Plan FILED
Weight and Balance COMPUTE
Fuel Quantity CHECK / CALL

Master MUST Be Off During Fueling

Aircraft Cover REMOVE
Cowl Plugs REMOVE
Pitot Tube Cover REMOVE
Chocks REMOVE
Engine Preheat BELOW 0 °C/32 °F
Wings CHECK FOR ICE/FROST

CABIN

Keys PLACE ON DASH
Documents S.P.A.(R).J.R.O.W.
Supplements CHECK
Placards CHECK
Airworthiness Cert VISIBLE
Radio Station Lic INT'L FLIGHT
Registration VALID
P.O.H/A.F.M. CHECK
W&B Info IN BINDER
Hobbs Meter RECORD
Fire Extinguisher GREEN/SECURE
Control Wheel Lock REMOVE
Ignition Switch OFF
Mixture IDLE CUTOFF
Throttle CLOSED
Carburetor heat COLD
Avionics Master Switch OFF
Master Switch ON
Fuel Quantity CHECK
Alternate Static Source CHECK IN
Fuel Selector BOTH
Elevator Trim SET T.O.
Flaps EXTEND
Pitot Heat CHECK AS REQ'D
Exterior Lights CHECK AS REQ'D
Master Switch OFF

LEFT WING

Door Pins INSPECT
Cabin Vents and Inlets INSPECT
Leading Edge INSPECT
Wing Tie Down REMOVE
Main Gear/Tire/Brakes INSPECT
Pitot Tube CHECK UNBLOCKED
Stall Horn CHECK UNBLOCKED
Fuel Vent CHECK UNBLOCKED
Wing Tip/Nav Lights INSPECT
Left Aileron INSPECT
Hinges (x3) BOLTS SECURE
Weights INSPECT
Static Wicks (x2) INSPECT
Flaps INSPECT
Rod INSPECT

EMPENNAGE

Baggage Door LOCKED
Skin and Rivets INSPECT
Vertical Stabilizer INSPECT
Left Horizontal Stabilizer INSPECT
Left Elevator INSPECT
Weight SECURE
Hinges SECURE
Cables SECURE
Rudder INSPECT
Hinges SECURE
Cables SECURE
Tail Tie Down REMOVE
Right Elevator INSPECT
Cables SECURE
Trim Tab INSPECT
Hinges SECURE
Weight SECURE
Right Horizontal Stabilizer INSPECT
Antennas INSPECT
Underside INSPECT

RIGHT WING

Door Pins INSPECT
Cabin Vents and Inlets INSPECT
Leading Edge INSPECT
Wing Tie Down REMOVE
Main Gear/Tire/Brakes INSPECT
Wing Tip/Nav Lights INSPECT
Right Aileron INSPECT
Hinges (x3) BOLTS SECURE
Weights INSPECT
Static Wicks (x2) INSPECT
Flaps INSPECT
Rod INSPECT

NOSE AND COWLING

Windshield CLEAN
Oil Level CHECK
Cold: ≥ 6 Qts, Warm: $\geq 5 \frac{1}{2}$ Qts
 ≤ 10 hrs to mx: ≥ 5 Qts
Do Not Over Tighten Oil Cap
Oil Access Door SECURE
Engine Cowling SECURE
No Consecutive Fasteners Missing
Prop/Spinner INSPECT
No Cracks, No Screws Missing
Cowling Inlets CHECK
Alternator Belt CHECK TENSION
Air Filter CHECK
Exhaust CHECK FOR CRACKS
Nose Gear/Tire/Strut INSPECT
Static Port CHECK UNBLOCKED

FINAL CHECK

Fuel Sumps DRAIN
Left Wing (1) DRAIN
Right Wing (1) DRAIN
Nose (1) PULL & DRAIN
Fuel Quantity VISUAL CHECK
Fuel Caps SECURE
Last 360° Walk Around COMPLETE
Chocks CONFIRM REMOVED
Tie Downs CONFIRM REMOVED
Cowl Plugs CONFIRM REMOVED
Pitot Cover CONFIRM REMOVED
Preflight COMPLETE

PERSONAL CHECKLIST

PAVE to perceive hazards

Pilot CHECK
• Experience/recency CHECK
• Physical condition SEE IMSAFE
Aircraft CHECK
• Fuel reserves CHECK
• Performance CHECK
• Equipment CHECK
Environment CHECK
• Weather CHECK
External Pressures CHECK

IMSAFE to check pilot phys. condition

Injury CHECK
Medication CHECK
Stress CHECK
Alcohol CHECK
Fatigue CHECK
Emotion CHECK

PASSENGER BRIEF		TAXI		RUNWAY ENTRY	
S – Seatbelts USAGE <i>Fastened during taxi, takeoff, landing. Recommended always.</i>		Taxi Area CLEAR		<i>Time for Lights, Camera, Action, Traffic</i>	
A – Air vents USAGE <i>Sick? Loosen clothing, use air, look at point on horizon. Location of sick sacks.</i>		Brakes CHECK <i>Check for dip in Attitude Indicator</i>		Timer START	
F – Fire extinguisher USAGE		Controls POSITION FOR WIND		Lights LANDING & STROBES ON	
P – Pull pin		Flight Instruments CHECK IN TURNS		Transponder VERIFY CODE/ALT	
A – Aim at base of fire		ENGINE RUNUP		Mixture RICH	
S – Squeeze		Aircraft POSITION INTO WIND		Carb Heat COLD	
S – Sweep		Parking Brake SET		Traffic VERIFY RWY/APCH CLEAR	
E – Exits LOCATION/USAGE		Seats and Seat Belts SECURE		Runway Number CONFIRM	
T – Traffic EXPLAIN <i>Clock Position / Who's looking</i>		Cabin Doors CLOSED AND LOCKED		Heading/Compass MATCHES RWY	
Y – Yak (Sterile Cockpit) <i>No extraneous conversation under cruise or 10,000' MSL (whichever is lower)</i>		Flight Controls FREE & CORRECT		NORMAL TAKEOFF	
Y – Yoke <i>3 way positive exchange of flight controls. Stay clear of active flight controls.</i>		Flight Instruments CHECK		Flaps UP	
Y – Any questions?		Standby Flight Instruments CHECK		Throttle FULL	
BEFORE START		Fuel Quantity CHECK		Engine Instruments "GREEN"	
Preflight COMPLETE		Fuel Selector Valve RECHECK BOTH		Engine RPM AT LEAST "2200 RPM"	
Passenger Briefing COMPLETE		Elevator Trim SET FOR TAKEOFF		Airspeed "ALIVE"	
Seats and Belts ADJUSTED/LOCKED		Throttle 1700 RPM		Rotate 65 MPH "ROTATE"	
Fuel Selector Valve BOTH		Magnetos R, B, L, B <i>Drop less than 150 and 50 between mags</i>		Climb 90 MPH	
Avionics Master Switch OFF		Carb Heat CHECK RPM DROP		SHORT FIELD TAKEOFF	
Brakes TEST AND SET <i>Test both sides and look for drips.</i>		Engine Instruments GREEN		Flaps UP	
Circuit Breakers CHECK IN		Ammeter ZERO OR POSITIVE		Brakes HOLD	
Beacon ON		Suction Gauge 4.9" TO 5.1"		Throttle FULL	
Nav Lights ON AT NIGHT/IFR		Throttle CHECK IDLE		Engine Instruments "GREEN"	
ENGINE START		Throttle 800 RPM		Engine RPM AT LEAST "2200 RPM"	
Mixture RICH		Throttle Friction Lock ADJUST		Brakes RELEASE	
Carb Heat COLD		Radios SET		Airspeed "ALIVE"	
<i>Prime Engine for Cold Start or as req'd</i>		GPS Flight Plan VERIFY		Rotate 60 MPH "ROTATE"	
Throttle / Primer PRIME <i>Try Throttle First, Then Use Primer</i>		2nd Radio 121.5		Climb 72 MPH	
Primer IN & LOCKED		XPDR VERIFY CODE/ALT		Obstacle CLEARED	
Master Switch ON		CDI Softkey SELECT NAV SOURCE		Flaps UP	
Throttle 1/4"		Wing Flaps SET		Climb 90 MPH	
Prop Area CLEAR		Cabin Windows CLOSED & LOCKED		SOFT FIELD TAKEOFF	
Ignition Switch ENGAGE <i>Do NOT Crank for > 10 secs. Allow 20 secs between start attempts!</i>		Heading Indicator ADJUST		Flaps 10°	
Throttle 800 RPM		Brakes RELEASE		Brakes NONE	
Oil Pres. ABOVE RED LINE (30 SEC)		TAKEOFF BRIEF		Control Wheel FULL AFT	
Mixture LEAN 1"		Conditions		Throttle SLOWLY ADVANCE FULL	
AFTER START		Weather (Wind, Ceilings, Etc.)		Engine Instruments "GREEN"	
Flaps UP		Hazards		Engine RPM AT LEAST "2200 RPM"	
Avionics Master Switch ON		Weather, Terrain, Wildlife, Traffic, etc.		Airspeed "ALIVE"	
GPS Database CHECK DATES		Runway		Main Gear LIFT OFF	
GPS Fuel SET		Number (L/R), Length		Ground Effect MAINTAIN TO 70 MPH	
Radios TUNE, GET ATIS/AWOS		Return/Emergency Procedures		Flaps UP	
Altimeter SET		• Before Rotation		Climb 90 MPH	
Heading Indicator BUG WIND		• After Rotation w/ Sufficient Rwy			
Clearance OBTAIN		• Below 1000' AGL			
Transponder SET/ALT		• Above 1000' AGL			
GPS Flight Plan SET		• Establish PIC in emergency			
		Takeoff (Brief)			
		• Normal, Short, Soft?			
		• From Runway			
		• Wind speed and direction			
		• Speeds: rotate, initial/enroute climb			
		Departure (Brief)			