

Cessna 172M/N

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V SPEEDS (KIAS)
(C-172M)

Vso.....41
Vs.....47
Vr.....55-65
Vx (sea level).....59
Vx (10,000 ft.).....61
Vy (sea level).....73
Vy (10,000 ft.).....68
Vfe.....85
Vno.....128
Vne.....160
Va (2300 lbs).....97
Va (1950 lbs).....89
Va (1600 lbs).....80
Best Glide (flaps UP).....65
Best Glide (flaps DN).....60
Max. Demon. X-Wind.....15
Approach (Flaps UP).....60-70
Approach (Flaps DN).....55-65

PREFLIGHT

Weather..... CHECK
Weight & Balance.... COMPLETE
Documents (AROW)..... CHECK
Inspection/AD status..... CHECK
Fire Extinguisher..... CHARGED
Hobbs/Tach..... CHECK
Control Lock..... REMOVE
Ignition..... OFF
Avionics Master..... OFF
Master Switch..... ON
Fuel Quantity..... CHECK
Turn Coordinator..... AUDIBLE
Flaps..... EXTEND
Lights..... ON/INSPECT/OFF
Fuel Selector..... BOTH
Master Switch..... OFF

EXTERIOR INSPECTION

Aft Fuselage
Baggage Door..... LOCKED
Fuselage..... CHECK
Empennage
Horiz. Stabilizer..... CHECK
Elevator..... CHECK
Tail Tie-Down..... REMOVE
Trim Tab..... CHECK
Rudder..... CHECK
Antennas..... CHECK
Horiz. Stabilizer..... CHECK
Right Wing
Flap..... CHECK
Aileron..... CHECK
Tie Down..... REMOVE
Leading Edge..... CHECK
Fuel Sump..... CHECK
Main Wheel..... CHECK
Fuel Quantity..... CHECK
Fuel Filler Cap..... SECURE
Nose
Fuel Strainer..... CHECK
Oil Quantity (6-8 qts)..... CHECK
Cooling Inlets..... CHECK
Prop. & Spinner..... CHECK
Carburetor Air Filter..... CHECK
Alternator Belt..... SECURE
Nose Wheel Strut/Tire..... CHECK
Static Source..... CHECK
Left Wing
Fuel Quantity..... CHECK
Fuel Filler Cap..... SECURE
Fuel Sump..... CHECK
Main Wheel..... CHECK
Pitot Tube..... CHECK
Fuel Tank Vent..... CHECK
Stall Warning..... CLEAR

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EXTERIOR INSPECTION
(CONT.)

Tie Down..... REMOVE
Leading Edge..... CHECK
Left Aileron..... CHECK
Left Flap..... CHECK

PRE-ENGINE START

Preflight Inspection.. COMPLETE
Passenger Briefing.. COMPLETE
Seats and Belts..... SECURE
Parking Brake..... SET
Circuit Breakers..... CHECK IN
Electrical Equipment..... OFF
Avionics Master..... OFF
Fuel Selector Valve..... BOTH

ENGINE START

Throttle..... OPEN ¼ INCH
Mixture..... RICH
Propeller (N29MX).... FULL FWD
Carburetor Heat..... COLD
Master Switch..... ON
Beacon..... ON
Prime..... AS NECESSARY
Propeller Area..... CLEAR
Ignition..... START
Throttle..... 1000 RPM
Oil Pressure..... CHECK
Mixture..... LEAN for TAXI
Lights (as required)..... ON
Avoid using strobe lights while taxiing in the vicinity of other aircraft, or during night flight through clouds, fog, or haze

FLOODED START

Master Switch..... ON
Throttle..... FULL OPEN
Mixture..... IDLE CUT OFF
Ignition..... ENGAGE
When engine fires advance mixture, retard throttle

COLD WEATHER START
WITHOUT PREHEAT

Prime..... 6-10 STROKES
While propeller is turned by hand
Primer..... LEAVE OPEN
Propeller Area..... CLEAR
Avionics Master..... OFF
Master Switch..... ON
Mixture..... FULL RICH
Beacon..... ON
Ignition..... START
Throttle... PUMP TWICE RAPIDLY
Return to 1/8 inch OPEN
Prime..... CONTINUE
Until engine is running smoothly
Oil Pressure..... CHECK
Carburetor Heat..... ON
Primer..... LOCK

TAXI

Avionics Master..... ON
Radios..... ON
Transponder..... STBY
Flaps..... RETRACT
Parking Brake..... RELEASE
Brakes..... TEST
Instruments..... CHECK

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RUNUP

Parking Brake.....SET
 Seats/Belts.....SECURE
 Doors/Windows.....CLOSED
 AND LOCKED
 Controls.....FREE & CORRECT
 Fuel Quantity.....CHECK
 Mixture.....RICH
 Fuel Selector Valve.....BOTH
 Throttle.....1700 RPM
 Mixture.....SET
 Propeller (N29MX).....CYCLE
 (MAP, RPM, Oil Pressure)
 Magnetos.....CHECK
 Max drop 125 RPM
 Max differential 50 RPM
 Carburetor Heat.....CHECK
 Vacuum Gauge.....CHECK
 Engine Instruments.....CHECK
 Ammeter.....CHECK
 Throttle.....IDLE then 1000 RPM
 Instruments.....CHECK and SET
 Throttle Friction Lock....ADJUST
 Radios and Avionics.....SET
 Trim.....SET for TAKEOFF
 Brakes.....RELEASE

PRE-TAKEOFF

Flaps (as required).....SET
 Transponder.....ALT
 Lights.....AS REQUIRED
 Carburetor Heat.....COLD
 Emerg. Procedures.....REVIEW

NORMAL TAKEOFF

Throttle.....Full OPEN
 Engine Instruments.....CHECK
 Rotate.....55-60 KIAS
 Climb.....Vy
 73 KIAS @ sea level
 68 KIAS @ 10,000 ft

SOFT-FIELD TAKEOFF

Flaps.....10°
 Accelerate in ground effect
 Climb Out/50 ft. obst.....55 KIAS
 Climb Out/No obst.....Vy
 Flaps.....RETRACT

**SHORT-FIELD TAKEOFF
(OBSTACLE CLEARANCE)**

Flaps.....UP
 Carburetor Heat.....COLD
 Brakes.....APPLY
 Throttle.....Full OPEN
 Engine Instruments.....CHECK
 Brakes.....RELEASE
 Rotate.....55 KIAS
 Climb....Vx until clear of obstacle
 59 KIAS @ sea level
 61 KIAS @ 10,000 ft.

**The POH/AFM recommends that
 10° flaps only be used for
 soft/rough field takeoff operations.
 Although 10° flaps will decrease
 ground run, this advantage will be
 lost during the initial climb,
 therefore flaps should be used
 during soft field takeoffs and
 takeoffs from short runways where
 obstacle clearance is not a factor.**

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CRUISE

Power.....2200-2700 RPM
 Propeller (N29MX).....SET
 Mixture.....LEAN
 Landing Light.....OFF
 Trim.....SET

BEFORE LANDING

Seats/Belts.....SECURE
 Fuel Selector.....BOTH
 Mixture.....ENRICH
 Propeller (N29MX)....FULL FWD
 Landing Light.....AS REQUIRED

NORMAL LANDING

Carburetor Heat.....ON
 Flaps.....AS DESIRED
 Airspeed.....55-65 (Flaps DN)
 Airspeed.....60-70 (Flaps UP)
 Touchdown.....MAINS first
 Nosewheel.....LOWER GENTLY
 Braking.....MINIMUM

SHORT FIELD LANDING

Carburetor Heat.....ON
 Airspeed.....65 KIAS (Flaps UP)
 Flaps.....DOWN
 Airspeed.....60 KIAS
 Power.....IDLE
 Touchdown.....MAINS first
 Brakes.....APPLY
 Flaps.....RETRACT

GO-AROUND

Throttle.....FULL OPEN
 Carburetor Heat.....COLD
 Flaps.....RETRACT to 20°
 Climb.....55 KIAS
 Flaps.....RETRACT

AFTER LANDING

Flaps.....RETRACT
 Carburetor Heat.....COLD
 Transponder.....STBY
 Landing Light/Strobes.....OFF
 Mixture.....LEAN for taxi

SHUTDOWN

Electrical Equipment.....OFF
 Avionics Master.....OFF
 Mixture.....IDLE cutoff
 Ignition.....OFF
 Master Switch.....OFF
 Beacon/Nav Lights.....OFF
 Control Lock.....INSTALL
 Hobbs/Flight Ticket.....RECORD
 Trash.....REMOVE
 Doors/Windows.....LOCKED
 Tie-Downs.....SECURE
 Flight Plan.....CLOSE

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**EMERGENCY PROCEDURES
ENGINE FAILURE DURING
TAKEOFF RUN**

Throttle.....IDLE
 Brakes.....APPLY
 Flaps.....RETRACT
 Mixture.....IDLE CUTOFF
 Ignition.....OFF
 Master Switch.....OFF

**ENGINE FAILURE AFTER
TAKEOFF**

Airspeed.....65 KIAS (Flaps UP)
 60 KIAS (Flaps DN)
 Mixture.....IDLE CUTOFF
 Fuel Selector Valve.....OFF
 Ignition.....OFF
 Flaps.....AS DESIRED
 Master Switch.....OFF
 Cabin Door.....UNLATCH
 Land.....STRAIGHT AHEAD

**ENGINE FAILURE DURING
FLIGHT**

Airspeed.....65 KIAS
 Landing Site.....IDENTIFY
 Carburetor Heat.....ON
 Fuel Selector Valve.....BOTH
 Mixture.....RICH
 Ignition.....BOTH or START
 If propeller has stopped
 Primer.....IN and LOCKED
 Gauges.....CHECK
 Throttle and Mixture.....
 TRY DIFFERENT SETTINGS

**EMERGENCY PROCEDURES
EMERGENCY LANDING
WITHOUT POWER**

Seat Backs.....UPRIGHT
 Seats/Belts.....SECURE
 Airspeed.....65 KIAS (Flaps UP)
 ...60 KIAS (Flaps DN)
 Landing Site.....IDENTIFY
 Radio.....MAYDAY 121.5
 Transponder.....7700
 Mixture.....IDLE CUTOFF
 Fuel Selector Valve.....OFF
 Ignition.....OFF
 Flaps.....AS REQUIRED
 (40° Recommended)
 Master Switch.....OFF
 Doors.....UNLATCH
 Touchdown.....TAIL LOW
 Brakes.....APPLY HEAVILY

**PRECAUTIONARY LANDING
WITH POWER**

Flaps.....20°
 Airspeed.....60 KIAS
 Selected Field.....OVERFLY
 Flaps.....RETRACT
 Upon reaching safe
 altitude and airspeed
 Avionics Master.....OFF
 Electrical Switches.....OFF
 Flaps.....40° on FINAL
 Airspeed.....60 KIAS
 Master Switch.....OFF
 Doors.....UNLATCH
 Touchdown.....TAIL LOW
 Ignition.....OFF
 Brakes.....APPLY HEAVILY

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**EMERGENCY PROCEDURES
DITCHING**

Radio.....MAYDAY 121.5
 Transponder.....7700
 Heavy Objects.....
 SECURE or JETTISON
 Seat Backs.....UPRIGHT
 Seats/Belts.....SECURE
 Flaps.....20° to 40°
 Power....300 ft/min DESCENT at
 55 KTS
 Approach.....
 High Winds/Seas...INTO WIND
 Light Winds/Seas...PARALLEL
 Airspeed.....65 KIAS (Flaps UP)
 60 KIAS (Flaps 10°)
 Cabin Doors.....UNLATCH
 Touchdown....LEVEL ATTITUDE
 Face.....CUSHION
 ELT.....ACTIVATE
 Airplane.....EVACUATE
 Life Vests and Raft.....INFLATE

**STATIC SOURCE
BLOCKAGE**

Alternate Static Source.....ON
 Airspeed.....Consult Calibration
 Tables in Section 5 of POH/AFM

**LANDING WITH A FLAT
MAIN TIRE**

Approach.....NORMAL
 Touchdown.....GOOD TIRE first
 Hold airplane off flat tire
 as long as possible

**EMERGENCY PROCEDURES
FIRE DURING ENGINE
START**

Cranking.....CONTINUE
 If Engine Starts:
 Power.....1700 RPM
 Engine.....SHUTDOWN
 Inspect for Damage
 If Engine Fails to Start:
 Throttle.....FULL OPEN
 Mixture.....IDLE CUTOFF
 Cranking.....CONTINUE
 Fuel Selector.....OFF
 Fire Extinguisher.....OBTAIN
 Securing Engine:
 Master Switch.....OFF
 Ignition.....OFF
 Parking Brake.....RELEASE
 Airplane.....EVACUATE
 Fire.....EXTINGUISH
 Inspect for Damage

ENGINE FIRE IN FLIGHT

Mixture.....IDLE CUTOFF
 Fuel Selector.....OFF
 Master Switch.....OFF
 Cabin Heat & Air.....OFF
 Airspeed.....100 KIAS
 If fire is not extinguished increase
 airspeed
 Forced Landing.....EXECUTE

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EMERGENCY PROCEDURES ELECTRICAL FIRE

Master Switch.....OFF
 Avionics Master.....OFF
 All other electrical.....OFF
 Vents/Air/Heat.....CLOSED
 Fire Extinguisher.....ACTIVATE
 Vents....OPEN when FIRE OUT
If fire is out and electrical is necessary for flight

Master Switch.....ON
 Circuit Breakers.....CHECK
Do not reset!

Radios.....OFF
 Avionics Master.....ON
 Radios/Electrical....ON, one at a time
 Vents/Air/Heat.....OPEN

CABIN FIRE

Master Switch.....OFF
 Vents/Air/Heat.....CLOSED
 Fire Extinguisher.....ACTIVATE
 Cabin.....VENTILATE
 Land.....ASAP

PROPELLER OVERSPEED (N29MX)

Throttle.....RETARD
 Oil Pressure.....CHECK
 Propeller.....FULL AFT
 Airspeed.....REDUCE
 Throttle.....REDUCE
 To under 2700 RPM
 Flaps....AS REQD. for slow flight

EMERGENCY PROCEDURES WING FIRE

Navigation Light Switch.....OFF
 Pitot Heat Switch.....OFF
 Strobe Light Switch.....OFF
Perform a sideslip to keep the flames away from the fuel tank and cabin

Land.....ASAP
 Flaps.....AS REQUIRED
 For final approach and touchdown

OVER-VOLTAGE LIGHT ILLUMINATES

Avionics Master.....OFF
 Master Switch.....OFF
 Master Switch.....ON
 Over-Voltage Light.....OFF
 Avionics Master.....ON
If over-voltage light illuminates again

Flight.....TERMINATE ASAP

AMMETER SHOWS DISCHARGE

Alternator Switch.....OFF
 Non-Essential Radios/Elec....OFF
 Flight.....TERMINATE
 As soon as practical

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AIRCRAFT SPECIFICATIONS

Type: Cessna 172M/Cessna 172N
 Takeoff Weight: 2300 lbs.
 Fuel Capacity: 43 gallons (172M)
 43 gallons (172N)

Usable Fuel: 39 gallons (172M)
 40 gallons (172N)
 Recommended oil type and weight:
 15W-50/20W-50 (all temps.)
 Oil Capacity: 8 quarts (sump)
 9 quarts (total)

Engine Type: O-320-H2AD
 Maximum Power: 160 BHP
 Electrical System: 28V DC, 60-amp alt., 14V 24 amp-hr. battery
 Proper tire inflation: 31 PSI (nose wheel), 29 PSI (main wheels)
 Wingspan: 36' 1" Length: 27' 2"
 Height: 8' 11" Prop. diameter: 75"
 Approved Fuel: 100, 100LL

WEATHER SOURCES

SLC ASOS - (801) 328-3567
 SLC ATIS - (801) 325-9749
 TVY AWOS - (435) 882-6648
 OGD ASOS - (801) 622-5600
 PVU AWOS - (801) 373-9782
 U42 AWOS - (801) 562-0271
 FSS - 1-800-WX-BRIEF (1-800-992-7433)

Rule-of-Thumb Temperature Conversions

°F to °C: Subtract 30 and divide by 2
 ((90°F - 30) ÷ 2 = 30°C)
 °C to °F: Double °C and add 30
 ((15°C X 2) + 30 = 60°F)

