



## Cessna 172N

### INTRODUCTION

This aircraft checklist contains information from the original manufacturer's Pilot Information Manual. Normal procedures associated with optional systems can be found in Section 9 of the Pilot Information Manual.

*Information in BLACK is taken from the original manufacturer's Pilot Information Handbook.  
Information in GREEN is Aspen Flying Club's recommendations for high altitude operations.*

### SPEEDS FOR NORMAL OPERATION

Unless otherwise noted, the following speeds are based on a maximum weight of 2300 pounds and may be used for any lesser weight. However, to achieve the performance specified in Section 5 for takeoff distance, the speed appropriate to the particular weight must be used.

#### Takeoff, Flaps Up:

Normal Climb Out	70-80 KIAS
Short Field Takeoff, Flaps Up, Speed at 50 Feet	59 KIAS

#### Enroute Climb, Flaps Up:

Normal, Sea Level	75-85 KIAS
Normal, 10,000	70-80 KIAS
Best Rate of Climb, Sea Level	73 KIAS
Best Rate of Climb, 10,000 Feet	68 KIAS
Best Angle of Climb, Sea Level	59 KIAS
Best Angle of Climb, 10,000 Feet	61 KIAS

#### Landing Approach:

Normal Approach, Flaps Up	60-70 KIAS
Normal Approach, Flaps 40°	55-65 KIAS
Short Field Approach, Flaps 40°	60 KIAS

#### Balked Landing:

Maximum Power, Flaps 20°	55 KIAS
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2300 Lbs	97 KIAS
1950 Lbs	89 KIAS
1600 Lbs	80 KIAS

#### Maximum Demonstrated Crosswind Velocity:

Takeoff or Landing	15 KNOTS
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# CHECKLIST PROCEDURES

## PREFLIGHT INSPECTION

### 1. CABIN

1. Pilot's Operating Handbook -- AVAILABLE IN THE AIRPLANE.
2. Control Wheel Lock -- REMOVE.
3. Ignition Switch -- OFF.
4. Avionics Power Switch -- OFF.
5. Master Switch -- ON:.

**WARNING**

### NOTE

Visually check airplane for general condition during walk-around inspection. In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also, make sure that control surfaces contain no internal accumulations of ice or debris. Prior to flight, check that pitot heater (if installed) is warm to touch within 30 seconds with battery and pitot heat switches on.

If a night flight is planned, check operation of all lights, and make sure a flashlight is available.

When turning on the master switch, using an external power source, or pulling the propeller through by hand, treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller, since a loose or broken wire, or a component malfunction, could cause the propeller to rotate.

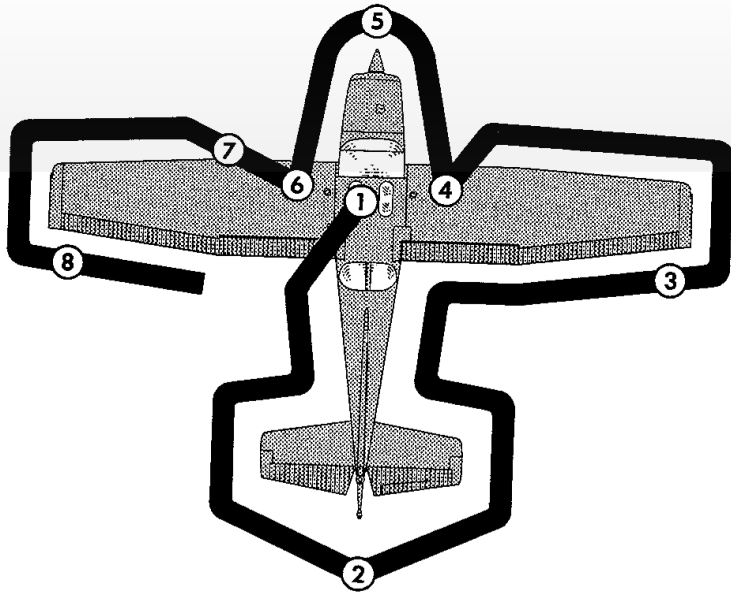
6. Fuel Quantity Indicators -- CHECK QUANTITY.  
**Do not rely upon fuel gauge reading for flight planning.**

### **6.1 External lights/pitot heat – CHECK/OFF**

7. Master Switch -- OFF.
8. Static Pressure Alternate Source Valve (if installed) -- OFF.

### **8.1 Compass Deviation Card - INSTALLED**

9. Baggage Door -- CHECK, lock with key if child's seat is to be occupied.



## 2. EMPENNAGE

1. Rudder Gust Lock -- REMOVE.
2. Tail Tie-Down -- DISCONNECT.
3. Control Surfaces -- CHECK freedom of movement and security.

## 3. RIGHT WING Trailing Edge

1. Aileron -- CHECK freedom of movement and security.

### 1.1 Flaps - CHECK freedom of movement and security.

## 4. RIGHT WING

1. Wing Tie-Down -- DISCONNECT.
2. Main Wheel Tire -- CHECK for proper inflation.

### 2.1 CHECK brake pads, lines.

3. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade.
4. Fuel Quantity -- CHECK VISUALLY for desired level.
5. Fuel Filler Cap -- SECURE.

## 5. NOSE

1. Engine Oil Level -- CHECK, do not operate with less than four quarts. Fill to six quarts for extended flight.
2. Before first flight of the day and after each refueling, pull out strainer drain knob for about four seconds to clear fuel strainer of possible water and sediment. Check strainer drain closed. If water is observed, the fuel system may contain additional water, and further draining of the system at the strainer, fuel tank sumps, and fuel selector valve drain plug will be necessary.
3. Propeller and Spinner -- CHECK for nicks and security.
4. Landing Light(s) -- CHECK for condition and cleanliness.

5. Carburetor Air Filter -- CHECK for restrictions by dust or other foreign matter.
6. Nose Wheel Strut and Tire -- CHECK for proper inflation.
7. Nose Tie-Down -- DISCONNECT.
8. Static Source Opening (left side of fuselage) -- CHECK for stoppage.

## 6. LEFT WING

1. Main Wheel Tire -- CHECK for proper inflation.

### 1.1 CHECK brake pads, lines.

2. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment and proper fuel grade.
3. Fuel Quantity -- CHECK VISUALLY for desired level.
4. Fuel Filler Cap -- SECURE.

## 7. LEFT WING Leading Edge

1. Pilot Tube Cover -- REMOVE and check opening for stoppage.
2. Fuel Tank Vent Opening -- CHECK for stoppage.
3. Stall Warning Opening -- CHECK for stoppage. To check the system, place a clean handkerchief over the vent opening and apply suction; a sound from the warning horn will confirm system operation.
4. Wing Tie-Down -- DISCONNECT.

## 8. LEFT WING Trailing Edge

1. Aileron -- CHECK for freedom of movement and security.
- ### 1.1 Flaps - CHECK freedom of movement and security.

## BEFORE STARTING ENGINE

1. Preflight Inspection -- COMPLETE.
2. Seats, Belts, Shoulder Harnesses -- ADJUST and LOCK.

### 2.1 Passenger Safety Briefing - COMPLETE.

3. Fuel Selector Valve -- BOTH.
4. Avionics Power Switch, Autopilot (if installed), Electrical Equipment -- OFF.

### CAUTION

The avionics power switch must be OFF during engine start to prevent possible damage to avionics.

5. Brakes -- TEST and SET.
6. Circuit Breakers -- CHECK IN.

## STARTING ENGINE

1. Mixture -- RICH.
2. Carburetor Heat -- COLD.
3. Master Switch -- ON.

### 3.1 Beacon – ON.

4. Prime -- AS REQUIRED (2 to 6 strokes; none if engine is warm).

### 4.1 Primer In and Locked.

5. Throttle -- OPEN 1/8 INCH.
6. Propeller Area -- CLEAR.
7. Ignition Switch -- START (release when engine starts).

### 7.1 Throttle to 1000 RPM.

8. Oil Pressure -- CHECK.

### 8.1 If no oil pressure in the first 30 seconds, mixture idle cutoff.

## BEFORE TAXI

1. Avionics – ON.
2. Transponder – ALT.
3. Parking Brake – OFF.
4. Clearance – as required.
5. Mixture – Adjust for taxi.

## BEFORE TAKEOFF

1. Parking Brake -- SET.
  2. Cabin Doors and Window(s) -- CLOSED and LOCKED.
- ### 2.1 Check ATIS.
3. Flight Controls -- FREE and CORRECT.
  4. Flight Instruments -- SET.
  5. Fuel Selector Valve -- BOTH.
  6. Mixture -- RICH (below 3000 feet).
  7. Elevator Trim and Rudder Trim (if installed) -- TAKEOFF.
  8. Throttle -- 1700 RPM.

- a. At altitudes above 3000 feet, lean mixture to best power.
- b. Magnetos -- CHECK (RPM drop should not exceed 125 RPM on either magneto or 50 RPM differential between magnetos).
- c. Carburetor Heat -- CHECK (for RPM drop).
- d. Engine Instruments and Ammeter -- CHECK.
- e. Suction Gage -- CHECK.
- f. Throttle – IDLE CHECK.
- g. Throttle – 1000 RPM.

9. Avionics Power Switch -- ON.
  10. Radios -- SET.
- ### 10.1 Avionics – SET.
11. Autopilot (if installed) -- OFF.
  12. Air Conditioner (if installed) -- OFF.

13. Flashing Beacon, Navigation Lights and/ or Strobe Lights  
-- ON as required.

14. Throttle Friction Lock -- ADJUST.

**14.1 Takeoff Briefing – COMPLETE.**

15. Brakes -- RELEASE.

## **TAKEOFF**

### **NORMAL TAKEOFF**

1. Wing Flaps -- UP.
2. Carburetor Heat -- COLD.
3. Throttle -- FULL OPEN.
4. Elevator Control -- LIFT NOSE WHEEL (at 55 KIAS).
5. Climb Speed -- 70-80 KIAS.

### **SHORT FIELD TAKEOFF**

1. Flaps -- UP.
2. Carburetor Heat -- COLD.
3. Brakes -- APPLY.
4. Throttle -- FULL OPEN.
5. Mixture -- RICH (above 3000 feet, LEAN to obtain maximum RPM).
6. Brakes -- RELEASE.
7. Elevator Control -- SLIGHTLY TAIL LOW.
8. Climb Speed -- 59 KIAS (until all obstacles are cleared).

## **ENROUTE CLIMB**

1. Airspeed -- 70-85 KIAS.

### **NOTE**

If a maximum performance climb is necessary, use speeds shown in the Rate Of Climb chart in Section 5.

2. Throttle -- FULL OPEN.
3. Mixture -- RICH (above 3000 feet, LEAN to obtain maximum RPM).

## **CRUISE**

1. Power -- 2200-2700 RPM (no more than 75% is recommended).
2. Elevator and Rudder Trim (if installed) -- ADJUST.
3. Mixture -- LEAN.

## DESCENT

1. Mixture -- ADJUST for smooth operation (full rich for idle power **or set as necessary for altitude**).
2. Power -- AS DESIRED.
3. Carburetor Heat -- AS REQUIRED (to prevent carburetor icing).

## BEFORE LANDING

1. Seats, Belts, Harnesses -- SECURE.
2. Fuel Selector Valve -- BOTH.
3. Mixture -- RICH.

### **3.1 Above 3000' MSL, as needed for best power.**

4. Carburetor Heat -- ON (apply full heat before closing throttle).
5. Autopilot (if installed) -- OFF.
6. Air Conditioner (if installed) -- OFF.

## LANDING

### NORMAL LANDING

1. Airspeed -- 60-70 KIAS (flaps UP).
2. Wing Flaps -- AS DESIRED (0°-10° below 110 KIAS, 10°-40° below 85 KIAS).
3. Airspeed -- 55-65 KIAS (flaps DOWN).
4. Touchdown -- MAIN WHEELS FIRST.
5. Landing Roll -- LOWER NOSE WHEEL GENTLY.
6. Braking -- MINIMUM REQUIRED.

**Excess braking will cause tire damage.**

### SHORT FIELD LANDING

1. Airspeed -- 60-70 KIAS (flaps UP).
2. Wing Flaps -- FULL DOWN (40°).
3. Airspeed -- 60 KIAS (until flare).
4. Power -- REDUCE to idle after clearing obstacle.
5. Touchdown -- MAIN WHEELS FIRST.
6. Brakes -- APPLY HEAVILY.

**Excess braking will cause tire damage.**

7. Wing Flaps -- RETRACT.

### BALKED LANDING

1. Throttle -- FULL OPEN.
2. Carburetor Heat -- COLD.
3. Wing Flaps -- 20° (immediately).
4. Climb Speed -- 55 KIAS.
5. Wing Flaps -- 10° (until obstacles are cleared).  
RETRACT (after reaching a safe altitude and 60KIAS).

### AFTER LANDING

1. Wing Flaps -- UP.
2. Carburetor Heat -- COLD.
3. **Lean Mixture as Required.**

### SECURING AIRPLANE

1. Parking Brake -- SET.  
**If tiedown or chocks are used – do not set brake.**
2. Avionics Power Switch, Electrical Equipment, Autopilot (if installed) -- OFF.  
**2.1 Throttle – 1000 RPM.**
3. Mixture -- IDLE CUT-OFF (pulled full out).
4. Ignition Switch -- OFF.
5. Master Switch -- OFF.
6. Control Lock -- INSTALL.