

Civil Air Patrol

Cessna: C172Q (180 HP)

CVD: 1 Dec 15 (GPS)

Preflight Cabin

1. AIF...Review all & Inspect for Airworthiness
2. Pitot Tube Cover...Remove & Check Clear
3. POH & GPS Guide.....Accessible
4. Parking Brake Set
5. Hobbs & Tach Time Record
6. Fire Extinguisher Charged
7. Documents..... AROW in airplane
8. Control/Avionics Lock..... Remove
9. Ignition SwitchOff
10. Avionics Power Switch.....Off
11. Master SwitchOn

Warning

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.

12. Wing Flaps 30°
13. Fuel Quantity Indicators..... Check Quantity
14. Avionics Cooling Fan... ..On, Check Audibly for Operation.....then Off
15. Pitot Heat... .. Check
16. Lights Check
17. Master SwitchOff
18. Static Pressure Alternate Source Valve (if installed)Off
19. Fuel Selector Both

Preflight Empennage

1. Baggage DoorCheck Secured
2. Rudder Gust Lock Remove
3. Tail Tie-DownDisconnect
4. Control Surfaces Check

Preflight Right Wing trailing edge

1. Right Flap Check
2. Right Aileron Check
3. Right Wingtip & Light..... Check

Preflight Right Wing

1. Wing Tie Down Disconnect
2. Right Fuel Vent (If Installed).. Check Clear
3. Right Main Wheel Tire & Brake Check
4. Right Fuel Sump.....Drain
5. Right Fuel Quantity... Visually Check
6. Fuel Filler Cap Secure, vent unobstructed

Nose

1. Engine Oil Dipstick/Filler Cap..... Check oil level and secure. (5-8 Quarts, 8 Quarts for extended flights)
2. Fuel Strainer Drain Knob.. Pullout to Drain, catch, and check fuel.
3. Alternator belt.....check condition
4. Prop & Spinner Check
5. Landing Lights Check
6. Carburetor Air Filter Check
7. Nose Wheel, Strut & Tire Check
8. Towbar/chocks..Removed & Stowed
9. Nose Tie-Down..... Disconnect
10. Static Source Check (Left side)
11. Engine Oil Filler Cap.....Check Secure
12. Windscreen.....Check/Clean

Preflight Left Wing

1. Left Main Wheel Tire & Brake Check
2. Left Fuel Sump Drain
3. Left Fuel Quantity Visually Check
4. Fuel Filler Cap Secure

Preflight Left Wing Leading Edge

1. Pitot Tube Check for stoppage
2. Left Fuel Vent Check Clear
3. Stall Warning Check
4. Wing Tie-Down..... Disconnect
5. Left Wingtip & Light Check

Preflight Left Wing Trailing Edge

1. Left Aileron Check
2. Left Flap Check

Before Starting Engine

1. Preflight Inspection Complete

PASSENGER BRIEF

1. Seat Belts / Shoulder Harness
2. Personal Electronic Devices off
3. Air Vents / Comfort
4. Fire Extinguisher Location / Operation
5. Emergency Procedures & Exits

MISSION BRIEF

1. Mission Objective
 2. Destination, WX, Route, Alt, ETE
 3. NOTAMS
 4. Crew Coordination & CRM
 5. Sterile Cockpit Procedures
 6. Cockpit Layout
 7. Intercom & Radio Usage
 8. Seats, Seatbelts, Doors
 9. Emergency Action & Equipment
2. Passenger Brief Complete
 3. Sterile Cockpit.....Comply
 4. Seats / Belts / Shoulder Harness Adjust and Lock
 5. Fuel Selector ValveBoth
 6. Avionics Power Switch..... Off

Caution

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

7. Autopilot (If Installed)..... Off
8. Electrical Equipment..... Off
9. Brakes Test & Set
10. Circuit Breakers Check In

Starting Engine

1. Mixture Rich
2. Carburetor Heat Cold
3. Master Switch On
4. Prime ..As Required (2 to 6 strokes)
5. Throttle Open 1/8 Inch
6. Propeller Area Clear
7. Ignition Switch..... Start
8. Throttle 800 to 1000 RPM
9. Oil Pressure Check
10. Starter Check Disengaged
11. Flashing Beacon & Nav Lights.. On
12. Avionics Power Switch On
13. Radios On
14. Taxi Lights As Required
15. Transponder..... TEST/Code Set/ALT
16. Flaps Up

17. ATIS / AWOS Copy
18. Altimeter . Set (Verify Within 75' of Field Elev.)
19. Clearance Delivery/Ground Control Contact

Taxi

1. Brakes..... Test
2. Heat / Vents / Defrost .. As Required
3. Attitude Indicator Verify Proper Operation
4. Turn Coordinator..... Verify Proper Operation
5. H.I. & Compass..... Verify Proper Operation
6. Fuel Selector Valve Check & Set to Both

Before Takeoff - Run-Up

1. Parking Brake Set
2. Seats / Belts / Shoulder Harness Check Secure
3. Cabin Doors & Windows..Closed and Locked
4. Flight Controls..... Free & Correct
5. Flight Instruments & H.I..Check & Set
6. Fuel Quantity..... Check
7. Auxiliary Fuel pump...On (Check for rise in fuel pressure), Then Off

Note

In flight fuel gravity feed will normally supply satisfactory fuel flow if the engine-driven fuel pump should fail. However, if a fuel pump failure causes the fuel pressure to drop below .5 PSI, use the auxiliary fuel pump to assure proper engine operation.

8. Mixture Rich
9. Fuel Selector Valve... Recheck Both
10. Elevator & Rudder Trim..... Set for Takeoff
11. Throttle 1700 RPM
12. Magnetos..Max Drop 125 RPM - 50 RPM differential
13. Carb Heat Check for RPM Drop
14. Suction Gauge Check
15. Engine Inst & Ammeter Check
16. Throttle Idle Check, then 800 to 1000 RPM
17. Throttle Friction Lock..... Adjust

18. Strobe Lights/Pulse Lights (If installed)..... As Desired
19. Radios / Transponder Set
20. Autopilot (If Installed).....Off
21. Flaps set for Takeoff..... 0°-10°
22. Primer In & Locked
23. Carb Heat Cold
24. Takeoff Briefing Complete
25. Doors & Windows Latched
26. Lights Set
27. Transponder Code Set/ALT
28. Time..... Record
29. Parking Brake Release

Takeoff

1. Flaps 0°-10°
2. Carb Heat Cold
3. Throttle Full Open
4. Mixture Full Rich or Max Power
5. Engine Instruments In Green
6. Rotate..... 55 KIAS
7. Climb Speed..... 75 to 85 KIAS
 - Short Field T.O....10° Flaps / 57 KIAS Until Clear
 - KIAS Field T.O....10° Flaps / Ground Effect ASAP
8. Wing Flaps..Retract (above 70 KIAS)

Enroute Climb

1. Airspeed 75 - 85 KIAS Normal

Note

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

2. Throttle Full Open
3. Fuel Selector Both
4. Mixture Full Rich or Max RPM
5. Engine Instruments Check

Cruise

1. Power . 2100-2700 RPM (no more than 75% is recommended)
2. Elevator & Rudder Trim Adjust
3. Mixture Lean
4. Engine Instruments / Fuel Check
5. Heading Indicator (H.I.).To Compass
6. Lights.....As Required
7. Flight Plan Activate as Required

Descent

1. Heading Indicator. To Compass
2. Altimeter Set
3. Fuel Selector Both
4. Lights..... As Required
5. Engine Instruments Check
6. Mixture..... Adjust for Smooth Operation (full rich for idle power)
7. Carb Heat ... Full Heat as Required

Before Landing

1. Seat, Seat Belts, Shoulder Harness Secure
2. Fuel Selector Valve Both
3. Mixture..... Rich
4. Carb Heat On (Apply Full Heat Before Closing Throttle)
5. Autopilot (If installed) Off
6. Airspeed ... 65-75 KIAS (Flaps Up)
7. Wing Flaps . As Desired (Below 85 KIAS)(Maximum Flap Travel is 30°)
8. Airspeed 60-70 KIAS (Flaps Down)
9. Trim Adjust
10. Touchdown Main Wheel First
11. Landing Roll .. Lower Nose Wheel Gently
12. Braking Minimum required

Short Field Landing

1. Airspeed ... 65-75 KIAS (Flaps Up)
2. Wing Flaps 30° (below 85 KIAS)
3. Airspeed ... Maintain 62 KIAS (Until Flare)
4. Trim Adjust Power..... Reduce to idle after clearing obstacle
5. Touchdown Main Wheels First
6. Brakes Apply Heavily
7. Wing Flaps Retract

Balked Landing

1. Throttle Full Open
2. Carb Heat Cold
3. Wing Flaps 20° (Immediately)
4. Climb Speed..... 60 KIAS
5. Wing Flaps 10° (Until Obstacles are Cleared)
6. Wing Flaps....Retract (After reaching a safe altitude and 65 KIAS)

After Landing (Clear of Runway)

1. Wing Flaps Up
2. Carb Heat Cold
3. Lights As Required
4. Mixture Lean
5. Pitot Heat Off

Securing Aircraft

1. Parking Brake Set
2. Throttle Idle
3. Avionics Power & Switches Off
4. Magnetos Check for Ground
5. Mixture Idle Cut-Off
6. Sterile Cockpit..... Terminate
7. Ignition & Master Switch Off
8. Control/Avionics Lock Install
9. Parking Brake Off
10. Fuel Selector Left or Right
11. Hobbs & Tach Record
12. Aircraft..... Secured & Locked
13. Flight Plan Closed

V Speeds and Specs

- X-Wind (Max Demo'd) 15 Knots
- Vr Rotation Speed 55 KIAS
- Vx Best Angle Climb..... 62 KIAS
- Vy Best Rate Climb 76 KIAS
- Vso Stall w/ Flaps 40 KIAS
- Vs1 Stall w/o Flaps 50 KIAS
- Best Glide (2550 Lbs)..... 65 KIAS
- Va Max Abrupt Ctrl (2550 Lbs).105 KIAS
- Va Max Abrupt Ctrl (2150 Lbs).95 KIAS
- Va Max Abrupt Ctrl (1750 Lbs)..85 KIAS
- Vno Max Structural Cruise.....127 KIAS
- Vne Never Exceed..... 158 KIAS
- Vfe 10°-Full Flaps 85 KIAS

V Speeds and Specs are based on sea level. Consult the Air Plains Services, Corp. FAA Approved Airplane Flight Manual Supplement for V speed and Specs for operations above sea level.

General...

- EMERGENCY..... 121.50
- Unicom..... 122.70-122.80-122.95 123.00-123.05
- Multicom 122.90
- Flight Service 122.20 (Most Common) 122.10-122.60-123.60
- Air to Air 122.75-122.85-123.45

Transponder Codes

- 1200 VFR
- 7500 HIJACK
- 7600 LOST COMMS
- 7700 EMERGENCY

Aircraft Information

- Gross Weight Capacity 2550 (Takeoff) 2550 (Landing)
- Engine.....Lycoming O-360-A4M
- Max Power 180 BHP
- Max Engine Speed 2700 RPM
- Fuel Type 100LL (Blue)
- Fuel Capacity (Std)...40 Gal Usable
- Fuel Capacity (Long Rng)...50 Gal Usable
- Oil Type.....Aviation Grade
- Oil Capacity.....8 Qts (Minimum 6)
- Electrical 24 - 28 Volt / 60 Amp
- Tire Pressure Nose-45 PSI / Main-38 PSI

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only. The applicable Pilot Operating Handbook and STC installations remain the official documentation for this aircraft. The pilot in command is responsible for complying with all items in the Pilot Operating Handbook and applicable STCs.