

# Cessna 172 Checkout

## Introduction

Thank you for choosing Western Shore Aviation for your flying adventure.

To maximize your safety and to keep insurance costs low, it is required that you purchase a C172S Information Manual and complete this supplement prior to renting. You should be knowledgeable on all topics contained in this supplement prior to your checkout flight.

It is essential to be familiar with the following:

- Emergency engine failure checklists (see attached copy of the C172S Checklist)
- V-speeds
- Answers to all questions contained in the supplement packet

The information in this supplement is condensed and good for note taking, please take your time, and ask many questions!

## Required Maneuvers

Pilots receiving a checkout in the C172S will be asked to perform the following maneuvers on the checkout flight:

- Normal and crosswind takeoffs and landings
- Go around
- Engine failure in flight
- Simulated engine fail landing
- Steep turns
- Slow flight
- Power-on stall
- Power-off stall
- Unusual Attitudes

## C172S V-Speeds

The speeds listed below are in Knots Indicated Air Speed (KIAS)

V-Speed	KIAS	Description	Airspeed Indicator Marking
V <sub>so</sub>	40	Stall speed in landing configuration	White Arc
V <sub>s1</sub>	48	Stall speed in specified configuration	<b>Green Arc</b>
V <sub>r</sub>	55	Rotation Speed	
LD <sub>max</sub>	59	1900 lbs. Gross Weight	
	68	2550 lbs. Gross Weight	
V <sub>x</sub>	62	Best angle of climb	
V <sub>y</sub>	74	Best rate of climb	
V <sub>a</sub>	90	Maneuvering speed @ 1900 lbs. Gross Weight	
	98	Maneuvering speed @ 2200 lbs. Gross Weight	
	105	Maneuvering speed @ 2550 lbs. Gross Weight	
V <sub>fe</sub>	85	Maximum flap extension speed 20-30°	White Arc
	110	10° of flaps may be used	
V <sub>no</sub>	129	Maximum structural cruising speed	<b>Green Arc</b>
V <sub>ne</sub>	163	Never exceed speed	<b>Red Line</b>

## Weight and Balance Worksheet

	Weight	Arm	Moment
Aircraft Empty Weight			
Pilot and Front Passenger		34 to 46*	
Passengers (Rear Seat)		73	
Baggage (Forward)		95	
Baggage (Aft)		123	
Fuel		48	
Takeoff Weight			
Flight		48	
Landing Weight			

**C.G. Position =  $\frac{\text{Total Moments}}{\text{Total Weight}}$       Aircraft Standard E.W. 1626, Useful Load 932,  
Max Gross Weight 2550, Max Gross R.W. 2558**

\*Average Person (5'8" to 5'10") Arm = 37

N575SP	1672.7	39.514	66,094
N26105	1684.1	40.32	67,905.98
N966AC	1698.8	40.365	68,572

\*\*\*\*Remember Useful Load changes with each aircraft that you use\*\*\*\*



Those pilots without an instrument rating are not required to answer questions 9-16.

**More FAR Review:**

9. What is required to maintain instrument currency?
  
10. When is an alternate airport not required?
  
11. When an alternate airport is required, what must the forecast weather be to conduct a precision approach? What about a non-precision approach?
  
12. What are reserve fuel requirements for an IFR flight?
  
13. If communications were lost on an IFR flight, what would be your actions in choosing a route, an altitude, and when to arrive at your destination airport?
  
  
  
  
  
  
  
  
  
  
14. What are the VOR accuracy limits?
  
15. How often must a VOR be checked?
  
16. In order to descend below DH or MDA, what conditions must be met?
  
17. How often must transponders be checked?
  
18. How often must the pitot static system be checked?
  
19. How often must the ELT be checked?
  
20. When must an ELT battery be replaced?
  
21. An aircraft used for hire must have what two inspections in currency?
  
22. Your pre-flight inspection reveals that the left fuel tank gauge is inoperative. Is the airplane legal to fly?

## Weather

Decode the following METAR?

METAR KSBM AUTO 071955Z 15009G23KT 5SM -FZRA BR SCT005 BKN007  
OVC020 M01/M03 A3002 RMK A02 PK WND 16029/1945 UPB04E22

1. Using the METAR above, what is the pressure altitude for KSBM?
  
  
  
  
  
  
  
  
  
  
2. Using the same METAR, what is the density altitude for KSBM?

Decode the following TAF

TAF GRB 221756Z 221812 22015KT P6SM OVC020  
FM2000 25010KT 3SM BKN018 PROB30 2002 1/2SM +TSRA OVC002  
BCMG 0206 1SM RA BKN005 OVC010  
TEMPO 0608 20010KT 4SM BR OVC030  
FM 0800 23015KT P6SM BKN 050

1. How can a pilot obtain weather while airborne? What are the frequencies that can be used?

## **Aircraft Systems/Misc.**

1. What type of engine does the Cessna 172S have?
2. What type of fuel system?
3. How many usable gallons?
4. Describe the electrical system?
5. What type and weight of oil should be used in Western Shore Aviation C172S?
6. What procedures should be followed for a partial power loss?
7. What happens to the pitot/static instruments when you use the alternate static source?
8. Which instruments operate from the vacuum system?
9. How often should the heading indicator be reset to the compass? In what phase of flight?
10. What is the crosswind component for the Cessna 172S? Is it a limitation?
11. Explain the importance of following a pre and post flight checklist walk around?
12. What are the red aircraft chocks in the airplane used for?

## Standard Briefings

Prior to engine start, you as the pilot in command are required to brief your passengers on some simple operations.

1. How to fasten and unfasten seatbelts
2. How to exit the aircraft
3. Where you should meet
4. Where emergency equipment is located
5. No eating, drinking, smoking policy

As pilots we need to be aware of all emergency procedures prior to boarding any aircraft we intend to fly. In order to increase safety, you the pilot in command should have a plan of action prior to taking the runway for takeoff.

1. Runway length
2. Your takeoff distance
3. Rotation speed
4. Departure procedures
5. Describe your course of action in the event of a power failure

Landing, the most important phase of flight, therefore this should be one of the most important briefings.

1. Pattern entry
2. Pattern altitude
3. Approach speed
4. Field elevation
5. Landing distance
6. Runway length

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