

FAA-S-ACS-6 June 2016 Private Pilot Airplane Airman Certification Standards

Cessna 172: mixture rich, carb heat out if below the green arc.

Clearing Turns all maneuvers!

<u>Task</u>	<u>ACS</u>	<u>Settings</u>
<u>Traffic Pattern</u>	<ol style="list-style-type: none"> 1. Altitude: +/-100ft 2. Airspeed: +/- 10kts 3. Wind Correction for correct ground track 	<ol style="list-style-type: none"> 2200 rpm See traffic pattern diagram and expanded information
<u>Normal Takeoff</u>	<ol style="list-style-type: none"> 1. Maintains centerline 2. Rotates at Vr 3. Climbs at Vy +10/-5kts 4. Used correct wind correction <p>NOTES: X-wind place yoke fully into the wind. As airspeed increase decrease the aileron deflection.</p>	<ol style="list-style-type: none"> 1. Flaps zero 2. Vr = 55kts 3. Vy = 75kts
<u>Normal Approach/ Landing</u>	<ol style="list-style-type: none"> 1. Stabilized approach at not more than 1.3Vso 2. Adds Gust factor 3. Touches down during stall 4. At Touchdown point -0/+400ft 5. With mains on each side of centerline (no drift) <p>X-W NOTES: Ailerons into wind. Opposite rudder to keep longitudinal axis aligned with runway centerline. After touchdown yoke fully into wind.</p>	<p>On Final:</p> <ol style="list-style-type: none"> 1. Flaps 30 degs 2. 60-65kts 3. Maintain centerline
<u>Soft Field Takeoff</u>	<ol style="list-style-type: none"> 1. Lift off at lowest safe airspeed (read this as bottom of green arc) 2. Stay in Ground Effect until Vx 3. Climb at Vx +10/-5kts 4. After obstacle, climb at Vy +10/-5kts 5. Maintain runway centerline throughout ground roll and climb 	<ol style="list-style-type: none"> 1. Flaps 10 deg 2. Yoke full back 3. Keep nosewheel off ground 4. Ground effect 5. Vx =60kts 6. Flaps up positive rate and clear obstacles 7. Vy = 75kts

<u>Task</u>	<u>ACS</u>	<u>Settings</u>
<u>Soft Field Approach/ Landing</u>	<ol style="list-style-type: none"> 1. Stabilized approach at not more than 1.3V_{so} 2. Adds Gust Factor 3. Keeps nose wheel off the surface until elevator loses effectiveness 4. Keeps elevator full up until exits the soft area 5. Maintains centerline between the mains at all times. 	<ol style="list-style-type: none"> 1. Final 60-65kts 2. Full Flaps 3. Use flatter approach 4. Land with 1200 rpm 5. Keep nosewheel up 6. Nosewheel up until exit runway
<u>Short Field Takeoff/ Max Perf Climb</u>	<ol style="list-style-type: none"> 1. Rotates at V_r 2. Climbs at V_x +10/-5kts 3. After obstacle cleared, retracts Flaps 4. Climbs at V_y +10/-5kts 5. Maintains centerline during ground roll and climb 	<ol style="list-style-type: none"> 1. Flaps Zero 2. Full brakes/max power 3. Release brakes 4. V_r = 50-55kts 5. V_x = 60kts 6. V_y=75kts
<u>Short Field Approach/ Landing</u>	<ol style="list-style-type: none"> 1. Stabilized approach at not more than 1.3V_{so} 2. Adds Gust factor 3. Touches down at -0ft/+200ft of point selected. Landing short is a guaranteed failure 4. Maintain centerline throughout 5. Applies brakes firmly but without any tire slippage 	<ol style="list-style-type: none"> 1. Final: 60kts 2. Flaps full 3. Brakes as needed 4. Flaps up?
<u>Forward Slip to Landing</u>	<ol style="list-style-type: none"> 1. Applies proper forward slip techniques (wind low into wind, opposite rudder) 2. Touches down -0/+400ft of touchdown point selected 	<ol style="list-style-type: none"> 1. Apply rudder then wing down into the wind 2. Adjust rudder/wing as needed to maintain a straight ground track to the runway

<u>Task</u>	<u>ACS</u>	<u>Settings</u>
<u>Go Around/Rejected</u>	1. Makes a timely decision	1. Add full power
<u>Landing</u>	2. Establishes Vx or Vy +10/-5kts	2. Airspeed 60+kys
	3. Retracts flaps as appropriate	3. Flaps up slowly
	4. Establishes Vy +10/-5kts	4. Vy = 75kts
	5. Maintains Centerline throughout	
<u>Steep Turns (360deg turn at 45deg bank)</u>	1. Altitude: +/-100ft	1. Va 2100-2200RPM
	2. Bank Angle: +/-5deg	2. 45deg bank
	3. Rollout +/-10deg	3. Add 200rpm
	4. Airspeed +/-10kts	5. Decrease 200rpm on rollout
<u>S Turns (at 600 to 1000ft AGL)</u>	1. Altitude: +/-100ft	1. 1800ft MSL
	2. Airspeed: +/-10kts	2. 2200rpm
	3. Maintains coordinated flight	3. Radius 1/2mile
		4. Equal semicircles
	Notes: Enter downwind. Find a perpendicular road. As soon as wings cross road, begin a coordinated turn. Complete semicircle rolling wings level as you cross the road. Then repeat in the opposite direction. Steep bank downwind. Shallow bank upwind.	
<u>Turns Around a Point (600 to 1000ft AGL)</u>	1. Altitude: +/-100ft	1. 1800ft MSL
	2. Airspeed: +/-10kts	2. 2200rpm
	3. Maintains coordinated flig	3. Radius 1/2 mile
	Notes: Enter downwind. Pick a point. Maintain an equal radius around this first point by flying to additional points that are of equal distances around the original point. Steep bank downwind and Shallow bank upwind.	
<u>Pilotage (plan can be paper or electronic)</u>	1. +/-3miles from centerline of planned route	1. Make checkpoints no more than a total of 15miles from start
	2. Altitude: +/-200ft	
	3. Heading: +/-15deg	
	4. Arrives at checkpoint within 5mins of estimated	

<u>Task</u>	<u>ACS</u>	<u>Settings</u>
<u>Radio/Electronic</u>	1. Altitude +/-200ft	1. Tune VOR
<u>Navigation</u>	2. Heading +/-15deg	2. Center needle TO
	3. Must use Radio and Electronic navigation to track a course and obtain location	3. Turn to heading
		4. Keep needle centered
<u>Diversion</u>	1. Altitude: +/-200ft	
	2. Heading: +/-15deg	
	3. Appropriate diversion to an airport	
	4. Calculates: Time, Heading, Groundspeed, Arrival Time, and Fuel Consumption	
<u>Lost Procedures</u>	1. Uses the 5 C's to determine course of action	1. Confess
		2. Climb
		3. Communicate
		4. Conserve
		5. Comply
<u>Slow Flight</u>	1. >1500ft AGL Throughout (3000ft MSL)	1. 1700rpm (Carb H on)
	2. Airspeed 5 to 10kts above stall speed	2. Flaps 30deg
	3. Altitude: +/-100ft	3. Airspeed 55-60kts
	4. Heading: +/-10deg	4. Pitch for Airspeed
	5. Airspeed: +10/-0kts	5. Power for Altitude
	6. Bank angle: +/-10degs from specified	6. Lower Nose/Full Power
		Carb H, Flaps, Cruise Flight
<u>Power Off Stall</u>	1. >1500ft AGL throughout (3000ft MSL)	1. 1700rpm (Carb H on)
	2. Established a stabilized descent	2. Flaps 30deg
	3. Heading: +/-10deg	3. 60kts
	4. Bank: 20deg +/-10deg	4. 500ft/min descent
	5. Recover after a full stall	5. Throttle idle
	6. Recovers appropriately	6. Pitch to Full stall
	7. Returns to altitude, heading and airspeed specified by examiner	7. Lower Nose/Full Power
		Carb H, Flaps, Cruise Flight

<u>Task</u>	<u>ACS</u>	<u>Settings</u>
<u>Power On Stalls</u>	1. >1500ft AGL throughout (3000ft MSL) 2. Establish takeoff, departure or cruise config as specified by examiner 3. Set power now less than 65% BHP 4. Heading: +/-10deg 5. Bank Angle: +/-10deg 6. Recover at full stall 7. Vx then Cleanup 8. Return to Altitude, Heading and Airspeed specified by examiner	1. Flaps zero 2. RPM 1500rpm (CH on) 3. Airspeed 65kts 4. RPM 2100rpm (CH off) 5. Pitch up for full stall 6. Lower Nose/Full Power Carb H, Cruise Flight
<u>Spin Awareness</u>	1. Assess situations where spins may occur 2. Explain spin recovery procedure	
<u>Basic Instrument</u> <u>(constant airspeed</u> <u>climbs, descents, turns,</u> <u>ATC communications)</u>	1. Altitude: +/-200ft 2. Heading: +/-20deg 3. Airspeed: +/-10kts	1. Straight & Level 2. Climb 500ft/min 3. Descend 500ft/min 4. Turns
<u>Unusual Flight Attitudes</u>	1. Altitude: +/-200ft 2. Heading: +/-20deg 3. Airspeed: +/-10kts	Nose High - Airspeed Low Add Power Lower Nose Level Wings Establish Cruise Flight Nose Low - Airspeed High Reduce Power Level Wings Raise Nose Establish Cruise Flight
<u>Emergency Descent</u>	1. Selects appropriate configuration for the descent 2. Completes appropriate checklist	1. Throttle Idle 2. Flaps zero 3. Pitch for bottom of yellow arc

<u>Task</u>	<u>ACS</u>	<u>Settings</u>
<u>Simulated engine loss approach and landing</u>	1. ABC (Airspeed, Best place to land, Checklist)	1. Best Glide 65kts
	2. Airspeed: +/-10kts	2. Best place to land within 15 sec's
	3. Prepare for landing	3. Emergency Checklist
		4. Verify best place to land
		5. Recover above 500ftAGL
<u>Systems Malfunctions (3 of the following items)</u>		
1. Door opening in flight	8. Loss of Oil Pressure	Per Checklist/POH
2. Icing	9. Fuel Starvation	
3. Smoke/fire/engine compartment	10. Electrical	
4. Glass Cockpit	11. Vacuum Pressure	
5. Power loss	12. Pitot/Static	
6. Engine Roughness	13. Flap/Landing Gear	
7. Carb/Induction Icing	14. Inop Trim	

