

# FAA-S-ACS-6B June 2018 Private Pilot Airplane

## Airman Certification Standards

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

<b><u>Task</u></b>	<b><u>ACS</u></b>	<b><u>Settings</u></b>
<b>Traffic Pattern</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-100ft</li> <li>2. Airspeed: +/- 10kts</li> <li>3. Wind Correction for correct ground track</li> </ol>	2100-2200 rpm
<b>Normal Takeoff</b>	<ol style="list-style-type: none"> <li>1. Maintains centerline</li> <li>2. Rotates at Vr</li> <li>3. Climbs at Vy +10/-5kts</li> <li>4. Used correct wind correction.</li> </ol>	<ol style="list-style-type: none"> <li>1. Flaps zero</li> <li>2. Vr = 60kts</li> <li>3. Vy = 75kts</li> </ol>
<b>Normal Approach/Landing</b>	<ol style="list-style-type: none"> <li>1. Stabilized approach at not more than 1.3Vso</li> <li>2. Adds Gust factor</li> <li>3. Touches down during stall.</li> <li>4. At Touchdown point -0/+400ft</li> <li>5. With mains on each side of centerline (no drift)</li> </ol>	On Final: <ol style="list-style-type: none"> <li>1. Flaps 30 degs</li> <li>2. 60-65kts</li> <li>3. Maintain centerline</li> </ol>
<b>Soft Field Takeoff</b>	<ol style="list-style-type: none"> <li>1. Lift off at lowest safe airspeed (read this as bottom of green arc)</li> <li>2. Stay in Ground effect until Vx</li> <li>3. Climb at Vx +10/-5kts</li> <li>4. After obstacle, climb at Vy +10/-5kts.</li> <li>5. Maintain runway centerline throughout ground roll and climb</li> </ol>	<ol style="list-style-type: none"> <li>1. Flaps 10deg</li> <li>2. Keep pressure off nosewheel</li> <li>3. Rotate 50kts</li> <li>4. Vx =60-65ts</li> <li>5. Flaps up clear of obstacle</li> <li>6. Vy = 70-75kts</li> </ol>
<b>Soft Field Approach/Landing</b>	<ol style="list-style-type: none"> <li>1. Stabilized approach at not more than 1.3Vso</li> <li>2. Adds Gust factor</li> <li>3. Keeps nose wheel off the surface until elevator loses effectiveness</li> <li>4. Keeps elevator full up until exits the soft area</li> <li>5. Maintains centerline between the mains at all times</li> </ol>	<ol style="list-style-type: none"> <li>1. Final 60-65kts</li> <li>2. 20deg flaps</li> <li>3. Use flatter approach</li> <li>4. Land with 1200rpm</li> <li>5. Keep nosewheel up</li> <li>6. Power idle</li> <li>7. Nosewheel up until exit runway</li> </ol>

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<b>Short Field Takeoff/Max Perf Climb</b>	<ol style="list-style-type: none"> <li>1. Rotates at Vr</li> <li>2. Climbs at Vx +10/-5kts</li> <li>3. After obstacle cleared, retracts Flaps.</li> <li>4. Climbs at Vy +10/-5kts</li> <li>5. Maintains centerline during ground roll and climb</li> </ol>	<ol style="list-style-type: none"> <li>1. Flaps Zero</li> <li>2. Full brakes and power</li> <li>3. Release brakes</li> <li>4. Vr = 50-55kts</li> <li>5. Vx = 60-65kts</li> <li>6. Vy = 70-75kts</li> </ol>
<b>Short Field Approach/Landing</b>	<ol style="list-style-type: none"> <li>1. Stabilized approach at not more than 1.3Vso</li> <li>2. Adds Gust factor</li> <li>3. Touches down at -0ft/+200ft of point selected. Landing short is a guaranteed failure</li> <li>4. Maintain centerline throughout</li> <li>5. Applies brakes firmly but without any tire slippage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Final: 55kts</li> <li>2. Flaps 40deg</li> </ol>
<b>Forward Slip to Landing</b>	<ol style="list-style-type: none"> <li>1. Applies proper forward slip techniques (wind low into wind, opposite rudder)</li> <li>2. Touches down -0/+400ft of touchdown point selected</li> </ol>	<ol style="list-style-type: none"> <li>1. Wing down into the wind</li> <li>2. Opposite Rudder</li> </ol>
<b>Go Around/Rejected Landing</b>	<ol style="list-style-type: none"> <li>1. Makes a timely decision</li> <li>2. Establishes Vx or Vy +10/-5kts</li> <li>3. Retracts flaps as appropriate</li> <li>4. Establishes Vy +10/-5kts</li> <li>5. Maintains Centerline throughout</li> </ol>	<ol style="list-style-type: none"> <li>1. Add full power</li> <li>2. Increase airspeed</li> <li>3. Flaps up slowly</li> <li>4. Vy = 70-75kts</li> </ol>
<b>Steep Turns (360deg turn at 45deg bank)</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-100ft</li> <li>2. Bank Angle: +/-5deg</li> <li>3. Rollout +/-10deg</li> <li>4. Airspeed +/-10kts</li> </ol>	<ol style="list-style-type: none"> <li>1. 2100-2200RPM</li> <li>2. 45deg bank</li> <li>3. Adjust trim</li> <li>4. Add 200rpm</li> <li>5. Decrease 200rpm on rollout.</li> <li>6. Adjust trim</li> </ol>
<b>S Turns (at 600 to 1000ft AGL)</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-100ft</li> <li>2. Airspeed: +/-10kts</li> <li>3. Maintains coordinated flight</li> </ol>	<ol style="list-style-type: none"> <li>1. 2000ft MSL</li> <li>2. 2200rpm</li> <li>3. Radius 1/2mile</li> <li>4. Equal semicircles</li> </ol>
<b>Turns Around a Point (600 to 1000ft AGL)</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-100ft</li> <li>2. Airspeed: +/-10kts</li> <li>3. Maintains coordinated flight</li> </ol>	<ol style="list-style-type: none"> <li>1. 2000ft MSL</li> <li>2. 2200rpm</li> <li>3. Radius 1/2mile</li> </ol>

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<b>Pilotage (plan can be paper or electronic)</b>	<ol style="list-style-type: none"> <li>1. +/-3miles from centerline of planned route</li> <li>2. Altitude: +/-200ft</li> <li>3. Heading: +/-15deg</li> <li>4. Arrives at checkpoint within 5mins of estimated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Make checkpoints no more than a total of 15miles from start</li> </ol>
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<b>Radio/Electronic Navigation</b>	<ol style="list-style-type: none"> <li>1. Altitude +/-200ft</li> <li>2. Heading +/-15deg</li> <li>3. Must use Radio and Electronic navigation to track a course and obtain location</li> </ol>	<ol style="list-style-type: none"> <li>1. Tune VOR</li> <li>2. Center needle TO</li> <li>3. Turn to heading</li> <li>4. Keep needle centered</li> </ol>
<b>Diversion</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-200ft</li> <li>2. Heading: +/-15deg</li> <li>3. Appropriate diversion to an airport</li> <li>4. Calculates: Time, Heading, Groundspeed, Arrival time, and fuel consumption</li> </ol>	
<b>Lost Procedures</b>	<ol style="list-style-type: none"> <li>1. Uses the 5 C's to determine course of action</li> </ol>	<ol style="list-style-type: none"> <li>1. Confess</li> <li>2. Climb</li> <li>3. Communicate</li> <li>4. Conserve</li> <li>5. Comply</li> </ol>
<b>Slow Flight</b>	<ol style="list-style-type: none"> <li>1. &gt;1500ft AGL Throughout</li> <li>2. Airspeed 5 to 10kts above stall speed.</li> <li>3. Altitude: +/-100ft</li> <li>4. Heading: +/-10deg</li> <li>5. Airspeed: +10/-0kts</li> <li>6. Bank angle: +/-10degs from specified</li> </ol>	<ol style="list-style-type: none"> <li>1. 1500rpm</li> <li>2. Flaps 20deg</li> <li>3. Adjust power to maintain altitude</li> <li>4. Airspeed 5kts above stall horn</li> </ol>
<b>Power Off Stall</b>	<ol style="list-style-type: none"> <li>1. &gt;1500ft AGL throughout</li> <li>2. Established a stabilized descent</li> <li>3. Heading: +/-10deg</li> <li>4. Bank: 20deg +/-10deg</li> <li>5. Recover after a full stall</li> <li>6. Recovers appropriately</li> <li>7. Returns to altitude, heading and airspeed specified by examiner</li> </ol>	<ol style="list-style-type: none"> <li>1. 1500rpm</li> <li>2. Flaps 30deg</li> <li>3. 60kts</li> <li>4. 500ft/min descent</li> <li>5. Throttle idle</li> <li>6. Full stall</li> <li>7. Power, Pitch, Cleanup, carb heat</li> </ol>

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<b>Power On Stalls</b>	<ol style="list-style-type: none"> <li>1. &gt;1500ft AGL throughout</li> <li>2. Establish takeoff, departure or cruise config as specified by examiner</li> <li>3. Set power now less than 65% BHP</li> <li>4. Heading: +/-10deg</li> <li>5. Bank Angle: +/-10deg</li> <li>6. Recover at full stall</li> <li>7. Vx then Cleanup</li> <li>8. Return to Altitude, Heading and Airspeed specified by examiner</li> </ol>	<ol style="list-style-type: none"> <li>1. Flaps zero</li> <li>2. RPM 1500rpm</li> <li>3. Airspeed 65kts</li> <li>4. RPM 2100rpm</li> <li>5. Pitch up for full stall</li> <li>6. Power pitch cleanup</li> </ol>
<b>Spin Awareness</b>	<ol style="list-style-type: none"> <li>1. Assess situations where spins may occur</li> <li>2. Explain spin recovery procedure</li> </ol>	
<b>Basic Instrument (constant airspeed climbs, descents, turns, ATC communications)</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-200ft</li> <li>2. Heading: +/-20deg</li> <li>3. Airspeed: +/-10kts</li> </ol>	<ol style="list-style-type: none"> <li>1. Straight&amp;Level</li> <li>2. Climb 500ft/min</li> <li>3. Descend 500ft/min</li> <li>4. Turns</li> </ol>
<b>Unusual Flight Attitudes</b>	<ol style="list-style-type: none"> <li>1. Altitude: +/-200ft</li> <li>2. Heading: +/-20deg</li> <li>3. Airspeed: +/-10kts</li> </ol>	
<b>Emergency Descent</b>	<ol style="list-style-type: none"> <li>1. Selects appropriate configuration for the descent.</li> <li>2. Completes appropriate checklist</li> </ol>	<ol style="list-style-type: none"> <li>1. Throttle Idle</li> <li>2. Flaps zero</li> <li>3. Bank 30-45deg</li> <li>4. Airspeed Va -5/+0kts</li> </ol>
<b>Simulated engine loss approach and landing</b>	<ol style="list-style-type: none"> <li>1. ABC (Airspeed, Best place to land, Checklist)</li> <li>2. Airspeed: +/-10kts</li> <li>3. Prepare for landing</li> </ol>	<ol style="list-style-type: none"> <li>1. Airspeed 65kts</li> <li>2. Best place to land within 15 sec's</li> <li>3. Checklist</li> <li>4. Verify best place to land</li> <li>5. Recover above 500ftAGL</li> </ol>
<b>Systems Malfunctions (at least three of the items listed)</b> <ol style="list-style-type: none"> <li>1. Door opening in flight</li> <li>2. Icing</li> <li>3. Smoke/fire/engine compartment</li> <li>4. Glass Cockpit</li> </ol>	<ol style="list-style-type: none"> <li>5. Power loss</li> <li>6. Engine Roughness</li> <li>7. Carb/Induction Icing</li> <li>8. Loss of Oil Pressure</li> <li>9. Fuel Starvation</li> <li>10. Electrical</li> <li>11. Vacuum Pressure</li> <li>12. Pitot/Static</li> <li>13. Flap/Landing Gear</li> </ol>	<ol style="list-style-type: none"> <li>14. InOp Trim</li> </ol> <p style="text-align: center;">Per Checklist</p>

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