

## VII. Slow Flight and Stalls

<b>Task</b>	<b>C. Power-On Stalls</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3; AC 61-67; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with power-on stalls.  <b>Note:</b> See <i>Appendix 6: Safety of Flight and Appendix 7: Aircraft, Equipment, and Operational Requirements &amp; Limitations</i> .
<b>Knowledge</b>	The applicant demonstrates understanding of:
<i>PA.VII.C.K1</i>	Aerodynamics associated with stalls in various airplane configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, airplane weight and center of gravity, airplane attitude, and yaw effects.
<i>PA.VII.C.K2</i>	Stall characteristics (i.e., airplane design) and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel).
<i>PA.VII.C.K3</i>	Factors and situations that can lead to a power-on stall and actions that can be taken to prevent it.
<i>PA.VII.C.K4</i>	Fundamentals of stall recovery.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
<i>PA.VII.C.R1</i>	Factors and situations that could lead to an inadvertent power-on stall, spin, and loss of control.
<i>PA.VII.C.R2</i>	Range and limitations of stall warning indicators (e.g., airplane buffet, stall horn, etc.).
<i>PA.VII.C.R3</i>	Failure to recognize and recover at the stall warning during normal operations.
<i>PA.VII.C.R4</i>	Improper stall recovery procedure.
<i>PA.VII.C.R5</i>	Secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls.
<i>PA.VII.C.R6</i>	Effect of environmental elements on airplane performance related to power-on stalls (e.g., turbulence, microbursts, and high-density altitude).
<i>PA.VII.C.R7</i>	Collision hazards, to include aircraft, terrain, obstacles, and wires.
<i>PA.VII.C.R8</i>	Distractions, improper task management, loss of situational awareness, or disorientation.
<b>Skills</b>	The applicant demonstrates the ability to:
<i>PA.VII.C.S1</i>	Clear the area.
<i>PA.VII.C.S2</i>	Select an entry altitude that will allow the Task to be completed no lower than 1,500 feet AGL (ASEL, ASES) or 3,000 feet AGL (AMEL, AMES).
<i>PA.VII.C.S3</i>	Establish the takeoff, departure, or cruise configuration, as specified by the evaluator, and maintain coordinated flight throughout the maneuver.
<i>PA.VII.C.S4</i>	Set power (as assigned by the evaluator) to no less than 65 percent power.
<i>PA.VII.C.S5</i>	Transition smoothly from the takeoff or departure attitude to the pitch attitude that will induce a stall.
<i>PA.VII.C.S6</i>	Maintain a specified heading $\pm 10^\circ$ if in straight flight; maintain a specified angle of bank not to exceed $20^\circ$ , $\pm 10^\circ$ if in turning flight, while inducing the stall.
<i>PA.VII.C.S7</i>	Acknowledge cues of the impending stall and then recover promptly after a full stall occurs.
<i>PA.VII.C.S8</i>	Execute a stall recovery in accordance with procedures set forth in the POH/AFM.
<i>PA.VII.C.S9</i>	Configure the airplane as recommended by the manufacturer, and accelerate to $V_x$ or $V_Y$ .
<i>PA.VII.C.S10</i>	Return to the altitude, heading, and airspeed specified by the evaluator.