

## V. Performance and Ground Reference Maneuvers

<b>Task</b>	<b>B. Ground Reference Maneuvers</b>
<b>References</b>	14 CFR part 61; FAA-H-8083-2, FAA-H-8083-3
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with ground reference maneuvering which may include a rectangular course, S-turns, and turns around a point.  <b>Note:</b> See <a href="#">Appendix 7 – Operational Requirements and Limitations</a> .
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.V.B.K1	Purpose of ground reference maneuvers.
PA.V.B.K2	Effects of wind on ground track and relation to a ground reference point.
PA.V.B.K3	Effects of bank angle and groundspeed on rate and radius of turn.
PA.V.B.K4	Relationship of rectangular course to airport traffic pattern.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.V.B.R1	Failure to divide attention between airplane control and orientation.
PA.V.B.R2	Collision hazards to include other aircraft, terrain, obstacles, and wire.
PA.V.B.R3	Low altitude maneuvering/stall/spin.
PA.V.B.R4	Distractions, loss of situational awareness, and/or improper task management.
PA.V.B.R5	Failure to maintain coordinated flight.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.V.B.S1	Clear the area.
PA.V.B.S2	Select a suitable ground reference area, line, or point as appropriate.
PA.V.B.S3	Plan the maneuver: <b>Note:</b> The evaluator must select at least one maneuver for the applicant to demonstrate.
PA.V.B.S3a	a. Rectangular course: enter a left or right pattern, 600 to 1,000 feet above ground level (AGL) at an appropriate distance from the selected reference area, 45° to the downwind leg
PA.V.B.S3b	b. S-turns: enter perpendicular to the selected reference line, 600 to 1,000 feet AGL at an appropriate distance from the selected reference area
PA.V.B.S3c	c. Turns around a point: enter at an appropriate distance from the reference point, 600 to 1,000 feet AGL at an appropriate distance from the selected reference area
PA.V.B.S4	Apply adequate wind drift correction during straight and turning flight to maintain a constant ground track around a rectangular reference area, or to maintain a constant radius turn on each side of a selected reference line or point.
PA.V.B.S5	If performing S-Turns, reverse the turn directly over the selected reference line; if performing turns around a point, complete turns in either direction, as specified by the evaluator.
PA.V.B.S6	Divide attention between airplane control, traffic avoidance and the ground track while maintaining coordinated flight.
PA.V.B.S7	Maintain altitude $\pm 100$ feet; maintain airspeed $\pm 10$ knots.