

Objectives: Steep Spiral

- Be able to perform steep spiral to the right or left.
- Continue to develop situational awareness and division of attention skills.

Equipment:

- Chalkboard or paper and pencil
- Model airplane to explain maneuvers

Elements:

1. Ground - Pre-flight briefing
 - Present lesson objective.
 - Describe what will take place during the lesson.
 - Explain steep spiral and demonstrate with model airplane.
 - Student asks questions concerning previous lessons and/or this one.
2. Flight - Chandelles
 - Go over procedures for steep spiral again.
 - Select point over which turns can be made safely, with emergency options if needed.
 - Select an entry altitude allow completion > 1,500 AGL. (usually 4000-5000agl at least for 3 turns)
 - Perform clearing turns prior to starting the maneuver. (make sure to clear area below)
 - Establish airspeed as recommended by the airplane manufacturer not to exceed VA.
 - Demo and explain the maneuver with student following on controls.
 - Reduce power to idle and pitch to maintain a coordinated turn starting abeam the point.
 - Establish the initial bank, never to exceed 60 during the maneuver.
 - Adjust bank as needed for wind correction
 - Clear engine each time through the entry point.
 - Roll out of the maneuver within +/- 10 of the desired heading.
 - Have student perform the maneuver to both left and right (as time allows).

Completion Standards:

This lesson is complete when the student is able to perform steep spirals as specified in the *Elements* section.

Common Errors:

- Not remaining over the point (basically this is a power off turn around a point, while descending).
- Improper coordination.
- Not clearing the engine.
- Fixating on the instruments.

References:

POH for the airplane used.
COMM-ASEL PTS Area of Operation V Tasks B.
Jeppesen Instrument/Commercial Manual 14-25 to 14-28

Possible Review Questions:

1. VA is the airplanes _____ . What is it for this airplane? Why is it important?
2. For a steep spiral, the maximum bank allowed is _____ bank.