

## Objectives: Slow Flight

Upon completion of this lesson, the student will be able to:

- Maintain safe control of the airplane during flight at slow airspeeds.

## Equipment:

- Chalkboard and/or model to demonstrate stall behavior.

## Elements:

1. Ground - Pre-flight briefing
  - Explain slow flight; flight at 1.2 times the stall speed in a given configuration.
  - Explain procedure to slow the airplane down.
  - Explain airplane behavior on back side of the power curve (more power, more drag).
  - Review stall speeds in various configurations for the airplane to be used.
  - Student asks questions concerning previous lessons and/or this one.
2. Flight - Slow flight
  - Explain need to select an appropriate altitude (such that all maneuvers can be completed at not less than 1,500 AGL) at which to perform the maneuver.
  - Explain and demo procedure to slow the airplane down, and recovery.
  - Have student enter slow flight, maintain altitude +/- 100 ft., heading +/- 10, airspeed +10/-5 Knots
  - Provide appropriate distractions (once the student thinks he or she is comfortable with the situation).
  - Have student perform shallow banked turns while in slow flight (gradually steepen the bank requirements as the students comfort level increases, angle of bank not to exceed 20 +0 / -10).
  - Have student perform climbs and descents slow airspeed.

## Completion Standards:

This lesson will be completed when the student is able to:

- Maintain altitude (+/- 100 ft.) and heading (+/- 10) while flying at 1.2 VS1 in various configurations.
- Perform turns to headings ( +/- 10) while flying at 1.2 VS1 in various configurations.
- Perform climbs and descents to specified altitude +/- 100 ft. while flying at 1.2 VS1 in various configurations.
- Perform power on and power off stalls with minimum loss of altitude and while maintaining entry heading (+/- 10).

## Common Errors:

- Altitude and heading control in slow flight.
- Concentrating on instruments in all maneuvers.
- Coordination in all maneuvers.

## References:

POH For airplane used.

Jeppesen PPM; Pages 3-37 - 3-43

FTH; Pages 143 157

PP-ASEL PTS Area of Operation VIII, Tasks A, B, C, D

## Possible Review Questions

1. VS is the stall speed in a \_\_\_\_\_ configuration.
2. VS0 is the stall speed in a \_\_\_\_\_ configuration.
3. VS1 is the stall speed in a \_\_\_\_\_ configuration.
4. When flying at slow airspeeds, the airplane has a tendency to turn to the \_\_\_\_\_. Why?