Steep Turns

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Objectives

- Recall the effect of LF on stall speed
- Recall distribution and magnitude of forces during a steep turn
- Recall the correct technique for entering/exiting steep turn

Revision

Level Steep Turn

- any turn > 30 deg AoB
- maintain constant height while balanced

Why Steep Turns?

- collision avoidance
- terrain avoidance
- getting through cloud gaps
- developing skills

Forces

- more increase AoB to achieve level turn
- more IAS to achieve level turn

Factors

- increase in stall speed, reduction in IAS

Practical

- No steep turns < 95KIAS (see PoH)
- 1. Trimmed for Straight & Level
  2. Note reference height
  3. Note reference heading (heading bug, object in distance)
  4. Lookout
- Bank, Balance, Backpressure, Power
- 45 degrees initially, small amount of power (~100rpm)
- 60 degrees, full power

Spiral Dive

- Symptoms
  - high and increasing IAS
  - high rate of descent
  - increase engine speed
  - increasing LF (airframe stress)
- Recovery
  - Idle Power
  - Level ailerons
  - Slowly elevator up to climb attitude
  - Allow airspeed to wash off
  - Apply power (caution: engine speed, air speed)
  - Recover lost height