#### Contact Information

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- Bookings, Questions

#### Spirals

- Review Turns and Spins
- Definition and Motivation
- Spiral Dives
- Summary and Questions
- Pre-Flight Briefing

### Review Turns and Spins

- Why does the inner wing create less lift than the outer wing during a level turn?
- What is the effect of the difference in lift between the inner and outer wing and what corrections need to be applied?
- What are the phases of a spin?
- Mentally perform a spin entry and recovery.



**Definition and Motivation** 





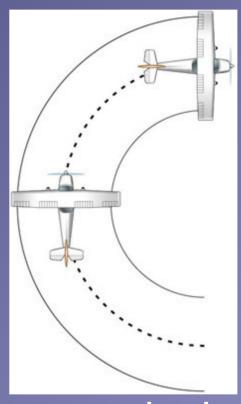
- Descending turn with increasing angle of bank
- Increasing airspeed and rate of descent
- High load factor during recovery

#### Safety Considerations

- HASEL, lookout ahead and below
- Significant loss of altitude
- Significant acceleration and gain in airspeed
- Reduced airspeed for entry
- Modified transfer of control (only recovery)
- Recovery above 2000' AGL

### Spiral Entry – Turn





- Establish a level turn
- Apply only elevator back-pressure in the attempt to hold altitude
- Do not correct any overbanking tendency



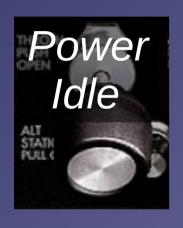
## Spiral Entry – Spin



- Enter **slow flight** *without* reaching imminent stall
- Perform an attempt to enter a spin



#### Spiral Recovery







- Reduce power to idle
- Roll wings level (opposite spiral direction)
- Ease out of dive
- Establish climb attitude and set power to regain altitude
- Establish cruise attitude, set cruise power and trim



# Spiral Dive



#### Instruments



- Turn coordinator may help to determine direction of spiral
- Airspeed increases significantly
- Rate of descent increases significantly

### Summary / Quiz

- Define a spiral and explain the difference between a spin and a spiral.
- Mentally perform a spiral recovery and state all observations and required actions.
- Why are ailerons used to establish wings level first and not simultaneously with elevator?
- What situations can potentially lead to an inadvertent spiral?

### Pre-Flight Briefing

- Exercise
- Training Area
- Departure and Arrival Procedures
- Weather Briefing / NOTAMs
- Aircraft and Documents
- Time and Fuel Requirements
- Safety Considerations and Responsibilities

# Spiral Dives (Ex. 14, LP. 7)

- Objective
- Review
- Motivation
- Howto
- Summary / Questions
- Preflight Briefing