



VICTORIA FLYING CLUB

Contact Information

- Stephan Heinemann
- SMS: +1 (250) 891-5446
- Email: stephan.heinemann@hotmail.com
- Bookings, Questions



Spirals

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

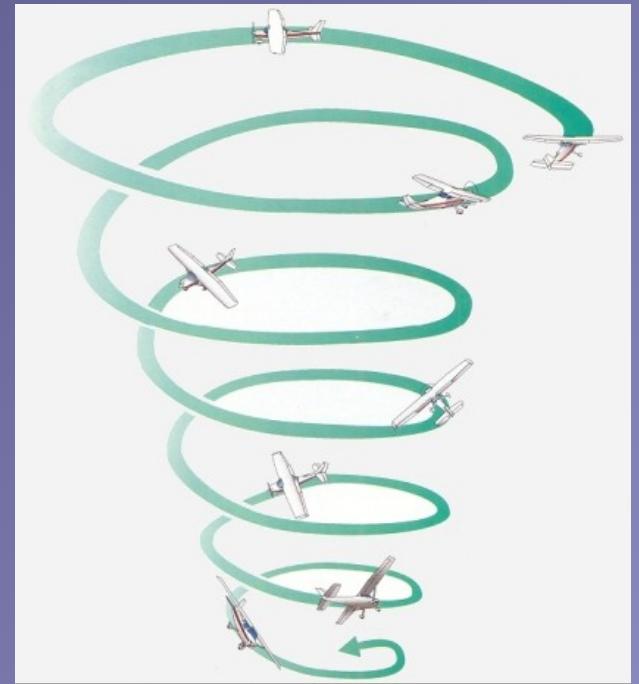


Review Turns and Spins

- 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



- Steep descending turn with *increasing* angle of bank
- *Increasing* **airspeed** and **rate of descent**
- *High* potential for **structural damage** exceeding aircraft limitations
- *High* **load factor** during recovery

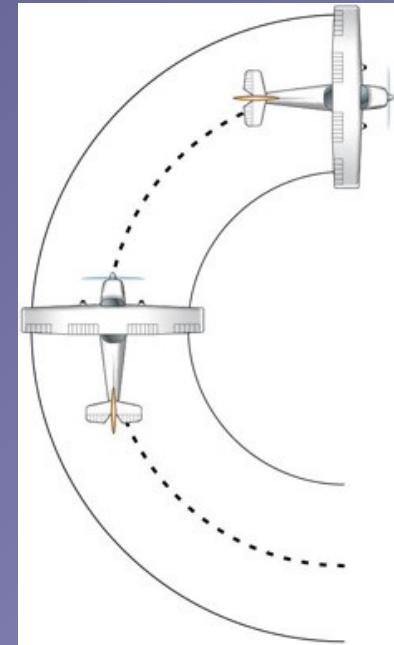


Safety Considerations

- **HASEL**
- Recovery at or above **2000** or **4000 ft AGL** as applicable
- *Only* instructor will initiate maneuver
- Modified transfer of control: “Recover!”
- Reduced airspeed for entry to remain within aircraft limitations – **caution range**, **red line** limit
- *Significant* loss of **altitude**
- *Significant* acceleration and increase in **airspeed**



Spiral Entry – Turn



- Perform **HASEL** checks at *sufficient* altitude ahead of the maneuver
- Establish a **level** turn and *incorrectly* apply **elevator** back-pressure *only* in the *attempt* to hold altitude
- Do *not* correct any **overbanking** tendency



VICTORIA FLYING CLUB

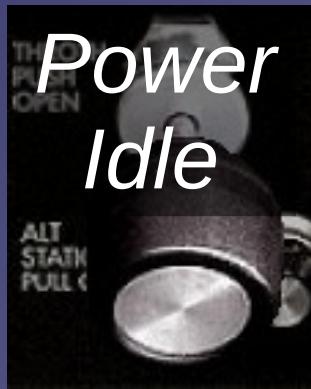
Spiral Entry – Spin



- Perform **HASEL** checks at *sufficient* altitude ahead of the maneuver
- Enter **slow flight** *without* reaching imminent stall
- *Incorrectly* perform an *attempt* to enter a **spin**



Spiral Recovery



- Reduce **power** to *idle immediately*
- Roll **wings level** (opposite spiral direction) at maximum roll rate
- *Ease out* of dive *without* exceeding aircraft limitations
- Establish **climb attitude** and set **power** to recover **altitude**
- Establish **cruise attitude**, set **cruise power** and **trim**



VICTORIA FLYING CLUB

Spiral Dive





Instruments



- **Turn coordinator** may help to determine direction of spiral
- **Airspeed** increases *significantly* – avoid **caution range** if possible
- **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



Additional Materials

- Additional materials for Spirals Dives
- Flight Instructor Guide – Exercise 14, Lesson Plan 7