

Lesson 1

Ground - Aerodynamics of multiengine flying (pt. 1)

- Differential thrust
 - V_{mc}
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Homework

Read

- **AFH:** "Engine Failure After Lift-Off," "Engine Failure During Flight," "Engine Inoperative Flight Principles"
- **Flyslipstream.com/links:** "Summary of factors affecting V_{mc} "

Memorize

- V_{speeds}
- Profiles: normal take-offs and landings, steep turns, slow flight
- CPDIVE (**Checklist:** "Engine out - initial climb or enroute")

Preview

- **POH**
 - Profiles: power-on and -off stalls, V_{mc} demo, single-engine landing, engine failure on take-off
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Flight

Normal start, taxi, run-up

- cross-feed
- no differential braking or thrust

Normal take-off, climb, cruise

- safety briefing
- wheel-barrowing
- $V_{speeds} - V_{so}, V_s, V_x, V_y, V_{fe}, V_{lo}, V_a, V_{mc}, V_{yse}$
- 500' vs. 1000'
- power settings, leaning
- propeller synchronization
- see profile

Steep turns

- see profile

Slow flight

- see profile

Single-engine procedures (demonstrated)

- simulated failure procedure (student's and instructor's actions, vs. actually securing an engine)

Normal Landings

- BCG—UMPS
- power settings
- wheel-barrowing and braking limitations
- see profile

Lesson 2

Ground - Aerodynamics of multiengine flying (pt. 2)

- Factors affecting V_{mc}
- Feathering prop and drag reduction
- Why bank into the good engine?

Flight

Normal departure

Steep turns

Slow flight

Power-off stalls

- see profile

Simulated engine failure

Normal landings

Homework

Memorize

- Profiles: power-on and -off stalls, V_{mc} demo, single-engine landing, engine failure on take-off

Preview

- Profiles: single-engine approach and landing, short field take-off procedure, short field approach and landing
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Lesson 3

Ground - Multiengine performance

- Climb capability on one engine
- Accelerate-stop distance
- Accelerate-go distance
- Weight & Balance

Flight

Power-on stalls

- see profile

Vmc demonstration

- see profile

Normal **or** Single-engine landings

- see profile

Go arounds

- see profile

Homework

Memorize

- Profiles: single-engine approach and landing, short field take-off procedure, short field approach and landing

Preview

- Profile: accelerated stalls
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Lesson 4

Ground - Procedures (pt. 1)

- ☐ Short field operations

Flight

Short field take-off

- ☐ see profile

Engine failure after take-off

- ☐ see profile

Steep turns

V_{mc} demonstration

Short field landings

- ☐ see profile

Homework

Memorize

- Profile: accelerated stalls

Preview

- IFR training profiles
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Lesson 5

Ground - Systems

- Constant speed propellers
- Landing gear
 - squat switch
 - emergency extension
- Cabin heating
- Fuel system
- Electrical system
- Anti-ice systems
- Autopilot

Flight

- Short field take-off
- Slow flight
- Power-on and -off stalls
- Accelerated stalls
 - see profile
- Single-engine and/or short field landings

Homework

Memorize

- IFR training profiles
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Lesson 6

Ground - Procedures (pt. 2)

- ☐ Instrument procedures
 - non-precision profile
 - single-engine non-precision profile
 - precision profile
 - single-engine precision profile

Flight

Approach-o-rama

Go arounds/missed approach

- ☐ see checklists/profile

Homework

Oral exam questions

Lesson 7

Ground - Procedures (pt. 3)

- Engine failure prior to rotation/aborted takeoff
- Emergency descent

Flight

Aborted take-off

- see profile

Slow flight

Stalls

Drag demo

Engine shutdown & restart

Emergency descent

Homework

Oral exam questions

Lesson 8

Ground - Review

- Oral exam questions

Flight

Mock checkride
