Forced landing without power - considerations

ADVANCED MANOEUVRES

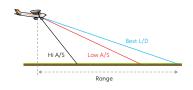
Objectives

- · To carry out the recommended procedure in the event of a total or partial engine failure, incorporating the appropriate checklists.
- · To practice aeronautical decision making (ADM) to troubleshoot and rectify a partial power situation.

Considerations

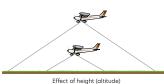
Best L/D ratio - airspeed

- At exactly _____ knots approx 4° A of A
- · Raising or lowering the nose reduces the distance covered
- · Never raise the nose to 'stretch' the glide



Height

· More height means more distance, and more time to plan



If some power is available:

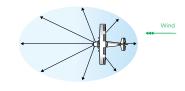
Partial Power

- Close throttle or go somewhere better?
- · What if it fails enroute?
- · What is the terrain like enroute?

Airmanship

- · Simulated by closing throttle
- · Trouble checks
- Passenger briefing
- · Student to initiate go around
- Landing phase will be practiced later

Wind



- What caused the failure? Will it cause more problems?
- · How much altitude do you have?

Aeroplane management

- Ts and Ps stable
- · Engine warming every 1000 ft

Human factors

- Pattern more important than perfect checks
- · Practice will make it easier

Air exercise

(1) Immediate actions

- · Carb heat HOT, close throttle
- Convert speed to height
- · Set glide attitude and trim
- · Confirm wind and choose landing site
- · Make the plan and activate

(2) Trouble checks



Assess approach

(3) Mayday call

- 7700
- Plus ELT activation

Assess approach

- Passenger brief · Nearest habitation
- Remove sharp objects
- Brace position

Assess approach

Engine warm

(4) Achieve 1500 ft area

· Assess the approach and spacing

Prelanding checks

- · Instead of downwind checks
- F-M-I-M (Master after full flap)

(5) Achieve 1000 ft area

· Start base turn

(4) Spacing

(6) Approach

• Can I make the 1/3 aim point?

(7) Go-around

Would I have made it?

Landing

- PIC responsibility
- Call ATC
- Do not attempt to take off again

