Forced landing without power – considerations

ADVANCED MANOEUVRES

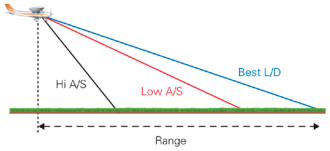
Objectives

- 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

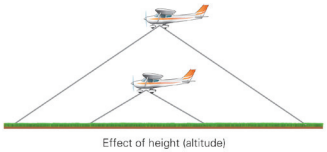
Best L/D ratio – airspeed

- 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

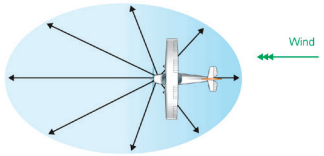


Height

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



Wind



Partial Power

If some power is available:

- Close throttle or go somewhere better?
- What if it fails enroute?
- What is the terrain like enroute?
- What caused the failure? Will it cause more problems?
- How much altitude do you have?

Airmanship

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

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

F | M | I | P

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

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