

Forced landings

It's something we never want to happen, but if we've been well trained then we've practised forced landings plenty of times. It's something we should practice often, because while it's not hard to remember a set of checks, the ability to judge your glide performance and adjust it so you make it into the paddock (or better still, the conveniently located airstrip) of your choice. Here's a useful checklist, with a few tips on flying the approach to a paddock.

1. **Fly the aeroplane. Adopt your best glide speed and trim.**
2. Do a quick set of trouble checks such as FCMIT – fuel on, carby heat on, mixture rich, ignition on, try the throttle.
3. **Pick a field and plan the approach.** More on this in a moment.
4. Do the trouble checks again, more thoroughly eg. switch fuel tanks if necessary, check the ignition to see if you've lost a magneto.
5. Mayday call before you run out of height and VHF range.
6. Brief your passengers – reassure them, make sure their seat belts are tight, no sharp objects in pockets, glasses off, quick exit once we've landed.
7. Shutdown checks – mixture off, ignition off, master off (this one needs to be delayed if your flaps are electric), fuel off.
8. **Land safely!**

Back to Step 3.

- a. Pick a field within glide range, and pick an initial aiming point 100 – 200 metres past the fence. If you have trouble judging what's within glide range and what's not, go out and do some practice.
- b. Pick a 500 ft point. This is the start of a short final.
- c. Pick a 1000 ft point. This is the start of a base leg that should be 4-5 times as long as finals. The height you have available will determine whether you need to do a left or right-hand pattern, or whether you have a choice.
- d. The aim is to get to your 500 ft point at 500 ft. If you do that, you can be pretty confident you'll make it. Do whatever you need to to achieve that.
- e. Manoeuvre upwind of the landing point. If you manoeuvre downwind, you may get stuck with a big headwind on final and not enough height to make it to the field.
- f. If you're too high, manoeuvre before your 1000 ft point, take flaps early on base, or manoeuvre on base, being careful not to go too far downwind. Keep your field in sight at all times.
- g. If you're looking low, cut the corner at your 1000 ft and/or 500 ft point or delay the use of flap on base. Save the last stage of flap until you're on final and confident you can reach your initial aim point. Then use flap to steepen your glide and bring your aim point closer to the fence.

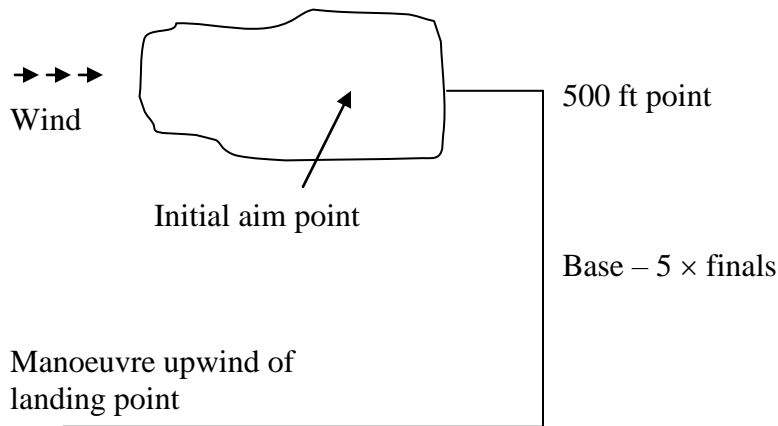
Which of the 8 steps above are vital – the ones you really ought to practice, the ones you can't practice on the ground, and the ones that will save your life? The ones in bold –

steps 1, 3 and 8. Consider an engine failure after take-off and below 500 ft. All you have time for at that height is:

1. Adopt glide speed and trim.
2. Pick somewhere to land within 30° either side of the nose.
3. Land, using flaps as required.

Above 500 ft you may have more time for trouble checks and a Mayday call, but even if you don't do them, and even if you have an engine failure at 5000 ft and do nothing other than Steps 1, 3 and 8 above, you'll save your skin and live to fly another day.

Happy flying, and make sure you do a PFL more often than every two years as part of your AFR!



1000 ft point