

Topic of the month: February 2025

Shallowing Approaches and Wind Gradient

We have noticed a trend recently for shallowing approaches and issues with wind gradients.

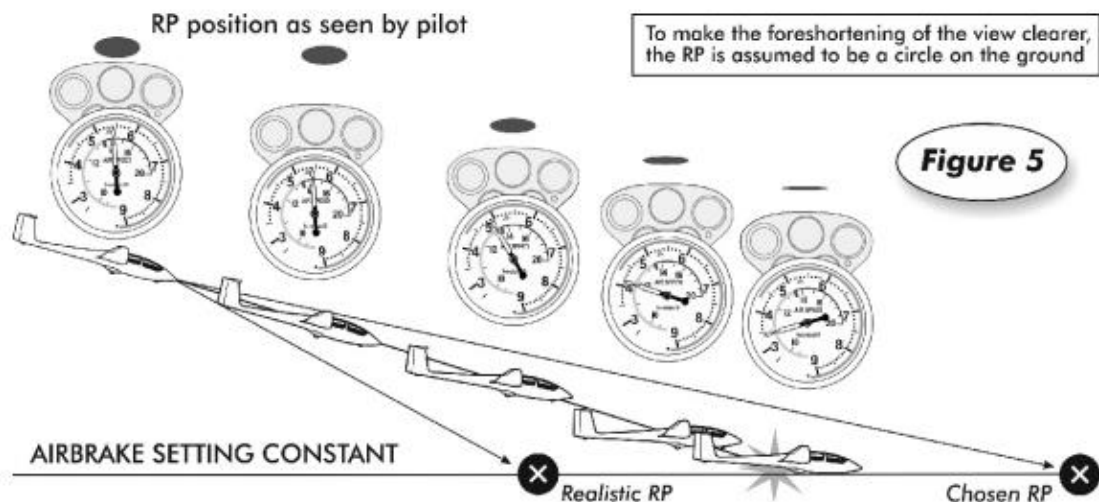
Shallowing Approaches

The best approach is with a steady $\frac{1}{2}$ to $\frac{2}{3}$ airbrakes. Pick your reference point and open the airbrakes so your reference point stays the same. Do not open the airbrakes too early and end up having to fly a shallow approach.

Try to get out of the habit of opening the airbrakes straight away after the final turn, watch for a positive overshoot first.

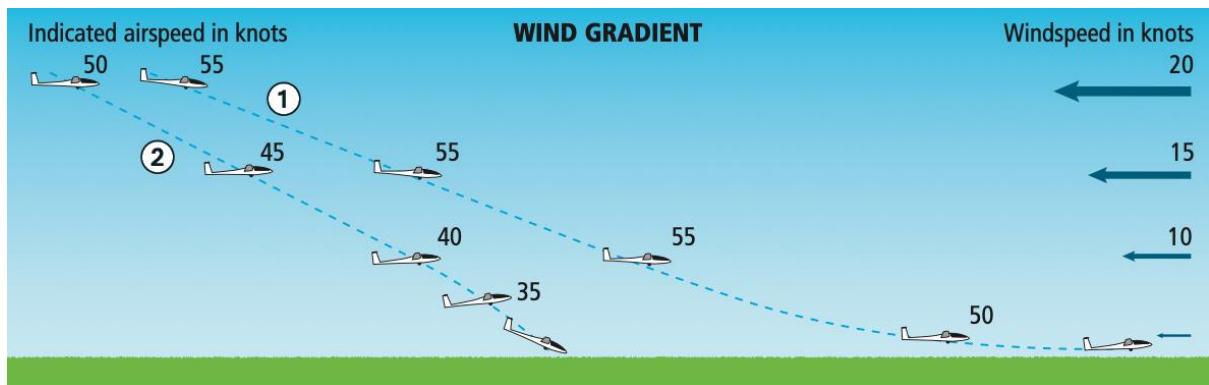
Always monitor your airspeed during the approach and keep it constant. Do not be tempted to keep the reference point at the same position in the canopy by raising or lowering the nose. The image below shows the result of raising the nose and letting the speed drop.

Note that in strong headwind the approach will be much shorter. Keep the base leg closer to the airfield in strong headwind.



Wind Gradient

In strong wind conditions it is likely that a substantial wind gradient will be present. This is most noticeable during the launch and during the approach. While a wind gradient maybe visible in a forecast (e.g. Tephigram) the best opportunity assess its severity comes from either other pilots who've just flown through it, or during the launch. If the wind gradient is significant, you should increase your approach speed to compensate.



The image shows the airspeed on final approach increased for the strong windspeed (1) and the final approach flown with the following errors(2):

- Insufficient airspeed, no adjustment for wind
- Airspeed indicator not regularly monitored / no airspeed corrections
- Stall / hard landing

A severe wind gradient is also likely to bring significant turbulence along with it so be prepared especially if approaching near objects.

Safe Flying

Lachlan