Safety Briefing

Field Landing

Field landings can stretch any pilot's experience and flying abilities. This safety briefing is aimed at all glider pilots, regardless of experience.

Plan Ahead - and Above All, Fly the Glider

Field selection and flying a circuit into a field can easily result in stress and distraction if the pilot allows that to happen. Late field selection is a known cause of many field landing accidents. It's obvious why. Planning ahead helps any pilot reduce the pressure and reduce distractions.

- Before flight, think what are the fields are like at the time of year and in your area. Is the wind likely to be light or strong during the flight? Light means longer landing areas and it's easier to get the direction wrong. Strong might mean challenging turbulence and wind gradients on approach.
- Always fly a glider so that if necessary you can comfortably reach a suitably flat and unobstructed area that you can be confident of landing on safely. Remember that you will normally cover far more ground if you fly down wind.
- Incorporate field landings into your soaring plan. Once you have surveyed the sky ahead, spare a thought for the terrain below – even if you are fairly high. When the signs are trying to tell you that you are not going to be airborne for much longer, it is important to accept that you will soon need somewhere to land. Denial or misplaced self-belief can result in dangerously late decisions.
- If you can self-retrieve with an engine, practice flying a circuit at your home site with the engine deployed but not running. Refer to your Flight Manual and other experienced pilots.
- Inadvertent stall/spin is a known cause of many life-changing injuries. At all times and above all else, FLY THE GLIDER.

Field Selection

Well before reaching circuit height, identify an area with 2 or 3 potentially suitable landing fields. Consider the surrounding terrain.

- Are there hills that might create turbulence or surface wind problems?
- Are there power cables or other significant obstacles?
- Does the ground slope visibly? If so, is it too steep to land uphill if other factors allow that?

Select a field having considered the following:

- *Size*. Pick the biggest available and suitable field. Consider corner to corner.
- *Surface Wind*. Stay orientated with the wind direction at all times. Assess the wind through a mix of PDA wind, cloud shadow, drift or by smoke. Always aim to land in a direction which will give you a substantial headwind component.
- *Surrounds*. How will the field surroundings affect the approach? Obstructions reduce the useable field length by at least 10 times the height at which you clear them. Wires are tricky to see. Trees and buildings will also create turbulence.
- *Slope*. Fields at the bottom of a valley often suffer from excessive slope. Slope is best seen from the side rather than above. Any visible down slope is unacceptable. Upslope is acceptable but needs great care particularly with approach speed, round-out and hold-off. Be prepared to use the wheel brake to prevent the glider rolling back.
- *Stock*. Sheep panic, run and sometimes jump up. Cows are curious. Horses bolt. A solitary cow is probably a bull! Try to avoid fields with stock in them.
- *Surface*. Look for landing fields in the following order of preference, taking into consideration the time of year:

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1. Known safe landing strips/runways
2. Stubble fields
3. Grass fields. Beware of surface unevenness and strip grazing indicating electric fences. Any shading in the grass surface almost certainly indicates the presence of something potentially hazardous
4. Short crop fields. The surface should appear more brown than green. Some cropped fields may present a hazard on landing. Remember half ripe crops may look like stubble

If you have a turbo, jet, FES or other means of propulsion, having identified a potential field, you can attempt an engine start knowing that you have a carefully selected field on hand if needed.

The Circuit, Approach and Landing

Make sure you can identify your chosen field even if you lose sight of it briefly. It may be helpful to select a unique ground feature that can help you identify the direction from which you shortly intend to approach.

Increase the frequency of airspeed monitoring. **fly the glider.**

As per any other circuit you've flown, position the glider well upwind and well to one side of your chosen landing area (the field).

Be conscious of and avoid the natural tendency to cramp the circuit. Always use height, distance and angle to get the 'picture' looking right. Don't forget that airbrakes can be used in any phase of flight if required. Monitor the airspeed.

Plan for a half to two-thirds airbrake approach. Select a safe approach speed. Excessive speed will usually result in overshooting the field. Be extremely wary of approaching between trees and finding wires in the gap. If you have to overfly obstructions, allow an adequate margin of height. Once you are certain you can safely clear any obstructions, use full airbrake to achieve an early touch down. Carry out a fully held-off landing. To reduce the risk of running into a hole, avoid taxiing. Ground looping is common when landing in crop. Concentrate on keeping the wings level and retract flaps on the ground roll if that will help.

Further Information

In addition to the mandatory Bronze endorsement field landing requirement, it is recommended that pilots undertake periodic field landing refresher training in an SLMG.

Read more and check out the field landing briefing videos at https://members.gliding.co.uk/pilot-resources-flying-training/field-landing/

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