

Derek Piggotts Outlanding Syllabus (Annotated)

Using the motor glider for teaching off-airfield landings

A thorough briefing is essential covering all aspects of carrying out a field landing. The need to know the wind direction and strength at all times and that it is important to choose flat or upslope fields and never to attempt to land downhill. On the first session the field selection is left to the instructor, as the exercise should be mainly concerned with practicing the pattern and approach to fields chosen by the instructor.

Discuss all the factors which make a field acceptable and those not safe for landing. Stress the importance of making a selection in time while height is adequate to choose another field. Point out the advantages of circling steeply to look at all the surrounding fields rather than looking immediately below. (You can see the slopes more easily and you see many fields instead of three or four.)

Making the pattern

Usually the field will be smaller than the gliding site. Therefore you need to start any normal downwind leg some distance up wind of the chosen field if you intend making a normal pattern. Never fly over the chosen field unless you have lots of height to get away well to one side of it.

Planning and making a satisfactory pattern.

If the student has not flown the motor glider before always make a short familiarization flight before going out to make field landings. One landing, some stalls, some sideslipping and one landing should be enough.

Climb away to about 1200 ft. towards a suitable area. Select a field for the first practice. It should be amply large enough, have good approaches and ideally a suitable surface for a landing. It should also be easy to pick out or the student may attempt the landing on a different field, which can be very confusing.

Introduce a few hundred feet of error on the altimeter and change it after each exercise. Get the student to establish the wind direction. Smoke, ripples in water or crops, cloud shadow movements may be good clues. Otherwise the take off direction relative to the sun can be used. Point out which field you have chosen for him and make absolutely sure that the student knows which of the fields you have chosen.

Then fly upwind of it and throttle back, after checking again that the student has your field in view. ("That one with the large barn in the far corner", or some similar feature.)

Get the student to move out to get a normal angle to the boundary of the chosen field. Warn against rushing downwind with far too much height. Select a feature downwind of the field for the positioning of the final turn and remind them not to get closer unless anxious about the height at that time. Usually they tend to keep too close and too high and it may be worth letting this happen as it makes a good lesson. Then watch what they do and at what stage they recognize they are too high.

Point out that if they have full airbrakes and are only just going to get down into the field, any lift will put them into the far hedge. If they are much too high, don't allow them to give up. Make them change their plan, or show them that they can still avoid an accident if they act quickly, for example with a full airbrake sideslip.

Go around at a safe height and climb away to a different area. Repeat the process selecting a different field for them, but this time give fewer clues and less help on the pattern.

On the next field, after making sure the student knows which field you have chosen, put the aircraft over the field at 7 - 900 feet. This is a difficult position, but one they need to experience in order to learn to avoid and deal with it successfully. It requires a turn off to the side and moving well away before starting the pattern.

Point out that over the field you cannot see slopes and that you nearly always have to lose sight of the field as you move away. If they fail to get into an acceptable pattern from this position, take over, climb up again and demonstrate how to do it. *Note: Jan recommends abandoning the "chosen" field if the approach is faulty - - you don't get a second chance in an off-airport landing in the real world!*

On the next field, move a little downwind of the chosen field and see how the student gets into position for a satisfactory base leg for the field.

Usually a straight in approach from height is not satisfactory. A base leg is much better as it is easier to judge and adjust the height before turning final.

Warn against choosing a field a long way up-wind because it may turn out unsuitable when you get there and are lower.

Finally, if there are a number of possible fields in the area, let the student choose a field from 1000 -1200 feet and make an approach before returning to base.

Note: Jan Scott recommends making the initial field selection height 1500 – 2000 feet of altitude instead of Piggott's 1000 – 1200 ft.