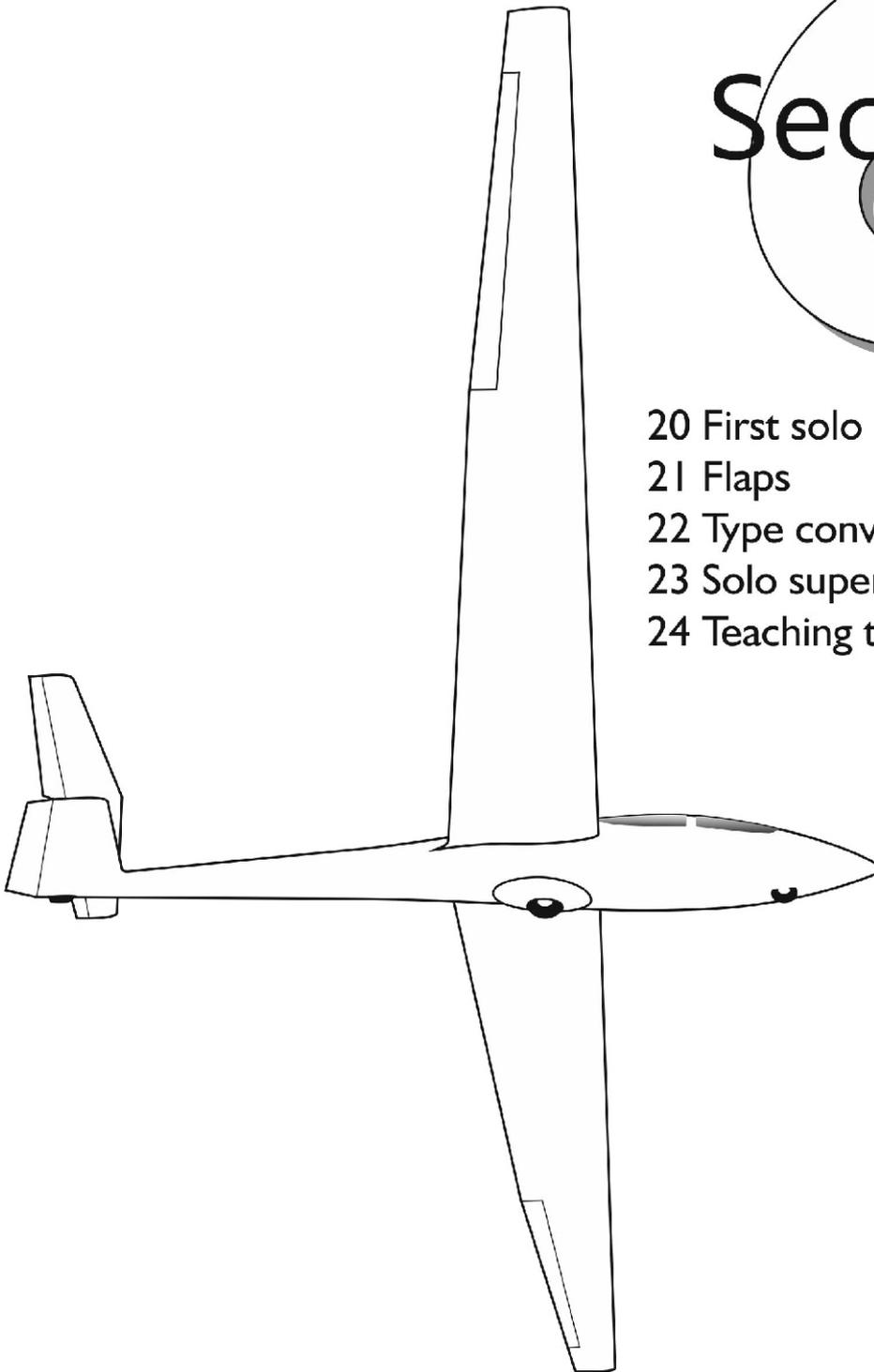
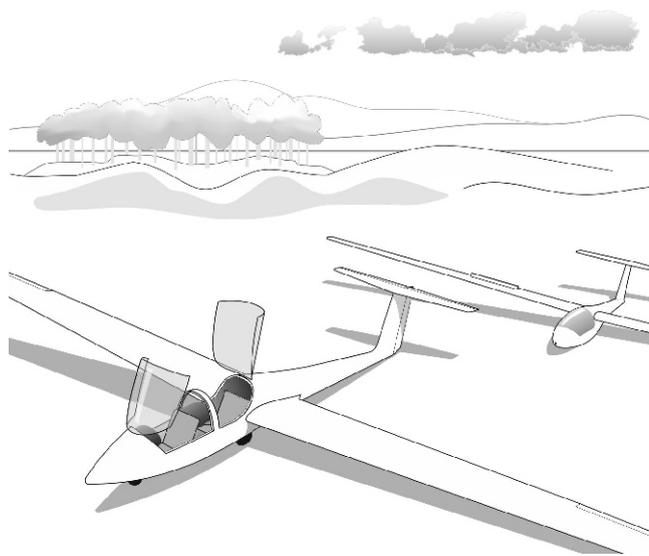


Section 6

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20 - FIRST SOLO

At first sight the decision to send off a trainee on a first solo looks to be a tricky one. It isn't, because if you aren't sure you don't do it. There's no race to send someone solo. In the long run it is often better to delay a little, particularly if the club has no effective post-solo training programme. Nevertheless, solo flying is an important step for trainees, and once they are ready it shouldn't be delayed for too long. Done at the right time, it is a great boost to their confidence.

First solo shouldn't be seen as the finish of training or supervision. The pat on the back after the event should be followed as soon as possible by further and more advanced training.

The issue of when a trainee can, or should be sent solo, can be clouded somewhat by local club rules about who exactly can or cannot authorise it. The BGA's formal rule is that any instructor can make this decision. In practice, Assistant Instructors often consult the nearest Full Rating Instructor, and may ask them to conduct the pre-solo check flight.

Before solo, the trainee's performance must be satisfactory in the following essential minimum skills and knowledge:

- **circuit planning** - especially recognising getting low in the circuit
- **approach Control** - able to recognise and correct for an undershoot, and understand the need to turn in early if necessary
- **spot landings** - not necessary, but should be done competently if the glider has good airbrakes
- **stalling** - must be able to recognise all types of stall and make consistent least height loss recoveries
- **spinning** - can recognise a spin and take the correct recovery action. Can put the glider into a spin and recover with minimum loss of height. If a spin doesn't develop (a fairly common occurrence), the trainee should be able to recognise and recover correctly from the ensuing spiral dive
- **speed and directional control** - should be good, particularly on approach
- **launch failures** - satisfactorily handled by the trainee without any 'help' at all from the instructor
- **further Stalling and Spinning Exercises** - most, if not all of these exercises, should have been demonstrated to the trainee. They must have had the demonstration of reduced 'g'
- **satisfactory take-off and launch** - including a clean take-off avoiding PIOs. On the winch; adopting the correct climb attitudes at the correct moments. On aerotow, boxing the slipstream and recovering from being 'out of position'
- **thermal Soaring** - the trainee should have some understanding of centring techniques and be sufficiently skilled not to keep falling out of thermals
- **basic rules of the air and good lookout** - a pre-solo quiz covering local airspace and the rules of the air is available from the BGA website under 'Bronze'. EASA will probably change the content
- **declaration of fitness** (or other medical). You will have done some sort of check flights (not necessarily all on the day), and be confident that the trainee's performance is satisfactory. You will almost certainly have engineered some of the following:

- a cable-break
- a low circuit
- some stalls
- a single, low-pressure circuit during which you said and did nothing; just let the trainee get on with it. This is useful because you want him to be relaxed and to repeat a simple uneventful solo circuit, and not a low one or a cable-break, unless he has to.

To establish all these points you may have to rely on either a training card, a detailed syllabus sheet, word of mouth and/or log-book entries, otherwise check flights can go on for ever.

If the conditions are not suitable for a first solo, wait until they are. Don't take a risk.

BRIEFING POINTS

Shoo away any surrounding crowd of club members.

Check that the trainee answers satisfactorily the following quiz:

- *Are you happy to go off on your own?*
- *What is your weight and are you at least thirty pounds above the minimum placard weight? If not, carry ballast - that will stop the elevator from being too twitchy*
- *What approach speed is appropriate for today's conditions?* Encourage the trainee to specify an exact speed
- *What will you do if the cable breaks at X feet?*
- *What will you do if you get low in the circuit?*
- *Soar if you can (or don't) but make sure you can see and are within gliding range of the airfield at all times*
- *Any questions?*
- *Now, off you go and do another flight just like the last one. Have fun!*

Explain that with a lower weight and the CG further aft the glider will feel rather different when there's only him in it. Generally, the controls will feel lighter and the minimum sink speed will be lower. The launch is likely to be higher.

Keep an eye on the progress of this flight but don't fret - you know he will be all right. If winching, pay particular attention to the launch and note the transition to full climb and the height achieved. If aero-towing, watch out for PIO's or other wobbles. Note the style of circuit; was it too high/low or too close/far out or just right, and how it was handled. Check that the approach and the use of airbrakes was smooth, and that the flight ended with a good landing.

De-brief on these points immediately if the trainee is going off straight away for a second solo.

DE-BRIEFING

Well done! Any questions? Now I'd like you to go and do another one - if appropriate.

If the first solo was satisfactory then it is almost always helpful to do another flight straight away to build confidence. Give the minimum briefing, ie., *That last one was fine - do the same again.*

De-brief any significant points you noticed. If for any reason you feel that trainee should not do a second solo, then don't say so

yet - just don't offer one. Say that you would like to do a long debrief on the day's flying so far. Go and have a cup of tea.

ADVICE TO INSTRUCTORS

If you haven't personally assessed the trainee's progress over a reasonably long period of time, and don't trust implicitly the judgement of the instructors who have flown with him and said he is OK, then it will take at least four launches for you to check through the essential exercises. If this is likely to be the case, it may be better to ask another instructor more familiar with the

trainee's overall progress, and who has flown with him recently, to send him solo.

It's probably worth reminding trainees about to go solo that if they're doing so in the glider in which they were trained, or in any two seater, that the rear cockpit is now their responsibility, even though there won't be anyone in it. There are straps to be done up, for example, so that they don't foul the rear stick and, in some gliders, making sure that the rear canopy is locked shut.

COMMON DIFFICULTIES

Circuit too close - being extra careful.

Sloppy turns - in their excitement.

Ballooned landings. Good trainees may have learnt so fast that they never experience or even see a ballooned or heavy landing. This is very difficult for them if they are solo when they first encounter one. The fact that most

two-seaters' elevator forces and general handling are lighter when the glider is flown solo, may contribute to ballooning.

Other (social) problems. All the trainee's mates (or 'relations') will want to rush around them both before and immediately after the flight, telling stories of what it was like for them - and so on and so forth. This is very distracting, sometimes misinforms, and may stop the trainee from absorbing even the shortest of briefings.