

## BEFORE YOU LEAVE THE GROUND



### Giving your best as a student pilot

Learning how to glide needs teamwork. As you'll immediately notice from your first day at the gliding club, gliders don't launch themselves and all pilots are expected to lend a hand at the launch point. Getting involved is all part of the fun. You'll be shown what to do, how to stay safe, and encouraged to ask questions.

The other important aspect of teamwork is the student pilot taking some responsibility for their own learning. Naturally your instructor will teach you everything you need to know about gliding. However, the learning process can be made far more efficient if the student pilot has read up on the theory before turning up for a gliding lesson. Don't worry if you're not an academic. Chances are your instructor won't be either! Understanding the basics is enough, and if you do get a taste for the theory, feel free to dig deeper. This series aims to provide student pilots with 'gliding basics' and will arm any keen student pilot with a good understanding of what he or she is learning in the air. As ever, a picture is worth a thousand words. Everything in flying seems so much clearer when you experience it happening in three dimensions in a glider!

### Ground handling

Gliders are incredibly strong when airborne but are surprisingly easily damaged on the ground. You'll be shown how to help move gliders on the ground and how to handle canopies, which are especially vulnerable to accidental damage. Student pilots are strongly advised to read this ground-handling leaflet produced by our friends at Gliding New Zealand. [Read more here.](#)

### Training Records

All aspects of gliding training are recorded on a simple training record card that will be provided by your club. This helps you and your instructor to map progress and ensure that all aspects of training are covered. At first sight, the numbers of lessons and tick boxes seem to be endless! However, you'll soon be making great progress. It's very natural to compare progress with other student pilots. Please keep in mind that everyone learns at their own rate. There's no rush, and in fact most pilots have done the same total amount of training launches and hours by the time they've completed the course of training.

Please make sure your training record card is made available to your instructor ahead of your pre-flight briefing, and again later for the post-flight debriefing. Think about the key points and if you have any questions, don't hesitate to ask your instructor before or after the flight. In the unlikely event of your instructor not knowing the answer, he or she will certainly know where to find it.

**BGA Training Progress Card**  
This card provides a working breakdown of the exercises described in the BGA gliding syllabus

Name .....		Email .....				
Exercise	Brief	Demo		Attempt		
	Name	Date	Name	C	B	A
1. Pre Flight Checks						
2. Lookout						
3. Effects of controls:						
a) Elevator						
b) 1st stall						
c) Speed control						
d) Ailerons						
e) Rudder						
f) Flap (where applicable)						
4. Aileron drag						
5. Aileron/Rudder Coordination						
6. Turning						
7. Maintaining a heading						
8. Use of Trimmer						
9. Straight glide and scan cycle						
10. Airbrake/elevator Coordination						
11. Approach control						

## Preparation

There's an expression that goes something like 'Prior Preparation Prevents Poor Performance'. It's particularly true in the sport of gliding where humans are doing things that humans simply weren't designed to do! Following the rules, learning and understanding good practices, and making sure you and your glider are fit for flight are really important and can overcome many of the human factors that can otherwise conspire to do us harm, or at the very least spoil our day.

## Fit to Fly?

Think about your own fitness to fly. If you feel unwell, don't fly. If you have a significant medical condition that has appeared since signing your club membership form, have a quiet chat with the CFI or seek professional advice. Chances are it won't stop you gliding, but it's always best to check.

Even when the sky is overcast, consider wearing a sunhat and sunglasses. It's surprising how the sun can get to you after a half day on the airfield. Staying hydrated is a good idea too.

## Checking the glider before flight

Gliders must be inspected daily before flying and the daily inspection (DI) must be recorded and signed. The DI is something the more experienced pilots do after they have been checked and authorised. It's an important task.

By the time your turn to fly comes around, the glider may have flown many times since the DI that morning. Before flying any glider, it is good practice to carry out a 'walk around check' to ensure the glider hasn't suffered damage. Your instructor will show you how – it only takes a minute or so.

Glider batteries may be changed during the day, so it's also a good idea to confirm that the battery is still fitted correctly, and that the electrical instruments, including collision warning system and variometer appear to be working.

Ensure that an energy absorbing cushion is fitted to your seat and that any required seat back or additional cushions (non-compressible only!) are available.

Check the placard in the cockpit to ensure that you are within the weight limits. Check that the previous pilot hasn't left ballast weights in the glider.

### **Getting in**

Before you get in, you will need to put on your parachute. You'll be shown how to adjust the parachute harness so that it fits correctly, and you'll be shown how to get out of the glider in an emergency and how to deploy the parachute. Incidentally, a wet or damaged parachute may not deploy correctly, so never put a parachute on the ground and always treat it with care.

Be careful where you put your hands and feet when you climb in. Parts of the cockpit are reinforced to take your weight; if you tread in the wrong place you may cause damage. Do not lean on the canopy – almost certainly it will break resulting in thousands of £'s of damage and an unusable glider.

Any pilot who is unfamiliar with a glider needs to first 'try it for size'. When seated in the cockpit with the straps fastened, you should be comfortable, have a gap between the top of your head and the canopy of at least a hand thickness, able to see out properly, and able to operate all controls fully including the cable release without having to stretch.

After a while, you will learn exactly what seat and rudder pedal adjustments and ballast is needed. Adjusting the rudder pedals forward or backwards will probably be necessary. A seat back or one or more (non-compressible!) cushions may be required. If ballast is required because you are below the acceptable minimum weight, make sure it is properly secured.

Before getting airborne, make sure you know how to open and close the canopy normally, and how to jettison the canopy in an emergency. Not all canopy operating systems are the same.

If you have any doubt or questions about any of these points, just ask your instructor.

### **Preparing for Take-off**

When you are satisfactorily strapped in, make sure any water bottle or similar if needed is carefully stowed and within reach, and then listen very carefully to your instructor. **Never** be rushed into taking off before you are ready.

### **Release checks?**

Ahead of the first launch of the day with a glider, it is normal to test the release mechanism for release under tension. Winch hooks are additionally tested for "back release", which operates the automatic fail-safe arrangement which precludes over-flying the winch.

### **In closing....**

Gliding involves a certain amount of risk. A big part of the learning process in gliding is understanding how to recognise and mitigate as far as we reasonably can the inherent 'threats' and 'errors' that result in risk.

One of the first things you'll learn is the need to maintain effective look out by adopting a scanning technique that will help you to detect other gliders. As you gain experience, your instructor will introduce you to an interesting variety of important information. An example is published information about temporary hazards in the airspace around us, known as 'NOTAMS', which all qualified pilots should check before flight.

Most of this important good practice is described in the BGA publication 'Managing Flying Risk' that is available from the BGA members website. [You can find the document here.](#)

Here is an extract from 'Managing Flying Risk' describing the recommended pre-flight checks;

### **Pre-flight Checks**

Pre-flight cockpit checks should be carried out carefully using an established checklist. Distraction is a common cause of error when carrying out pre-flight checks. Rushing due to time pressure is also a common cause of error. Both of those causal factors can be addressed to reduce the risk. If the pre-flight checks are interrupted for any reason, the checks should be restarted and completed with care. The BGA recommended cockpit pre-flight checklist is:

- C     CONTROLS working fully and freely and in the correct sense
  - B     BALLAST securely fastened; correct cockpit load
  - S     STRAPS for all occupants correctly locked and tight
  - I     INSTRUMENTS appear serviceable and set as required
  - F     FLAPS check operation and set for take-off
  - T     TRIM check operation and set for take-off
  - B     BRAKES check operation, closed and locked
  - E     EVENTUALITIES consider launch failure and other options
  - C     CANOPY closed, locked and doesn't open with applied pressure
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