

## PREPARATION FOR FLIGHT

The BGA try to communicate with CFI's only when it is seen as helpful or important. We believe that this note highlights some VERY important issues. Please read on.

Over the last few years the BGA has received many incident/accident reports where the glider has not been prepared adequately for flight. Recent analysis of reports has identified that these types of incidents are becoming more frequent. This could be a result of open reporting, of course, but in any case it is likely that it is only a matter of time before more of these 'incidents', including taking off or attempting to take-off with controls disconnected, or with the tailplane not fitted correctly or with wing pins missing or incorrectly fitted become accidents. These types of incidents, which have occurred to new designs with self-connecting controls as well as to the more historic types that require manual connection are linked to two fundamental issues;

- Incorrect Rigging
- Inadequate DI

These two issues can be brought about by;

- Distraction
- Insufficient knowledge of the operation of the aircraft
- Overconfidence

### Rigging and DI

We all know how important it is to not be distracted during an important task that requires our focus. The rigging area can be very sociable. Pilots should be encouraged to avoid distraction and to avoid distracting others. However, as gliding involves humans, errors do occur.

Recommended practice 14 states;

*"After a glider has been rigged, whenever possible, an independent check should be made of structural and flying control connections."*

And after the paragraph about positive control checks, it goes on to say

*"The independent rigging check should be recorded in the glider's daily inspection book."*

Not everyone is able to obtain a check by another person. Who else is familiar enough with the type? Are they available? And not everyone wants to accept or pass on that implied responsibility. This 'independent check' could be carried out by the same experienced person who rigged the glider providing they've walked away from the completed rigging task and then return with sole aim of checking the vital connections. However it is managed, the important point here is that before attempting to get airborne, the small number of vital connection points should be specifically checked by someone who knows what they are looking at.

### Pre-Flight Checks

There were 7 incidents of canopies opening in flight this year, and one very serious accident which resulted from the airbrakes opening during the launch. It doesn't take a rocket scientist to imagine the damage that a canopy could do to a tailplane.

Recommended Practice 15 states that the BGA recommended cockpit pre-flight check is the well-known CBSIFTCBE mnemonic, including

*C CANOPY shut and properly locked*

*B BRAKES. Check operation, closed and properly locked*  
*E EVENTUALITIES. Consider launch failure and other options*

We have all heard or observed variations on this theme. However, if we mix up the order of the checks, the instructor and student can get confused and something will get overlooked. Keeping the checks in the right order makes sense. If the canopy steams up in the few extra seconds it takes to check the last two items, it may be time to put them back in the hangar anyway.

### **Know the Glider...**

We all need to be cautious of what is a changing population dynamic. Consider the numbers of members who used to look after their own gliders and even carried out the annual maintenance themselves under the supervision of a BGA inspector. Most clubs would have groups of members who looked after club gliders. More gliders are now looked after by commercial workshops, and annual maintenance is a chequebook task.

There are less people 'out there' that have an engineering background or interest and expect that everything they operate is so failsafe that they cannot be harmed by their lack of knowledge. That has proved to be a foolish assumption. There have been cases, for example, where a pilot accustomed to a very slack airbrake over-centre lock pushed a very positive one with the same force he was used to and assumed that it must be locked. Another example includes a rigging check of a K8 where the nappy pins for the main pins had been inserted into the only hole that could be seen (the correct hole was full of grease) - right at the end of the threaded portion and thereby avoiding the castellations of the nuts that hold the tapered pins in the correct position.

### **Training**

We now have many sources of information that we can use to help us teach this stuff. The glider flight manual contains the baseline information we need to ensure that the glider is rigged correctly. Even the K13 manual contains an 8 point rigging instruction as well as DI advice. The BGA instructor manual has additional information and can be used to aid training. Please take great care with this important part of a student's training – just like spin training it will help them stay alive. Show them the flight manual & work through the key points. Make sure they understand how the bits work, remembering that many pilots have little technical experience and will probably need to operate connections to fully understand what it is they are checking. It's worth noting that the [Glider Maintenance Schedule](#), as required by EASA regulation, assumes that the glider has been correctly rigged.

### **So what is the BGA asking CFIs to do?**

- Please bring this information to your club pilots attention, including of course private owners
- If it is club policy to conduct annual refresher training, please include some ground refresher training on rigging and DI conduct. Teach that it's good to ask questions and refer to the manual. Note that humans make mistakes, and this must be taken into account. Provide the enclosed extract from the BGA instructor manual to instructors and pupils as a good practice guide.
- Ask that all instructors and students carry out pre-flight checks diligently. Encourage qualified and experienced pilots to do the same.

Further guidance if required can be obtained from Mike Fox – [mike@gliding.co.uk](mailto:mike@gliding.co.uk)