BGA Safety Briefing

BGA Chief Technical Officer, Jim Hammerton, who is a member of the BGA Safety Committee, offers some timely advice

PREPARING YOUR GLIDER FOR THE NEW SEASON

After this period of exceptional winter weather with many airfields closed due to extremely poor ground conditions, we are all waiting patiently for when the day returns when we can get the toys out again. It now appears that Spring has returned and things are drying out, ground conditions improving and the urge to go flying is growing!

Before you jump back in, please take a moment to consider the kit. There are potential hazards that could be waiting for any of us due to the weather and long lay-up.

PLEASE TAKE A GOOD HARD LOOK AT THE GLIDER AND ITS TRAILER (OR T-HANGAR)

First and foremost, establish if the glider suffered any damage from the high winds, falling objects, dampness, leaking trailers or flooding. It is possible that the trailer may have been tipped up then righted itself allowing any internal kit to bounce around. Has anything hit it causing a leak or other damage? Did that area of roof or floor that you were going to fix last year eventually fail and let the elements in? Dampness is a silent killer! Wooden and metal structures that have been wet for any length of time can suffer serious structural degradation. Composite structures are more resilient but not immune. So if in any doubt, get it inspected thoroughly.

Whilst you have the glider out of the trailer for a good look, get the oil can out and lubricate those hinges etc. Don't forget L'Hotellier and self-connecting controls. 3-in-1 oil or Aeroshell fluid 3 is far better than WD40 as after evaporation WD40 does not leave enough oil behind to act as a long term lubricant. Check the internal trim and seat cushions for mould, dampness etc. Fish out any damp objects in the pockets. Is the battery charged? Will it hold charge? Check the tyres for condition and pressure. A thorough check over is needed - more than a routine DI. Look out for nests. Rodents, birds and insects all like to make homes in a dry environment. Found frogs? Then you are in trouble….

Are there any signs of rust on steel or aluminium corrosion? If so, investigation is needed. Look for bulging, gaps appearing between adjoining items or dis-bonding. White or grey powdery deposits on aluminium are the first signs. If you have any doubts whatsoever please ask an inspector to take a look.

If necessary remove inspection panels to look inside the aircraft. And please make sure they are put back properly. If in any doubt, please ask someone with the right experience to help. Exercise and test everything as far as possible. Better to find out its not working on the ground than halfway through the first launch.

When you are happy with the glider, please turn around and look at the trailer. Is it fit for purpose? It may have been standing in water for the past couple of months, so the brakes could be stuck on. Does the coupling work? Do the lights and trailer plug work? Don't forget the tyres (condition and pressure) including the spare. Trailer tyres degrade due to UV well before the tread wears out. The BGA has glider trailer maintenance guidance in AMP leaflet 4-10 available on the BGA web site.

VENTURING OUT!

Now that you have established that the glider is airworthy and the trailer is not going to embarrass anyone, you are ready to go flying. The next job is rigging the glider.

"Glider Integrity" still features prominently in the accident reports. In the main this is where folk forget to connect or improperly connect controls. There are some Golden rules:

- Rigging must be directed by a person experienced on the type, in accordance with the flight manual, without interruption or distraction
- If you are interrupted, go back to the beginning. As a bystander, do not interrupt people who are rigging.
- Make sure the positive control checks are carried out properly using two people, both of who knowing exactly what they are doing and looking for
- If in doubt - ask. Remember that the most stupid question is the one you didn't ask!

OK. Rigged and ready to go. This is where the next problem raises its head, ie getting to the launch point and going flying. It is probable that the airfield is very soft and muddy in places and this is not healthy for the glider.

During tow-out, take-off and landing, mud can quickly build up in wheel boxes and occasionally in the belly/C of G release units. Mud can cause problems like jamming the wheel, preventing retraction and extension of the wheel, impeding brake operation and impeding release operation. Sink into soft ground and you could damage or tear off undercarriage doors. If mud gets in flying controls either by splash or by touching the ground (wing tip), it can cause flying control restrictions. Excessive build up can restrict the available seat weight or change the C of G. Vents, drains and low down pitot tubes can become blocked.

Regular monitoring for mud build up is essential and if necessary careful and thorough cleaning should be carried out before continuing to fly. Don't forget to re-lubricate afterwards if necessary, especially if cleaned with a hose.

If towing a glider with a vehicle, and especially if the tow rope does not have a weak link, be very careful not to over-stress the glider if the wheel becomes stuck when ploughing through mud and soft ground. Please also be careful with tow-out gear if the conditions are soft. If the glider gets stuck you won't necessarily know until it's too late.

And finally, the sun is still low in the sky so any scratches on the canopy will be more apparent. Scratches as well as canopy misting can reduce the effectiveness of lookout.

BGA Safety Committee

March 2014