Engineering News March 2014

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BGA Audit feedback

Attached to the Engineering News you will find a summary of feedback from the 2013 BGA Quality Audits. You should find it interesting reading and help identify areas where we could do better.

When I were a lad!

The short piece that follows was prompted by recent incident reports where, with the best intentions, some aspects of carry-on-equipment design were changed thus allowing the less well informed to fall into traps;

When I were a lad, you expected your car to break down occasionally. You had to build your model aeroplanes before you could fly them, and you had to repair them after you crashed them. Equally, you helped your local inspector to re-cover the K7 every so often, and you almost always got involved with the annual on the club aircraft and of course your own, with an inspector overseeing. Now, cars are serviced at main dealers after driving 20,000 miles. They have devices to tell you the doors aren't closed as you move off and they talk to your smart phone. Model aircraft are generally made out of foam, ready to fly and other machinery you may get involved with have safeguards and caution notices galore with automated systems abound.
Many of the gliders we fly are 30 – 60 years old. They were designed in the days before automatic connecting controls when you were expected to know how things worked. The only way they warn you that the canopy or the airbrakes are unlocked before a flight is a large bang…
Please remember this when you are inspecting / repairing / installing items on aircraft. Keep in mind that the average glider pilot now is not necessarily so aware of technical concepts. Anything that you fit or maintain needs to be as fail safe as possible, if you are replicating or repairing something do not deviate from the design. Canopy mechanisms need to be well maintained to give our pilots a fighting chance of realising things aren't right. Placards need to be clear and easy to decipher. Tow out kit needs to be easy to use, ballast weight fittings need to be unambiguous. You get the idea. Technical common sense isn't that common anymore!

Transition fees

Due to the end of reduced rate CAA transition fees a new rate will apply with effect from 1st April 2014. To allow for processing and query time any transitions received late March 2014 may attract the new fee if the application to the CAA cannot be completed before the end of March. Please see updated fees structure.

Inspector seminars

The full programme to date;

- 22 March 2014 Oxford, Weston-on-the-Green
- 22 March 2014 Highland Gliding Club, Easterton.
- 12 April 2014 Lasham Gliding Society (10.00 start)
- 10 May 2014 Bannerdown Gliding Club, Kevil.
- 16 May 2014 BGA Office – ARC signatory course (10.00 start – 14.00 finish)
- 31 May 2014 Wolds Gliding Club, Pocklington

All 09.30 start unless noted. For more information please visit the BGA Web Site. Booking is essential and via Debbie at the BGA office.

Many inspectors will receive emails advising them that their continuation training is about to expire. This is an automated service directly from our inspector database. There is no need to respond, provided you have booked onto a training seminar that is! If you haven't then it's a reminder to do so. Please remember that your BGA Inspector Authorisation lapses if your training has expired.

Slingsby T61 and T65

You may have seen a recent communication to Slingsby T65 Vega and T61 Falke and Venture owners regarding the surrender of the type certificates by Marshall Defence Group. The BGA are discussing the move with the CAA as well as exploring the possibility of applying for a Type Responsibility Agreement with the CAA for the T61 series to allow reversion to Annex II with CAA C of A as well as progressing the T61F Venture wing life issue to find the best way forward.

It looks like the T65 Vega will transition to EASA Orphan status, exactly the same as the Slingsby Kestrel and Dart.

At the moment the approval situation is unchanged and ARC's can be renewed as normal. As soon as we have further information we will contact owners.

Useful Smartphone Apps

There are a couple of free smartphone apps that could be useful to BGA inspectors both from Norbar Ltd.

Torque Units Calculator – for converting any torque value to another. E. g. NM to Ft.Lbs

Torque Wrench Extension Calculator – for calculating the correction factor if using an offset socket or nut adapter. Grob G109b Spark Plug Wrench for example.

BGA Audit Feedback - 2013

As part of the ongoing audit plan, during 2013 the BGA Quality Group carried out in excess of 100 audits, these included BGA List 1 sites, BGA list 2 maintainers, BGA inspectors, Head Office, BGA Clubs and aircraft audits (EASA and Annex II).

On the whole and considering the vast array of different backgrounds and types of aircraft the standards observed were good with inspectors being diligent with maintenance standards and paperwork. The audit methodology is based on inspector activity and is a risk based approach, this means the more you do the more likely you are to be audited but it does not mean we have forgotten those who are not particularly active as this carries its own, but quite different risks.

Naturally with any community such as ours there is always room for improvement and to help with that we have produced a top 10 list of audit findings and observations for both procedural/paperwork and maintenance standards findings. Alongside each heading is information where you can find further information on the standards expected and required.

Procedural and Paperwork Findings – Top 10

Weighing record not updated, missing or out of date, date of next weighing not noted	*BGA GMP Task 56, CAA Generic Requirement 10, BGA AMP Leaflets 4-1 and 4-2. BGA Compendium various references.*
50 hour checks not recorded in aircraft documentation	*BGA GMP section 1, LAMP section 3.*
Independent inspections not recorded	*BGA GMP section 1, LAMP section 3*
Control deflections not recorded	*BGA GMP section 1, LAMP section 3, BGA Compendium - various references.*
Poor AD recording in log books and on BGA 280	*BGA GMP section 1, LAMP section 3. BGA AMP Leaflet 2-14.*
Maintenance work orders not raised	*BGA GMP section 3*
Work packs not referenced in log books	*BGA GMP section 1, LAMP section 3*
Annual inspections not recorded in log books	*BGA GMP section 1, LAMP section 3*
Life extension checks not recorded in log books	*BGA GMP section 1, LAMP section 3. Various manufacturers Technical Notes.*
Maintenance programme not customised to aircraft	*BGA AMP Leaflet 2-14.*

Maintenance Standards Findings – Top 10

Excessive play in flying controls	*Manufacturers maintenance manual for limits, standard practices.*
Cracked (unrepaired) canopies	*BGA Standard Repairs to Gliders, AC43-13, CAP 562.*
Corrosion, damaged and poor gel coat/paint finish	*BGA AMP Manual leaflet 4-4, 4-5 & 4-6, BGA Compendium - various references.*
Control tape in poor condition	*BGA Inspection 011/12/2000*
Controls binding or damaged	*Manufacturers maintenance manuals.*
Incorrect canopy "tell-tale" wire	*BGA Compendium reference*
Nuts not in safety	*Standard practices, BGA Compendium reference.*
Placards missing/illegible	*BGA AMP Manual Leaflet 2-11, 2-12,BGA 276 ARC renewal check*
Loose or damaged structure	*BGA Standard Repairs to Gliders, General inspection standards, BGA GMP, LAMP*
Poor repairs/recovering	*BGA Standard Repairs to Gliders, Recovering process manuals, various repair manuals.*

Both the BGA and CAA publish guidance on particular inspections and procedures, however some subjects are classed as general standard practices and guidance is not always available in a specific instructional leaflet. In these cases reference should be made to generic standards and training publications.

Recommended reading:

- BGA AMP Manual
- BGA Airworthiness Exposition
- BGA Standard repairs to gliders
- BGA Inspections and modifications
- CAA CAP 562 Civil Aircraft Airworthiness Information and Procedures
- FAA AC 43-13 Acceptable Methods, Techniques and Practices
- Aircraft and engine manufacturers maintenance manuals, repair manuals, technical notes, service bulletins and guidance publications

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