BGA LAWS AND RULES

AIRWORTHINESS REQUIREMENTS

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This document summarises but does not replace the requirements detailed elsewhere in regulation, by manufacturers and in BGA airworthiness publications.

‘Airworthy’ means that the glider conforms to the appropriate legal and technical requirements for safe flight.

‘Maintenance’ is defined as inspection, servicing, repairs, replacements and rectification tasks.

Contents:
1. Annex II Aircraft
2. EASA Aircraft
3. BGA Inspectors
4. Licenced Engineers
5. Responsibilities
6. BGA Support
7. Important Detail for Owners and Pilots
8. Pilot/Owner Maintenance
9. Weight and Balance
10. Daily Inspection
11. Complex Maintenance Tasks
12. Maintenance Records
13. Aircraft Documents
14. Important Information for Club Committees
15. Audit
16. Detailed Information

1. Non-EASA Aircraft

Non-EASA, or Annex II, aircraft are those of historic interest and those whose production was stopped before 1 January 1975. Annex II gliders are certified and maintained under the self-regulated BGA airworthiness system.

Non-EASA, or Annex II, aeroplanes are certified and maintained under national arrangements as required by the UK ANO. For example, the LAA certifies certain aircraft that hold a Permit to Fly rather than a CofA. CAA CAP747 is helpful reference.

2. EASA Aircraft

EASA aircraft are certified and maintained under EASA requirements. The maintenance requirements are defined under the part of the EASA regulations known as ‘Part M’. Part M requirements apply to EASA sailplanes, tugs and motor gliders. The Part M requirements are of course reflected in the BGA’s airworthiness system.
3. BGA Inspectors

BGA inspectors perform and certify maintenance and repairs to non-EASA gliders and EASA sailplanes and powered sailplanes beyond that which the pilot/owner is permitted to carry out. Information about BGA inspector ratings is available in the BGA Airworthiness and Maintenance Procedures on the BGA website. BGA inspectors operate under the BGA’s airworthiness approvals and airworthiness exposition. For details, including how to become a BGA inspector, refer to the Airworthiness Exposition and AMPs.

4. Licenced Engineers

Aeroplane inspectors who certify EASA aircraft are regulated by EASA and hold what is known as a ‘Part 66’ engineering licence. This licence can include various ratings that gives various privileges. A number of organisations that manage national Permit’s to Fly issue their own national inspector ratings which have specific privileges.

5. Responsibilities

Owner
Whether operating an Annex II or EASA aircraft, aircraft owners always have prime responsibility for the airworthiness of their aircraft. Owners should ensure they are familiar with the relevant requirements, the related maintenance programme and the aircraft maintenance manual.

This means that between any maintenance carried out and certified by an engineer or inspector, the owner is solely responsible for ‘maintenance management’. This includes ensuring airworthiness directives are complied with, that any life limited components or inspections are enforced before they run out of life, and that the aircraft is only operated in an airworthy condition. Failure to do this is likely to invalidate the aircraft insurance.

Note – depending on how the club is structured, ‘the owner’ may be the club chairman or the committee members collectively.

Pilot
The pilot is responsible for the satisfactory accomplishment of the pre-flight inspection.

BGA Inspector
In carrying out maintenance and/or signing aircraft documentation including BGA airworthiness documentation, the BGA Inspector accepts personal responsibility for the associated task.

6. BGA Support

The BGA provides airworthiness support to owners of aircraft that are included within the BGA airworthiness system. The support ranges from strategic, for example influencing European and UK regulation, through to direct advice, guidance and support to inspectors and owners maintaining aircraft in the field.

7. Important Detail for Owners and Pilots

I own an Annex II glider. What do I need to know?

Annex II gliders are to;
- Hold a Certificate of Airworthiness (C of A) issued annually by the BGA (an AMP refers)
• Comply with the maintenance programme. An annual inspection is a fundamental requirement.

• Only to be flown if maintained in an airworthy condition.

Visiting, non-BGA Annex II gliders should have a document equivalent to a BGA C of A. Details of the BGA approved procedures for Annex II gliders can be found in the AMP.

I own an **EASA glider**. What do I need to know?

EASA gliders are to;

• Display national registration markings
  Refer to CAA publication CAP523 with additional guidance in the AMP.

• Hold a Certificate of Airworthiness (CofA) or Restricted CofA or Permit to fly
  EASA gliders are required to hold an EASA Certificate of Airworthiness (where there is still factory product support) or Restricted Certificate (where there is no longer factory product support) or an EASA permit to fly (usually for a new type of glider awaiting full certification). The C of A and restricted C of A are non-expiring once issued. The permit to fly has to be validated annually.

• Hold an Airworthiness Review Certificate (ARC)
  A valid ARC is required for flight in an EASA aircraft. The ARC is a review of all legal documentation (apart from insurance) including log books, certificate of registration, C of A, GMP, radio licence, airworthiness directives, lifed items, latest flight manual revision, placards and a brief inspection of the glider. Note that only one day of annual maintenance validity remaining is required to issue an ARC. The ARC is valid for a year. For ARC renewal guidance refer to the AMP.

• Comply with an approved Maintenance Programme
  All gliders operated within the BGA airworthiness system use a generic maintenance programme (GMP) tailored for individual types by the owner/inspector – see AMP for details. The maintenance programme includes an annual inspection. The annual inspection form (BGA form 267) should be tailored for the glider by referring to the tailored GMP. Maintenance is subject to ‘Certificate of release to service’ (CRS) through certification by an approved person. In date annual maintenance is required for flight.

• Only to be flown if maintained in an airworthy condition.

• **NB** to have access to a BGA inspector and/or other BGA airworthiness support, the aircraft must be recorded as being within the BGA airworthiness system. In short, that means it should either have a BGA-issued ARC or have formal BGA airworthiness support in place. For more details, contact the BGA office.

I own an **aeroplane**. What do I need to know?

Aeroplanes are to;

• Display national registration markings
  Refer to CAA publication CAP523.
• Hold a Certificate of Airworthiness (CofA) or Restricted CofA or Permit to Fly as appropriate.
  The C of A and restricted C of A are non-expiring once issued. The permit to fly has to be validated annually. For aeroplane airworthiness procedures refer to the AMP.

• Hold an Airworthiness Review Certificate (ARC), or if Annex II hold a National ARC (a NARC). Not applicable to Permit to Fly aircraft.

• Comply with an approved Maintenance Programme. Maintenance is subject to ‘Certificate of release to service’ (CRS) through certification by an approved person.

• Only to be flown if maintained in an airworthy condition.

8. Pilot/Owner Maintenance

Licenced pilots are permitted to carry out limited maintenance on aircraft they own or jointly own. Qualified persons carrying out Limited Pilot Owner Maintenance must be competent to carry out that maintenance. If unsure seek guidance from your club technical officer or qualified BGA inspector. A pilot licence for BGA purposes is defined as Bronze Endorsement or a CAA issued pilot licence.

Details of pilot/owner maintenance scope and procedures are detailed in the AMP’s.

For club or group owned aircraft, the person performing limited pilot owner maintenance must be a member of the club or group and involved in the decision making process of the club or group (ie a voting member) and appointed by the club or group. Clubs should assess the competence and maintain a register of pilots who are authorised to perform Limited Pilot Owner maintenance tasks on club aircraft.

In many cases, the services of a qualified inspector are needed. Some BGA inspectors are busy professionals and will quite properly charge a commercial rate. It is up to individual owners and inspectors to consider what service is required and to make their own arrangements, commercial or otherwise.

9. Weight and Balance

It is critically important that an aircraft Centre of Gravity is kept within the laid down limits. Replacement equipment, repairs and other factors can cause the mass of an aircraft and/or its component parts to change over time.

Weighing an aircraft is not a simple task and requires calibrated weighing equipment. If in doubt, the advice of an inspector should be sought. Refer to the AMP’s.

Owners are encouraged to seek a copy of the weighing data/report from the inspector or engineer who carried out the weighing.

10. Daily Inspections

The EASA aircraft continuing airworthiness rules identify that the pilot in command is responsible for the pre-flight inspection, and that this inspection must be carried out by the pilot or another qualified person. BGA Operational Regulations state that “All gliders operated from BGA club sites shall be inspected before flying on each day. Club gliders shall be inspected by club approved persons who must sign that the glider is serviceable before it is flown on that day”.

4
The requirement to pre-flight inspect aircraft (i.e., gliders and powered aeroplanes) at BGA clubs is normally achieved by carrying out a Daily Inspection (DI). A DI is a safety critical task. The club, as the operator, is responsible for qualifying and authorising its members to carry out DIs of its club aircraft. The pilots’ age, experience, and training to carry out DIs should be taken into consideration.

Details of how to complete a DI are normally to be found in the Aircraft Flight Manual and the BGA Generic Maintenance Programme (BGA GMP). The DI should be recorded and signed for in the DI book or equivalent.

All pilots are advised that a signed DI does not necessarily mean that at the time of launching the aircraft is fit for flight. A walk-around inspection by the pilot in command immediately before flight is good aviation practice.

11. Complex Maintenance

‘Complex maintenance’ (a Part M definition) is subject to specific requirements. Before taking on for example a repair, or fabric recovering task, etc., inspectors should refer to the complex maintenance AMP to confirm whether or not the task is deemed to be complex and what specific procedure may be needed.

12. Maintenance Records

All maintenance, servicing, repairs, replacements, and defect rectification must be recorded and certified with the appropriate certificate of release to service and these records form part of the aircraft maintenance records.

Maintenance records should be maintained and retained until at least 2 years after the aircraft has been destroyed or permanently retired from service. The aircraft records stay with the aircraft and the owner has a responsibility to transfer the records to the new owner when sold.

Inspectors have a responsibility to retain their own records for 3 years after the maintenance is completed.

Maintenance records include:

- Scheduled & unscheduled maintenance worksheets and sign-off.
- Defect rectification worksheets
- Test results and records
- Details of any special inspections
- Compliance with airworthiness directives
- Duplicate inspection record
- Record of flying hours and engine operation (aircraft log books)
- Release certificates for parts & materials
- Details of modifications including supplemental type certificates

These records should be filed in a suitable folder and in ‘maintenance event’ date order and kept safe and secure from damage or unauthorised interference.
13. Aircraft Documents

It is recommended that the paper documents and certificates for each glider are filed in a transparent wallet. This will keep all the documents for a particular aircraft in one place and easy to reference when needed. The aircraft log book(s) and maintenance programme should be kept in a suitable folder. Keeping aircraft documents safe is important – it should be noted that replacing documents and certificates can be an expensive and time-consuming task.

14. Important Information for Club Committees

Club fleets tend to be well utilised. They are usually operated and flown by some of the least experienced pilots and can lead hard lives. And in many cases, the gliders are old – K8’s, K13’s and Pawnees are common examples. So maintaining club fleets can be quite a challenge. And it’s not just about staying safe. In the event of an accident, one of the first things an insurer will check is whether the glider is compliant with all related requirements.

There are various roles involved in properly maintaining aircraft;

- **The Owner**
  This would normally be the Chairman of the club or, collectively the Committee of Management. The ‘Owner’ is responsible for ensuring that the aircraft is properly maintained and operated. If the aircraft is leased, the owner’s/operator’s responsibilities should be laid out in the leasing agreement. If the aircraft is privately owned and loaned to the club the responsibility remains with the owner but the club should verify everything is in order to satisfy their duty of care.

- **The Maintenance Manager**
  A suitable club member should be appointed by the owner to monitor and manage the ongoing airworthiness of the club’s gliders (a maintenance manager). Part M requires that the person who manages the maintenance of an EASA aircraft is separate from the ARC process. The maintenance manager could be the club Technical Officer (or Aircraft Member/Technical Manager) depending on how a club is structured and the positions within the club. The Maintenance Manager carries out the maintenance management function. There are no formal qualifications required for this role, but an owner could be asked during audit to demonstrate who is fulfilling this task.

A suitable system should be established within the club for reporting and managing defects, as well as ensuring that AD’s, lifed items and on condition parts are addressed between ARCs and annual maintenance.

Those pilot members permitted to carry out pilot-owner maintenance on the club fleet should be listed by the club.

The Airworthiness Certificate or Permit to Fly, annual maintenance and insurance validity periods should be made available to everyone who uses the club fleet. A suitable placard is one way of addressing that. Another is to make sure copies of the documents are easily to hand.

It should be made clear to all club pilots who operate the aircraft whether or not any maintenance is outstanding or any defects exist that affect the airworthiness of a club.
aircraft. Where a club aircraft is known to be unserviceable, that must be made very obvious to club pilots. There are a number of ways of achieving that including documentation, cockpit warning signs, restricting access to the aircraft, etc.

When planning maintenance the, following points may need to be considered:
➢ When are the aircraft needed?
➢ What maintenance is required?
➢ Who is doing the maintenance and their availability?
➢ Workshop space and availability
➢ Arranging for a third party to maintain the aircraft
➢ Parts and materials
➢ Cost and budget constraints

• The Inspector/Licensed Engineer
The Inspector or Licensed Engineer is the person who actually certifies the maintenance and repairs to the aircraft (other than pilot/owner maintenance). He or she will hold a BGA Inspector Authorisation and/or a CAA issued license.

15. Audit
An important responsibility for any airworthiness organisation is to carry out quality and oversight audits of aircraft within its responsibility. To achieve this, the BGA has a quality team including a Quality Manager and Quality Assistants. The Chief Technical Officer and Regional Technical Officers are there to offer guidance and support to clubs where needed.

Club or private owners may be selected as part of a structured audit plan for an oversight visit or, as the need arises, an unscheduled visit. Please allow access, provide assistance and make the aircraft and its records reasonably available for audit.

The CAA also has a responsibility (as part of their oversight of the BGA) to carry out audits. The CAA can carry out formal site audits and Aircraft Continued Airworthiness Monitoring (ACAM) audits.

These are selected randomly and if a club aircraft is selected, the owner has a legal responsibility to make available the aircraft and its records, including log books, maintenance records and certificates as requested at the agreed time and place. The ‘owner’ need not be present but a representative must be.

An audit can result in a ‘Non-Compliance Notice’ containing findings, which must not be ignored. Findings are classified as either Level 1 or Level 2.

• Level 1 findings must generally be answered before next flight.
• Level 2 findings usually have a limited response time depending on the occurrence

If a club has any difficulties the BGA CTO and RTOs are there to offer guidance. If an owner does not agree with any finding or does not understand it, they should refer back to theoriginator for clarification.

16. Detailed Information

Detailed information and guidance is available via the BGA website airworthiness webpages.

Details of BGA inspectors in a local area can be obtained from the BGA office.

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