AIRWORTHINESS EXPOSITION

REFERENCE:	**BGA-EXPO-02**
EASA PART M (F) APPROVAL:	**MF. 0007**
EASA PART M (G) APPROVAL:	**MG. 0279**

8 MERUS COURT

MERIDIAN BUSINESS PARK

LEICESTER

LE19 1RJ

TELEPHONE NUMBER: +44 (0)116 289 2956

FACSIMILE NUMBER: +44 (0)116 289 5025

EMAIL: office@gliding.co.uk

www.gliding.co.uk

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AMENDMENT RECORD

All changes to this document shall be made in accordance with the procedure defined in BGA Standard Operating Procedure 001 (SOP 001). The Quality Manager will show his approval of changes by a signature in the Approval column below.

All amendments are to be registered on this sheet and the Quality Manager is responsible for the technical content and the submission of amendments to Approving Bodies.

Issue No.	Rev. No/Date	Amendment Details	Approval
2	00/01 June 2016	Complete re-issue of Airworthiness Exposition	
2	01/01 Nov. 2017	Removal of list of ARC signatories (Appx. 5) Update of Tug disposition (Appx. 3) Deletion of Deputy CTO position Updated maint. programme text Updated NARC signatory text Minor text corrections	
2	02/01 July 2018	Updated defect reporting process Capability List removed from Appendix 1 and becomes live document held on file in BGA head office Updated ARC signatory currency requirements	
2	03/24 March 2020	Updated to include the addition of Part-ML Supplement Note added to Section 3.1 Note added to Section 4.10 Amendment to Appendix 3 Tug Disposition Minor text corrections	

DISTRIBUTION LIST

There is no defined distribution list for this Exposition. It is published on the BGA web site and any of the content printed from the website for personal use must be marked 'UNCONTROLLED' and managed accordingly.

LIST OF ABBREVIATIONS USED

AAIB	Air Accidents Investigation Branch.
Airworthiness review	The inspection of an aircraft and records to allow the renewal or extension of the ARC
AMP Manual	Airworthiness and Maintenance Procedures Manual
Annex I	Aircraft under EASA control
Annex II	Aircraft not under EASA control and subject to National regulation
ANO	Air Navigation Order (CAA)
Approval	Normally used to approve a company (BGA) or process, e.g. the CAA Approval of the BGA
Authorisation	Used to authorise an individual to carry out a particular task e.g. BGA Inspector Authorisation
ARC	Airworthiness Review Certificate, used to validate the EASA non expiring C of A
BCAR	British Civil Airworthiness Requirements
BGA	British Gliding Association
Bonded Store	A controlled storage for released aircraft parts
CAA	Civil Aviation Authority
CAMO	Continued Airworthiness Management Organisation
CAMO plus	CAMO with I (ARC renewal) privileges
C of A	Certificate of Airworthiness
C of G	Centre of Gravity
Commercial parts	Parts and materials obtained from a non-approved source
Competent Authority	National Agency of EASA e.g. UK CAA
CS-22	EASA Design code for sailplanes and powered sailplanes
CTO (D)	Chief Technical Officer (Deputy)
CRS	Certificate of Release to Service
DOA	Part 21 subpart J Design Organisation Approval
EASA	European Aviation Safety Agency
ELA 1	European Light Aircraft under 1000 kgs.
FAA	Federal Aviation Administration (USA)
Form 1	EASA form for the release of parts (EASA form 1)
Form 15a	ARC issued by the BGA
Form 52	Statement of conformity for a new aircraft
Glider	UK term for sailplane. A non-powered aircraft
Inspector (BGA)	A person authorised to certify maintenance on aircraft within the BGA airworthiness system
Inspector Code	Code letters, e.g. GL, used to identify the ratings or endorsements held by a BGA inspector. Printed on the Authorisation Certificate
JAR	Joint Airworthiness Requirements
JAR Part 22	The European design requirements for Gliders: see CS-22
JAA	Joint Aviation Authorities
LAE	Licensed Aircraft Engineer
LAMS	Light Aircraft Maintenance Schedule
LWTR	Licence Without Type Rating.
M3	A company approved for the renewal of CAA certificates of airworthiness
MIP	EASA Minimum Inspection Programme

MO	Maintenance Organisation
NARC	National Airworthiness Review Certificate
OSTIV	Organisation Scientifique et Technique du Vol à Voile
Overhaul	Return to original specification and zero hours
Part 21	EASA regulation for the design and certification of aircraft
Part M	EASA maintenance regulation
PER	Personal Experience Record or personal logbook
QA	Quality Assurance
Quarantine store	A controlled storage for spares waiting release paperwork or waiting repair. Not available for aircraft use.
Released parts	Spare parts supported by an approved certificate of conformity (stored in a Bonded Store)
Sailplane	EASA term for glider
SDMP	Self-declared maintenance programme
SLMG	Self-Launching Motor Glider
SSA	Soaring Society of America
SSS	Self-Sustaining Sailplane
Standard Part	Optional equipment installed in a sailplane
Star Check	For Annex II powered aircraft. The 3-year C of A renewal inspection.
Subpart F	Part M subpart for Maintenance Organisations
Subpart G	Part M subpart for Continued Airworthiness Management Organisations
Subpart I	Part M subpart for Airworthiness Review Certificate management.
TOR	Terms of Reference.
TMG	Touring Motor Glider
Tug	An Aeroplane designed or modified for the purpose of launching gliders by aero-tow

PART 0 GENERAL AND ORGANISATION

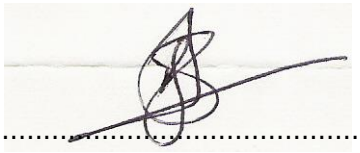
0.1 CORPORATE COMMITMENT BY THE ACCOUNTABLE MANAGER

This Exposition defines the organisation, procedures and referenced manuals upon which the M.A. Subpart F & G approval of the British Gliding Association Ltd under Part M is based.

These procedures are approved by the undersigned and must be complied with, as applicable, in order to ensure that all the continuing airworthiness activities including maintenance for aircraft managed by the British Gliding Association Ltd is carried out on time and to an approved standard. It is my goal as Accountable Manager of the British Gliding Association Ltd to facilitate this process and I personally endorse the quality policy documented in Part 2.1 of this manual.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the European Union from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the CAA will approve this organisation whilst the CAA is satisfied that the procedures are being followed. It is further understood that the CAA reserves the right to suspend, vary or revoke the M.A. Subpart F Maintenance Organisation Approval and M.A. Subpart G Continuing Airworthiness Management Approval of the organisation, as applicable, if the CAA has evidence that procedures are not followed and the standards not upheld.



Signed: ..... Date: 10th June 2016.....

Name: P Stratten ..... Title: Accountable Manager,
British Gliding Association Ltd

0.2 GENERAL INFORMATION

0.2.1 HISTORY

Until the creation of EASA the British Gliding Association regulated all aspects of airworthiness certification, maintenance, pilot and engineer licensing of civilian gliding operations conducted in gliding clubs located in England, Wales, Scotland and Northern Ireland. The three Service sporting gliding organisations, the RAF Gliding and Soaring Association, the Royal Navy Gliding and Soaring Association and the Army Gliding Association, are within the BGA and close liaison is maintained with them. However, Service gliding operations by the Royal Air Force Air Cadet Organisation are not subject to these arrangements.

In 2003 the European Aviation Safety Agency was created to regulate all aspects of Aviation throughout Europe. As part of that process certain aspects such as glider airworthiness that were previously exempt from the ANO regulations were included and now regulated. As a consequence of this all newly registered gliders are required to hold an EASA Certificate of Airworthiness. The maintenance of aircraft issued with an EASA C of A is regulated by EU regulation Part M and as a consequence the BGA now holds Part M subparts F, G and I for the maintenance and continued airworthiness management, including Airworthiness Review Certificates, for the aircraft under its control.

EASA aircraft are designated as either European Light Aircraft (ELA) or Annex 1.

ELA 1: An aeroplane, sailplane or powered sailplane with a maximum take-off mass (MTOM) less than 1200 kg that is not classified as a complex powered aircraft.

Annex 1 for the purposes of this Airworthiness Exposition: Powered aircraft, single engine not classified as complex powered aircraft up to 2730 kg MTOM.

All aircraft registered and under the control of the BGA and declared as Annex II by EASA will remain registered with the BGA and under the control of the BGA.

0.2.2 DESCRIPTION OF THE ORGANISATION

The British Gliding Association head office is located at 8 Merus Court, Meridian Business Park, Leicester. This serves as the administrative headquarters of the organisation and the full time Chief Executive (Accountable Manager) and support staff are based here. High level technical records are stored here and support is available from office staff to administer the Airworthiness scheme.

There are a number of facilities spread across the United Kingdom at which the privileges of the BGA Part M Subpart F and G approval and BCAR A8-24/25 approval are exercised. Professional (List 1) maintainers are listed in Appendix 2 and oversight of the other facilities is managed through the audit schedule and BGA Standard Operating Procedures (SOPs).

The BGA Airworthiness Exposition is published as part of the CAA approval of the BGA to undertake its airworthiness functions. The Airworthiness Exposition is supported by the BGA Airworthiness Maintenance Procedures Manual (AMP) and should be used for general guidance. The aim of the AMP Manual is to give guidance in plain language to inspectors and others to carry out the various airworthiness functions and to offer guidance in the case of manufacturer information not being available.

0.2.3 APPROVAL DOCUMENTS

Approval documents for BCAR approvals DAI/8378/73 and Part M approvals UK.MF.0007 and UK.MG.0279 are published as separate documents alongside the BGA Airworthiness Exposition.

0.2.4 AIRCRAFT MANAGED

Part M Subpart F, Part M Subpart G, BCAR A8-24 and BCAR A8-25 aircraft group type scope of work is contained in Appendix 1.

Tug aircraft are detailed in the Tug Disposition table in Appendix 3.

0.2.5 SCOPE OF WORK

The scope of work associated with the airworthiness support function of the BGA is listed in the following tables and in paragraphs 0.2.5.1 to 0.2.5.4 for EASA regulated aircraft and paragraphs 0.2.5.5 to 0.2.5.7 for CAA regulated aircraft.

MAINTENANCE ORGANISATION APPROVAL: UK.MF.0007		
Class	**Rating**	**Limitation**
Aircraft	A2 - Aeroplanes 5700 kg and below	Piston engine aeroplanes – metal structure not exceeding 5700 kg Piston engine aeroplanes – mixed construction not exceeding 5700 kg Piston engine aeroplanes – wooden structure not exceeding 5700 kg
	A4 – Aircraft other than A2 and A3	Sailplanes and powered sailplanes

CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION: UK.MG.0279			
Aircraft type/series/group	**Airworthiness Review Authorised**	**Permits to Fly Authorised**	**Organisation(s) working under the Quality System**
Piston engine aeroplanes – metal structure not exceeding 5700 kg	Yes	No	N/A
Piston engine aeroplanes – composite structure not exceeding 5700 kg	Yes	No	N/A
Piston engine aeroplanes – wooden structure not exceeding 5700 kg	Yes	No	N/A
Piston engine aeroplanes – mixed structure not exceeding 5700 kg	Yes	No	N/A
Sailplanes and powered sailplanes	Yes	No	N/A

0.2.5.1 Part M Subpart G Continued Airworthiness Management Organisation

Carry out airworthiness reviews and ARC issues for EASA sailplanes, powered sailplanes and tug aircraft not used for Commercial Air Transport.

0.2.5.2 Part M Subpart H Certificates of Release to Service

Issue Certificates of Release to Service for the aircraft types detailed in the BGA Capability list in Appendix 1. Carry out pilot owner maintenance tasks as identified in AMP Leaflet 2-1.

0.2.5.3 Part M Subpart I Airworthiness Review Certificate

Issue ARCs in conjunction with the Part M Subpart G Continuing Airworthiness Management Organisation after suitable airworthiness review.

0.2.5.4 Part M Subpart F Maintenance Organisation

Maintenance and repair of ELA 1 sailplanes, self-sustaining sailplanes and self-launching sailplanes in group A4, and ELA 1 powered aircraft in group A2 as listed in the BGA capability list in Appendix 1.

Appoint BGA Authorised Inspectors for the certification of minor and major maintenance, complex maintenance tasks (as defined in Part M Appendix VII), modifications and alterations to airframes and engines (subject to CS-STAN requirements), repair and rebuild of airframes, inspection and repair of non-type certified engines of sailplanes, powered sailplanes and tug aircraft issued with an EASA Standard or Restricted C of A or Permit to Fly.

Fabrication of, in conformity with maintenance data, a restricted range of parts for use in the course of undergoing work within its own facilities, as identified in Appendix 4.

0.2.5.5 BCAR A8-25 Continuing Airworthiness Management Organisation

Carry our airworthiness reviews, issue NARC certificates on CAA Annex II motor gliders and tug aircraft not used for Commercial Air Transport. Approve and appoint delegated A8-25 sites for carrying out the above.

Make recommendations for the renewal of CAA Permits to Fly on listed tug aircraft (<2730 kg) and motor gliders.

0.2.5.6 BCAR A8-24 Maintenance Organisation

Appoint BGA Authorised Inspectors for the certification of minor and major maintenance to airframes and engines, repair and rebuild of airframes, inspection and repair of non-type certified engines of self-launching sailplanes and touring motor gliders issued with a CAA Certificate of Airworthiness.

Fabricate, in conformity with maintenance data, a restricted range of parts for use in the course of undergoing work within its own facilities, as identified in Appendix 4.

0.2.5.7 BCAR A8-24 Tug Maintenance

Appoint BGA Authorised Inspectors for the certification of minor and major maintenance, modifications and alterations (subject to CAA approval) to airframes (engines - maintenance only), repair and rebuild of airframes only of BGA adopted tug aircraft (rebuild of tug airframes, site dependent) issued with a CAA C of A.

Fabricate, in conformity with maintenance data, a restricted range of parts for use in the course of undergoing work within its own facilities, as identified in Appendix 4.

0.3 MANAGEMENT PERSONNEL

Position	Name
Chairman	Andy Perkins
Accountable Manager	Peter Stratten
Technical Committee Chairman	Howard Torode
Chief Technical Officer	Gordon MacDonald
Quality Manager	Keith Morgan

0.3.1 TERMS OF REFERENCE AND RESPONSIBILITIES

0.3.1.1 The Accountable Manager (Chief Executive)

The Accountable Manager has the overall responsibility for meeting the requirements of Part M. He is responsible for ensuring that all continuing airworthiness activities can be financed and carried out to the standard required by the CAA. He is also responsible for ensuring that facilities, material, tools and sufficient competent and qualified personnel are available in relation to the work to be undertaken. All of this with a view to ensuring that all due continuing airworthiness activities, including maintenance, are performed in accordance with the applicable requirements, regulations and approved standards. The Accountable Manager also has the responsibility for resourcing a deputy for the Chief Technical Officer in the event that the latter becomes unavailable or incapacitated for an extended period.

0.3.1.2 The BGA Chief Technical Officer

The Chief Technical Officer (CTO), who is a full-time employee of the BGA, is responsible for the BGA Part M and BCAR approvals under the direction of the Accountable Manager and technical liaison with the Chairman of the BGA Technical Committee. The CTO should be acceptable to the CAA as an EASA Form 4 holder, hold relevant BGA Authorisations and be the CAA Nominated Engineer for the recommendation of C of A and ARC signatories.

Other duties include:
Focal point for the technical operation of the airworthiness system
Liaison with the administration of the BGA airworthiness and quality systems
Field technical queries from BGA inspectors and owners
Collation and dissemination of airworthiness information
Production of periodic information bulletins to BGA inspectors and aircraft owners
Liaison with the CAA and EASA
BGA Inspector appointment
In conjunction with Regional Technical Officers carry out site visits and audits
Co-ordination of training programmes for BGA inspectors
Attendance at BGA Technical Committee meetings
Deputise for the Accountable Manager as required

0.3.1.3 Quality Manager

The BGA Quality Manager has dedicated Quality Assistants for day-to-day support of the audit process as part of the oversight of the BGA Airworthiness System. These positions are independent of the day-to-day administration of the BGA Airworthiness System. Other personnel with suitable qualifications and experience may be co-opted to carry out audit functions if the need arises, subject to acceptable independence criteria.

Duties include:
Oversight of the BGA Airworthiness System

Directing the quality assistants and any other co-opted personnel
Management of the BGA quality audit schedule
Oversight of and involvement in quality audits
Ensuring audit corrective actions are addressed to the satisfaction of the Accountable Manager
Reporting to the Accountable Manager on the performance of the Quality System
Liaison with the CAA on quality matters
Maintaining quality audit records

The Quality Manager or other quality personnel may not audit any aircraft or facility they have been involved with for maintenance and certification or airworthiness review.

0.3.1.4 Regional Technical Officers

BGA regional technical officers are experienced aircraft engineers who offer their time on a voluntary basis to carry out various aircraft surveys and act as a local contact point and represent the BGA Technical Committee as directed by the CTO. BGA regional technical officers will be entitled to attend Technical Committee meetings. If a BGA Regional Technical Officer or member of the BGA quality group is also a BGA Chief Engineer, he/she may not survey an aircraft that he/she is recommending for a Certificate of Airworthiness issue or renewal or ARC renewal or revalidation.

0.3.1.5 Chief Engineers

The BGA Chief Engineer role is to carry out airworthiness reviews for the issue of Airworthiness Review Certificates and act as the focal point for the owners' continued airworthiness management function. The BGA Chief Engineer can compile reports for the recommendation of CAA Certificates of Airworthiness (Annex II aircraft) renewal. The BGA Chief Engineer must hold relevant BGA maintenance authorisations for aircraft under review. The BGA Chief Engineer may also certify maintenance in accordance with Part M Subpart F.

0.3.1.6 Inspectors

Inspectors fall into a number of categories with ratings that define the extent of their authorised capability. All BGA Maintenance Authorisations will start from Glider Inspector as a base for further endorsements if required. The following categories of Authorisation are available subject to the qualifications and experience of the applicant:

a) Glider Inspector
b) Wooden Airframe Repair
c) Metal Airframe Repair
d) Composite Airframe Repair
e) Self-Sustaining Sailplane
f) Motor Glider
g) Tug Inspector
h) Chief Engineer
i) Senior Inspector
j) Engine Inspection and Repair
k) Electric Powerplant
l) Radio Engineer
m) Jet Powerplant

Detailed procedures for the approval of BGA Inspectors are contained in the BGA Airworthiness Maintenance Procedures Manual. Inspectors and Senior Inspectors are the persons in the field on whom the actual work of inspecting and certifying powered aeroplanes and sailplanes devolves. All BGA authorisations are issued and renewed on instructions of the CTO, records of which are held on file at the BGA Head Office. BGA records include a personal file and data-base record. The delegation of inspection authorisation by the BGA to Inspectors is a privilege that may be suspended or revoked in writing at any time.

0.3.1.7 Club Technical Officers

Gliding clubs are to appoint a Technical Officer (TO). This person is to become the single point of contact at each club for technical matters. It is recommended (but not essential) that the TO holds BGA Glider Inspector Authorisation. Club Technical Officers are persons nominated by the club concerned to whom all technical circulars and other communications of a technical nature may be sent and, working with the club committee, should ensure that the continuing airworthiness and maintenance of club aircraft is managed effectively.

0.3.2 THE BGA TECHNICAL COMMITTEE

The Technical Committee meets periodically to address technical issues pertaining to its published Terms of Reference, which can be found in Appendix 6. The members of this committee serve in a voluntary capacity with the exception of the Chief Technical Officer (CTO) who is a paid employee of the BGA. The committee members are engineers drawn from the UK aerospace and engineering industries with skills and knowledge that are relevant to the technical needs of the BGA.

0.3.2.1 Meetings and Responsibilities

The Technical Committee meets at intervals for the purpose of receiving reports of any technical work that is in hand. The committee also ratifies the appointment or suspension of Inspector and Senior Inspector ratings as recommended by the CTO. Any new faults in sailplanes will also be considered by the Technical Committee, which will then decide the appropriate course of action to be taken.

0.3.2.2 Role of the Chairman

The Chairman of the Technical Committee is appointed by the Executive Committee of the BGA and thereby reports directly to the Chairman of the BGA. The BGA Chairman through the Chief Executive (Accountable Manager) is ultimately responsible for any failure of the BGA to comply with this Exposition, particularly in respect to its terms of reference with the Civil Aviation Authority and the BGA's British Civil Airworthiness Requirements (BCAR) approvals and Part M Subpart F, G & I approvals.

0.3.3 MANPOWER RESOURCES

0.3.3.1 Personnel

The BGA continuing airworthiness management and maintenance activity is based on a small full and part-time BGA employed and volunteer staff and a large full and part-time non-BGA employed and volunteer workforce of inspectors. The positions of Chief Executive and Chief Technical Officer and administration staff are full time employed. The Quality Manager and Quality Assistant are part-time contractors. All other positions are either employed

outside the BGA or voluntary. Direct manpower resources are controlled by the individual engineer or maintenance facility concerned, usually by a simple booking system.

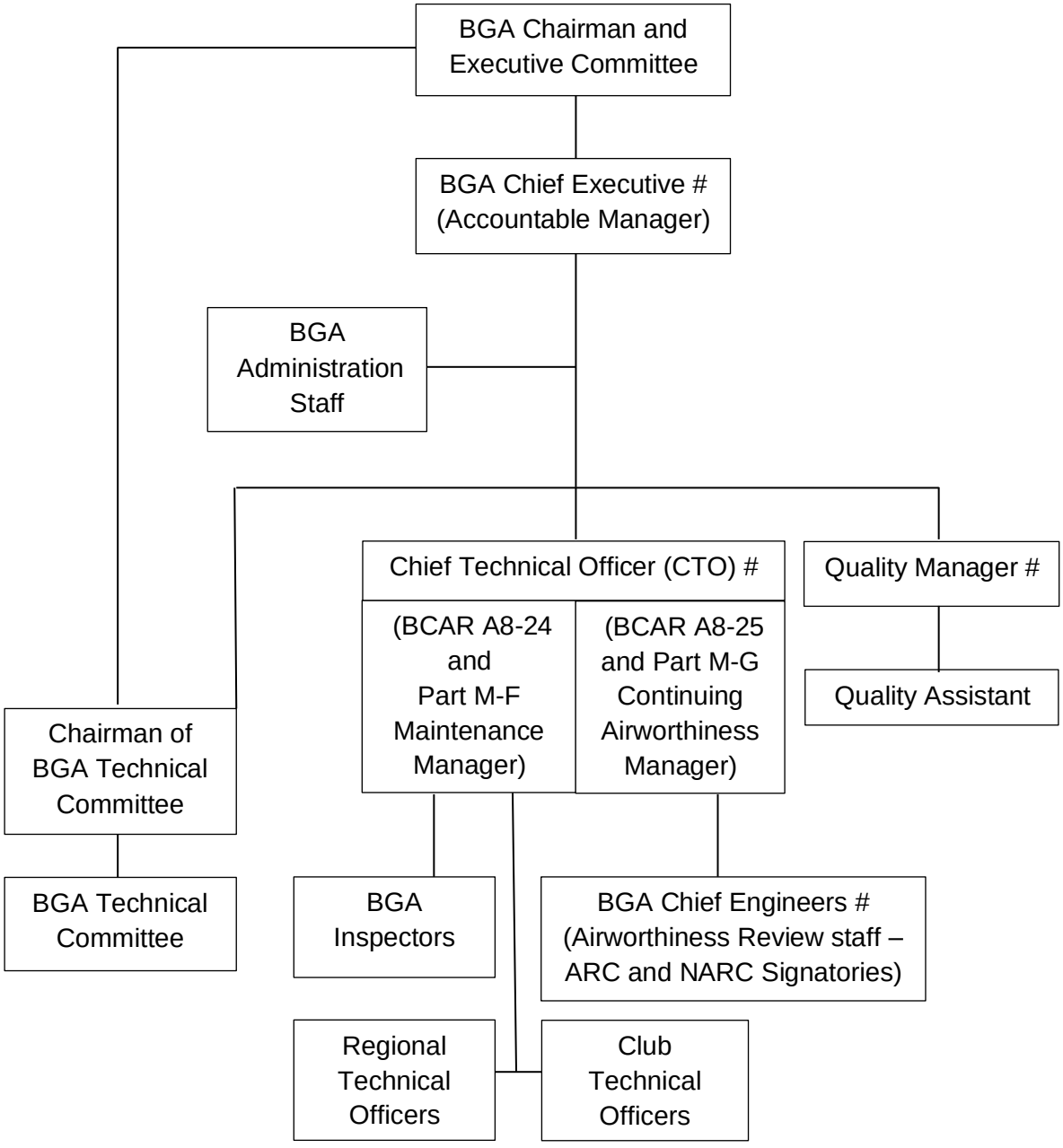
0.3.3.2 Manpower Resources Illustration

Position	Full time staff resources allocation	Part-time staff hours availability	Total staff	Hours available per year
Continued Airworthiness Management				
Chief Technical Officer	100%		1	1500
Senior office staff	7.5%		3	338
Administration support staff	40%		2	1200
Technical Committee Chairman		300 (V) #	1	300
Technical Committee		24 (V) #	8	192
Quality Monitoring:				
Quality Manager and support (contractors)		600 #	2	1200
Regional Technical Officers		100 (V) #	9	900
Continued Airworthiness				
List 1 sites	100% #		17 #	25500
Inspectors		150 #	372	55800
			Total	86930

Illustration for BGA Head Office quality, management and administration, part-time contracted staff and key volunteers for BCAR A8-24/25 and Part M Subpart F and G activities and estimated values for staff engaged in continuing airworthiness activities.

1 man-year = 1500 hours
V = Volunteer role
# = Estimated value

0.4 BGA ORGANISATION CHART (AIRWORTHINESS SYSTEM)



#: These positions require CAA acceptance and CAA Form AD458/EASA Form 4 completion.

Note: A number of Inspectors, Regional Technical Officers and Club Technical Officers are also Airworthiness Review staff (Chief Engineers) but are shown separately for the purposes of this organigram and the maintenance/airworthiness responsibilities of the BGA.

0.5 NOTIFICATION PROCEDURE TO THE CIVIL AVIATION AUTHORITY

0.5.1 EXPOSITION AMENDMENT PROCEDURE

When amendments are required to the BGA Airworthiness Exposition they fall into two categories:

a) Amendments requiring approval by the CAA.
b) Amendments not requiring approval by the CAA and approved under "Indirect Approval."

0.5.1.1 Amendments requiring CAA Approval (Direct Approval)

The following amendments require approval by the CAA:

a) Change of the name of the organisation (British Gliding Association Limited)
b) Location of the BGA head office or principal facilities
c) Additional principal locations of management structure
d) The Accountable Manager
e) The BGA Chief Technical Officer
f) The BGA Quality Manager
g) Principal staff as specified in M.A.606(b) or M.A.706(c)
h) Significant changes to facilities, procedures, work scope and staff that could affect the approval
i) List 1 site addition/removal

Changes in any of the above headings require prior CAA approval by application to the supervising CAA Regional Office.

In the case of changes in personnel not known to the management beforehand, these shall be notified to the CAA at the earliest opportunity.

0.5.1.2 Amendments not requiring CAA Approval (Indirect Approval)

The following amendments may be approved by Indirect Approval:

a) Change of BGA Chairperson
b) Change of BGA Technical Committee Chairperson
c) Changes to BGA Technical Committee Terms of Reference
d) Changes to principal staff Terms of Reference

The above changes shall be approved by the BGA Executive Committee and recorded in the official minutes of the association.

e) Additions or deletions of A8-24 and 25, Subpart F or G Satellite facilities (excluding List 1 sites)
f) Management of the Part M and A8-24/A8-25 capability list
g) Minor changes to the inspector authorisation system and privileges
h) Minor administration changes to the BGA Airworthiness Exposition

The above changes shall be approved by the BGA management team.

Annex II sailplane maintenance programmes - initial issue and revisions for aircraft types can be approved by the BGA Technical Committee.

Minor changes to tug disposition and maintenance sites may be approved by indirect approval in accordance with Part M Appendix IV. These changes shall be recorded during the BGA management meetings and advised to the CAA on an annual basis. Changes to the BGA Capability List will be notified to the CAA on an ongoing basis whenever the list is updated.

Changes shall be notified to the CAA by email or letter as appropriate. The CAA will acknowledge receipt of the notification.

0.6 BGA FACILITIES

0.6.1 HEAD OFFICE LEICESTER (SUBPART F, G & I AND BCAR A8-24/25)

The BGA maintains administrative offices, with adequate office space, furniture, file storage and equipment for the day to day running of the airworthiness system along with other BGA activities. Access to the office is secure with access codes being required at the main office entrance which is also manned throughout the day. In addition to this, a second level of security is provided by coded access to the BGA head office building.

The BGA head office comprises open plan accommodation of ample proportions for the Chief Executive, Office Manager and other administrative staff, with a dedicated archive area equipped with steel storage cabinets. General administration, financial and airworthiness functions are located within the office.

0.6.1.1 Publications

The BGA will maintain a limited technical library with copies of applicable mandatory information published by the CAA or other airworthiness authority. Internet access will also be available for appropriate information, BGA generated inspections and modifications. Publications may be stored electronically when available.

0.6.1.2 Personnel Files

A file will be maintained for each BGA authorised inspector. The files will contain application, assessment and appointment details (for new inspectors), training, ratings and renewal details and any personal or management correspondence.

A computer database will be maintained with inspector appointment, ratings and renewal details. The BGA office manager maintains a record of qualifications, license details, training, EASA Form 4s, a summary of relevant continuing airworthiness review experience and any relevant correspondence for all persons involved in airworthiness management. These records shall be retained for a period of at least two years after airworthiness review staff have left the BGA.

0.6.1.3 Aircraft Technical Records

A computer database will be maintained with registration and Certificate of Airworthiness details for each aircraft. The BGA will maintain general files containing aircraft information and general correspondence.

0.6.2 BGA LIST 1 MAINTENANCE FACILITIES

0.6.2.1 General

The BGA approves a small number of Part M Subpart F maintenance sites to carry out inspections and complex tasks on all gliders within the BGA's scope of approval as part of their routine work processes without having to get technical approval for each task as it arises. These sites are called List 1 sites and they are shown in Appendix 2. These sites require approval by the CAA before they can exercise the privileges granted by BGA List 1 status.

0.6.2.2 Workshop Facilities

The facilities should be commensurate with the level of work undertaken and should include a well organised and clean workshop of suitable size and protection from the elements, with power, lighting and heating as required.

0.6.2.3 Storage

Secure storage facilities must be provided for components, equipment and tools. Adequate tooling must be available for day-to-day maintenance activities. Arrangements must be made for receipt, quarantine and provision of bonded stores for released parts. Commercial (non-released) parts are to be stored separately from released parts. Consumable products, including flammables, are to be stored correctly in accordance with the appropriate procedures or regulations. Contact local HSE if guidance or literature is required.

0.6.2.4 Quality Control

Engineers engaged at each site are responsible for day-to-day quality control. The BGA will be responsible for quality monitoring and audits. Records are to be kept of test equipment calibration and equipment testing. These are to be available for inspection if required.

0.6.2.5 Technical Records

Suitable office space should be provided at each site for the completion and maintenance of technical records.

0.6.2.6 Publications

Health and Safety information and Data Sheets are to be kept available. In addition access to the relevant technical publications should be available as follows:

a) BGA Airworthiness Exposition
b) CAP 747 Requirements for Airworthiness
c) BGA Technical News Sheets
d) BGA Compendium of Airworthiness Directives
e) BGA AMP Manual
f) Parts, maintenance and repair manuals
g) Service Bulletins and Technical Notes

The above publications may be in electronic format.

0.6.3 OTHER BGA MAINTENANCE FACILITIES

0.6.3.1 General

In accordance with Part M, maintenance of ELA 1 aircraft and maintenance of Annex 1 aircraft not involving complex maintenance tasks does not require officially approved facilities. ELA 1 encompasses all BGA sailplanes, powered sailplanes and tug aircraft up to1200 kg MTOM: Annex 1 encompasses single engine non-complex aircraft up to 2730 kg MTOM not used for commercial air transport. BGA inspectors using these facilities should note Part M maintenance standards apply and will be subject to random audit by the BGA Quality Manager/Assistant and CAA as part of product sampling. To ensure appropriate levels of airworthiness can be sustained on Annex II gliders all maintenance activity is to be carried out in suitable accommodation and the standards should be similar to those detailed in Part 4 of this Exposition.

0.6.3.2 BGA Professional Maintainers

There are a number of non-List 1 BGA professional maintainers carrying out inspection, maintenance, repair and ARC renewals on BGA aircraft within the scope of the BGA's approval. Each facility should have a suitable hangar or workshop, adequate tooling and equipment and a robust system for control of aircraft spares. Office facilities must be available to carry out airworthiness review surveys, along with suitable inspection and access equipment. Communication equipment as appropriate should also be available, i.e. telephone and computer with internet access.

0.6.3.3 BGA Club Sites

BGA club sites are not formally approved. Where gliding club facilities are used to perform airworthiness reviews, they should comply with the same basic requirements applicable to the professional maintainers and have a suitable workshop or hangar, appropriate communication equipment and suitable office facilities available to carry out airworthiness review surveys. For club managed gliders a filing system appropriate to the number of aircraft operated should be in place and a "white board" chart or similar is recommended to assist with maintenance management.

Private owners are responsible for the control of maintenance and airworthiness documentation in conjunction with their BGA inspector or Chief Engineer.

0.6.3.4 Publications

In all unapproved facilities where maintenance is carried out access to the relevant technical publications should be available as follows:

a) BGA Technical News Sheets
b) BGA Compendium of Airworthiness Directives
c) BGA AMP Manual
d) Parts, Maintenance and Repair Manuals Service Bulletins and Technical Notes

A list of all non-List 1 facilities is beyond the scope of this Exposition. However, BGA inspectors are required to identify the date and location of maintenance released in accordance with Part M, M A.801(c) at the time of airworthiness review and these locations may be subject to BGA quality audit at the discretion of the Quality Manager.

PART 1 CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES

This Part 1 defines the continuing airworthiness management procedures which the BGA has developed to ensure compliance with the continuing airworthiness aspects of Part M Subpart G. All BGA aircraft are maintained in the uncontrolled environment and continuing airworthiness management is the responsibility of the aircraft owner or operator.

1.1 MAINTENANCE PROGRAMME M.A. 302

The glider must have an M.A.302 compliant maintenance programme which could be either an approved programme or a self-declared maintenance programme (SDMP) not less restrictive than the EASA Minimum Inspection Programme (MIP). The preferred option is the BGA SDMP template documented in the BGA 267. The BGA may assist owners in the development of an initial maintenance programme if requested to do so. The owner is responsible for customising the programme in accordance with all BGA and regulatory requirements. The effectiveness of the maintenance programme or SDMP will be reviewed at each ARC renewal.

1.2 MAINTENANCE PROGRAMME APPROVAL M.A.302

The BGA Technical Committee will review the BGA SDMP template (BGA 267) at regular intervals. Recommendations from the BGA Technical Committee will be added to the BGA SDMP template and promulgated to airworthiness review staff who will then be expected to notify owners at the annual airworthiness review.

1.3 INSPECTION AND MAINTENANCE STANDARDS M.A.402

The inspection standards applicable are those given by the manufacturers of the airframe, engine and equipment and detailed in Part M. Other inspection standards will be adopted if and when these are promulgated by EASA.

All maintenance shall be performed by qualified personnel, following the methods, techniques, standards and instructions specified in the M.A. 401 maintenance data. Furthermore, an independent inspection shall be carried out after any flight safety sensitive maintenance task, unless agreed with the CAA.

All maintenance shall be performed using the tools, equipment and materials specified in M.A. 401 maintenance data. Where necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard.

The area where maintenance is carried out shall be well organised and clean in respect of any dirt and contamination. In the case of inclement weather or lengthy maintenance proper facilities shall be used.

After completion of all maintenance, a general verification must be carried out to ensure that the aircraft is cleared of any tools, equipment and other extraneous parts and materials and that all access panels removed have been refitted.

1.4 DEFECT REPORTING M.A.403

Only authorised BGA inspectors and certifying staff can decide, using M.A. 401 Maintenance Data, whether a defect seriously hazards flight safety and therefore decide what rectification action should be taken before further flight (paragraph 4.9.3 refers).

Aircraft defects should be rectified as soon as possible after the date the defect was first identified.

1.5 DOCUMENTATION M.A.401

The BGA Inspector or BGA Chief Engineer shall have access to, and use only, current maintenance data whilst performing any continuing airworthiness tasks. The following information is promulgated through the BGA website and is available to all persons carrying out an Airworthiness Review function:

a) Airworthiness Directives
b) BGA Inspections and Modifications
c) Glider Maintenance Programme
d) Technical News Sheets
e) Airworthiness and Maintenance Procedures
f) Manual Datasheets
g) Web links to National Civil Aviation Authorities
h) Web links to Manufacturers (Maintenance Manuals, Service Bulletins, Service Letters, etc.)

1.6 AIRWORTHINESS DIRECTIVES M.A.303

It is the responsibility of the aircraft owner in the uncontrolled environment to ensure that all applicable airworthiness directives and airworthiness directive supported mandatory modifications are applied as specified. There is information on the BGA website regarding Airworthiness Directives, Mandatory Modifications, Inspections, Service Bulletins and Tech Note listings for BGA approved types. The detail is updated periodically to assist owners in complying with the requirements. Airworthiness directives will be checked for embodiment as part of the annual airworthiness review.

1.7 MANDATORY MODIFICATIONS M.A.304

All major changes (modifications) will be raised through a suitably approved Design Organisation and submitted to EASA by that organisation. The approval of the change will be by EASA and will be recorded and filed with the aircraft airworthiness records.

1.8 NON-MANDATORY MODIFICATION EMBODIMENT POLICY M.A.304

In the uncontrolled environment it is the responsibility of the aircraft owner to review approved non-mandatory modifications for possible embodiment.

1.9 RECORD KEEPING M.A.305

The BGA head office maintains an electronic file and computer database on each aircraft under its control containing the following post transition information:

a) Database record of ARC's issued
b) Copies of supporting documentation for the issue of an ARC
c) Recommendations for issue or renewal of the ARC
d) In-service difficulty and occurrence reports
e) Correspondence and reports relating to a specific aircraft

All other continuing airworthiness records in the uncontrolled environment are retained by, and the responsibility of, the aircraft owner. The maintenance organisation or inspector that has carried out any work on the aircraft also has a responsibility to hold copies of such records. Records shall be stored in a manner that ensures protection from damage and theft and must be kept for a period of three years from the date that the aircraft or component to which the work relates was issued with a certificate of release to service from the maintenance organisation or inspector that carried out the work. These records include logbooks, component record cards, life-controlled item records, defect sheets and worksheets, mass and balance reports, component release paperwork and EASA Form 1s as applicable. Aircraft records will be sample checked as part of the annual airworthiness review and will also be included in routine BGA audit processes.

1.10 RECORD RETENTION M.A.305

The BGA will retain all records for at least 2 years after the aircraft has been permanently withdrawn from service. All records shall be retained in a manner that ensures protection from damage from fire, flood, alteration and theft. Paper copies of BGA records shall be retained in steel filing cabinets within the BGA head office. Access to the files is only available with the permission of the office manager and access to the BGA head office is security controlled. All computer records shall have a back-up stored in a different location to the main server.

Where an aircraft is transferred to a CAMO outside the BGA the owner shall make all maintenance records available to the new CAMO and where the BGA terminates operation, the records shall be transferred to the owner of the aircraft or as agreed with the competent authority.

PART 2 QUALITY PROCEDURES

This Part 2 of the Airworthiness Exposition defines the continuing airworthiness quality policy and procedures to satisfy the requirements of EASA Part M Subpart G, as specified in M.A.712.

2.1 QUALITY POLICY

The British Gliding Association is committed to the achievement of a high standard of safety and airworthiness at all times for the aircraft falling within its jurisdiction. The procedures and disciplines necessary to achieve these aims are fundamental to this policy and are detailed within this Airworthiness Exposition. Safety is everyone's responsibility and it is the duty of all persons involved in the activities of the BGA to comply with all applicable procedures, standards and regulatory requirements and to report all airworthiness related errors and incidents as they arise.

2.2 APPLICABILITY

The following classes of aircraft are applicable to the BGA Quality System:

a) ELA 1 Sailplanes and Powered Sailplanes issued with an EASA C of A or Permit to Fly under BGA control
b) Sailplanes and Powered Sailplanes issued with a BGA C of A or Permit to Fly
c) Annex 1 and ELA 1 Tug aircraft under BGA control
d) Other aircraft operating at BGA Gliding Sites as part of BGA flying operations (Audit only)

Aircraft located outside the UK and under BGA control are subject to the same audit requirements

2.3 ORGANISATION

2.3.1 RESPONSIBILITY AND AUTHORITY

Every member of the BGA management team as shown in the organisation chart (Part 0, Section 0.4) is responsible for all activities carried out within their department, especially the quality aspects of these activities. It is the responsibility of the Quality Manager to maintain an effective quality assurance organisation within the BGA. The Quality Manager, giving due regard to all available information, has ultimate authority on Quality related issues irrespective of other factors.

2.4 GENERAL

The BGA Airworthiness Exposition defines the quality system and associated procedures to satisfy EASA, CAA and BGA requirements for the adequate oversight of Glider, Motor Glider and Tug airworthiness under BGA control. The system is an integral part of the BGA Safety Management System for the safe operation and oversight of gliding in the UK. This section contains details of the audit programme and Quality reviews carried out at head office and satellite facilities.

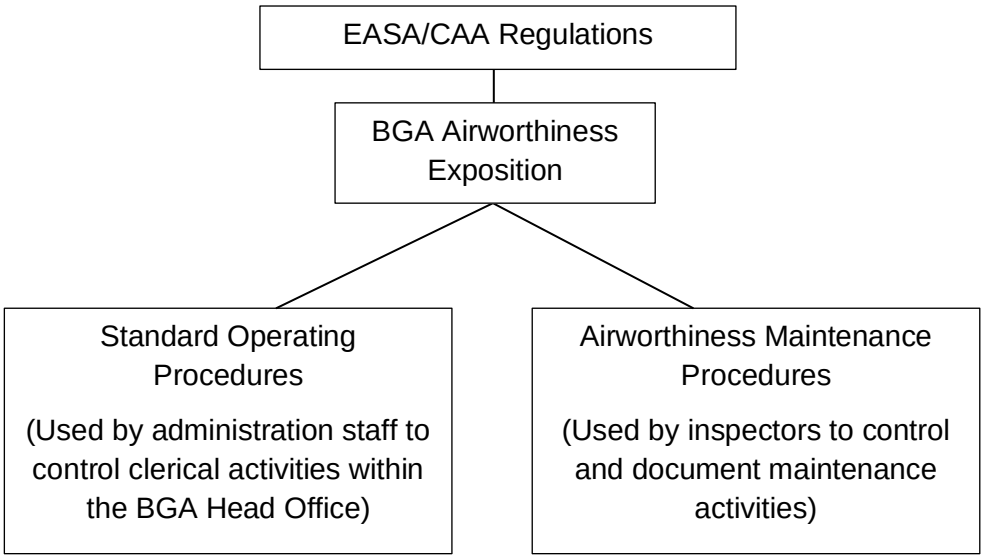
The BGA Quality System is designed to provide an effective overview of continued airworthiness activities independent from BGA administrative staff, maintenance and inspection personnel engaged in the continued airworthiness of the aircraft under the

BGA's control. A report of system performance and its findings is presented on an annual basis to the Accountable Manager and ongoing performance is reviewed regularly at the Airworthiness Meetings.

The BGA Quality System is also designed to support and assist the CAA's surveillance of the BGA Airworthiness System.

2.5 SYSTEM STRUCTURE

The Quality System comprises the Airworthiness Exposition supported by a range of controlling procedures. Procedures are grouped into two systems both under revision control: Standard Operating Procedures (SOPs) and Airworthiness Maintenance Procedures (AMPs).



2.6 PROCEDURE AMENDMENT

2.6.1 GENERAL

BGA procedures are maintained current to reflect best practice. The BGA Technical Committee shall initially approve any technical element to proposed changes to Standard Operating Procedures and Airworthiness Maintenance Procedures. Final approval before incorporation into the approved Quality System shall be by the Quality Manager. Changes to procedures will be verified and validated before use where practicable.

2.6.2 STANDARD OPERATING PROCEDURES

Standard Operating Procedures (SOPs) are used to control clerical activities based at the BGA head office in Leicester. A full list of BGA Standard Operating Procedures is held on computer and in a file in the BGA office.

Note: SOP's are for BGA internal use only and are only available at the BGA office.

2.6.3 AIRWORTHINESS MAINTENANCE PROCEDURES

Airworthiness Maintenance Procedures (AMPs) are used to control airworthiness issues and are made available to BGA Inspectors operating in the field via the BGA website. AMPs are kept under strict revision control with the master file/paper copy being retained at BGA headquarters. A full list of BGA Airworthiness Maintenance Procedures is available on the BGA website. Document issue status is the latest held at BGA headquarters and promulgated through the BGA website.

2.7 APPLICABLE SITES AND FACILITIES

The following sites and facilities are applicable to the BGA Quality System and audit by the BGA:

a) BGA head office, Leicester.
b) BGA gliding sites and clubs as listed in the BGA database.
c) BGA approved maintenance facilities as listed in Appendix 2.
d) BGA inspectors and workshops as listed in the BGA database.
e) BGA inspectors carrying out one-off complex repairs.

2.8 MANAGEMENT STRUCTURE

2.8.1 QUALITY MANAGER

The BGA contracts in a part-time Quality Manager to provide overall direction and guidance for staff engaged in the Quality System. The Quality Manager is independent of the day-to-day administration of continuing airworthiness and the management issues of the BGA Part M, Subpart F & G and the BCAR A8-24/25 approvals and reports directly to the Accountable Manager. Full terms of reference for the Quality Manager are found in this BGA Airworthiness Exposition Part 0, para. 0.3.2.

2.8.2 QUALITY GROUP

The BGA Quality Manager shall recruit a small group to assist with the operation of the BGA Quality System. In the current organisation the Quality Manager has two Quality Assistants for day-to-day support of the audit process and these three positions are independent of the day-to-day administration of the BGA Airworthiness System. If required, other personnel with suitable qualifications and experience can be co-opted to carry out auditing, including BGA Inspectors or Regional Technical Officers, subject to acceptable independence criteria. The Quality Manager and other members of the Quality Group may not carry out any audit function at any BGA Club or facility they are connected with, or on any aircraft they own, have any personal connection with or certify maintenance on located at any BGA Club or facility.

The structure of the BGA Quality Group is determined by the BGA Quality Manager, agreed by the Chairman of the Technical Committee and approved by the BGA Executive.

2.9 QUALITY RECORDS

The following documents constitute Quality Records and shall be retained for a minimum of two years and be made available for review by the CAA as part of the continued oversight of the BGA:

a) Quality reviews
b) Records of Quality audits and associated corrective actions
c) Records of club and site visits by CTO or RTO
d) Recommendations for ARC issue
e) Technical Committee meeting minutes including feedback from BGA Inspectors and the effectiveness of the BGA Glider Maintenance Programme (GMP)
f) All technical data generated in support of modification approval
g) Mandatory Occurrence Reports

2.10 DESCRIPTION OF THE BGA AUDIT FUNCTION

2.10.1 OVERVIEW

The audit scheme is designed to periodically examine each area of the airworthiness operation. Auditors shall verify that EASA Part M regulations and the procedures specified in the BGA Airworthiness Exposition have been followed and appropriate records maintained. BGA Standard Operating Procedures contain the checklists for all types of audit carried out by the Quality Group. An audit report recording observations, recommendations and where necessary corrective actions shall be produced in every instance. This information is used to ensure both the timely correction of any system deficiency and where revised procedures would be of benefit to operation of the continued airworthiness system.

Previous audit findings shall be reviewed during subsequent audits to establish if there are any underlying trends or repetitive items that may require action. A comprehensive summary of audit findings shall be presented to the Accountable Manager during the annual Organisational Review.

2.10.2 AUDITOR SELECTION AND EXPERIENCE

Auditors shall be selected based upon their previous experience and/or formal auditing qualifications. No auditor shall audit an area of the operation for which they have a close association during normal working activities.

2.10.3 INTERNAL AUDIT

Internal audits are carried out on continuing airworthiness procedures and recording processes at the BGA Head Office at Merus Court, Leicester. The following activities are sampled for compliance with the requirements:

a) CAA ARC renewals
b) Modification applications
c) Complex repair applications
d) C of A Transitions
e) CAA C of A renewals
f) BGA C of A issues or renewals
g) New applications and Inspector upgrades
h) Inspector renewals

2.10.4 EXTERNAL SITE AUDIT

Site audits are normally pre-scheduled and are primarily carried out by the Quality Manager or Quality Assistant. Random audits may also be carried out during times of high workload and to ensure consistency across the external audit programme. Site audits are either List 1 sites (see Appendix 2) or List 2, which is all other maintenance sites consisting of all gliding clubs and other professional maintainers. All clubs and maintainers are listed on the BGA head office database in Leicester.

During a site visit the auditor shall plan the audit using the requirements for a maintenance facility as set out in Part M Subpart F, modified to take into account the declared capability of the particular site, and review maintenance and ARC renewal activities. An audit report containing corrective actions, observations and agreed timescales for any corrective actions shall be raised in every instance. During site visits, the opportunity will be taken to listen to feedback or comments on BGA general matters. Overall, the aim of the audit process is to promote BGA policy and procedures to raise and maintain sailplane airworthiness standards and to verify compliance with Part M and the relevant procedures as specified in the Airworthiness Exposition and AMPs.

Hangar and general facilities:

a) Review of aircraft documentation, logbooks and maintenance records.
b) General inspection of stores and procedures for stock control and component segregation.
c) Surveillance inspection of hangars, maintenance workshops and aircraft storage arrangements.
d) Environmental protection arrangements

Workshops and repair facilities:

a) Use of appropriate workshop practices.
b) Adequacy of accommodation for depth of intended maintenance/repair.
c) Surveillance of the general condition of facilities, including access and housekeeping.
d) Availability of tooling and equipment appropriate to the task, including calibration as required.
e) Availability of maintenance information, including AD's, Maintenance Schedules etc.
f) Appropriate staffing levels
g) Correct issue status and use of BGA documentation and procedures.
h) Appropriate health and safety requirements

2.10.5 AIRCRAFT AUDIT

The audit schedule is designed to include aircraft audits as part of the process carried out by the Quality group and a minimum of two aircraft will be included on each occasion. These will be selected prior to each audit based on inspector workload and site availability and will generally include both club and privately owned gliders. In addition, BGA C of A issue/renewal applications, EASA C of A issue applications or ARC issues may be used to select aircraft for audit on an ad hoc basis.

Annex II aircraft will also be subject to audit, although they may be included in a scheduled club audit if appropriate. Tug aircraft will generally be audited as a separate

element of the annual programme, although they may also be included in club audits if required.

An aircraft shall not be audited by any auditor who has had any involvement in any part of its maintenance regime. Details of any findings will be forwarded to the Competent Authority of the state of registry on request. In the case of the UK CAA, findings will be retained for review on request.

2.10.5.1 Audit content

The aircraft audit shall include, but not be limited to, the following activities:

a) Examination of Airworthiness Review reports
b) Physical survey of selected aircraft
c) Review of modifications to ensure correct compliance and embodiment
d) Review of AD compliance list
e) Review of repair activity and associated logbook entries

2.10.5.2 Presentation of Aircraft

Following formal notification in writing (hard copy or electronic) by the BGA, it is the owner's responsibility to make the aircraft selected for audit available at a suitable location for audit. Adequate facilities, i.e. hangar or workshop, must be available along with all of the associated aircraft documentation. Aircraft and facilities not based in the UK are subject to site visits and random audit requirements as if they were based in the UK. At the option of the BGA, it will be the owner's responsibility to either present the aircraft at a suitable location on the UK mainland or reimburse all expenses incurred by the BGA for on-site visits outside the UK.

For the purposes of this Exposition, UK is defined as UK mainland, Northern Ireland, Isle of Wight, Scottish Isles, Isle of Man and Isles of Scilly. The Channel Isles, BFPO and other UK territories are deemed outside the UK.

2.11 AUDIT PLANNING

2.11.1 HEAD OFFICE

Head office audits shall be completed every 12 months. If significant changes are made to the approval that require a variation to the approval by the competent authority or level 1 findings are found, the audit period will revert to 6 months for the following 2-year period. Each audit is identified by a unique sequential reference number.

During the auditing and Quality Review process the audit group shall monitor human factor elements to identify aspects of human performance that would adversely affect performance of duties associated with continued airworthiness.

2.11.2 BGA APPROVED FACILITY

Audits of BGA approved List 1 facilities shall be carried out every two years. If any significant issues are found during the audit process the BGA Quality Manager may reduce the period between audits to 12 months or less, depending on the severity of the finding(s).

2.11.3 CLUB AUDITS

Audits of gliding club maintenance facilities (List 2) shall be carried out at approximately four yearly intervals. Where a club does not have any maintenance facilities, audits of aircraft and their associated maintenance records will be carried out.

2.11.4 NON-LIST 1 PROFESSIONAL MAINTAINERS

Audits of BGA non-List 1 professional maintainers' (List 2) facilities shall be carried out at approximately two-yearly intervals.

2.11.5 AD-HOC AUDITS

Unscheduled audits of maintenance facilities may be carried out by the Quality Group. The findings of unscheduled audits are analysed and presented in the Head Office Quality Review, para. 2.15.

2.12 AUDIT SCHEDULE

The audit schedule is determined by the Quality Manager and agreed and approved by the BGA Chief Executive (Accountable Manager). The audit year is split into quarters, with each quarter requiring up to eight audits of List 1 and List 2 sites, as well as annual head office Subpart F and G audits. The basic schedule for List 2 sites is driven by inspector activity and club visits and the total programme is expected to repeat over a period of approximately four years. A copy of the schedule is held on the computer system at BGA head office and is available on request to relevant parties. The Quality Manager is responsible for ensuring that audits are carried out in accordance with the schedule requirements.

2.13 TRACKING CORRECTIVE ACTIONS

The audit schedule is raised and maintained by the Quality Manager. All audit activity is recorded by administration staff on a computer database at BGA head office. The database contains details of each audit, including the auditor, the date the audit was carried out, the number of findings raised, the agreed timescale and the date of closure. On completion of an audit it is the responsibility of the auditor to monitor corrective actions, ensure that they are satisfactory and notify administration staff of the date of audit closure. The master schedule is located at BGA head office stored on the shared drive (protected).

2.14 AUDIT REPORTING AND CLASSIFICATION OF NON-CONFORMANCES

Audit findings shall be qualified as level 1 or level 2.

a) Level 1 is a finding that requires immediate action because of non-compliance with the regulations that could jeopardise aircraft safety

b) Level 2 is a finding that may be corrected in an agreed timescale due to procedural inconsistencies that would not jeopardise aircraft safety

At the discretion of the BGA Quality Manager, a Level 1 finding will suspend any ARC or BGA C of A if found on an aircraft under BGA control or at an approved BGA facility, or

will result in the suspension of Inspector Authorisation, if appropriate, until suitable corrective action has been accomplished.

2.15 HEAD OFFICE QUALITY REVIEW

As part of the BGA Quality System the organisation shall carry out internal audits to establish that the processes and procedures are suitable for the safe continued airworthiness of aircraft and to ensure that the requirements of the relevant regulations are being met. An annual audit of current head office airworthiness processes, detailed in BGA Standard Operational Procedures (BGA SOPs) will be carried out against the requirements of Part M, BCAR and BGA requirements and recommendations made as necessary. The BGA GMP shall be reviewed by the BGA Technical Committee and Chief Technical Officer, taking into account developments in sailplane design, errors and omissions notified or identified in the maintenance programme. The BGA Chief Executive (Accountable Manager), Quality Manager, Chief Technical Officer, Chairman of the Technical Committee and other attendees as requested by the Accountable Manager, shall be engaged in a Quality review of BGA Airworthiness processes and procedures. This Quality review shall be called the Airworthiness Organisation Management Meeting, will be chaired by the Accountable Manager and will satisfy the organisational review requirement under Part M, M.A. 616.

The Airworthiness Organisation Management Meeting will be held at least twice a year and shall cover the following aspects:

a) A review of any audits carried out by the UK CAA or EASA
b) Status of the BGA Quality Management System
c) A review of the internal audit programme
d) A review of the external audit programme (including RTO audits)
e) An overview of the BGA C of A, CAA C of A, EASA C of A and ARC issuing process
f) A review of any Technical Occurrence reports raised during the reporting period
g) A review of any airworthiness related complaint raised against the BGA
h) A review of MORs and any serious incident/accident event
i) Inspector appointment, upgrade, renewal and disciplinary procedures
j) BGA Staffing levels
k) A report on audit non-conformances and audit performance, which will be produced at least once a year for review and discussion at this meeting

The BGA Airworthiness Organisation Management Meeting will satisfy the EASA Part M organisational review requirement. In the event of meetings not being regularly held the annual quality review will become due after one year.

PART 3 AIRWORTHINESS REVIEW PROCEDURES

The primary facility is the BGA Head Office, Leicester, where the CAMO activity is co-ordinated. Each BGA Chief Engineer will utilise a Subpart F maintenance facility if required for the class of aircraft, or other BGA List 2 maintenance facility, for the survey and documentary review.

Each facility will have a suitable office for review and retention of records to establish scheduled maintenance requirements, AD compliance, control of out-of-phase inspections, life-controlled items and time limited tasks, modifications, weighing, deferred defects and ARC expiry/renewal on aircraft managed.

3.1 AIRWORTHINESS REVIEW M.A.710

Every year a BGA Chief Engineer will carry out a full airworthiness review and renew the ARC on satisfactory completion of the review. The BGA Chief Engineer is also empowered to carry out airworthiness reviews for the initial issue of an ARC to enable the BGA to make a recommendation to the CAA. The airworthiness review shall not be sub-contracted to a third party and is the responsibility of the BGA Chief Engineer. The BGA Chief Engineer may be assisted by maintenance staff qualified to Part 66 or BGA inspector authorisation.

Note:

With effect from 24 March 2020 see the Part ML Supplement of this Exposition, para. ML.3, for further information before issuing an Airworthiness Review Certificate.

3.2 FULL DOCUMENTATION REVIEW PROCEDURE M.A.710

An airworthiness review, both documentation and physical, shall be carried out in accordance with AMP Part 2, Leaflet 2-11. To satisfy the requirement for an M.A. 902 airworthiness review, a full documented review of the aircraft records shall be carried out by the BGA Chief Engineer at the BGA facility and recorded on form BGA 276.

3.2.1 DOCUMENTATION REVIEW

Suitable offices shall be available to examine aircraft records and appropriate reference information must be available in order to be satisfied that the following documents are available and satisfactory:

a) Registration papers
b) List of deferred defects, minimum equipment list and configuration deviation list if applicable
c) Aircraft Flight Manual including aircraft configuration
d) Aircraft Maintenance Programme
e) Powered aircraft (tugs, SLMG, TMG)
f) Sailplanes (gliders, self-sustaining sailplanes) BGA GMP until superseded by BGA SDMP
g) Maintenance data
h) Relevant work packages
i) AD status
j) Modification and SB status
k) Modification and repair approval sheets
l) List of service life limited components
m) Relevant EASA Form 1s or equivalent

n) Mass and balance report and equipment list
o) Aircraft, engine and propeller TC Data Sheets

As a minimum, sample checks within each document category should be carried out. Part of the sample checks shall be to ensure that applicable maintenance data is current.

3.2.2 PHYSICAL SURVEY

A physical survey of the aircraft shall be carried out by a BGA Chief Engineer in a suitable hangar or workshop to ensure that:

a) All required markings and placards are properly installed (markings and placards as required by the approved flight manual, approved modifications, TCDS/SAS or EASA/CAA requirements).
b) The aircraft complies with its approved flight manual (the configuration and modification state of the aircraft complies with the flight manual, including approved supplements).
c) The aircraft configuration complies with the approved documentation
d) No evident defect can be found that has not been addressed.
e) No inconsistencies can be found between the aircraft and the documented review of the aircraft records.

The physical survey may include internal inspection through access panels or with the aircraft de- rigged or supported on jacks/trestles as appropriate and could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, etc.). In this case, after the Airworthiness Review, a certificate of release to service should be issued in accordance with Part-M. The BGA Chief Engineer must ensure that maintenance staff are alerted and the requirement is recorded.

The depth of inspection required will be determined by the BGA Chief Engineer accomplishing the survey and may include verifications to be carried out during flight. To ensure compliance the physical survey may include relevant sample checks of items. The physical review shall be recorded on form BGA 276.

3.3 AIRWORTHINESS REVIEW ANTICIPATION

The Airworthiness Review may be anticipated by up to 90 days without loss of continuity to allow the physical review to take place during a maintenance check.

3.4 AIRWORTHINESS REVIEW CERTIFICATE (ARC) M.A.901

3.4.1 ARC PROCESSING

The normal process will be that a BGA Chief Engineer with "ARC Signatory" endorsement will carry out the airworthiness review and forward a report to the BGA office at Leicester. The renewal report will consist of a BGA 276 Airworthiness review checklist and a signed copy of the issued Airworthiness Review Certificate within 5 days of issue. The ARC copy will be forwarded to the CAA by scanned email or as agreed with CAA Applications and Approvals Department to comply with the 10-day notification period. A scanned copy of the ARC and BGA 276 is retained in a dedicated aircraft electronic file. The process is described in detail in BGA AMP Leaflet 2-11.

3.4.2 ARC VALIDITY M.A.902

The BGA will not issue an ARC or any issued ARC is invalid if:

a) The ARC is suspended or revoked
b) The Airworthiness Certificate is suspended or revoked
c) The aircraft is not on the register of a member state
d) The type certificate under which the Airworthiness Certificate was issued is suspended or revoked

An aircraft must not fly if the airworthiness certificate is invalid or if:

a) The continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of Part M, or:
b) The aircraft does not remain in conformity with the type design approved by EASA, or:
c) The aircraft has been operated beyond the limitations of the Approved Flight Manual or the airworthiness certificate, without appropriate action being taken, or:
d) The aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness, or:
e) A modification or repair has not been approved in accordance with Part 21.

3.4.3 ARC SURRENDER M.A.902

If an ARC is surrendered or revoked it shall be returned to the CAA.

3.4.4 INCONCLUSIVE REVIEW

Should the airworthiness review be inconclusive the matter will be referred to the BGA who will review the case and advise the CAA in writing of its findings. A copy of all documentation raised shall be retained inthe aircraft/glider file located in the BGA head office, Leicester.

3.4.5 PRIVILEGES OF THE ORGANISATION

The BGA shall, upon completion of a satisfactory airworthiness review, issue the ARC or make a recommendation to the CAA to issue or renew the ARC.

3.5 AIRWORTHINESS REVIEW STAFF (BGA CHIEF ENGINEER) M.A.707

Airworthiness Review staff are drawn from BGA inspectors holding a current Chief Engineer (CE) endorsement. Comprehensive procedures controlling eligibility, training and training validation for Chief Engineers are detailed in the BGA AMPs. Chief Engineers will attend a seminar and have training to include an examination.

Details of each BGA inspector, including name, address, approval number, currency and, where appropriate, EASA Form 4, are held on a database and personal file at BGA Headquarters, Leicester. Inspectors holding a Chief Engineer endorsement are required to hold EASA Form 4 approval and have their airworthiness review authorisation reference entered on the database before carrying out an Airworthiness Review.

Access to the list of EASA Form 4 approved BGA Airworthiness Review Staff and ARC signatories approved in accordance with M.A.707 is detailed in Appendix 5.

The list of Airworthiness Review staff will be continually updated. Staff appointed will be recorded on the BGA database and BGA personal file that is available for inspection by the CAA on request.

3.5.1 ADDITIONAL CHIEF ENGINEER REQUIREMENTS

Candidates for Chief Engineer, to comply with M.A.901(i), must meet the following criteria:

Sailplanes and Powered Sailplanes

a) 3 years' experience in continuing airworthiness; and
b) Hold a position within the BGA with appropriate responsibility; and
c) Hold applicable BGA maintenance authorisation; and
d) Attended BGA Airworthiness Review training; and
e) Carried out an Airworthiness Review under supervision

Tug aircraft, additionally:

Hold a Part 66 engineer's licence for Annex 1 aircraft and/or BCAR section L for Annex II aircraft.

Existing ARC signatories with other organisations may apply for BGA ARC/NARC signatory status without further training as follows:

a) Current ARC/NARC signatory – Interview by CTO/RTO to ensure understanding of BGA procedures
b) Lapsed ARC/NARC signatory – Airworthiness Review under supervision and interview by CTO/RTO to ensure understanding of BGA procedures

In both cases a copy of the other company's Form 4 with CAA endorsement shall be held on file and referenced on the BGA Form 4 application.

For Tug aircraft, in addition to TG, the person making the report must also hold a Part 66 licence. If the person only holds a BCAR section L licence he/she may only furnish reports for Annex II aircraft.

May issue Certificates of Fitness for Flight under 'A' Conditions for Annex II aircraft for C of A renewal flight testing or positioning.

Only gliders, self-sustaining sailplanes, self-launching motor gliders and glider tugs within the BGA airworthiness organisation may be processed through the BGA CAMO.

3.5.2 PRIVILEGES OF THE CE AUTHORISATION

a) May carry out Airworthiness Reviews for the Issue or renewal of Airworthiness Review Certificates i.a.w. MA.710 provided he/she also holds the appropriate BGA maintenance authorisation (GL, SS, MG, TG) and may issue or recommend the issue of an ARC using the BGA Part M Subpart G Continuing Airworthiness Management Organisation (CAMO).
b) May **not** carry out an airworthiness review on any aircraft he has been involved with for the continued airworthiness management of that aircraft.
c) The Chief Engineer may also make recommendations for CAA C of A renewals (BCAR

A8-25) by furnishing reports to the BGA Nominated Engineer.

3.5.3 CURRENCY REQUIREMENTS

In order to keep their authorisation current, ARC signatories should have conducted at least one airworthiness review in the last 12-months period.

In order to restore the validity of an authorisation, an ARC signatory should conduct, at a satisfactory level, an airworthiness review under the supervision of another currently valid authorised BGA ARC signatory.

3.6 ADDITIONAL PROCEDURES FOR RECOMMENDATION TO COMPETENT AUTHORITIES FOR THE IMPORT OF AIRCRAFT

3.6.1 TRANSFER OF AIRCRAFT WITHIN THE EU

a) To enable BGA assistance the owner shall enter the aircraft into the BGA Airworthiness system
b) The current ARC will remain valid until its expiry date
c) The aircraft owner will register the aircraft with the CAA, apply UK registration marks and apply for a replacement Airworthiness Certificate and ARC amendment using guidance information in AMP Leaflet 3-7
d) The owner will forward the application for the replacement of the Airworthiness Certificate and ARC amendment to the CAA

3.6.2 AIRWORTHINESS REVIEW OF AIRCRAFT IMPORTED INTO THE EU

When importing an aircraft onto a Member State register from a third country, the owner shall:

a) To enable BGA assistance the owner shall enter the aircraft into the BGA Airworthiness system
b) Register the aircraft with the CAA and apply registration markings, apply for the issue of an Airworthiness Certificate (C of A) and ARC using guidance information in AMP Leaflet 3-7
c) For new aircraft: apply to the Member State of registry for the issuance of a new airworthiness certificate in accordance with CAA requirements
d) For aircraft other than new: have an airworthiness review carried out by a BGA Chief Engineer
e) Have all maintenance carried out to comply with the approved maintenance programme in accordance with the BGA GMP or LAMP as appropriate
f) Forward an application to the CAA for the issue of an Airworthiness Certificate and ARC by forwarding the documents listed in AMP 3-7
g) The owner shall allow access to the aircraft for inspection by the CAA
h) A new airworthiness certificate will be issued by the CAA when it is satisfied that the aircraft complies with the requirements of Part 21
i) The CAA shall also issue the airworthiness review certificate valid normally for one year unless the CAA has a safety reason to limit the validity

PART 4 MAINTENANCE ORGANISATION PROCEDURES

This section details the procedures to satisfy the requirements of EASA Part M Subpart F for ELA 1 sailplanes. The requirements apply specifically to List 1 sites, but other sites where maintenance is carried out are expected to conform to these procedures where possible and proportional to the size of the facilities and the level of maintenance carried out.

4.1 EXTENT OF APPROVAL M.A.603

4.1.1 SCOPE OF WORK

The BGA capability list for EASA Part M Subparts F and G is detailed in Appendix 1.

4.1.2 FABRICATION OF PARTS

A restricted range of parts may be fabricated in conformity with maintenance data. The approved data necessary to fabricate the part are those approved either by the CAA, the TC holder, Part 21 design organisation approval holder, or STC holder. It is not permitted to manufacture any aircraft part to pattern, and it is not permissible to manufacture any part that would normally be available from the TC holder or other approved source.

Items fabricated by BGA inspectors as part of the BGA approved maintenance organisation may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components undergoing work within its own facility. The permission to fabricate does not constitute approval for manufacture or to supply externally and the parts do not qualify for certification on EASA Form 1. The manufacturing process must be within the competence of the BGA inspector and facility carrying out the task.

Parts fabricated by the BGA Subpart F Maintenance Organisation must be marked, where appropriate, as follows-

Drawing number or part number identified on the drawing, with the suffix 'BGA,' e.g. A12345-678 BGA.

4.1.2.1 Components that can be fabricated under BGA Subpart F Approval

The following list is intended to be a guide as to the type of component that can be fabricated by a maintenance facility:

a) Fabrication of bushes, sleeves and shims
b) Fabrication of secondary structural elements and skins
c) Fabrication of control cables
d) Fabrication of flexible and ridged pipes
e) Fabrication of electrical cable looms and assemblies
f) Formed or machined sheet metal panels for repairs

For a comprehensive list and limitations refer to Appendix 4. BGA Inspectors and Part 66 Licensed Engineers should consult the BGA Chief Technical Officer if the complexity of the task is in question.

4.1.2.2 Inspection and Identification

Locally fabricated parts are to be inspected for conformance with drawing requirements before being incorporated into the aircraft structure. An entry to this effect shall be made in the relevant work pack.

4.2 MAINTENANCE ORGANISATION MANUAL M.A.604

This Airworthiness Exposition contains all required information to support the BGA Part M Subpart F Maintenance Organisation in addition to the Part M Subpart G Continuing Airworthiness Management Organisation. The management organisation and scope of work is documented in Part 0 of the Exposition and maintenance procedural requirements are covered in this section. Specific procedures for the completion of all airworthiness and maintenance related activities are contained in the BGA Airworthiness Maintenance Procedures Manual (AMP).

4.3 FACILITIES M.A.605

The BGA Part M Subpart F maintenance organisation comprises a small number of primary complex maintenance sites (shown in Appendix 2 as List 1) detailing the name, location, site manager and capability/scope details. These sites are approved for general maintenance, repairs and demonstrated capability for complex maintenance tasks and are listed in the CAA approval document. List 1 sites are designated as part of the BGA Part M Subpart F approval and have entered into an agreement with the BGA to fully comply with the requirements of this Airworthiness Exposition at all times and to provide unrestricted access to the BGA Audit Group, and, when required, any CAA surveyor.

The appointment of a site manager will require EASA Form 4 approval from the CAA titled "BGA Complex Maintenance Site – Site Manager". Application for List 1 is on form BGA 255.

In addition to the list of primary complex maintenance sites, all other BGA maintenance sites involved with general maintenance and minor repairs, whether club workshops or professional maintainers, are designated List 2 and require specific approval for complex maintenance tasks, where they will be required to demonstrate capability for a one-off approval in each case (see Complex Task Approval, AMP Part 2 Leaflet 2-13). These sites are not listed in the CAA approval document but a record of all clubs and professional maintainers is kept electronically at BGA Head Office.

A basic floor plan of each List 1 site is held by BGA Head Office and the site must satisfy and maintain the maintenance standards for the approved scope of approval in accordance with Part M for general maintenance, repair and complex maintenance tasks relevant to the scope of approval. Each List 2 site must maintain Part M maintenance standards for general maintenance, minor repairs and when seeking complex task approval and, during the complex task activity, the appropriate standards. The size and scope of the facilities should be proportional to the maintenance carried out and it is not expected that a gliding club office, workshop or storage facility would be as comprehensive as that of a List 1 site.

4.3.1 OFFICE ACCOMMODATION

Each site is required to provide suitable office accommodation equipped with a suitable surface and chairs for the management of planned work and preparation of aircraft records. The office area may be combined with the general hangar space providing its function is not impaired.

An arrangement for the safe retention of aircraft records is required at every site. In instances where computer media is used to store aircraft records a back-up file shall be made at daily intervals or as appropriate depending on the size and scope of the facility. The back- up file is to be removed to a safe alternative location to preserve the records in the event of fire. The ability to recover backed-up material shall be demonstrated at periodic intervals to the satisfaction of the BGA Inspector or Part 66 Licensed Engineer associated with the facility.

Each site shall be able to demonstrate access to the internet for the recovery of technical data and, where required, access to manufacturers' airworthiness data promulgated on CD via a subscription service.

4.3.2 COMPONENT AND RAW MATERIAL STORAGE FACILITIES

A bonded store shall be provided for the storage of released parts and material. Storage conditions shall be in accordance with standard industry practice taking into account manufacturers' instructions for abnormal climatic conditions. Access to the bonded store should be restricted to authorised personnel at all times. In addition to component storage, secure storage facilities will be provided for test equipment and tools in order to promote good tool control. Storage conditions shall ensure segregation of unserviceable components and material from all other components, material, equipment and tools.

4.3.3 COMMERCIAL STORE

A Commercial store should be available for the storage of non-released consumable items. The stores should be appropriate for the intended use and may consist of a secure cupboard up to a purpose-built store. Combining the Bonded store with the Commercial store is not permitted.

4.3.4 QUARANTINE STORE

A secure Quarantine Store should be provided for the storage of unserviceable items and for newly received items waiting release paperwork until classified and inspected. In some cases, this may be achieved by providing a suitable secure cupboard or shelf in a secure cupboard. Items in Quarantine are positively identified using labels and recorded in a Quarantine Register. Once removed from Quarantine the register shall be updated with details of the component's disposition.

For larger Maintenance Organisations where there is a larger throughput of spares a separate store may be appropriate in combination with a bonded store for released components.

The BGA Inspector or Part 66 Licensed Engineer is responsible for managing the quarantine store and deciding upon the course of action to be taken with respect to each unserviceable item.

4.3.5 STORAGE RACKS

Adequate storage racks should be provided at each site to ensure the safe storage of aircraft components when not being worked on. Covers shall be used to prevent the ingress of dirt, dust and other foreign matter during storage.

4.3.6 SHELF LIFE CONTROL

Items and materials having a limited shelf life shall be segregated within the bonded store. Although not intended to be exhaustive, a typical range of items in this category includes:

a) Adhesives.
b) Laminating resin and hardener.
c) Rubber components and seals.
d) Locking compounds.
e) Lubricants.

No shelf life can be extended without the written approval of the manufacturer. The BGA Inspector or Part 66 Licensed Engineer is responsible for ensuring life expired items are either formally re-lifed or permanently withdrawn from the facility and disposed of in accordance with the manufacturer's data sheet.

4.4 PERSONNEL REQUIREMENTS M.A. 606

Details of the BGA Part M management organisation and their terms of reference can be found in Section 0.3 of this Exposition. Management personnel are full time employees of the BGA with the exception of the Quality Manager and the Chairman of the Technical Committee, who are employed on a part-time contracted basis.

BGA maintenance sites shall have sufficient certifying staff to issue M.A.612 and M.A.613 certificates of release to service for aircraft and components applicable to the task in hand. Certifying staff shall comply with the requirements stated in the BGA AMP Manual.

4.4.1 PERSONS APPROVED FOR NON-DESTRUCTIVE TESTING

The BGA does not have any personnel qualified to level 1, 2, or 3 as defined by European Standard EN4179. The services of an outside specialist are required for this task and an EASA Form 1 release is required for certification.

BGA inspectors may utilise colour contrast dye penetrant crack detection as an inspection aid or if the task is a manufacturer's scheduled inspection, but not if it is an Airworthiness Directive requirement unless the AD instructions specify that the task may be undertaken by a Part 66 licensed engineer or equivalent.

4.4.2 PERSONS APPROVED FOR WELDING

All welding on CAA registered aircraft must be carried out by an approved welder and certified by an appropriately rated BGA inspector or LAE. Welding may only be carried out by a CAA approved welder. This includes welders holding Part 145 approvals in the correct discipline. CAA requirements for the approval of welders are contained in BCAR Section A8-10.

4.5 CERTIFYING STAFF M.A.607

4.5.1 BASIC EXPERIENCE REQUIREMENTS

Applicants must be able to demonstrate they have the following minimum experience:

a) four years of relevant maintenance experience
b) reduced to two years if the applicant has satisfactorily completed an approved training course

Relevant experience must include assistance with the majority of maintenance activities including but not limited to:- Annual (C of A) inspections, rigging and de-rigging, repairs, replacements, electrical and instrument work including calibration, weighing and preparing reports for the BGA, CAA/EASA paperwork relevant to the approval or endorsement applied for. A Personal Experience Record (PER) will have to be submitted for approval. This may be used for discussion at the interview. If in engineer's logbook format, the PER will be returned to the applicant for use with subsequent applications for extensions and endorsements to approval. Form BGA 220 may be used for the PER; however, an alternative format may be acceptable. In this case approval should be sought from the CTO.

All BGA Authorisations are for maintenance and repair of BGA and EASA approved types. The CTO may, at his discretion, grant one-off or limited approval if a particular case merits this due to an operational requirement. These authorisations may take the form of a card, authorisation letter or e-mail. All such one-off authorisations shall be notified to the CAA within 7 days.

To remain compliant with the BGA approval:
A BGA inspector is only authorised and insured to certify aircraft within the BGA Airworthiness Organisation. A BGA inspector is not authorised or insured to certify any work or carry out any airworthiness review, renew or extend any ARC, or allowed to certify any maintenance activity as part of another Subpart F or BCAR A8-24 organisation or on aircraft not registered with the BGA as current within the BGA airworthiness organisation.

For initial issue and every five years BGA inspectors shall undergo human factors and procedural training. In exceptional circumstances these requirements can be varied by up to one year with the agreement of the BGA CTO.

Details of initial and continuation training for each BGA Inspector are held at BGA Head Office.

4.5.1 MAINTENANCE BY BGA INSPECTORS

Only suitably qualified persons, as specified in this Airworthiness Exposition Part 0 and the BGA AMPs, and competent persons under supervision of a suitably qualified person, shall perform maintenance on BGA aircraft. A list of BGA certifying staff is contained in a database of BGA inspectors located at the BGA Head Office, Leicester, and is available to the CAA on request. It is the responsibility of the qualified person to establish competency either through personal knowledge or by direct supervision.

The person maintaining an aircraft or component shall have access to and only use applicable current maintenance data including as appropriate:

a) Maintenance Manuals
b) Flight Manuals
c) Parts Catalogues
d) Maintenance Programme
e) Airworthiness Directives
f) Manufacturer or TC holder published information
g) Modification packages
h) Acceptable standards and practices manuals
i) BGA AMP Manual

If maintenance data is only available via a computer screen or reader, maintenance staff must have ready access to the information before carrying out any maintenance on the aircraft.

Maintenance check packs and worksheets shall be to the minimum standard as specified in AMP Leaflet 1-1 and shall provide a precise reference to the maintenance data used including issue status and or date accessed as appropriate.

4.5.2 MAINTENANCE BY PILOT/OWNER

In the case of limited pilot maintenance, the person maintaining the aircraft should have had relevant training or previous experience to assure competency. The scope of tasks permitted to be carried out by a pilot is presented in AMP Leaflet 2.1.

A suitably rated BGA inspector may carry out on-the-job training provided those tasks are within the scope of the inspector's BGA authorisation. In addition, an experienced pilot/BGA instructor may carry out training for Daily Inspection and pre-flight tasks. It is recommended that a suitable record of the training should be kept by the trainer and trainee.

4.6 COMPONENTS, EQUIPMENT AND TOOLS M.A.608

4.6.1 COMPONENTS

The control of components fitted to aircraft operated within the scope of the BGA approval fall into four categories:

a) Components removed from the aircraft for repair within the BGA system
b) Swapping of serviceable parts between aircraft
c) Components removed from an aircraft and sent to a third party outside the BGA approval system
d) Components removed from an aircraft for overhaul

Component maintenance on BGA aircraft may be carried out under the BGA Subpart F approval and released as aircraft maintenance with an M.A.801 Certificate of Release to Service as confirmed by CAA letter 27 September 2011. BGA Subpart F component maintenance does not cover overhaul.

Component maintenance may only be carried out by BGA authorised personnel provided the maintenance is detailed in the appropriate aircraft maintenance manual or component maintenance manual. Details of the maintenance carried out must be recorded in the aircraft maintenance records.

Installed service life limited components shall not exceed the approved service life limit as specified in the approved maintenance programme and airworthiness directives. In instances where a major life limited component has been substituted details of the consumed fatigue life must be clearly entered in the aircraft logbook. The impact of any component substitution must be taken into account when managing the overall airframe total hours remaining in service.

No component may be fitted unless it is in a satisfactory condition, has been appropriately released to service under cover of an EASA Form 1, BGA maintenance release or equivalent and is marked in accordance with Part 21 Subpart Q. It is the responsibility of the engineer/BGA Inspector concerned to establish the serviceability and 'eligibility' of the component before installing on the aircraft.

Prior to installation of a component on an aircraft the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive configurations may be applicable.

4.6.2 COMPONENTS REMOVED AND RETAINED FOR REPAIR WITHOUT LEAVING THE BGA SYSTEM

Components removed for maintenance remaining within the BGA system must be maintained in accordance with approved data and certified by an appropriately rated BGA inspector. These components should be released to service by issuing a Part M M.A.801 Certificate of Release to Service on the appropriate work sheets or logbook entry.

These components are normally refitted to the same aircraft. If the component is fitted to another BGA aircraft the repair details (work pack) are retained in the recipient aircraft records.

4.6.3 SWAPPING OF SERVICEABLE COMPONENTS BETWEEN AIRCRAFT

Parts transferring between aircraft in the BGA system may be transferred using an M.A.801 CRS. The work done to verify serviceability, origin, life used and details of any other work done must be recorded on worksheets, also verifying that any maintenance due has been completed and alignment with the recipient aircraft maintenance programme must be established.

4.6.4 COMPONENTS REMOVED FROM AN AIRCRAFT AND SENT TO A THIRD PARTY OUTSIDETHE BGA APPROVAL SYSTEM

Components removed from an aircraft and sent to another organisation outside the BGA approval system require release back into service with an EASA Form 1.

4.6.5 COMPONENTS REMOVED FROM AN AIRCRAFT FOR OVERHAUL

With the exception of sporting equipment and sailplane standard parts, component overhaul is not within the BGA scope of approval.

Overhaul of sailplane sporting equipment and sailplane standard parts is released to service by issuance of a Certificate of Conformity.

4.6.6 NON-TYPE CERTIFIED ENGINE OVERHAUL

BGA inspectors are not approved to overhaul engines as their approval is limited to inspection and repair only. Engine overhaul can only be carried out by appropriately approved external organisations and release back into service will be by EASA Form 1 certification.

4.6.7 INSTALLATION

Before a released component is fitted to an aircraft the following checks are required:

a) Check the condition of the packaging material to detect any damage incurred during transit
b) Check that details specified on the Form 1 agree with those on the component/assembly
c) Check protective plugs and caps are installed
d) Check eligibility

4.6.8 CONTROL OF UNSERVICEABLE COMPONENTS

A component shall be considered unserviceable in any one of the following circumstances:

a) Expiry of the service life limit as defined in the maintenance programme
b) Non-compliance with the applicable airworthiness directives and other continued airworthiness requirement mandated by the Agency
c) Absence of the necessary information to determine the airworthiness status or eligibility for installation
d) Evidence of defects or malfunction
e) Involvement in an incident or accident likely to affect its serviceability

4.6.9 COMPONENT IDENTIFICATION AND DISPOSITION

Unserviceable components shall be identified by tagging and storage in a quarantine store under the control of the Subpart F approved organisation until a decision is made on the future status of such components. Where a significant number of unserviceable components is expected, the use of a register is required to trace the components and methods of repair or disposal.

The decision-making process regarding unserviceable components shall take into account the following considerations in the order presented:

a) Safety
b) Availability
c) Value

In instances where safety is compromised the item shall be scrapped and mutilated beyond further use. Components that have established approved repair schemes may be repaired subject to financial considerations. It is permissible to retain unserviceable components in anticipation of an approved repair scheme becoming available. However, precautions will need to be taken to avoid further degradation through improper storage leading to corrosion.

Forward and reverse traceability is required on any salvaged component that re-enters the airworthiness system following rectification. Initially, an entry in the quarantine register will indicate the start of the rectification process. Subsequent in-process inspection and final inspection activities will lead to the generation of a batch number. The batch number shall be referenced in the relevant work pack. Components salvaged via external overhaul/repair will be received under cover of an EASA Form 1. This shall be referenced in the work pack upon fitting the component to aircraft.

4.6.10 COMPONENT DISPOSAL

If unserviceable components are returned to the aircraft owner, it is the responsibility of the owner to ensure the components are not released into service without appropriate overhaul/repair/maintenance being completed. If ownership changes the responsibility also transfers to the new owner.

Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system, unless certified life limits have been extended or an approved repair solution has been promulgated.

4.6.11 COMPONENT MUTILATION

Unsalvageable components shall be mutilated in a manner that ensures that they are beyond economic salvage or repair before relinquishing responsibility for such components.

Where the Type Certificate holder specifies, critical component data plates should be returned to the manufacturer with final disposition advice and history of the component.

4.6.12 COMPONENT MAINTENANCE 'ON WING'

"On wing" means component maintenance carried out within the vicinity of the aircraft where it may be appropriate to remove the component for maintenance and refit on completion. For component maintenance "on wing" final certification is covered by Part M Subpart F maintenance approval.

Appropriate certification will be made initially on a worksheet bearing the BGA authorised inspector's details and signature. Worksheets are to be retained in the aircraft records. A reference to the worksheets shall also be made in the aircraft logbook.

4.6.13 COMPONENT MAINTENANCE 'AWAY FROM AIRCRAFT'

Component maintenance away from the aircraft is deemed to have taken place in instances where the component is removed and transported to another repair facility (see 4.6.4 above).

4.6.14 IDENTIFICATION TAGS

Where appropriate and according to the size of the organisation, identification tags shall be locally produced identifying aircraft parts and their status.

4.6.15 STANDARD PARTS

Standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the particular standard part. Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.

4.6.16 RAW MATERIAL

Material being either raw material or consumable material shall only be used on an aircraft or a component when the aircraft or component manufacturer states so in relevant maintenance data. Such material shall only be used when the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing conformity to specification statement plus the manufacturing and supplier source. A Statement of Conformity issued by the supplier is normally sufficient to satisfy this requirement

4.6.17 CONSUMABLE MATERIAL

In the case of consumable materials, the required information may be contained on the container or outer packaging. In these cases, the relevant information should be transcribed into the relevant maintenance records, i.e. batch number and expiry date.

4.6.18 EXCEPTIONS TO EASA FORM 1 RELEASE

Standard Parts fitted to Sailplanes and Powered Sailplanes need not be released with an EASA Form 1 but must have a Certificate of Conformity (C of C), conform to the type design specification where appropriate and be fit for purpose.

4.6.19 TOOLING

All maintenance shall be performed using appropriate tooling and, where required, using tooling and equipment as specified in approved maintenance data or an equivalent accepted by the BGA. General hand tools shall be kept in good order and should be appropriate for the task being performed. Where possible tools should be check calibrated before use i.e. torque tools with an 'Acratork' or similar equipment. Professional maintainers should have a simple tool register in use at the facility which may be either a traditional paper document listing tool description, reference number, location and calibration requirements (if appropriate) or a computer record. Alternative methods such as shadow boards or named hooks will suffice for small organisations.

4.6.20 TOOL CALIBRATION REQUIREMENTS

Tools and equipment, where appropriate, shall be calibrated or tested in accordance with the manufacturer's recommendations or industry standard. When establishing the period between calibrations, due account can be made of the level of utilisation and storage conditions. In a club environment where weighing scales could be used infrequently, it is important that they are checked with a known weight before use. With regard to ASIs and altimeters, calibration can only be carried out with an instrument certified by a test house. The use of a manometer is valid for an operational or comparison check only. In all cases of heavy usage, it may be necessary to calibrate tools and equipment at more frequent intervals. In the absence of specific manufacturer instructions, the following intervals shall be used:

Measuring equipment	2 years
Torque tools	2 years
Pitot/static calibration equipment	2 years
Weighing equipment	5 years
Self-calibrating tools	before use

4.6.21 CALIBRATION RECORDS

In all cases tool calibration will be accomplished by a UKAS approved company or traceable to a CAA acceptable standard. Certificates of calibration shall be retained by the maintenance site in accordance with the requirements for the retention of Quality records. In the case of self-calibration, the method and standards used shall be identified and recorded on the appropriate calibration sheet.

4.6.22 DAMAGED TOOLING

Tooling or equipment that is damaged, abused or believed to be inaccurate shall not be used and shall be repaired, checked and calibrated before use.

4.6.23 TOOL CONTROL

At the completion of any maintenance a check shall be made to ensure that all tools and equipment have been removed from the aircraft and that any components or parts disturbed during the maintenance have been reinstated. A tool control system in the form of shadow boards or pegs is recommended to ensure good practice. Subpart F List 1 maintenance sites shall indicate the method of tool control in their application.

4.6.24 MATERIALS

The replacement of any raw materials used during the construction/approved modification of the aircraft shall be made using material from an approved source of the same specification as the original or as otherwise referenced in the approved repair data. Any deviation from this policy will require prior approval from the Design Authority (EASA aircraft) or the BGA Technical Committee (Annex 2 gliders).

4.7 MAINTENANCE DATA M.A. 609

Maintenance facilities shall only use approved maintenance data as applicable to the aircraft being worked on. If that data is supplied by the aircraft owner, it need only be present during maintenance periods. Maintenance data should be checked to ensure that it is the latest issue at the point of use. In instances where maintenance has been carried out over a protracted length of time, the validity of the data used shall be checked before signing the CRS.

4.8 MAINTENANCE WORK ORDERS M.A.610

Maintenance work orders are required for all maintenance unless the owner is part of the same organisation performing the work. BGA Form 273 may be used as a maintenance work order in the absence of any locally designed forms. Work orders are raised against the BGA facility or inspector who is carrying out the work as part of the BGA Subpart F approval. Maintenance work orders are retained by the inspector carrying out the work.

4.9 MAINTENANCE STANDARDS M.A.611

All maintenance shall be carried out using applicable current maintenance data, shall be performed by appropriately qualified personnel, shall be performed using the tools, equipment and material specified in the applicable maintenance data and shall be carried out in suitable, clean, well-organised facilities where appropriate.

4.9.1 MAINTENANCE FACILITIES M.A.402

The BGA Inspector or Part 66 Licensed Engineer is responsible for ensuring that the facility is appropriate for the intended maintenance activities and the maintenance area is adequately segregated from other aircraft or non-aircraft related material. Maintenance will normally be carried out in a hangar or suitable workshop with sealed, hard and level floor. Protection from inclement weather must be provided and must be adequate for all planned and unscheduled work. The BGA is satisfied that the workshop arrangements provided by affiliated clubs and individual Inspectors meet the requirements for the basic inspection of glider and self-sustaining glider airframes and associated engine and control systems. In the case of leased or rented facilities, it must be ensured that the tenancy agreement cannot jeopardise any ongoing maintenance.

4.9.1.1 Environmental Requirements

The maintenance area must be well organised and clean in respect of dirt and contamination. Any specific environmental limitations required in para. 4.7 Maintenance Data must be observed. Noise and external influences should not be at a level that will distract maintenance and inspection personnel in the performance of their tasks.

4.9.1.2 Maintenance Areas

In addition to the main hangar area local facilities shall be provided for the storage and maintenance of sub-assemblies. Adequate work bench space will be provided.

4.9.1.3 Specialised Work Areas

When carrying out any specialised maintenance or repair task or complex repair the appropriate environmental conditions, tooling, equipment and maintenance data must be available and used. This includes:

a) Temperature/humidity-controlled workshop or area
b) Temperature and humidity recording
c) Clean area
d) Dust/fume extraction
e) Specialist tooling & equipment
f) Jigs and alignment devices and fixtures
g) Power and clean air source
h) Pressure chambers
i) Testing & proof loading equipment
j) Inspection equipment
k) Weighing equipment
l) Maintenance manuals
m) Component maintenance manuals
n) Repair manuals
o) Standard practices manuals

4.9.2 INDEPENDENT INSPECTION M.A.402

Any item of safety sensitive maintenance shall have an independent inspection carried out before release to service. The independent inspection, also referred to as a Duplicate Inspection, shall be carried out on the following items following disturbance and reconnection or adjustment:

a) Flying control surface or control system
b) Engine control or system
c) Propeller control system

In addition, critical bolted joints on:

d) Wing structure
e) Fuselage structure
f) Tail plane structure
g) Engine mounting
h) Landing gear structure

In the case of any of the above items being located within an enclosed structure the independent inspection must be carried out before the structure is closed for the final time.

Normally independent inspections are completed independently of each other but in the case of critical bolted joints the independent inspection should be simultaneous with the initial inspection to verify bolt torque, etc. Inspections shall check for correct assembly and function, adjustment, torque, tension, free play, friction, stops, locking, safety, range of movement, full and free movement and sense of operation as appropriate to the item.

Interactive systems, i.e. control mixers, should be checked in all modes of operation. In the case of control systems, the entire system should be checked. Adjustable systems such as rudder pedal position shall be checked at each extreme position to ensure full and unobstructed travel is available.

4.9.2.1 Persons Approved to carry out Independent Inspections

The first part of the inspection must be carried out by a person who is authorised to certify the Certificate of Release to Service. The second part of the inspection may be carried out as below:

Sailplane & Self-Sustaining Sailplane:	BGA Inspector with Airframe, GL or LAE. Pilot for adjustments only
Powered Sailplane:	BGA Inspector with MG, SS, TG or LAE. Pilot for adjustments only
Tug aircraft:	BGA Inspector with MG, TG or LAE with Part 66 B1 or Section L A & C. Pilot with PPL or NPPL on the type, for adjustments only
Any aircraft:	A person deemed as a competent person by the BGA (see BGA AMP Manual)

4.9.3 AIRCRAFT DEFECTS M.A.403

Any aircraft defect that seriously hazards flight safety shall be rectified before further flight. Consideration should be given to reporting serious defects via the Occurrence Reporting procedure, para. 4.9.4. of this section.

4.9.3.1 Deferred Aircraft Defects

The deferment of any potentially serious defect associated with the aircraft structure, flying control, landing gear, or that could potentially affect the safe operation of an aircraft shall only be assessed by an appropriately rated BGA inspector or part 66 LAE. Any deferred defects should be rectified as soon as possible.

The non-operational status of a self-sustaining sailplane powerplant and other minor defects may be assessed by a competent pilot. Any defect considered acceptable for deferment shall be recorded in the Daily Inspection (DI) book and logbook when available. Any defect that is not considered acceptable for deferment shall be rectified prior to flight.

4.9.3.2 Recording Deferred Defects

All deferred defects shall be recorded in the aircraft records and, in the case of minor defects, the DI book. Details of outstanding deferred defects and rectification action required must be advised to the BGA Chief Engineer during airworthiness reviews.

The BGA DI book does not contain a CRS statement. Rectification action should be transferred to a suitable worksheet or logbook for recording the CRS. Defects recorded in the DI book should be closed once transferred to the maintenance records and rectification has been completed.

4.9.4 OCCURRENCE REPORTING PROCEDURE M.A.202

4.9.4.1 Defect Reporting

Owners and authorised maintenance personnel are responsible for reporting occurrences and significant defects through the BGA Accident/Incident reporting scheme.

The BGA, in its capacity as an approved CAMO, will review all reports before forwarding to the relevant authorities as appropriate. Incident reviews will be carried out by the BGA Technical Committee in conjunction with the Chief Technical Officer. The conclusions drawn by the review will be forwarded to the relevant authorities who may include EASA, CAA, AAIB, Type Design Organisation and STC holder. The BGA will also disseminate reports to members in the interests of safety using the BGA web site News facility. Reports shall be clearly and uniquely identified making reference to the BGA Part M Subpart F approval reference, details of the subject aircraft or component, any supporting technical information and details of the occurrence.

4.9.4.2 Reportable Occurrences

All significant in-flight defects, failures or other incidents must be reported to the BGA Head Office using the BGA Accident/Incident reporting scheme, available through the BGA website.

In the case of serious defects, the occurrence report must be raised and submitted to the BGA as soon as practical. However, the initial report must be made within 72 hours of the occurrence. Examples of serious defects are:

a) Serious cracks, permanent deformation, burning or serious corrosion of structure found during maintenance of the aircraft or component.
b) Failure of any emergency system during scheduled testing.
c) Non-compliance with an Airworthiness Directive
d) Exceeding life limitations
e) Embodiment of non-approved modifications

A comprehensive list of mandatory reportable occurrences is detailed in Regulation (EU) No. 376/2014.

4.10 AIRCRAFT CERTIFICATE OF RELEASE TO SERVICE M.A.612

All maintenance shall be released by the issuance of a Certificate of Release to Service in accordance with M.A.801. The words of the release or a reference to this Exposition shall be reproduced on BGA work sheets or in the logbook. The CRS shall contain the following words:

"Certifies that the work specified except as otherwise specified was carried out in accordance with Part M and in respect to that work the aircraft is considered ready for release to service."

For limited pilot/owner maintenance the CRS shall contain the following words:

"Certifies that the limited pilot-owner maintenance specified except as otherwise specified was carried out in accordance with Part M and in respect to that work theaircraft is considered ready for release to service."

Note:

With effect from 24 March 2020 see the Part ML Supplement of this Exposition, para. ML.5, for further information and the revised certification statements before issuing a Certificate of Release to Service.

If using a BCAR CAA logbook or BGA glider logbook the CRS may be signed in the certification column provided a general CRS sticker is placed inside the front cover.

4.11 MAINTENANCE RECORDS M.A.614

BGA Authorised Inspectors shall record all details of work carried out. The records shall contain sufficient detail to verify that the requirements have been met to issue a Certificate of Release to Service. A copy of the release to service shall be supplied to the aircraft owner by inclusion in the aircraft logbook. It is the responsibility of the aircraft owner to ensure that his/her aircraft records are maintained up to date and safe from fire, damage, theft, loss and unauthorised access.

If an owner elects to retain his own maintenance records, a copy of the maintenance records shall be retained by the BGA Authorised Inspector or Maintenance Organisation for a period of three years after the aircraft was released to service. Records older than three years only need to be kept as part of the maintenance history retained by the

owner. The aircraft owner may elect the BGA Authorised Inspector or Maintenance Organisation to retain the maintenance records if the inspector or organisation agrees; in these cases, a second copy is not required. If records are held electronically, a back-up is to be made within 24 hours of the entry and kept in a safe place separate from the main system. Maintenance records shall be managed as stated in the BGA AMPs.
If the BGA Authorised Inspector or Maintenance Organisation terminates operations, all retained maintenance records covering the last two years shall be distributed to the owner of the aircraft.

In the case of BGA termination, the records shall be distributed as specified by the CAA.

Entries in the aircraft records should be signed and dated. The BGA authorised inspector number and BGA approval number shall be included, or Pilot licence number as appropriate. If the pilot does not hold a licence, he/she should print their name alongside the signature.

4.12 ORGANISATIONAL REVIEW M.A.616

The BGA has a quality system in place, which replaces the requirement to hold organisational reviews. Refer to BGA Quality Procedures in Part 2, para. 2.16 of this Airworthiness Exposition.

4.13 CHANGES TO THE APPROVED ORGANISATION M.A.617

The BGA will give the CAA adequate notification of any proposed changes to any of the following elements of the BGA's structure:

a) Name of the organisation
b) Location of the BGA Head Office
c) A change in Accountable Manager
d) Any persons specified in this Airworthiness Exposition Part 0 holding EASA Form 4 approval
e) A significant change in the BGA Head Office facilities
f) Changes to List 1 maintenance sites

Additional locations and changes to BGA Subpart F satellite maintenance facilities may be approved by indirect approval and advised to the CAA on an annual basis.

Minor changes to the BGA capability list may be approved by indirect approval in accordance with Part M Appendix IV. These changes shall be recorded during the BGA management meetings and advised to the CAA on an annual basis.

4.13.1 CHANGES TO BGA MAINTENANCE FACILITIES

A BGA satellite maintenance facility must notify the BGA at the earliest opportunity if one or more of the following elements change:

a) Name of the satellite organisation
b) Local accountable manager (site manager)
c) Change of location of satellite facility
d) Significant change in the satellite facilities

4.14 CONTINUED VALIDITY OF APPROVAL M.A.618

The BGA approval shall have unlimited duration provided the BGA remains compliant with EASA Part M requirements. The BGA will provide access to the competent authority for continued oversight and facilitate site visits as required.

The BGA CTO may suspend a BGA Maintenance Organisation approval if there are sufficient grounds or significant findings are found during audits. The BGA Technical Committee will review all suspensions and ratify with appropriate action. The Technical Committee may either revoke the approval, if there are sufficient grounds, or offer a solution for corrective action to consider reinstatement.

Details of audits and findings and the action to be taken are detailed in Part 2 of this Airworthiness Exposition.

APPENDICES

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APPENDIX 1 BGA CAPABILITY LIST FOR PART M SUBPART F AND G

Class – Aircraft - Annex 1 & ELA 1
Rating A2 Aeroplanes – Piston Engined 5700kg and below

Class – Aircraft
Rating A4 Aircraft – Sailplanes and Self-Sustaining Sailplanes

Wooden Sailplanes and Powered Sailplanes – CS-22
Composite Sailplanes and Powered Sailplanes – CS-22
Metal Sailplanes and Powered Sailplanes – CS-22

Powered Sailplanes includes Self-Launching and Self-Sustaining Powered Sailplanes

CS-22 includes previous design codes

Sailplane type list maintained and approved under indirect approval i.a.w. Part M Appendix IV.

The definitive BGA Capability List is now held on file in the BGA Head Office, Leicester. The list will be updated whenever a new type is added to the scope of approval and a copy of the amended list will be sent to the CAA on each occasion.

New aircraft will not be added to the list unless the BGA has the personnel, skills, facilities and tooling to support the new addition.

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APPENDIX 2 PART M APPROVED FACILITIES

EU 1321/2014 Part M Subpart F Maintenance Organisation and Subpart G Continuing Airworthiness Maintenance Organisation Ref UK.MG.0279

Primary Administration Site:

8 Merus Court Meridian
Business Park Leicester
LE19 1RJ

List 1 - Primary Complex Maintenance Sites:

Maintenance Organisation	Site Manager	Capability
McLean Aviation The Aerodrome Rufforth York YO23 3NA	R. McLean I/A/050	Inspection and complex repairs on all glider types within the scope of the BGA's Part M approval
North Yorkshire Sailplanes Thorpefield Sowerby Thirsk YO7 3HH	D. Taylor I/A/174	Inspection and complex repairs on all glider types within the scope of the BGA's Part M approval
Targett Aviation Nympsfield Gloucs GL10 3TX	R. Targett I/A/106	Inspection and complex repairs on all glider types within the scope of the BGA's Part M approval
Zulu Glasstek Baileys Farm Westfield Road Long Crendon Aylesbury HP18 9EN	P. Wells I/A/113	Inspection and complex repairs on all glider types within the scope of the BGA's Part M approval
Lasham Gliding Society Lasham Airfield Alton Hants GU34 5SS	R. Moyse I/C/1334	Inspection and complex repairs on all glider types within the scope of the BGA's Part M approval

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APPENDIX 3 BGA TUG DISPOSITION

Regn	Type	Manufacturer	Operating Location	Annex II	Notes
AVPY	PA25	Piper	Parham		
AZPA	PA25	Piper	Talgarth		
BAUC	PA25	Piper	Parham		
BCBJ	PA25	Piper	Deeside		
BDDS	PA25	Piper	Talgarth		
BEOI	Super Cub	Piper	Parham	Yes	
BFSD	PA25	Piper	Deeside		
BHLH	DR 400	Robin	Booker		
BHUU	PA25	Piper	Booker		Expired ARC
BLGH	DR 300	Robin	Booker		
BUXY	PA25	Piper	The Park		
BVYM	DR 300	Robin	Dunstable		
BYHT	DR 400	Robin	Deeside		
BZMM	DR 400	Robin	Cairngorm		
DSGC	PA25	Piper	North Hill		Addition
EHMM	DR 400	Robin	Dunstable		Addition
ELSB	DR 400	Robin	Cambridge		
ELUN	DR 400	Robin	Cotswolds		
LGCA	DR 400	Robin	Dunstable		
LGCB	DR 400	Robin	Dunstable		
LGCC	DR 400	Robin	Dunstable		
NYMF	PA25	Piper	Nympsfield		
OCGC	DR 400	Robin	Cambridge		
OTIB	DR 400	Robin	Bicester		
SATN	PA25	Piper	Halton		
TUGG	PA18	Piper	Ulster	Yes	

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APPENDIX 4 BGA LIST OF ALLOWABLE FABRICATED PARTS

The following list of parts may be fabricated, in conformity with maintenance data, for use in the course of undergoing work within its own facilities on Gliders, Self-Sustaining Sailplanes, Self-Launching Motor Gliders and Tug aircraft. [MA.603(b)].

In accordance with approved repair schemes or modifications:

Fabrication of primary structural repair elements only with prior permission of the BGA (including DOA or TC holder when appropriate) and as specified in the approved repair scheme

Fabrication of secondary structural elements and skin panels as below:

1. Composite sections including autoclave and post cure techniques where maintenance data specifies and equipment available.
2. Wood sections
3. Metal sections, including forming and basic machining, excluding heat treatment and specialist treatments
4. Composite Skin panels including autoclave and post cure techniques where maintenance data specifies and equipment available
5. Wood Skin panels
6. Metal Skin panels including forming and basic machining, excluding heat treatment and specialist treatments
7. Access panels and closures
8. Fabric repair panels
9. Steel tube and plate welded sections and repair pieces
10. Minor equipment mounting brackets and fixtures

In accordance with approved maintenance data:

11. Control cables
12. Bushes, sleeves and shims
13. Internal aircraft soft furnishings and covers
14. Internal aircraft trim
15. Wiring looms
16. Instrument plumbing
17. Flexible and rigid low pressure pipes where special equipment and techniques are not required.

Note
It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication processes and which is accepted by the BGA.

As appropriate, inspection, testing and proof loading must be completed in accordance with the approved maintenance data.

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APPENDIX 5 AIRWORTHINESS REVIEW STAFF – ARC/NARC SIGNATORIES

Records of all Airworthiness Review Staff are kept electronically and in hard copy at the BGA Head Office in Leicester and office staff should be contacted if information is required pertaining to ARC/NARC signatories. This is to ensure that the list available to BGA members or aviation regulatory personnel is always up to date.

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APPENDIX 6 BGA TECHNICAL COMMITTEE – TERMS OF REFERENCE

The aim of the Technical Committee (TC) is to maintain and develop a self-regulated and cost-effective UK airworthiness system for gliders (and motor gliders/self- launching gliders under CAA delegation) with safety as the prime objective.

The scope of activities and specific tasks of the TC are:

a) To develop policies for recommendation to and endorsement by the BGA Executive Committee (EC) and, where necessary under the BGA's constitution, by the members of the BGA in General Meeting, in relation to agreed technical matters and strategies.

b) To develop, establish, maintain and manage a system of technical standards for the airworthiness of gliders/sailplanes and self-sustaining sailplanes on the BGA register of gliders.

c) To develop, in consultation with the CAA, and maintain and manage a delegated system of technical standards for self-launching motor gliders ('G' registered) and specified G-registered tug aircraft.

d) To investigate the airworthiness of new designs of gliders/sailplanes for the purpose of recommending or rejecting their acceptance on to the BGA register of gliders.

e) To promulgate technical advice and information to owners and operators.

f) To determine the broad objectives of the programme of work of the BGA's Chief Technical Officer.

g) To recommend to the EC, and then manage, the structure of qualifications for BGA glider inspectors and the process for their examination, appointment, renewal and continued suitability.

h) To appoint appropriate persons under the CAA delegated authority for the maintenance of self- launching motor gliders and for tugs under the BGA's 'BCAR A8-24 approval' status.

i) To contribute to the development of gliders / sailplanes, both structurally and aerodynamically, and to further the development of instrumentation systems.

j) To receive and consider recommendations from BGA Accident Investigators' reports on serious or fatal accidents, and to report to the EC on the adoption of any recommendations relevant to technical matters.

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EXPOSITION SUPPLEMENTS

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Part ML Procedures Supplement

Ref: BGA SUP 01 Issue 1

PART ML PROCEDURES SUPPLEMENT

ML.1 GENERAL INTRODUCTION & RESPONSIBILITY

Part-ML applies to the following other than complex motor-powered aircraft not listed in the AOC of a licensed air carrier as follows (non-complex, non-AOC):

1. Aeroplanes of 2730kg MTOM or less:
2. Rotorcraft of 1200kg MTOM or less, certified for a maximum of up to 4 occupants:
3. Other ELA2 aircraft.

This document sets out supplementary organisation procedures reflecting Part-ML valid from the 24 March 2020. Where the procedures set out below conflict with the current approved exposition, this document shall take precedence.

Aircraft subject to Part-ML regulation as defined above can only be managed in accordance with the Part-ML rules.

The Chief Technical Officer shall be responsible for the British Gliding Association's compliance with these procedures, including especially the approval of alternative tasks, deviations from DAH data, periodic review and final check and approval of the AMP and its amendments.

These procedures are limited to aircraft types contained in the existing scope of work as detailed in the Airworthiness Exposition, Appendix 1.

ML.2 MAINTENANCE PROGRAMME – GENERAL

Part ML.A.302 requires that maintenance be organised in accordance with a Maintenance Programme (AMP).

Note: The British Gliding Association (BGA) does not currently directly approve Maintenance Programmes and the following paragraphs are included for information in the event that the BGA is subsequently approved to carry out this function.

Where this organisation is the contracted continuing airworthiness management organisation, the AMP shall be approved by the organisation and cannot be declared by the owner.

Where an AMP was approved in accordance with Part M.A.302 prior to 24 March 2020, that AMP shall continue to be valid after 24 March 2020.

Any aircraft remaining on CAA LAMP (CAP 1454 refers) must be compliant with ML.A.302 at the first ARC renewal after 24 March 2020, but in any case, no later than 24 March 2021, beyond which LAMP is no longer an acceptable AMP.

Aircraft Maintenance Programmes – Development

The AMP shall identify the owner of the aircraft, the aircraft as well as the installed engine and propeller types. Note that all aircraft within the current BGA CAMO are the owners' responsibility.

The AMP shall be based on the Instructions for Continued Airworthiness (ICA) issued by the Design Approval Holder (DAH) or alternatively the tasks or inspections contained in the Minimum Inspection Programme and shall include all mandatory continuing airworthiness information (e.g. Repeat ADs, Airworthiness Limitations, maintenance required by the TCDS).

The AMP shall identify any additional maintenance tasks to be performed because of the specific aircraft type, aircraft configuration, type & specific operation, taking into consideration as a minimum:

- specific equipment,
- modifications, repairs,
- life limited components,
- flight safety critical components,
- maintenance recommendations such as TBO intervals issued through service information,
- applicable operational directives or requirements related to the periodic inspection of certain equipment,
- special operational approvals and the use of the aircraft including its operational environment.

Additional maintenance actions may be added at the request of or with the agreement of the owner. Alternative instructions to the ICA introduced by the DAH **shall not be less restrictive than the applicable Minimum Inspection Programme.**

Records justifying any deviation introduced to the DAH recommendations or any tasks alternative to those specified by the DAH shall be retained.

The AMP shall identify whether pilot owners are authorised to perform maintenance.

The AMP shall take the format of the standard template specified in AMC2 ML.A.302 and may also include more than one aircraft registration. In such cases the maintenance requirements for each registration where they differ shall be clearly specified.

An aircraft shall be maintained in accordance with only one programme at a time and when transitioning from one programme to another, the organisation shall consider any additional maintenance needed to bridge from one programme to another.

<u>Aircraft Maintenance Programmes – Additional Requirements for use of a MIP (SDMP)</u>

Any programme based on the ML.A.302 (d) Minimum Inspection Programme (MIP) requirements (the owner declared SDMP) shall be prepared in accordance with ML.A.302 (c) & (d) and the associated GM and AMC.

Notwithstanding the use of the MIP is possible by a CAO, any deviations from or tasks alternative to the DAH recommendations shall be justified as detailed in the section below.

The MIP shall contain for aeroplanes and touring motor gliders, intervals of every annual or 100 h, whichever comes first to which a tolerance of 1 month or 10h may be applied. The next interval shall be calculated as from the time the inspection takes place.

The MIP shall contain for sailplanes and powered sailplanes other than touring motor gliders, an annual interval, to which a tolerance of 1 month may be applied. The next interval shall be calculated as from the time the inspection takes place.

Aircraft Maintenance Programmes – Alternative Tasks

When evaluating an alternative to a maintenance task issued or recommended by the DAH, such as the extension of TBO intervals, a risk-based approach should be taken, considering aspects such as the operation, engine type, hours, calendar time in service, redundancy of components and any compensating measures. Consideration of the above should allow for an informed decision to be made when evaluating alternative tasks.

The EASA guidance framework for evaluation of alternate maintenance tasks can be found in AMC1 ML.A.302 (c) and GM1 ML.A.302 (c) 3 and shall be considered when proposing alternative tasks or deviations from the DAH recommendations.

Full justification shall be held on file to demonstrate how each determination at a task level was made and shall also be copied to the owner / operator.

Deviations or tasks alternative to mandatory requirements are not permissible under this procedure.

Alternative tasks shall in no cases be less restrictive than the applicable MIP.

Aircraft Maintenance Programmes – When a formal AMP is not required

Notwithstanding the above, when all the following conditions apply, a formal AMP approval or declaration by the owner is not required:

1. All ICA issued by the Design Approval Holder (DAH) are followed without deviation:
2. All maintenance recommendations, such as TBO intervals, issued through Service Bulletins, Service Letters and other non-mandatory service information are being followed without any deviations:
3. There are no additional maintenance tasks to be performed resulting from specific equipment, modifications, repairs, life limited or flight safety critical components, operational approvals or use of the aircraft and operational environment:
4. Pilot owners are authorised to perform pilot owner maintenance.

Pilot owner maintenance does not preclude this option unless the pilot owner or any of the pilot owners are not authorised to perform pilot owner maintenance, because this has to be specified in the AMP.

Aircraft Maintenance Programmes – Update and Review (if under BGA control)

Each AMP shall be reviewed for effectiveness annually either coincident with the airworthiness review or as an independent task (as an independent task only if the aircraft

is managed). If the review shows deficiencies related to the content of the AMP, the AMP shall be amended accordingly. The review shall contain:

1. Results of the maintenance performed during that year indicating the AMP is not adequate.
2. Results of the airworthiness review indicating the AMP is not adequate.
3. Revisions to documents affecting the programme basis such as the MIP / DAH data.
4. Applicable mandatory requirements (e.g. ADs, airworthiness limitations, CMR, TCDS).
5. Attention to areas that may be impacted by deviations or tasks alternate to those specified by the DAH.
6. Consideration as to whether the defects found could have been prevented by introducing in the maintenance programme certain DAH recommendations that were initially disregarded by the owner, CAMO or CAO.

Where the aircraft is not managed, the review shall always be performed as part of the airworthiness review process and to enable such work, all relevant maintenance records shall be obtained from the owner.

Noting that for non-managed aircraft the organisation is not responsible for amending the AMP, the issues will be recorded and raised with the owner, CAMO or CAO as appropriate and in the case of dispute over the content of any required changes, the UK CAA shall be informed via the allocated Airworthiness Surveyor.

Aircraft Maintenance Programmes – Approval

The AMP shall be allocated a unique reference number.

No UK CAA reference number is required, and it is not required to send a copy of the AMP or amendments to the UK CAA as part of the approval process.

A copy of each complete AMP, subsequent amendment, approval and justification for any deviations or alternate tasks will be kept on file.

If a programme owner produces and approves an amendment to a UK CAA approved programme (for aircraft in the scope of Part-ML only), the programme at the point of approval of the amendment becomes an organisation approved programme and the CAA approval of that programme is no longer valid. The UK CAA must be notified that the programme is no longer directly CAA approved and is now under the organisation's control by sending brief details to apply@caa.co.uk

ML.3 AIRWORTHINESS REVIEW – AIRWORTHINESS REVIEW CERTIFICATE ISSUE

As of 24 March 2020, Airworthiness Reviews for aircraft subject to the Part-ML requirements shall be performed in accordance with Subpart I of Part-ML. Existing ARCs issued prior to 24 March 2020 shall continue to be valid after 24 March 2020 until the stated expiry date.

The airworthiness review staff shall perform a documented review of the aircraft records to verify that:

1. Airframe, engine and propeller flying hours and associated flight cycles have been properly recorded:
2. The flight manual is applicable to the aircraft configuration and reflects the latest revision status:
3. All the maintenance due on the aircraft according to the AMP has been carried out:
4. All known defects have been corrected or deferred in a controlled manner:
5. All applicable ADs have been applied and properly registered:
6. All modifications and repairs made to the aircraft have been registered and are in compliance with Annex I (Part 21) to Regulation (EU) No 748/2012:
7. All service-life limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit:
8. All maintenance has been certified in accordance with Annex Vb (Part-ML):
9. If required, the current mass and balance statement reflects the configuration of the aircraft and is valid:
10. The aircraft complies with the latest revision of its type design approved by the agency:
11. If required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with subpart I of Annex I (Part-21) to regulation (EU) 748-2012.
12. Where applicable, the review of the effectiveness of the AMP shall be performed in conjunction with the airworthiness review.

The airworthiness review staff referred to above shall carry out a physical survey of the aircraft. For this survey, Airworthiness Review Staff not appropriately qualified under Annex III (Part-66) shall be assisted by such qualified personnel. Through the physical survey of the aircraft, the Airworthiness Review Staff shall ensure that:

1. All required markings and placards are properly installed:
2. The aircraft complies with its approved flight manual:
3. The aircraft configuration complies with the approved documentation:
4. No evident defect can be found that has not been addressed according to point ML.A.403:
5. No inconsistencies can be found between the aircraft and the documented review of records as referred to above:
6. Where applicable, the review of the effectiveness of the AMP is performed in conjunction with the airworthiness review.

The Airworthiness Review may be anticipated for a maximum period of 90 days, without loss of continuity of the airworthiness review pattern, so as to allow the physical review to take place during a maintenance check.

For aircraft subject to the Part ML regime, EASA Form 15c (ARC) shall be issued by appropriately authorised airworthiness review staff upon completion of a satisfactory airworthiness review (Part ML, appendix IV refers) only when all findings have been closed and any discrepancy found in the AMP as a result of the coincident AMP review has been satisfactorily addressed.

A copy of any issued EASA Form 15c shall be sent to the state of registry within ten days of issue.

An existing Airworthiness Review Certificate 15b issued under Part M cannot be extended for 'light aircraft' under Part ML.

Note: EASA form 15C cannot be used for aircraft subject to Part M regulation.

The BGA Airworthiness Exposition, Appendix 5, describes Airworthiness Review Staff contact details.

ML.4 AIRWORTHINESS REVIEW – AIRWORTHINESS REVIEW CERTIFICATE EXTENSION

BGA aircraft are not managed in a controlled environment and this paragraph is therefore not applicable.

Aircraft Defects

The organisation shall ensure that:

1. Any aircraft defect that seriously endangers the flight safety is rectified before flight:
2. Any pilot reported defects have been either rectified or appropriately deferred:
3. Any defect that does not seriously hazard flight safety is rectified as soon as practicable from the date on which the defect was first identified and within the limits specified in the maintenance data:
4. Any defect not rectified before flight is recorded in the aircraft continuing airworthiness record system and that record is available to the pilot.

Communication between the organisation and the operator / owner shall be such that the above can be achieved.

The following persons may decide that a defect does not affect flight safety:

1. Pilot in respect of defects affecting non-required aircraft equipment:
2. The pilot in respect of defects other than those referred to in point 1 above, as long as the aircraft is operated in accordance with Part NCO or for sailplanes not operated commercially and the pilot defers the defect with the agreement of the aircraft owner or, if applicable, the contracted CAMO or CAO;
3. Appropriately qualified certifying staff in respect of defects other than those referred to in point 1 where the conditions in point 2 are not met.

ML.5 AIRCRAFT CERTIFICATE OF RELEASE TO SERVICE (CRS)

The aircraft CRS should contain one of the following statements:

1. 'certifies that the work specified, except as otherwise specified, was carried out in accordance with Part-ML, and in respect to that work, the aircraft is considered ready for release to service.' or:

for a pilot-owner:

2. ‘certifies that the limited pilot-owner maintenance specified, except as otherwise specified, was carried out in accordance with Part ML, and in respect to that work, the aircraft is considered ready for release to service.’.

Approval Statement:

This supplement contains the procedures required to establish compliance with Regulation (EU) No 1321/2014 (as amended) applicable from 24 March 2020 (Part-M and Part-ML).

These procedures are only valid until the organisation completes the transition to a Part-CAMO or Part-CAO organisation, or in any case no later than 24 September 2021.

The privileges in this supplement are the same as those granted under the approval issued to the British Gliding Association on 08 January 2009 pursuant to Subpart F or Subpart G of Annex I (Part-M).

The privileges in this supplement shall not exceed the privileges of an organisation referred to in Section A of Annex Vd (Part-CAO).

The organisation will, at all times, work in accordance with Annex I (Part-M) and Annex Vb (Part-ML) of Regulation (EU) No 1321/2014 (as amended) as applicable.

Pursuant to M.A.704, The British Gliding Association is permitted to amend the procedures in this supplement for the purpose of achieving compliance with Regulation (EU) 1321/2014 (as amended).

For the avoidance of any doubt, any new privileges require the approval of the CAA as the Competent Authority.

The amendments are valid only until the organisation completes the transition to a Part-CAO organisation, or in any case no later than 24 September 2021.

Signed on behalf of the British Gliding Association Ltd UK.MG.0279 and UK.MF.0007

on 23 March 2020

Pete STRATTEN

Chief Executive and Accountable Manager

BCAR Approval DAI/8378/73 Procedures Supplement

PART S BCAR PROCEDURES SUPPLEMENT

PART S1 GENERAL AND ORGANISATION

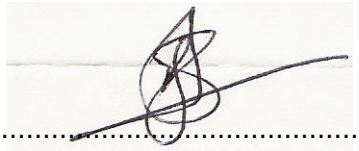
S1.1 CORPORATE COMMITMENT BY THE ACCOUNTABLE MANAGER

This Exposition Supplement defines the organisation, procedures and referenced manuals upon which the CAA DAI/8378/73 (BCAR A8-24 and A8-25) approval of the British Gliding Association Ltd is based. It also includes the BGA procedures for Annex II sailplanes and self-sustaining sailplanes, which are unregulated.

These procedures are approved by the undersigned and must be complied with, as applicable, in order to ensure that all the continuing airworthiness activities including maintenance for aircraft managed by the British Gliding Association Ltd is carried out on time and to an approved standard. It is my goal as Accountable Manager of the British Gliding Association Ltd to facilitate this process and I personally endorse the quality policy documented in section 2.1 of this manual.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the UK Civil Aviation Authority from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the CAA will approve this organisation whilst the CAA is satisfied that the procedures are being followed. It is further understood that the CAA reserves the right to suspend, vary or revoke the BCAR A8-24 Maintenance Organisation and BCAR A8-25 Continuing Airworthiness Management Approval of the organisation, as applicable, if the CAA has evidence that procedures are not followed and the standards are not upheld.

Signed:  Date: 10th June 2016.....

Name: P Stratten ..... Title: Accountable Manager, British Gliding Association Ltd

S1.2 SCOPE OF APPROVAL

S1.2.1 BGA CAPABILITY – CAA DAI/8378/73 APPROVAL

Class	Rating	Limitation
Aircraft	A2	Sailplane/powered sailplane – wooden structure
Aircraft	A2	Sailplane/powered sailplane – composite structure
Aircraft	A2	Aeroplane single piston engine – metal structure not exceeding 2730 Kg MTOM

A8-25 (CAMO)		
Aircraft Type/Series/Group	**Airworthiness Review Authorised – Yes/No**	**Organisation working under the BGA Quality System**
Sailplane/powered sailplane – wooden structure	Yes	None
Sailplane/powered sailplane – composite structure	Yes	None
Aeroplane single piston engine – metal structure not exceeding 2730 Kg MTOM	Yes	None

S1.3 UNREGULATED SCOPE OF WORK

S1.3.1 ANNEX II

Annex II gliders and self-sustaining sailplanes are not required to be registered provided they are used for private flying. Procedures and scope of work are detailed in this BGA Exposition Supplement, but the general standards of maintenance and record keeping applied are required by the BGA to be similar to those required for EASA gliders.

Annex II gliders and self-sustaining sailplanes are registered with the BGA and are issued with a BGA Certificate of Registration and Certificate of Airworthiness (C of A). The C of A is issued and renewed annually by the BGA. It is the indication of a satisfactory periodic technical audit of the condition and modification standard of a particular aircraft of a particular type. As a result of accidents or incidents, or as the result of airworthiness directives issued by a Government agency or service bulletins and/or technical notices issued by the manufacturers, it may be necessary to make special inspections or to incorporate mandatory modifications at the time of BGA C of A renewal or at any other intermediate time if the urgency is sufficient. The degree of inspection, dismantling or the depth of examination required for a BGA C of A renewal has not been defined and is a matter for the judgement of the authorised people concerned, who should sensibly take into consideration the hours flown, number of launches, the contents of previous inspection reports, manufacturers' recommendations and the obvious condition of the aircraft concerned.

Note: Although Annex II aircraft are not regulated in accordance with Part M requirements, the BGA requires aircraft inspection and maintenance standards to be similar.

Changes to the Scope of Work, the capability list and tug disposition may be made by the "Indirect Approval" process as described in para. 0.5.1.2

PART S2 BCAR A8-24 MAINTENANCE ORGANISATION

This Part S2 of the BGA Airworthiness Exposition merges the BCAR A8-24requirements into the BGA Part M Subpart F maintenance organisation and demonstrates compliance of the various requirements as applicable. It should be read in conjunction with Part 4 of this Airworthiness Exposition and the associated BGA AMP Manual requirements.

S2.1 PROCEDURES

S2.1.1 EXTENT OF APPROVAL

All procedures shall be the same as for ELA 1 aircraft except where specified. All A8-24 maintenance will be carried out in accordance with Part 0.6.3 'Other Maintenance Facilities' and Part 4 of this Airworthiness Exposition. Aircraft types are documented in Appendix 1. Inspectors are required to hold BGA authorisations in accordance with paragraphs 4, 4.4 and 4.5 with the appropriate valid section L licence.

Maintenance considered as a complex task will be carried out in accordance with BGA procedures as specified in AMP Leaflet 2-13. Fabrication of parts shall be in accordance with Appendix 4. Independent inspections are required as specified in para. 4.9.2. Maintenance work orders are required as specified in para. 4.8.

S2.1.2 DIFFERENCES TO AIRWORTHINESS EXPOSITION PART 4

Annex II aircraft are required to complete a CAA approved performance evaluation flight test at nominally 3 years interval to coincide with the National Airworthiness Review Certificate renewal (NARC) or as directed by the CAA or BGA in accordance with A8-5. The flight test must be carried out within 90 days preceding the NARC renewal or immediately following renewal. If the expiring C of A or NARC has expired a Certificate of Fitness for Flight under "A" conditions is required. This can only be issued by a BGA inspector with CE endorsement.

S2.1.2.1 Maintenance programme

Annex II aircraft shall be maintained to a CAA approved maintenance programme.

S2.1.2.2 Quality oversight

Annex II aircraft shall be included in the audit plan as detailed in Part 2 of the Airworthiness Exposition.

S2.2 COMPLIANCE CROSS REFERENCE

BCAR A8-24 reference	Equivalent Part M reference	BGA Exposition reference
Scope	M.A.601	Part 0, 0.2.5; Part 4, 4.1
Application	M.A.602	CAA function
Issue of approval	M.A.603	CAA function
Terms of approval	M.A.603	Part 4
Extent of approval	M.A.603	Part 4.1; Appendix 1
Maintenance organisation manual	M.A.604	Part 4, 4.2
Facilities	M.A.605	Part 0, 0.6; Part 4, 4.3
Personnel requirements	M.A.606	Part4, 4.4
Certifying staff	M.A.607	Part 4, 4.5
Components, equipment and tools	M.A.608	Part 4, 4.6
Maintenance data	M.A.609 and 401	Part 4, 4.7
Maintenance workorders	M.A.610	Part 4, 4.8
Performance ofmaintenance	M.A.402	Part 4, 4.9, 4.9.1 and 4.9.2
Component maintenance	M.A.502	Part 4, 4.6.1 to 4.6.18
Aircraft defects	M.A.403	Part 4, 4.9.3 and 4.9.4
Aircraft C.R.S.	M.A.612 and 801	Part S4, S4.3 to S4.5
Component C.R.S.	M.A.613	Part 4, 4.6.1 to 4.6.6
Maintenance records	M.A.614	Part 4, 4.11
Privileges of theorganisation	M.A.615	Part 4
Organisational review	M.A.616	Part 2, 2.16; Part 4, 4.12
Changes to the approved maintenance organisation	M.A.617	Part 4, 4.13
Continued validityof approval	M.A.618	Part 4, 4.14
Findings by the CAA	M.A.619	CAA Function

PART S3 BCAR A8-25 CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

This Part S3 of the BGA Airworthiness Exposition merges the BCAR A8-25 requirements into the BGA Part M Subpart G Continuing Airworthiness Management Organisation and demonstrates compliance with the various requirements as applicable.

The BGA maintains aircraft in the uncontrolled environment and airworthiness management is the responsibility of the aircraft owner.

S3.1 PROCEDURES

S3.1.1 EXTENT OF APPROVAL

All procedures shall be the same as for ELA 1 aircraft except where specified and are only applicable to Annex II powered sailplanes and BGA Tug aircraft.

As the aircraft are not in a controlled environment an annual Airworthiness Review is required. Aircraft types shall be those listed in Appendix 1. Tug aircraft are listed in the BGA Tug Disposition list, Appendix 3.

BGA inspectors wishing to exercise the privileges of BCAR airworthiness review staff and NARC signatory must hold current BGA authorisations CE and ARC Signatory.

Airworthiness review staff qualified as above and previously approved to issue EASA ARCs (M.A.707) will be considered for authorisation to issue a NARC, subject to differences training. Maintenance work orders are required, see para. 4.8 of the Airworthiness Exposition.

S3.1.2 DIFFERENCES TO AIRWORTHINESS EXPOSITION PART 3

Part 3, 3.2.1

The issue of a NARC will require a full documentation review. To extend a NARC in the BGA's uncontrolled environment an Annual Review is required. This shall include as a minimum a check to ensure that:

a) All applicable Airworthiness Directives have been embodied and properly registered.
b) All maintenance specified in the approved maintenance programme has been carried out in accordance with the programme.
c) All modifications and inspections deemed mandatory by the CAA have been carried out as required by the CAA.
d) All defects entered in the aircraft records have been rectified or deferred in accordance with CAA approved procedures and,
e) All required certificates of release to service have been issued.

Part 3, 3.2.2

The issue of the NARC will require a physical inspection. To extend the NARC, the physical survey is carried out as part of the annual inspection.

Performance evaluation check flights are no longer routinely required for National Airworthiness Review Certificate (NARC) renewal. The CAA or BGA may decide that a performance check flight is required in some circumstances. The aircraft owner will be advised should this be the case.

Maintenance check flights may be required after certain maintenance that requires evaluation during flight or after major component replacement. See CAP 1038 Check Flight Handbook for further information.

If a check flight is required and the C of A or NARC has expired a certificate of Fitness for Flight under "A" conditions is required. This can only be issued by a BGA inspector with CE endorsement.

Part 3, 3 3

BGA AMP Leaflet 2-12 details the NARC issue procedure. The NARC may be issued using the NARC on-line process if authorised by the BGA, or by the paper process. A copy of the issued NARC must be forwarded to the CAA within 10 days of issue in accordance with BGA procedures.

A National Airworthiness Review Certificate must not be issued, or a recommendation to issue be made, if there is evidence or reason to believe that the aircraft is not airworthy.

Potential safety threat:
Whenever circumstances reveal the existence of a potential safety threat, the CAA shall carry out the airworthiness review and issue the National Airworthiness Review Certificate.

S3.2 MAINTENANCE PROGRAMME

Annex II aircraft shall be maintained to a CAA approved maintenance programme.

S3.3 QUALITY OVERSIGHT

Annex II aircraft shall be included in the audit plan as detailed in Part 2 of this Airworthiness Exposition.

S3.4 COMPLIANCE CROSS REFERENCE

BCAR A8-25 ref.	**Equivalent Part M ref.**	**BGA Exposition ref.**
Scope	M.A.701	Part 0, Part 1 and Appendix 3
Application	M.A.702	CAA function
Extent of approval	M.A.703	CAA function
Continuing airworthiness management exposition	M.A.704	Part 4.2
Facilities	M.A.705	Part 0.6
Personnel requirements	M.A.706	Part 0.3, Part 4.4
Airworthiness review staff	M.A.707	Part 3.5
Continuing airworthiness management	M.A.708	Uncontrolled environment
Documentation	M.A.709	Part 1.5
Airworthiness review	M.A.710	Parts 3.1, 3.2, 3.4 and 3.4
Privileges of the organisation	M.A.711	Part 3.4.5
Quality system	M.A.712	Part 2
Changes to the approved continuing airworthiness organisation	M.A.713	Part 4.13
Record keeping	M.A.714	Parts 1.9 and 1.10
Continued validity of approval	M.A.715	CAA function
Findings by the CAA	M.A.716	CAA function

PART S4 ANNEX II MOTOR GLIDERS AND TUG AIRCRAFT

S4.1 FEATURES OF THE BGA AIRWORTHINESS APPROVAL

S4.1.1 COMPLIANCE WITH REGULATIONS

Responsibility for ensuring compliance with the requirements of the Air Navigation Order as amended (the ANO), BCAR and other regulations is delegated by the BGA CTO to the authorised Airworthiness review Engineer at each approved facility. Similarly, the BGA also delegates responsibility for the application of operational airworthiness standards and good trade practices. Advice on the interpretation of CAA regulations and requirements is to be sought from the CTO. Ignorance of the law is no defence and aviation law is complex and can be difficult to interpret. Regulatory requirements are contained in the ANO, BCAR Section A/B, Airworthiness Notices and further defined in CAP 396 – Registration, Certification and Maintenance of Aircraft.

S4.1.2 APPLICABLE AIRCRAFT

The BGA's approval for the airworthiness control of aeroplanes extends to aircraft on the British Civil Register which are used as tug aircraft by BGA Gliding Clubs, self-launching motor gliders and touring motor gliders and self- sustaining sailplanes type approved or accepted by EASA or the UK CAA. Other powered aircraft are excluded from the BGA approval.

S4.1.3 LEGAL REQUIREMENT FOR AIRWORTHINESS CERTIFICATE

It is a legal requirement of the ANO that all registered aircraft shall have a valid Airworthiness Certificate whenever they are flown. There are potentially serious consequences if aircraft are flown without a valid Airworthiness Certificate, including the possible withdrawal of insurance cover. Each Club is to develop procedures to ensure that aircraft without a valid Airworthiness Certificate are not made available for flight or not allowed to operate from the Club site.

S4.2 FACILITIES, AIRWORTHINESS STANDARDS AND PROCEDURES

Notwithstanding the differences stated below all facilities, airworthiness standards and procedures are identical to those required by EU regulation 2042-2002 Part M and are detailed in Part 4 of the BGA Airworthiness Exposition.

S4.2.1 APPROVAL OF WELDERS

All welding on CAA registered aircraft must be carried out by an approved welder and certified by an appropriately rated BGA Inspector or LAE. Welding may only be carried out by a CAA approved welder. This includes welders holding JAR145 authorisations in the correct discipline.

Note: The CAA requirement for the approval of welders is contained in BCAR Section A8-10.

S4.2.2 APPROVAL TO CONDUCT NON-DESTRUCTIVE TESTING (NDT)

Other than for the conduct of colour-contrast dye penetrant field tests for non-mandatory inspection assistance, all NDT must be carried out by persons approved in accordance with CAP 747 Generic requirements - GR23.

S4.2.3 APPLICATION FOR BGA BCAR A8-24 APPROVAL

Application for BGA BCAR A8-24 approval is detailed in AMP Leaflet 2-6 and consists of an application process including audit by BGA CTO or nominated person. Subsequent audits will be carried out by the BGA at approximately two-yearly intervals.

S4.3 CERTIFICATION OF AIRCRAFT MAINTENANCE

S4.3.1 GENERAL

All work, other than 'Pilot Maintenance' (see below), carried out on aircraft under the control of the BGA airworthiness system is to be certified by an appropriately Type-Rated LAE or appropriately authorised BGA Inspector. Details of the appropriate authorisations and ratings, together with the details of the authorisation process and the privileges and limitations of authorisation, are contained in the BGA Airworthiness and Maintenance Procedures Manual.

S4.3.2 CERTIFICATION OF WORK

All work carried out on aircraft with a CAA Airworthiness Certificate and under BGA airworthiness control is to be certified in the Aircraft, Engine or Propeller Logbook or on approved worksheets with a cross-reference made in the appropriate Logbook. A Certificate of Release to Service (CRS) is required for all maintenance activities and any certification is to include the following statement verbatim. On BGA approved worksheets reference may be made to this Exposition chapter number.

"The work recorded has been carried out in accordance with the requirements of the Air Navigation Order for the time being in force and in that respect the aircraft/equipment is considered fit for release to service."

The maintenance entry should include: Signature, Date, BGA authorisation or licence number, and BGA approval number, DAI/8378/73. An example is to be found in the BGA AMP Manual.

S4.4 PILOT MAINTENANCE

The ANO authorises certain repairs or replacements to be carried out on aircraft in the Private Category personally by the holder of an approved pilot's licence who is the owner or operator of the aircraft. The nature of work permitted under this concession is listed in the BGA AMPs. Any maintenance work carried out under the Pilot Maintenance scheme is to be entered in the appropriate aircraft or engine logbook, signed and dated by the pilot and authenticated with the pilot's PPL number or glider pilot licence number. If the glider pilot does not hold a pilot licence the surname and initials should be printed underneath the signature.

S4.5 DUPLICATE INSPECTIONS

S4.5.1 GENERAL

A duplicate inspection is to be made if any control system (airframe or engine) is disturbed or any critical bolted joint is disturbed or made. The inspection must be made after assembly and before next flight. The inspection must take into account inspections already made during the assembly stages for inaccessible or concealed locations. The duplicate inspection is to be an independent inspection except where simultaneous inspections are required e.g. observing bolt torque. Each part of the inspection must be recorded in the appropriate logbook or worksheet. It is the responsibility of the inspector completing the Airworthiness Certificate renewal or certifying the maintenance check that any required duplicate inspections are carried out and recorded. This task must not be left as an open entry for completion at a later date by a third party.

S4.5.2 AUTHORITY TO CARRY OUT DUPLICATE INSPECTIONS

For aircraft with a CAA Airworthiness Certificate, and operated under the BGA airworthiness scheme only, the following people are authorised to conduct Duplicate Inspections-

a) Glider Inspector – Any SSS or Motor Glider Airframe inspection

b) Self-sustainer Inspector – Second inspection only on Motor Glider Engines

c) Motor Glider - Any Motor Glider inspection. Second inspection only on BGA Tugs

d) Tug Inspector – Any inspection

e) Licensed Aircraft Engineer, Type rated - any inspection

f) Licensed Aircraft Engineer, LWTR - Any Motor Glider inspection, second inspection only on BGA Tugs

g) The holder of a Private Pilot Licence may certify the second part of the Duplicate Inspection for minor adjustments only. The first part must be carried out by an appropriately authorised person or LAE

S4.6 WEIGHT AND BALANCE OF AIRCRAFT

The weight and balance of an aircraft is to be undertaken and documented in accordance with BCAR A5-4. The BGA Chief Engineer or LAE may delegate the weighing process to suitably qualified personnel, but will still be responsible for raising or revising the weight schedule.

S4.6.1 FREQUENCY

The BGA recommends that aircraft are reweighed at an interval not exceeding 8 years.

Notwithstanding the above, aircraft are to be reweighed after recovering or repainting in accordance with Generic Requirement GR10.

S4.7 CAA AIRWORTHINESS CERTIFICATE ISSUE & RENEWAL RECOMMENDATION PROCEDURE

S4.7.1 INITIAL ISSUE FOR MOTOR GLIDERS AND TUGS

Initial issue of the Airworthiness Certificate for Annex II motor gliders and tugs will be undertaken by the CAA directly. The BGA will have no involvement. Certification of inspections or maintenance may be undertaken by an appropriately rated BGA inspector. A BGA Tug or Motor Glider A8-24 facility, as appropriate, or other commercial BCAR A8-24 approved facility, must be used. BCAR section A/B, Chapter 3-2 details the requirements.

It is the responsibility of the aircraft operator to ensure the aircraft details are notified to the BGA for inclusion in the BGA maintenance scheme and to allow certification by BGA inspectors.

S4.7.2 REGISTRATION

Prior to application for the issue of an initial Airworthiness Certificate all applicable aircraft must be registered with the CAA and display UK national registration marks and identification plates as required in the ANO.

S4.7.3 RENEWAL

Application to renew the C of A is made on a BGA 202 form and submitted to the BGA Head Office, Leicester, on completion of the maintenance and inspection tasks. The C of A renewal process is described in AMP Leaflet 2-5. The BGA Head office process is described in SOP 005.

The annual inspection, not combined with a C of A renewal, can be released back to service by an appropriately rated BGA inspector.

The Annual inspection with a C of A renewal may be certified by an appropriately rated BGA inspector. The recommendation for renewal of the C of A (Star Check) can only be made by an appropriately rated BGA Chief Engineer. CAA Annex II powered aircraft renewal inspections (Star Checks) must be carried out at a BGA BCAR A8-24/25 approved facility.

Unless directed otherwise, Annex II powered aircraft with a CAA C of A require flight testing at time of C of A renewal.

If the C of A has expired a Certificate of Fitness for Flight under “A” conditions is required. The BGA Chief Engineer is authorised to issue these certificates.

S4.7.4 SUBSEQUENT ISSUE

This is for aircraft that have an Airworthiness Certificate that has lapsed by more than 12 months.

For Motor Gliders, SLPS and TMG where the Airworthiness Certificate has lapsed by more than 12 months:

In order to alleviate the need for CAA Surveyor involvement, the CAA requires that the aircraft and records are surveyed by the CTO personally. Details of the survey should be maintained and annotated on the AD202NR submitted to the CAA.

For BGA Glider Tugs where the Airworthiness Certificate has lapsed by more than 12 months:

The owner should re-apply directly to the CAA on form CA3. The full fee for a subsequent issue would be charged and payable directly to the CAA. The Airworthiness Certificate will be renewed by the CAA Surveyor on completion of a satisfactory survey of the aircraft and records.

S4.8 AIRWORTHINESS CERTIFICATE RENEWAL FLIGHT TESTING

Airworthiness Certificate renewal flight tests are to be undertaken in accordance with BCAR A3-5 and the BGA Airworthiness Maintenance Procedures Manual. Flight testing is only required for Annex II aircraft issued with a CAA Airworthiness Certificate.

S4.8.1 MOTOR GLIDER FLIGHT TESTS

SLMG or TMG flight tests are to be carried out in accordance with BGA 267FT. Test pilots must be approved by the CAA.

S4.8.2 TUG FLIGHT TESTS

Tug flight tests are to be carried out in accordance with the current CAA Flight Test Schedule by a pilot authorised and approved by the CAA to conduct Airworthiness Certificate renewal flight tests.

S4.9 CONTINUED AIRWORTHINESS

Maintenance, inspections, replacements, approved modifications and repairs may be released by an appropriately rated BGA inspector.

Mandatory inspections and modifications (Airworthiness Directives) issued by the CAA, EASA or state of design must be embodied as detailed unless otherwise directed by the CAA.

S4.10 MOTOR GLIDER RESTORATION PROJECTS

To satisfy the requirements of CAA CAP 562 CAAIP, Leaflet 11-45, and the requirement for CAA involvement to survey the aircraft, the BGA CTO may carry out the survey and carry out long term monitoring of Glider and Motor Glider restoration projects on behalf of the CAA. The procedure is detailed in BGA AMP Manual Leaflet 2-10.

It is the responsibility of the engineer certifying the restoration project to inform the BGA CTO at the beginning and throughout the project of progress in order that the BGA CTO may make necessary judgements regarding the required surveys. A survey will be carried out at the beginning and on completion of the restoration project as a minimum requirement. The final survey will act as the Airworthiness Certificate subsequent issue survey. The initial and final survey must be carried out by the CTO. Interim monitoring surveys may be carried out by either the CTO or RTO. BGA Tug aircraft are excluded from this procedure and a Glider or Motor Glider owner may use the CAA regional office surveyor if desired (Normal CAA fees apply).

PART S5 ANNEX II SAILPLANES AND SELF-SUSTAINING SAILPLANES

S5.1 INTRODUCTION

This Part S5 of the Airworthiness Exposition is unregulated but is described here for completeness.

Sailplanes and Self-Sustaining Sailplanes (SSS) in the UK declared by EASA as Annex II are exempt from many of the provisions of the Air Navigation Order and do not legally require a Certificate of Airworthiness (Airworthiness Certificate) to be able to operate in the Private and Sporting roles, except in special circumstances. However, the BGA has decided that some system of control is necessary to ensure that sailplanes and SSS operating within the Association are inspected and maintained to a satisfactory standard. Moreover, it has been agreed that there should be adequate means of distributing technical information, whether advisory or mandatory, to those persons concerned with the day-to-day maintenance of such aircraft. Whilst the BGA does not possess statutory legal powers, it ensures compliance with airworthiness procedures through its club structure, which prohibits the operation at a BGA club of any sailplane or SSS which does not possess a current C of A (Airworthiness Certificate) or Permit-to-Fly. This effectively denies the provision of launch facilities to any non-complying sailplane. The BGA uses the same organisational structure for its self-regulated airworthiness control as it does for that aspect of its airworthiness function which is regulated by the CAA and this structure is defined in Part 0 of this Exposition. Each BGA-registered aircraft must display the unique number allocated by the BGA on the fin or rear fuselage. Sailplanes and SSS subject to EU regulation are subject to the procedures detailed in Part 4 of this Exposition.

S5.2 AIRWORTHINESS REQUIREMENTS FOR SAILPLANES AND SSS

S5.2.1 BACKGROUND

The airworthiness of BGA-registered sailplanes and SSS is based upon the design requirements contained in the following documents:

a) Joint Airworthiness Requirement (JAR) Part 22/Certification Specifications (CS) 22
b) OSTIV Design Code for Sailplanes
c) BCAR Section E for vintage sailplanes which predate JAR 22/CS 22

Sailplanes designed to other airworthiness standards may be accepted for BGA registration provided the necessary technical information is supplied to the BGA Technical Committee. This information enables the Committee's members to assess the effects on safety and the need for any additional limitations resulting from the differences in design requirements.

A number of simple old/vintage glider types of UK and foreign design have held valid UK Certificates of Airworthiness in the past, but the original Type Design Organisation no longer exists or no longer provides continued airworthiness support. In these cases, the BGA could provide support through a Type Responsibility Agreement in accordance with any applicable agreement between the BGA and the CAA. Details of support arrangements will be documented in BGA AMPs.

S5.2.2 PRINCIPLES

The continuing airworthiness of BGA-registered sailplanes is achieved by the classical framework of annual certification of airworthiness inspections, periodic checks and daily

inspections. Sailplanes are frequently dismantled and reassembled (de-rigged and rigged), much more so than any other type of light aircraft.

Particular attention is therefore demanded for rigorous Daily Inspection (DI), with special procedures following control connection and the completion of a daily logbook entry on each occasion that a DI is completed. The technical standards to be followed in the maintenance of the BGA's airworthiness standards follow criteria established by the international aviation community, principally those of the FAA, the CAA and ICAO. Additional procedures have evolved from specific sailplane requirements and BGA operational experience.

S5.2.3 FLIGHT MANUALS

Operating data for sailplanes and SSS is usually found in the Aircraft Flight Manual or Operator's Handbook provided by the manufacturer. Knowledge of the manufacturer's operating requirements is a fundamental tenet of continued airworthiness and these documents sometimes contain details of maintenance procedures or a technical description of aircraft systems.

S5.2.4 LOGBOOKS

A Logbook is to be raised for all BGA-registered sailplanes and SSS. Aircraft owners are to enter into the logbook details of flying hours and launches and a summary of all work carried out. A copy of each BGA GMP report form (BGA 267) is to be retained in the logbook. Additionally, a Daily Inspection Record Book is to be raised for each BGA registered sailplane or SSS. This book is to be used to certify that the "Daily Inspection" and, where necessary, post-rigging control checks or duplicate checks have been carried out.

S5.2.5 DOCUMENTATION OF WORK CARRIED OUT

All work carried out on sailplanes and SSS is to be documented in the aircraft Logbook, the BGA GMP report form BGA 267 or on a rectification work sheet, copies of which are to be attached to the logbook or maintained in a maintenance file which forms part of the logbook. These documents form part of the documentary history of the aircraft and are to be retained until the aircraft is destroyed. When aircraft change hands, all documentation is to be transferred to the new owner.

S5.2.6 CERTIFICATION OF WORK CARRIED OUT

Daily inspections and pilot maintenance may be certified on private sailplanes by pilots who have been briefed by a flying instructor or BGA Inspector on the requirements of the inspection. On club sailplanes this may be carried out by pilots who have been deemed competent and have been approved by the operating club.

All other work, including defect rectification and the GMP report form BGA 267, is to be certified by a BGA Inspector. Any certification outside of normal limitations, such as for new aircraft type approval, initial build or development work, must be authorised by the CTO and/or the Technical Committee.

S5.2.7 CLASSIC AND VINTAGE SAILPLANES

Unless a finite airframe life is promulgated by the aircraft manufacturer, the BGA places no arbitrary life limitation on classic and vintage sailplanes. These sailplanes are allowed to fly within the constraints of suitable operating limitations subject to them being shown to be airworthy.

S5.2.8 DEFECT REPORTING

It is essential that BGA Inspectors ensure that details of new or unusual defects are promptly reported to the BGA CTO. This will ensure that significant faults are brought to the attention of the BGA Technical Committee and that appropriate remedial action can be initiated. Where necessary, details of the faults will be circulated throughout the gliding community by use of BGA Technical News Sheets.

S5.2.9 APPROVAL OF WELDERS

The requirements for the approval of welders for aircraft with a CAA Airworthiness Certificate are contained in BCAR Section A8-10. These requirements are supported by the BGA Technical Committee. However, for aircraft with a BGA Airworthiness Certificate, the BGA Technical Committee has also agreed that welders who are appropriately qualified and quality assured under Ministry of Defence Technical procedures for the three Services are also acceptable to the BGA.

Note: Only CAA approved welders may carry out welding on 'G' registered aircraft, SLPS & TMG.

Commercial welders may also carry out welding on sailplanes issued with a BGA Airworthiness Certificate provided that they are regularly tested in the correct discipline (Tig or Gas, Tube to tube or plate). Regularly tested means approximately at two-yearly intervals by an accredited testing house. It is the BGA Inspector's responsibility to ensure that the welder is suitably qualified and a BGA inspector must certify all welding.

S5.3 SAILPLANE AND SSS BGA AIRWORTHINESS CERTIFICATE

S5.3.1 INTRODUCTION

Sailplanes and SSS new or new to the UK post 28/9/03 and listed as Annex II aircraft are eligible for the issue of a BGA Airworthiness Certificate. A BGA Airworthiness Certificate is issued on satisfactory completion of a systematic technical audit of the aircraft to ensure compliance with accepted standards of airworthiness, the embodiment of essential modifications and the satisfactory compliance with other technical instructions or Service Bulletins. A BGA Airworthiness Certificate can only be granted to a sailplane or SSS which has been awarded BGA Type Approval and is listed as Annex II.

S5.3.2 MAINTENANCE FACILITIES

To ensure appropriate levels of airworthiness can be sustained, all maintenance activity is to be carried out in suitable accommodation. The standards of facility required for the maintenance of sailplanes and SSS are similar to those required for the maintenance of powered aircraft, as detailed in Part 4 of this Airworthiness Exposition. Access is required to appropriate tooling and calibrated test equipment as dictated by the aircraft maintenance schedule or the BGA Glider Maintenance Programme (GMP).

S5.3.3 DEPTH OF INSPECTION

The depth of inspection necessary to determine the airworthiness of a sailplane or SSS must be judged by a suitably rated BGA Inspector. This assessment must be made taking into account the previous utilisation of the aircraft, its overall condition and the nature of its previous history as recorded in the logbook. A further factor to be considered is the nature of the aircraft's storage when not in use. Prolonged storage in a poorly ventilated trailer, or in the

open and exposed to the elements, can cause significant deterioration, especially to sailplanes of wooden construction. All defects and the remedial action carried out are to be recorded on a rectification worksheet.

S5.3.4 ROLE OF THE BGA GMP REPORT FORM (BGA 267)

The BGA GMP report form BGA 267 provides a systematic method of inspection and reporting on the condition and state of airworthiness of a sailplane or SSS prior to renewal of the BGA Airworthiness Certificate and is used as a check list for the BGA Glider Maintenance Programme (GMP). Three copies of the completed BGA 267 are required; one is to be retained in the aircraft logbook, one is to be sent to the BGA and the third copy is to be retained by the inspector. Copies of any additional rectification worksheets are to be retained in the aircraft logbook or maintenance file. If a maintenance file is used this forms part of the logbook and maintenance history.

S5.3.5 MANDATORY INSTRUCTIONS

Details of all mandatory Service Bulletins, modifications or other technical instructions applicable to each type of sailplane or SSS are promulgated in the BGA Compendium or Airworthiness Directives. Compliance with mandatory inspections and modifications (AD's) must be recorded in the sailplane logbook. Compliance with all mandatory instructions is to be checked at each BGA Airworthiness Certificate renewal and noted on the BGA 267. The primary method of retrieving the Compendium is the BGA web site, where it is updated every two months to include the TNS information.

S5.3.6 COCKPIT PLACARDS

Cockpit placards are required to notify to pilots all details of aircraft weight, balance and speed and manoeuvre limitations. These placards must be clearly visible to the pilot and contain the data promulgated in the Flight Manual for the aircraft type. The validity date of the BGA Airworthiness Certificate is to be displayed on a placard in the aircraft cockpit.

S5.3.7 EXTENSION AND ANTICIPATION OF BGA AIRWORTHINESS CERTIFICATE

With the prior agreement of the BGA CTO, sailplane and SSS BGA Airworthiness Certificate renewal dates may be extended by a period not exceeding 30 days. A request should be made in writing either by e-mail (preferred) or by letter. BGA Airworthiness Certificates may be anticipated by up to 2 months without loss of continuity of the maintenance cycle. Any anticipation in excess of two months will be lost.

When a BGA Inspector is satisfied that all necessary work has been completed, that the sailplane or SSS is airworthy and that the BGA GMP report form (BGA 267) has been completed and sent to the BGA without undue delay, the aircraft may be released for flight in advance of receipt of the renewed BGA Airworthiness Certificate. This action is certified by attaching a 30-Day Ticket, suitably dated and signed, in the cockpit. This ticket remains valid for a maximum period of 30 days.

It is not necessary to issue a 30-day ticket where the airworthiness certificate has been anticipated by more than 30 days.

A 30-Day Ticket **may not** be issued to sailplanes, self-sustaining sailplanes, self-launching sailplanes, motor gliders or tug aircraft issued with an EASA Airworthiness Certificate.

S5.4 MODIFICATION OF SAILPLANES

S5.4.1 APPLICABILITY

The modification procedure below is only applicable to sailplanes and SSS issued with a BGA Airworthiness Certificate.

S5.4.2 INTRODUCTION

By virtue of its composition, the BGA Technical Committee enjoys the benefit of the expertise of specialists in the fields of aircraft design, structure, handling qualities, repair and maintenance. As a result, the BGA Technical Committee has the capability to investigate and approve modifications to sailplanes and SSS which may fall into either of the 'Minor' or 'Major' classification. This capability is usually exercised in close consultation with the aircraft manufacturer concerned.

S5.4.3 CLASSIFICATION AND MODIFICATIONS

Modifications are classified as follows:

Minor Modifications
Minor modifications are usually relatively simple changes of aircraft configuration to improve reliability or maintainability. Minor modifications usually do not require a change to the aircraft Flight Manual and may be authorised by the BGA CTO.

Major Modifications
A major modification is required when a change to an aircraft requires amendment of the Flight Manual. Additionally, a major modification is required when a repair has been carried out which is not covered in the aircraft repair manual or in journals of standard aircraft repair techniques. Major modifications may need to be forwarded to the BGA Technical Committee for approval but in the first instance are to be referred to the BGA CTO.

S5.4.4 MODIFICATION APPLICATION PROCEDURE

The procedure for applying for approval of a modification is shown in the BGA Airworthiness Maintenance Procedures Manual.

S5.4.5 RECORDING OF MODIFICATIONS

The embodiment of a modification is to be recorded in the aircraft Logbook. A copy of the modification instructions and any drawings needed for embodiment of the modification are to be retained with the aircraft documents.

S5.5 REPAIRS TO SAILPLANES

S5.5.1 INTRODUCTION

Whilst extremely strong (typically +8g load factors), sailplanes and SSS are, by virtue of their long wing and mono-wheel undercarriage configuration, more susceptible to minor damage than general aviation light aircraft. On occasions such as field landing accidents this damage may be of an extreme nature and could require major structural repair of wings, fuselage or tail. The BGA procedures provide standard repair schemes based on FAA and CAA practices for sailplane repairs. In the event of major repairs being required, particularly in composite structures, reference is always made where possible to the original sailplane manufacturer for a specific repair scheme. The need for a major modification must also be considered.

S5.5.2 REPAIR SCHEMES

All repairs to sailplanes are to be carried out in accordance with a specific approved repair scheme or in accordance with an approved standard repair scheme. A series of design-approved standard repairs suitable for older sailplanes are promulgated in the former Air Publication AP 2662 A&B - Standard Repairs to Gliders. Although this publication is no longer supported by the MOD, copies are available from the BGA. Further information on the repair of wooden and fabric-covered structures is available in various leaflets within CAP 562 - Civil Aircraft Airworthiness and Inspection Procedures. Major repair schemes may require the specific approval of the manufacturer or the BGA Technical Committee.

S5.5.3 REPAIR FACILITIES

It is essential that repairs to sailplanes and SSS are only carried out in workshop conditions which are suitable to ensure structural integrity. This is especially so in the case of repairs to fibre-reinforced plastic structure where temperature and humidity are fundamental to the subsequent strength of a repair.

S5.5.4 CERTIFICATION AND RECORDING OF REPAIRS

Full details of all repairs are to be recorded in the aircraft logbook and certified by an appropriately rated BGA Inspector. On completion of the repair a comprehensive repair report is to be compiled, a copy of which is to be forwarded to the BGA head office for inclusion in the aircraft's file.

S5.5.5 GUIDANCE ON SPECIFIC REPAIRS

Additional guidance on the conduct of specific repairs is as follows:

Repair of Metal Aircraft

The manufacturer's Repair Manual must form the basis of all repairs. Additional guidance, especially on corrosion control, is contained in the various leaflets of CAP 562 - Civil Aircraft Airworthiness and Inspection Procedures. The manufacture of replacement parts may only be undertaken as a modification procedure. Further information on standard repairs to metal aircraft structures, including tubular-steel frames, is contained in the FAA publication EA-AC43-13, 1a and 2a, available from the BGA.

Repair of GRP Aircraft

As with metal aircraft, GRP aircraft must be repaired only in accordance with an approved repair scheme. Guidance on the techniques to be used in GRP repairs is contained in the BGA Airworthiness Maintenance Procedures Manual.

S5.6 INVESTIGATION OF ACCIDENTS AND INCIDENTS

S5.6.1 INVESTIGATION OF ACCIDENTS

The prompt and thorough investigation of all aspects of sailplane accidents and incidents is an essential element of sustaining the continued airworthiness of any aircraft. Operational and engineering assessments, together with trend analysis, are carried out. The ANO permits the AAIB to delegate the investigation of sailplane accidents to the BGA. Investigation of the engineering implications of an accident will be directed by the Chairman of the BGA Technical Committee. A rapid response is required in the event of an accident and, of necessity, much of this work will be organised on the telephone.

S5.6.2 INVESTIGATION OF INCIDENTS

In addition to the investigation of accidents, it is essential that the engineering implications of air incidents or other engineering arisings are also thoroughly investigated. Reports on these arisings are to be submitted on BGA Form 1022 using the procedure outlined in more detail in the BGA Airworthiness Maintenance Procedures Manual.

S5.7 AUDIT AND QUALITY

Although not a regulatory requirement the BGA has decided that the airworthiness of Annex II sailplanes and SSS will be subjected to a similar level of quality oversight as EASA types and these requirements are detailed in Part 2 of this Airworthiness Exposition.

S5.8 CERTIFICATION OF MAINTENANCE

S5.8.1 GENERAL

All maintenance carried out on BGA aircraft, including sailplanes, powered sailplanes and self-sustaining sailplanes, is to be certified by a BGA-authorised Inspector holding the appropriate rating. The scope of these approvals, including specific limitations and privileges, is detailed in the BGA Airworthiness Maintenance Procedures Manual.

S5.8.2 BGA AIRWORTHINESS CERTIFICATE

All maintenance carried out on aircraft with a BGA Airworthiness Certificate is to be certified in the appropriate logbook. Alternatively, the work may be certified on an approved worksheet and a summary of the work recorded in the aircraft logbook. Any certification is to be made in accordance with the following statement (on BGA approved worksheets reference may be made to this Exposition chapter number):

"**The work recorded has been carried out in accordance with BGA procedures as stated in the BGA Airworthiness Exposition and in that respect the aircraft/equipment is considered fit for release to service**"

The maintenance entry is to be signed, dated and the individual's BGA Authorisation number stated.

S5.8.3 LIMITATION OF CERTIFICATION AUTHORITY

A BGA inspector of any rating may not certify under the authority of the BGA authorisation any aircraft, equipment, parts or components unless the said aircraft or equipment is under the control of and registered with the British Gliding Association. The BGA approval granted is for maintenance only and should approval for development work or construction be required application should be made to the BGA Technical Committee. In the case of aircraft with a BGA Airworthiness Certificate, maintenance certifications may only be made by an appropriately rated BGA inspector (except in the case of duplicate inspections as detailed below). Any requests for certifications by other inspectors approved elsewhere should be made to the CTO in writing and may be passed for approval by the Technical Committee.

S5.9 DUPLICATE INSPECTIONS

S5.9.1 GENERAL

A duplicate inspection must be made if any control system (airframe or engine) is disturbed or any critical bolted joint is disturbed or made. The inspection must be carried out after assembly and before flight. The inspection must take into account inspections during the

assembly stages for inaccessible or concealed locations. The duplicate inspection must be an independent inspection except where simultaneous inspections are required, i.e. observing bolt torque. Each part of the inspection must be recorded in the appropriate logbook or worksheet. It is the responsibility of the inspector completing the BGA Airworthiness Certificate renewal or certifying the maintenance check that any required duplicate inspections are carried out and recorded. This task must not be left as an open entry for completion at a later date by a third party.

S5.9.2 RIGGING OF SAILPLANES

A duplicate inspection is not required on a control designed to be disconnected for rigging and de-rigging. However, replacing or adjusting the control does require a duplicate inspection. This statement does not inhibit a duplicate inspection being made after rigging if desired or if club policy requires it.

S5.9.3 AUTHORITY TO CARRY OUT DUPLICATE INSPECTIONS

For sailplanes with a BGA Airworthiness Certificate the following people are authorised to conduct duplicate inspections-

a) Glider Inspector - any airframe inspections but second inspection only on SSS engine

b) SSS inspector - any airframe inspection or SSS engine inspection

c) Motor Glider Inspector - any inspection

d) Tug inspector - any inspection

e) Licensed Aircraft Engineer - any inspection

f) An experienced sailplane or motor glider pilot - second inspection only to the limit of the pilot's licence held

g) A person authorised by the CTO for the purpose

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