# **BGA Airworthiness and Maintenance Procedure**

# BGA CAO PART 66L TRAINING APPROVAL PROCESS

# Version 1.1 5 April 2025

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#### Amendment Record

Changes to this document are to be recorded below.

<b>Revision No/Date</b>	Details	Approved by

## **Glossary of terms**

Accountable manager	Responsible for ensuring the BGA CAO is adequately resourced (CAO.A.035	
	Personnel requirements)	
BGA	British Gliding Association	
BGA Inspector	A Inspector A person authorised as a BGA Inspector by the BGA	
CAO	O Combined Airworthiness Organisation	
СТО	Chief Technical Officer	
Deputy CTO	Nominated by the BGA and adopts the CTO role in the CTO's unavoidable absence	
Sponsor	A suitably experienced BGA inspector with Part-66L licence operating within the	
	BGA CAO who has agreed to co-ordinate and mentor the trainee's activities	
Technical Committee	Subject matter expert sub-committee appointed by and reporting to the BGA	
	Executive Committee	
Trainee	A potential holder of a Part-66L licence training with the BGA CAO	
Training engineer	Either the Sponsor or another suitably qualified and experienced BGA inspector	
	with Part 66-L licence operating within the BGA CAO	

# 1) Introduction

The BGA CAO undertakes training leading to the Part 66-L licence rated for sailplanes and powered sailplanes (L1C, L1, L2C, L2). This training follows the in-house training provisions of Part 66 under the BGA CAO authority UK.CAO.0025.

## 2) Aims of Training

The aims of the training are:

- a) To ensure that a trainee has sufficient knowledge, aptitude, competence and skill to be able to correctly inspect and maintain sailplanes and to complete the required documentation, in accordance with the appropriate manufacturer's flight and maintenance manuals and associated supplements.
- b) To ensure that a trainee has sufficient working knowledge of the appropriate airworthiness legislation and BGA CAO administrative procedures to complete all the documentation required for the release to service and continued airworthiness of sailplanes.
- c) To ensure the trainee has sufficient knowledge and preparation to qualify as a BGA inspector.
- d) To ensure that a trainee has sufficient knowledge and preparation to pass the Part-66L examinations (basic knowledge modules and sailplane specific modules).
- e) All of this is to be conducted within the framework of Part 66 and on a course approved by UK CAA, within which sufficient on the job training, studying and period of experience are embodied.

The process described in detail below can be summarized as:

Decide to become a BGA inspector

# Î

Identify a Sponsor

# Ţ

Develop and record practical experience

Study for and complete the CAA's theoretical knowledge exams

# Î

Complete the final assessment

# 3) Requirements and course compliance

BGA has received CAA approval to provide this training per [66 Appendix III 1 (a) (i) & (b) (i)].

The following table matches the requirements from Part 66 and the means of compliance under the BGA CAO course:

Part 66 reference & requirement	Training compliance
On the Job Training [Appendix III]	This publication describes the processes for for training with licensed sailplane engineers, and for
Shall include a representative cross section of	assessment. This includes formal internal
maintenance activities relevant to the aircraft type.	maintenance courses.
Shall include demonstrations using equipment,	This publication mandates coverage of
components, simulators, other training devices or aircraft.	representative tasks and these to be performed on multiple types of sailplanes including mixed equipment
Tasks defined in [Appendix II to the AMCs] noting five	
annual inspections.	This publication includes a full list of tasks based on [Appendix II to the AMCs], TABLE B. SPECIFIC TASKS FOR SAILPLANES AND POWERED SAILPLANES
On the Job Training [Appendix III]	
Shall include a representative cross section of maintenance activities relevant to the aircraft type.	
Shall include demonstrations using equipment, components, simulators, other training devices or aircraft.	
Tasks defined in [Appendix II to the AMCs] noting five	
annual inspections. Basic Experience [66.A.30(2)(b)(ii)]	Trainee engaged for at least a year. This publication's
1 year of practical maintenance experience in operating aircraft covering a representative cross	requirements cover a representative cross section of maintenance activities across several types of sailplanes.
section of maintenance activities	
	Work is part time including weekends or equivalent as long as the applicant has achieved a sufficient
	level of competency reference [AMC 66.A.30(a)]
	To be considered as recent experience; at least 50% of the required 12-month recent experience should
	be gained within the 12-month period prior to the date of application for the aircraft maintenance licence. The remainder of the recent experience
	should have been gained within the 7-year period prior to application. It must be noted that the rest of
	the basic experience required by 66.A.30 must be obtained within the 10 years prior to the application as required by 66.A.30(f).
Basic Knowledge [66.A.25 and Appendix VII]	Self-study based on directed reading and course
The minimum requirement for Part66L L1 (composite	materials.
sailplanes) is a pass in 1L, 2L, 3L, 5L, 7L and 12L.	Examinations taken via CAA e-examinations.
sailplanes) is a pass in 1L, 2L, 3L, 5L, 7L and 12L.	Examinations taken via CAA e-examinations.

#### 4) Trainee entry requirements

- a) The BGA CAO must organise sufficient engineers with appropriate geographical coverage to meet its mission of providing accessible inspection and maintenance services throughout the UK. It may not be possible to engage all trainees who present themselves. It will always be key to assess the long-term commitment of potential engineers to supporting the sport / industry and to engage trainees offering maximum availability across gliding clubs.
- b) The engagement of engineers by the BGA CAO is ultimately the responsibility of the Accountable Manager, who will take advice from the BGA Technical Committee and the BGA CAO CTO. The Accountable Manager will ensure the conditions at 4 d) are applied as requirements prior to engaging a trainee as a staff member eligible to enter the BGA CAO Part 66-L sailplane engineer training programme.
- c) A trainee must:
  - i) have attained the age of 17 years (note: the licence application requires a minimum age of 18 years [66.A.15]
  - ii) be sponsored by a suitably experienced BGA inspector with Part-66L licence operating within the BGA CAO who has agreed to co-ordinate and mentor the trainee's activities (the "Sponsor"). Potential trainees should contact the BGA Chief Technical Officer (CTO) if required for guidance on securing a Sponsor.
  - iii) have at least two years of *practical experience involving sailplanes*. This could be practical operation such as crewing or piloting, working for a manufacturer, or repairing and maintaining sailplanes and associated equipment.
  - iv) be able to demonstrate previous technical ability and experience. This may include technical, academic or vocational qualifications or suitable experience working in a technical area. This requirement may be replaced by a greater amount of practical experience involving sailplanes.
  - v) at the point of application, demonstrate sufficient knowledge, aptitude, competence and skill to have the potential to qualify as a BGA inspector. A good general working knowledge of all aspects of the appropriate airworthiness legislation and acceptance of the need for quality in administrative procedures is required. This may require some pre-study and may be tested informally as part of the evaluation of the potential trainee's suitability to enter training.
  - vi) be prepared to attend (at own expense) BGA CAO-facilitated maintenance and inspection courses.
  - vii) be prepared to attend a BGA Inspector Part66L Continuation Training arranged during the training period.
  - viii) have access to all required documentation, such as manufacturers' manuals, Service Bulletins, Airworthiness Directives, airworthiness regulations, CAA documents, etc, and to be responsible for ensuring that all such documents are kept up to date.

- ix) give a commitment to obtain access to the necessary test equipment.
- x) have access to the appropriate office and computer equipment (computer, printer, scanner, email and web access)
- xi) demonstrate the capability to read, write and communicate with a high proficiency in English, normally ELP level 6.
- xii) be prepared to undertake on the job training "in the field" with current BGA inspectors who hold a Part 66-L (L1C) licence, over a period of at least a year [66.A.30].
- xiii) be prepared to undertake self-organised study for the written exams, with guidance from the BGA CAO and/or Sponsor.

#### 5) Initial Assessment and Application

- a) An initial assessment meeting between the potential trainee and the agreed Sponsor will be held. A Sponsor is a suitably experienced BGA inspector with Part-66L licence operating within the BGA CAO who has agreed to co-ordinate and mentor the trainee's activities. The purpose of this meeting is for the Sponsor to undertake a review of the potential trainee's technical and theoretical knowledge and aptitude.
- b) The Sponsor should indicate to the potential trainee whether the assessment is positive. The CTO shall be informed in writing if the assessment is not positive.
- c) When the assessment is positive, the potential trainee should send a brief CV constructed specifically for the sailplane engineer role (i.e. only relevant qualifications and experience) to the BGA Office. This submission should be within four weeks of the assessment meeting with the Sponsor.

#### 6) Theoretical Knowledge Training

- a) The Sponsor will assist the trainee in accessing training materials for the basic knowledge modules and the sailplane specific theory modules. BGA CAO theoretical knowledge training is available to trainees. The Sponsor can assess the trainee's readiness to sit the examinations and advise the trainee.
- b) The trainee is responsible for organising and funding sitting(s) of the CAA Part 66-L theoretical knowledge examinations. The examination fees are listed in the current CAA Scheme of Charges.
- c) The theoretical knowledge examinations are as follows (with reference to Part 66 examination module numbers):

L1C: composite sailplanes	1L, 2L, 3L, 5L, 7L and 12L
L1: sailplanes	1L, 2L, 3L, 4L, 5L, 6L, 7L and
	12L
L2C: composite powered sailplanes.	1L, 2L, 3L, 5L, 7L, 8L and
Note: ELA1 aeroplanes are outside the scope of this	12L
training*	

L2: powered sailplanes	1L, 2L, 3L, 4L, 5L, 6L, 7L, 8L
Note: ELA1 aeroplanes are outside the scope of this	and 12L
training*	

\*To remove the 'ELA1 aeroplanes' limitation on a Part-66L licence, refer to the CAA.

- i) module 1L 'Basic knowledge': 12 questions. Time allowed: 15 minutes.
- ii) module 2L 'Human factors': 8 questions. Time allowed: 10 minutes.
- iii) module 3L 'Aviation legislation': 24 questions. Time allowed: 30 minutes.
- iv) module 4L 'Airframe wooden/metal tube and fabric': 32 questions. Time allowed: 40 minutes.
- v) module 5L 'Airframe composite': 32 questions. Time allowed: 40 minutes.
- vi) module 6L 'Airframe metal': 32 questions. Time allowed: 40 minutes.
- vii) module 7L 'Airframe general': 64 questions. Time allowed: 80 minutes.
- viii) module 8L 'Power plant': 48 questions. Time allowed: 60 minutes.
- ix) Module 12L 'Radio Com/ELT/transponder/instruments': 16 questions. Time allowed 20 minutes.

#### 7) Practical training and experience requirements

- a) The trainee must gain practical experience covering a representative cross section of maintenance activities on sailplanes through specific training and on-the-job experience.
- b) The maintenance experience should cover a wide range of tasks in terms of length, complexity and variety in a real-world maintenance environment.
- c) The minimum tasks are detailed at Appendix II Aircraft Type Practical Experience and On-the-Job Training List of Tasks B SPECIFIC TASKS FOR SAILPLANES AND POWERED SAILPLANES. Headings are listed here; see appendix 1 to this publication for details.
  - i) General activities
  - ii) Levelling and weighing
  - iii) Flight controls and flight control systems
  - iv) Electrical systems
  - v) Avionics systems
  - vi) Cabin equipment / systems
  - vii) Wooden structures/Metal tubes and fabric
  - viii) Composite structures
  - ix) Metal structures

#### 8) Specific practical training.

- a) Specific practical training is provided by a Training Engineer. A Training Engineer is either the Sponsor or another suitably qualified and experienced BGA inspector with Part 66-L licence within the BGA CAO.
- b) The following specific practical training requirements are to be completed:
  - I. Swaging cables.
  - II. Weighing sailplanes.
  - III. Control mass balance.

## 9) On the job experience.

- a) On-the-job experience is to be completed, supervised by a suitably qualified and experienced Training Engineer and in conjunction with the Sponsor.
- b) During the on-the-job training, the Training Engineer will explain the process of an inspection, demonstrate the inspection procedures, observe the trainee and assist where required. The Training Engineer passes on appropriate knowledge of what is deemed to be a suitable procedure with reference to the appropriate flight manuals, maintenance manuals, supplements, inspection schedules and CAO documents. The Training Engineer will also cover completion of the required paperwork.
- c) The on-the-job experience, covering the items listed at Appendix II Aircraft Type Practical Experience and On-the-Job Training - List of Tasks B SPECIFIC TASKS FOR SAILPLANES AND POWERED SAILPLANES, will include as a minimum:
  - i) supervised inspections
  - ii) a range of general maintenance tasks
  - iii) repairs
  - iv) component removal and refit
- d) Experience of a good spread of sufficient different sailplane types and systems shall be gained. A minimum of one example of an unairworthy sailplane shall be inspected. At least two full sets of inspection paperwork shall be experienced.
- e) The distribution of the required tasks is to be determined by the Sponsor, on an individual case basis, with a minimum of 5 annual inspections for all trainees (covering at least 3 different types). It is acceptable that the experience covers maintenance performed only during the weekends or equivalent periods provided that the applicant has achieved the required level of competency.

#### 10) Assessment during practical skill and training.

For each task, the Training Engineer should assess the trainee to ensure sufficient knowledge, competence and skill.

#### 11) Record of experience and training.

Experience including training shall be recorded by the trainee in their logbook. Training Engineers shall verify the completion of training in the logbook with their signature, name and licence number.

#### 12) Recommendation for final assessment.

- a) When the Sponsor is satisfied that the trainee has sufficient experience of maintenance and has completed the training to the required standard, the Sponsor should complete the course completion certificate (Appendix 2 below) and inform the BGA Office in writing that the trainee is ready for the final assessment.
- b) Unless the BGA CTO determines that special circumstances apply, the full set of Part

66-L CAA examinations must be passed prior to the final assessment taking place.

c) The trainee may at this point apply to become a BGA Inspector prior to qualifying for a Part66L licence. The BGA Inspector authorization in that case will be limited to non-Part 21 sailplanes.

#### 13) Final assessment.

- a) The final assessment is based on inspection of a sailplane. The assessment is carried out by a Training Engineer appointed for that specific assessment by the BGA CTO. The assessing Training Engineer must not have been the Training Engineer for more than 50% of the trainee's training.
- b) The approach detailed in APPENDICES TO AMC TO ANNEX III (PART-66) Appendix III Evaluation of the competence: assessment and assessors should be followed by the assessor and include oral assessment.
- c) If the trainee is unsuccessful, the assessing Training Engineer shall detail any training or studying that may be required before a further inspection and assessment. In this case, the Sponsor should discuss these training requirements with the trainee.
- d) Where the trainee is successful, the assessing Training Engineer is to complete the assessment report (Appendix 3 below) and submit a copy of the report and a copy of the course completion certificate to the BGA office.

#### 14) Endorsement of Part 66-L licence application

- a) On receipt of the report of a successful assessment, the BGA CAO CTO will review the documentation for completeness. In the event of errors or omissions, the Trainee and the Sponsor will be advised.
- b) Once satisfied, the BGA CAO CTO shall inform the trainee that the BGA CAO is ready to endorse their Part-66L licence application.

#### 15) BGA Inspector authorisations

Whilst the scope of Part 66-L covers all maintenance and inspection work on sailplanes, for assurance and insurance purposes, the BGA CAO requires BGA Inspector authorisations to be held by those certifying maintenance outside of the scope of pilot/owner maintenance. The BGA inspector authorisation specifies levels appropriate to demonstrated knowledge and experience. For details refer to the BGA CAO exposition and AMP 1-2.

P Stratten Accountable Manager 5 March 2025

#### **APPENDIX 1**

# APPENDICES TO AMC TO ANNEX III (PART-66) Appendix II — Aircraft Type Practical Experience and On-the-Job Training - List of Tasks B SPECIFIC TASKS FOR SAILPLANES AND POWERED SAILPLANES

#### a) General activities

- i) Placards check or replace
- ii) Weighing, weight & balance sheet
- iii) Documentation of annual inspection, repair
- iv) Review records for compliance with airworthiness directives
- v) Five annual inspections
- vi) Inspection after an occurrence
- vii) Dismantling/reinstallation of wings and empennages

# b) Leveling and weighing

- i) Level the sailplane
- ii) Weighing, weight & balance sheet
- iii) Prepare a weight and balance amendment
- iv) Check the list of equipment

## c) Flight controls and flight control systems

- i) Aileron, flaps: Removal Balancing Reinstallation
- ii) Elevator: Removal Balancing Reinstallation
- iii) Rudder: Removal Balancing Reinstallation
- iv) Rudder cable: Fabrication and installation
- v) Elevator pushrod: Installation
- vi) Safeguarding of pins, screws, castellated nuts
- vii) Sealing of gaps

#### d) Electrical systems

- i) Electrical components, wiring: Removal Installation
- ii) Batteries Servicing

#### e) Avionics systems

- i) COM: Removal Installation
- ii) NAV: Removal Installation
- iii) XPDR: Removal Installation
- iv) Antenna/antenna cable: Removal Installation

#### f) Cabin equipment/systems

- i) Belts/safety harnesses: Removal Installation
- ii) Oxygen system removal installation Test
- iii) Canopy replacement or repair
- iv) Pitot/static system: Removal Installation Test
- v) Flight instruments: Removal Installation
- vi) Installation of approved equipment

- vii) Compass: Installation Compensation
- viii) Tow release: Removal Installation
- ix) Water ballast system: Removal Installation Test
- x) Undercarriage: Removal Installation
- xi) Brake system: Replacement of components
- xii) Fuel Engine Propeller Engine Instruments
- xiii) Refer to the tasks related to propeller, piston engine, fuel and control, ignition, engine indications and exhaust, which are contained in Table A 'Specific tasks for aeroplanes'
- xiv) Verification and adjustment of folding system of powered sailplanes

## g) Wooden structures/Metal tubes and fabric

- i) Inspection/testing for damages
- ii) Rib structure repair
- iii) Plywood skin repair
- iv) Recover or repair structure with fabric
- v) Protective coating and finishing
- vi) Install patch on fabric material
- vii) Repair of fairings

## h) Composite structures

- i) Laminate repair
- ii) Sandwich structure repair
- iii) Partial gel coat repair
- iv) Complete gel coating
- v) Repair of fairings

#### i) Metal structures

- i) Crack testing
- ii) Repair of covering
- iii) Drilling cracks
- iv) Riveting jobs
- v) Bonding of structures
- vi) Anti-corrosion treatment
- vii) Repair of fairings

## **APPENDIX 2 TRAINING COMPLETION CERTIFICATE**

I confirm that (full name)..... has completed the required practical experience to qualify for a Part66L licence.

Sponsor signature:

Sponsor name:

Sponsor Part66L licence no:

Sponsor BGA Inspector No:

Date:

## APPENDIX 3 PART66L TRAINING FINAL ASSESSMENT REPORT

The final assessment is based on inspection of a sailplane. The assessment is carried out by a Training Engineer appointed for that specific assessment by the BGA CTO. Note: The assessing Training Engineer must not have been the Training Engineer for more than 50% of the trainee's training.

The approach detailed in APPENDICES TO AMC TO ANNEX III (PART-66) Appendix III — Evaluation of the competence: assessment and assessors should be followed by the assessor and include oral assessment.

If the trainee is unsuccessful, the assessing Training Engineer shall detail any training or studying that may be required before a further inspection and assessment. In this case, the Sponsor should discuss these training requirements with the trainee.

All items must be passed to satisfactorily complete the assessment.

#### Candidate name:

Item	Result and date	Assessors name, signature and BGA inspector number
Environment awareness (act safely,		·
apply safety precautions and prevent		
dangerous situations)		
Systems integration (demonstrate		
understanding of aircraft systems		
interaction)		
Knowledge and understanding of		
areas requiring special emphasis or		
novelty.		
Using reports and ability to read and		
interpret instructions		
Aircraft documentation finding and		
handling (identify the appropriate		
aircraft documentation, navigate,		
execute and obey the prescribed		
maintenance procedures)		
Perform maintenance actions		
(demonstrate safe handling of		
aircraft, engines, components and		
tools)		
Aircraft maintenance		
closure/reporting (initiate appropriate		
actions/follow- up/records of testing,		
establish and sign maintenance		
records/logbooks).		

Please note that it is an offence to deliberately provide false information relating to an application for a Part66L licence.