



## Airworthiness Procedures Briefing Note

Original: May 4<sup>th</sup> 2007  
Rev. 1: February 28<sup>th</sup> 2008  
Rev. 2: February 21<sup>st</sup> 2010  
Rev. 3: March 7<sup>th</sup> 2010  
Rev. 4: April 26<sup>th</sup> 2010  
Rev. 5: July 15<sup>th</sup> 2011  
Rev. 6: March 25<sup>th</sup> 2012  
Rev. 7: January 8<sup>th</sup> 2015

---

1.	Introduction.....	2
2.	Part M.....	2
3.	Sub-Part G (Continuing Airworthiness Management).....	2
4.	Sub-Part F (Maintenance Organisation).....	2
5.	Quality Control.....	2
6.	Documentation.....	2
7.	Certificate of Registration.....	3
8.	Type Approval.....	3
9.	Certificate of Airworthiness.....	3
10.	ARC Review.....	3
11.	ARC Scheduling.....	4
12.	Airworthiness Directives.....	4
13.	Maintenance.....	5
14.	Maintenance File.....	5
15.	Lifed Items.....	6
16.	Instruments.....	6
17.	Approved equipment.....	6
18.	Pilot-Owner Maintenance.....	6
19.	Inspection.....	6
20.	Log-Book.....	7
21.	IGSA Forms.....	7
	Form 200 Annual Glider Inspection Record.....	8
	Form 203 Glider Inspection Worksheet.....	8
	Form 108 Weight & Balance Report.....	8
	Form 211 – Work Order Form.....	8
	Form AWSD 5b.....	8
	Form AWSD 6b.....	8
22.	How to apply for an EASA/IAA CoA.....	8
23.	Inspectors.....	9
24.	Personal Authorisation Certificate.....	9
25.	Inspector Currency Requirements.....	9
26.	The Future.....	9

## **1. Introduction**

The IGSA airworthiness system has now moved from a structure which has been primarily self-contained to one which is now integrated with EASA / IAA airworthiness requirements and procedures. The IGSA has been issued with Part M Sub-Part G (Continuing Airworthiness Management Organisation) and Sub-Part F (Maintenance Organisation) approvals by the IAA. This document sets out in brief the background and main features of the new system.

## **2. Part M**

Part M is a Europe-wide EU code theoretically common to all aircraft, (ranging from an Airbus A380 to the humble K8), with the object of ensuring that all aircraft coming under its ambit are maintained by competent personnel working within the structure of a competent organisation.

## **3. Sub-Part G (Continuing Airworthiness Management)**

The IGSA Part M Sub-Part G approval authorises the IGSA to manage the continuing airworthiness of those gliders listed in its approval document, including issuing of Airworthiness Review Certificates (ARCs).

CAMOs may choose to work in either a “Controlled” or an “Uncontrolled” environment. We have chosen to work in the uncontrolled environment. This essentially mirrors the traditional IGSA approach to airworthiness. i.e. the aircraft owner is responsible for arranging for the maintenance and continued airworthiness of his/her aircraft. This is now done in compliance with the recommended practices and procedures provided by the IGSA Sub-Part G organisation (in particular the specifically developed and approved MPLA (Maintenance Programme Light Aircraft ) provided for the aircraft).

## **4. Sub-Part F (Maintenance Organisation)**

The IGSA Part M Sub-Part F approval authorises the IGSA to maintain those gliders listed in its authorisation. IGSA Certifying Staff (inspectors) essentially work under the Sub-Part F approval, and are authorised to maintain those gliders listed in the approval document and as listed in their own PAC (Personal Authorisation Certificate).

## **5. Quality Control**

Part M requires that a quality control system be put in place. A Quality Monitor has been appointed who will implement the quality system, conduct regular organisational reviews and conduct regular internal audits. This will include random inspections of aircraft and processes, including documentation.

In addition, the IAA will conduct random audits from time to time.

## **6. Documentation**

Before a glider can fly legally in the Republic of Ireland, certain documents must exist to verify that:

- the glider type is approved in Ireland,
- the individual glider conforms with the type specification,
- all the relevant information is available

- the glider has been maintained by personnel qualified, experienced and approved to do so,
- the information used to maintain the aircraft is the up to date available and,
- the glider is in fact fit to fly.

The primary purpose of these documents is simply to communicate the airworthiness status of any particular glider from one organisation or person to another.

This paperwork cannot be avoided; however if its purpose is understood and if it is used properly, it provides a powerful system for ensuring that a particular glider is fit for flight.

The owner should ensure that documentation is stored in a dedicated binder, sub-divided into logical sections. A lever arch file is recommended.

## **7. Certificate of Registration**

This document records the existence of the glider and identifies who holds the Certificate of Registration. The Certificate of Registration holder is the person or organisation who is responsible for the airworthiness of the glider. The CoR holder fulfils this responsibility by ensuring that all the necessary maintenance is properly performed and recorded.

## **8. Type Approval**

The Certificate of Type Approval is the document which certifies that a particular glider type has been approved for use within the Republic of Ireland. To qualify for award of an EASA Certificate of Airworthiness, a glider must either hold an EASA Type Certificate or an EASA approved Type Certificate. The Type Certificate will be based upon the information contained in the Type Certificate Data Sheet (TCDS).

Glider which do not possess either of the above may be granted a Permit. This effectively means that the glider will be authorised to fly within the State and will be controlled by the National Authorised Authority (the IAA).

## **9. Certificate of Airworthiness**

This document certifies that an individual glider complies with the original Type Certificate.

The Certificate of Airworthiness is issued by the IAA and is non-expiring.

The Certificate of Airworthiness / ARC do not attest to the day-to-day detailed airworthiness of a particular glider; this is provided for by means of the Daily Inspection, recorded in the glider DI book.

The Certificate of Airworthiness and associated Airworthiness Review Certificate must be carried on board the glider.

## **10. ARC Review**

The Certificate of Airworthiness is validated annually by means of an Airworthiness Review. The Airworthiness Review essentially acts to maintain the validity of the Certificate of

Airworthiness. A successful Airworthiness Review results in issue of an Airworthiness Review Certificate, valid for twelve months.

The owner should contact the Sub-Part G Manager, requesting an ARC review, and including a copy of the following:

- Form 200 Glider Inspection Report
- Any additional worksheets reflecting any work done throughout the year
- Form 108 (Weight & Balance Report), as appropriate
- Any calibration certificates if relevant
- Insurance Certificate

The glider may only be flown if it possesses a valid CofA **and** a valid ARC and a valid CRS **and** is within its annual maintenance period. To use a motoring analogy, the ARC could be considered as equivalent to annual car tax while the annual maintenance period is equivalent to the NCT – both must be valid for a car to be legally driven. The MPLA specifies the allowed variation on the annual maintenance period; this is normally one month. Extensions of up to one month in the annual maintenance period may be authorised by the owner and recorded in the logbook. Recurring ADs may NOT be extended, (IGSA Certifying staff may not authorise extensions; this is the sole responsibility of the owner in the uncontrolled environment)

The ARC review will entail a detailed review of all relevant documentation, including the log-book, and a physical survey of the aircraft. If satisfactory, the ARC will be re-issued for a further twelve months.

## **11. ARC Scheduling**

An application for ARC renewal may be forwarded to the IGSA within 90 days of the due date. Annual maintenance may be anticipated by 1 month ahead of the date due or may be delayed by 1 month after the date due but ADs may not be extended. Due allowance should be made for application processing and any holiday periods etc. which may influence turnaround time. It would seem wise to submit an application at least 4 weeks before the due date. The revalidated ARC will normally be dated to commence immediately subsequent to termination of the previous validity period. The owner may request the validity to start from the date of the review; in this case there will be no refund of the unused validity period. As the review may take place in advance of the expiry of the ARC, the existing ARC remains valid until it expires and only then will a new ARC become valid.

## **12. Airworthiness Directives**

Airworthiness Directives are issued either by:

- The National Authorised Authority of the State of Manufacture, or
- EASA.

They may be either one-off or recurring. Most manufacturers maintain an on-line database of all AD's affecting their aircraft – owners should keep a watching brief on this. An ongoing list, updated fortnightly, of EASA AD's along with all AD's issued prior to 2004 is maintained and stored in the IGSA cabinet. The owner is responsible for ensuring that all ADs are complied with at all times and are also double checked at the annual maintenance / inspection. Compliance with all relevant ADs needs to be captured annually on Form 200 as part of the annual inspection, as well as in the aircraft log-book. Note that ADs may need to be implemented separate to the annual inspection.

The status of all ADs must be recorded in the Form 200. The date on which they were executed is to be recorded. Recurring ADs must also include the date of the next check. All ADs must be current for a glider to be considered airworthy.

### **13. Maintenance**

It is the responsibility of the Registered Owner to ensure that all maintenance which is required to maintain the glider in an airworthy condition does take place at the appropriate time (including actions required by any Airworthiness Directives which may be issued affecting the glider).

Glider maintenance is carried out in accordance with the IGSA Continued Airworthiness Maintenance Exposition (CAME), the IGSA Maintenance Operations Manual (MOM) the Maintenance Procedures for Light Aircraft (MPLA), and the manufacturer's Flight/Maintenance Manual. All maintenance documentation used in the maintenance of a glider must be the latest version available.

Each individual glider has its own bespoke manual (the MPLA) issued to it. To be valid, an MPLA must be approved individually by the IAA and incorporate the IAA Approval certificate.

All maintenance (including Pilot-Owner maintenance) must be recorded and certified, both in individual worksheets as appropriate with a reference added to the glider log-book. All Pilot-Owner maintenance must be recorded in the logbook.

Maintenance can be either scheduled or non-scheduled.

Scheduled maintenance must be certified by an IGSA Inspector, usually by means of Form 200, which is used to record details of the maintenance work carried out and to certify that the work has been carried out correctly.

Scheduled maintenance is normally scheduled annually. This twelve monthly period may, or may not, coincide with the ARC period. In any case, the ARC lapses if the annual maintenance does not take place within twelve months of the previous maintenance activity.

Non-scheduled maintenance must be certified by either an IGSA Inspector and recorded on a Form 203 or, for a limited and defined set of tasks, the pilot-owner. This set of tasks is set out in the MPLA

### **14. Maintenance File**

The owner maintains a Maintenance File for his aircraft. This file contains the **master** copy of all maintenance documents and will include the masters of the following documents :

IGSA Form 200  
IGSA Form 202  
IGSA Form 203  
IGSA Form 208  
Instrument Calibration Sheets  
EASA Form 1s  
Certificates of Conformity  
Release Certificates

Etc.

i.e. the Maintenance File is the primary repository for all the maintenance documentation for the aircraft. Clearly it should be neat, tidy and well ordered.

The IGSA and the Inspector will require copies of certain of the documents.

## **15. Lifed Items**

A number of items in gliders are life limited (e.g. the airframe itself, hooks, engines, propellers, some harnesses) - some are limited by a maximum number of allowed cycles, some by the max. no. of hour's usage allowed. Owners need to monitor these items as applicable to their glider and take appropriate action in good time. Lifed items are listed in the approved MPLA.

The status lifed items must be captured in the Form 200. In particular for time depended lifed items, the date of last calibration, the duration of the calibration, the expiry date of the calibration and the remaining months should be recorded.

For cycle based lifed items (e.g. release hooks), the cycles when new/reconditions, current cycles, cycles allowed and remaining cycles should be recorded. A cycle is typically a launch.

## **16. Instruments**

Some instruments, in particular those specified in the Type Certificate Data Sheet (TCDS), (typically the altimeter and ASI) now require calibration every five years unless a shorter time is specified by the manufacturer. We now have an approved avionics engineer who can do this and provide a check certificate. See para 15 above.

## **17. Approved equipment**

Any new equipment fitted to a glider (whether it be a new instrument or fabric used to repair a tear or whatever) must not be used unless it has been released by means of an EASA Form 1 or a Certificate of Conformity.

## **18. Pilot-Owner Maintenance**

The Pilot-owner can perform limited maintenance as laid down in the MPLA. Pilot-owner maintenance must be recorded in the gliders log-book and be signed by the Pilot-owner. Any uncertainty regarding what a pilot-owner is or is not allowed to do should be referred to an IGSA Inspector.

The Pilot-Owner(s) must be named in the MPLA. With regard to gliders owned by DGC, all instructors and tug-pilots have been nominated, for the purpose of Pilot-Owner maintenance, as Pilot-Owners.

## **19. Inspection**

Most gliders require a twelve monthly maintenance routine.

An inspection of the glider by an IGSA rated inspector normally follows this annual maintenance in order to confirm that such maintenance has properly taken place, that all relevant Airworthiness Directives have been embodied, that the glider is in good order and is fit to fly.

In order to arrange for annual maintenance / inspection, the owner should contact the Sub-Part F manager, who will allocate an inspector for the task.

IGSA Form 200 is completed by the inspector is used to record details of the inspection.

Upon satisfactory completion of the glider inspection, the inspector will complete and sign Form 200, including the CRS and any other forms required, and write up a summary of the inspection, including any AD's implemented, into the log-book.

The glider may require a test flight subsequent to any particular maintenance activity after which the inspector deems a test flight necessary. The inspector must make clear to the owner whether a check flight is required or not.

The owner should retain the following in the glider maintenance file:

- IGSA Form 200
- IGSA Form 203
- IGSA Form 208
- Instrument Calibration Sheets
- EASA Form 1s
- Certificates of Conformity
- Release Certificates

etc.

The inspector may keep one copy for his/her own files.

## **20. Log-Book**

The glider log-book should contain a record of all flights and maintenance (scheduled or otherwise) work performed on the glider, with reference to worksheets if necessary. It is acceptable in the case of multiple flights in one day that a single entry per day is used. A separate file (the maintenance file) should be used to hold the documents and forms.

All Airworthiness Directives must be listed and signed off in the log-book.

Logbooks must be signed by Inspectors when maintenance is completed and a CRS issued.

## **21. IGSA Forms**

Each worksheet should be allocated a unique file reference identifier by the inspector.

This identifier should take the following form: 123/ABC/20100101/AB where:

- the first three digits are the form number,
- the second set is the glider registration,
- the third set is the date and
- the last set is the inspector initials

E.g. 101/GLA/20100225/CS would be the identifier for the Form 101 annual inspection record sheet for EI-GLA issued on the 25<sup>th</sup> February 2010 by Ciaran Sinclair

### **Form 200 Annual Glider Inspection Workpack**

IGSA Form 200 replaces the a number of old forms (101,102,103,124 etc) and acts as a workpack and certification for the inspection. It contains a CRS which can only be signed by and inspector and counter signed if a duplicate inspection is required,

### **Form 203 Glider Inspection Worksheet**

Form 203 is used to record and certify details of non-scheduled maintenance activity.

Form 203 contains a CRS which must be signed by the owner or Inspector as appropriate.)

### **Form 108 Weight & Balance Report**

Used to record aircraft weight and balance measurements and calculations. Note that only calibrated scales which have a current valid report may be used.

### **Form 211 – Work Order Form**

Form 111 is used to by an owner to request either an Annual Maintenance or an ARC review. It is also embodied in the Form 200 in which case a Form 211 is not required,

### **Form AWSD 5b**

*Form 5b is essentially an application for issue/renewal of an EASA/IAA CofA and is completed by the owner.*

This document will only be used in the case of a new glider entering the system where a CofA is not already in place and needs to be granted.

### **Form AWSD 6b**

*Form 6b is a preliminary inspection report and is in the main completed by the IGSA inspector dealing with the glider in question.*

This document will only be used in the case of a new glider entering the system where a CofA is not already in place and needs to be granted..

Note: Should an ARC review/CofA issue require issuing by the IAA, for example on import of a glider or initial issue of C of A, then the 5B, 6B and Form 106 forms will be required

## **22. How to apply for an EASA/IAA CoA**

Only applicable to an aircraft which does not have a non-expiring CofA or has never been issued with an EASA/IAA CofA. The process is:

- Download and complete Form 111 from the IGSA website at [www.igsa.ie](http://www.igsa.ie) .
- Forward this to the Sub-Part F Manager who will arrange an inspection
- Complete the IAA 5B and 6B forms; the 6B has to be signed by an Inspector
- Submit these and all the inspection forms to the CTO together with the appropriate fee (full IAA CofA fee and the IGSA inspection fee)
- The IAA will perform the initial airworthiness review and issue the CofA and ARC.



## **23. Inspectors**

All IGSA inspectors who have “transitioned” as part of the current arrangements will have attended a “Human Factors in Aviation” and “Aviation Legislation” course and have successfully completed an IAA Competence Assessment examination and have supplied a satisfactory set of work records will have received a Letter of Competence from the IAA. This means that those inspectors are approved to work on gliders, within the limitations as specified in their own (IGSA issued) Personal Authorisation Certificate, as specified in the Sub-Part F authorisation.

## **24. Personal Authorisation Certificate**

Each inspector will be issued with a PAC by the Accountable Manager. The Accountable manager heads the IGSA Subpart-F and G organisations and is responsible for the overall operation. The PAC will detail which glider types (wood, composite, metal) the inspector is authorised to work on and, in some cases, whether he/she is authorised to work on some elements only of the aircraft (e.g. engine, propeller). PACs are valid for 2 years.

## **25. Inspector Currency Requirements**

In order to retain the privileges of the authorisation, inspectors will be required to have been involved in six months work on gliders in any consecutive twenty four months. Work is understood to comprise any actual work on gliders, seminar or meeting attendance, dealing with owner queries, charging batteries, investigating any defects, reviewing any sailplane documentation, related admin, etc.

Inspectors should keep an individual record of all work performed on Gliders

## **26. The Future**

This is quite a change to the way we have traditionally done our business and will no doubt take some time to settle down. There is clearly a larger amount of documentation and oversight involved than previously. However, once bedded in, the situation should effectively return to one not dissimilar to that which held heretofore, albeit with a more regular oversight by the IAA.