

CONTINUING AIRWORTHINESS ARRANGEMENTS FOR AIRCRAFT OPERATED ON A PERMIT TO FLY ADMINISTERED BY THE LAA (For Factory – Built ex C of A Types)

1. Introduction

EC regulation 1702/2003 has been amended in accordance with NPA 9/2006 to allow the permanent grandfathering of previously approved flight conditions for aircraft types that are regulated by EASA but have previously been operating on a National Permit to Fly. In the UK this affects a number of aircraft having a Permit to Fly administered by the LAA. Each of these aircraft must be transferred to an EASA Permit to Fly by 28th September 2008.

The revised regulation requires that the national continuing airworthiness arrangements are included as part of the design related flight conditions and included on the Permit to Fly. To include such detailed “standard” conditions on each permit would be impractical and would unnecessarily increase the complexity of the flight document.

Accordingly, it has been agreed that the Permit to Fly for each aircraft that is grandfathered under the amended regulations will have a “standard condition” requiring that the continuing airworthiness of the aircraft be managed in accordance with this document.

The purpose of this document is to define in one place, the existing continuing airworthiness arrangements that are applicable for all aircraft operating on a Permit to Fly administered by the LAA, and which are therefore part of the grandfathered flight conditions (for aircraft which are EASA types) under the revised regulation referenced above.

Additional detail can be found in related LAA Technical leaflets (LAA TL) that may be found in the Engineering section of the LAA Web site at www.laa.uk.com

2. Scope of the Document

This document defines all the required continuing airworthiness arrangements applicable to aircraft holding a Permit to Fly that is administered by the LAA. The following aspects are addressed:-

- Defining the maintenance programme
- Certification of maintenance
- Approval of modifications
- Approval of repairs
- Acceptance of parts and parts replacements
- Mandatory requirements for airworthiness
- Airworthiness defect reporting and resolution

The continuing airworthiness arrangements defined in this document are those in place prior to 28th March 2007 and are those effective for all aircraft operating on a permit to Fly administered by the LAA. The arrangements defined in this document have been accepted by CAA under the auspices of the CAA approval granted to the LAA (reference DAI/1172/48).

3. Continuing Airworthiness Arrangements

3.1 The Maintenance Programme

An annual inspection and examination of the aircraft is mandatory and must be carried out co-incident with the annual renewal of the Permit to Fly.

The annual inspection is carried out in accordance with the checklist which forms part of the standard LAA Permit renewal application process. The checklist is based on the CAA's LAMS (Light Aircraft Maintenance Schedule).

A LAA aircraft inspector must certify and present the completed form to LAA Engineering before the Certificate of Validity is issued by the LAA.

Owners are further recommended by LAA to use the LAMS as a guide to their aircraft maintenance throughout the year. Normal practice is to carry out 50 hour and 100 hour inspections though owners are also encouraged to refer to available manufacturer's maintenance schedule requirements.

Airworthiness Directives and Mandatory Permit Directives must be complied with as they become applicable. The continued validity of a Permit to Fly is predicated on maintaining the aircraft in an airworthy condition, and the responsibility for this lies with the owner.

3.2 Maintenance Certification

All maintenance (with the exception of certain specified 'pilot maintenance' as defined in LAA TL 2.04) defect rectification and modification is to be certified by an "authorised person".

An authorised person is a LAA approved aircraft inspector. These inspectors have authority to sign and issue a Permit Maintenance Release (PMR) to certify work that they have inspected and found satisfactory (reference BCAR A3-7: Issue and Renewal of a Permit to Fly).

All work carried out must be described and recorded in the aircraft, engine or propeller log book as appropriate. An acceptable alternative is for the work to be described on separate worksheets that would then be retained by the owner and referenced in the relevant log book(s). A PMR can be entered into the logbook adjacent to the work recorded or on the worksheet(s) relating to the work in question.

LAA approved aircraft inspectors are awarded an approval by LAA Engineering following successful completion of an application process. Approval is signified by the issue of an inspector's card that defines the scope of the particular inspector's approval. An inspector's approval is subject to renewal on an annual basis.

3.3 Approval of Modifications

LAA Engineering must approve all modifications having airworthiness significance in accordance with LAA modification procedures.

The installation of any modification is only permitted subject to a suitably approved LAA inspector having checked the work and being satisfied with the quality and conformity of the aircraft to the design approved by LAA Engineering.

On satisfactory completion of the work, the LAA inspector will sign appropriate logbook entries and issue a Permit Maintenance Release.

Any modifications affecting the content of the Permit to Fly will require a new Permit to Fly to be requested and issued.

If flight testing is required for the approval of a modification, a flight test authorisation is issued by LAA Engineering when satisfied with the design to be tested and the flight testing to be carried out.

The acceptance basis for modifications is compliance with an appropriate internationally accepted design code, or service experience plus an engineering review, or a combination of the two. Further information is provided in LAA Technical Leaflets TL 3.01, Approval of New Modifications, TL 3.09 Classification of Modifications and Repairs, and TL 3.10, When Modification Approval is Not Required.

LAA modification approval procedures have been accepted by CAA under the terms of the UK National approval granted to LAA.

3.4 Approval of Repairs

LAA Engineering must approve all repairs having airworthiness significance in accordance with LAA repair approval procedures, either by an individual application or through compliance with an accepted repair manual for the aircraft type concerned.

The installation of any such repair is only permitted subject to a suitably approved LAA inspector having checked the work and being satisfied with the quality and conformity of the aircraft to an approved repair design.

On satisfactory completion of the work, the LAA inspector will sign appropriate logbook entries and issue a Permit Maintenance Release.

If flight-testing is required for the approval of a modification, a flight test authorisation is issued by LAA Engineering when satisfied with the design to be tested and the flight testing to be carried out. Further information is provided in TL 3.08, Classification of Modifications and Repairs.

3.5 Acceptance of Parts and Parts Replacements

Original parts are accepted for installation on an aircraft under these arrangements.

Alternative parts may also be used subject to the results of a LAA Engineering investigation determining them to be suitable alternatives.

Alternative parts may be accepted on the basis of the following: -

- the parts have been approved for that application on the Type Certificate Data Sheet, or by an STC or equivalent documentation,
- by complying with appropriate parts of an internationally acceptable design code,
- equivalence with the original parts,
- by service experience in previous equivalent applications plus an engineering review.

Alternative parts are not required to be manufactured under any manufacturing approval, the LAA inspector involved in the installation of the part must assess whether the parts are fit for purpose.

3.6 Mandatory Requirements for Airworthiness

Compliance with all applicable Mandatory Permit Directives (MPDs) is mandatory, including any MPD relating to the airframe, engine, propeller or equipment fitted. Further information is provided in LAA Technical Leaflet TL 2.14 Continued Airworthiness.

MPD 1995-001 mandates compliance with all applicable published Airworthiness Directives (ADs) for LAA 'vintage' type aircraft, including any AD relating to the airframe, engine, propeller or equipment fitted. This applies to ADs issued by the CAA (reference CAP 747: Mandatory Requirements for Airworthiness), EASA or the state of design of the aircraft, engine, propeller or equipment concerned.

The minimum equipment requirements are as called for by Schedule 4 of the ANO for day VFR aircraft.

3.7 Airworthiness Defect Reporting and Resolution Procedures

Owners, operators and LAA approved aircraft inspectors are requested to report to LAA Engineering airworthiness defects which might have significance to the airworthiness of other aircraft. A reporting form is provided for this purpose.

- Reported defects are investigated by LAA Engineering, and the findings reviewed by the LAA Engineering team. An appropriate response is then determined. Such responses can be, but are not limited to:
 - the issue of a LAA Service Bulletin,
 - an article in the LAA membership magazine Light Aircraft, or
 - an entry into inspection-notes supplied routinely to all LAA approved aircraft inspectors.

The LAA may also request the CAA to issue a Mandatory Permit Directive (MPD). Only the MPD is a legally mandatory closing action.

4. Applicability

The continuing airworthiness arrangements defined herein are applicable to all aircraft where the following condition forms part of the Permit to Fly.

"Continuing Airworthiness management must be carried out in accordance with document ref TL.15."

5. References

5.1 Documentary References

EC Regulation 1702/2003 as amended March 2007.
BCAR Section A3-7 Issue and Renewal of Permits to Fly.
LAA Technical Leaflets.
CAP 411 CAA Light Aircraft Maintenance Schedule.
CAP 747 Mandatory Requirements for Airworthiness.
CAP 661 Mandatory Permit Directives.

5.2 Web resources

LAA Web site www.laa.uk.com
CAA Web site www.caa.co.uk
EASA Web site www.easa.europa.eu

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