

EASA	NOTIFICATION OF A PROPOSAL TO ISSUE A CERTIFICATION MEMORANDUM
	<p>EASA Proposed CM No.: EASA Proposed CM – 21.A – K – 001 Issue: 01 Issue Date: 21st of February 2013 Issued by: General Aviation section Approved by: Certification Director Regulatory Requirement(s): Commission Regulations (EU) No 748/2012 Annex I “Part 21” and (EU) No 593/2012 Annex I “Part M”</p>

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Subject

**Installation of parts and appliances without an
EASA Form 1 in European Light Aircraft**

Log of Issues

Issue	Issue date	Change description
01	21.02.2013	First issue.

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1. INTRODUCTION

1.1. PURPOSE AND SCOPE

The purpose of this Certification Memorandum is to provide guidance on the new provision in Part 21.A.307(c) that allows the installation of parts and appliances without an EASA Form 1 as introduced by Commission Regulation (EU) No 748/2012.

1.2. REFERENCES

It is intended that the following reference materials be used in conjunction with this Certification Memorandum:

Reference	Title	Code	Issue	Date
Commission Regulation (EU) No 748/2012	Implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations	--	--	03/08/2012
Commission Regulation (EU) No 593/2012	Amending Regulation (EC) No 2042/2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks	--	--	05/07/2012

1.3. ABBREVIATIONS

The following abbreviations are used in this Certification Memorandum:

Abbreviation	Meaning
ELA	European Light Aircraft.

1.4. DEFINITIONS

The following definitions are used in this Certification Memorandum:

Definition	Meaning
ELA1	<p>'ELA1 aircraft' means the following manned European Light Aircraft:</p> <ul style="list-style-type: none"> (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 1 200 kg or less that is not classified as complex motor-powered aircraft; (ii) a sailplane or powered sailplane of 1 200 kg MTOM or less; (iii) a balloon with a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air balloons, 1 050 m³ for gas balloons, 300 m³ for tethered gas balloons; (iv) an airship designed for not more than 4 occupants and a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air airships and 1 000 m³ for gas airships;

Definition	Meaning
ELA2	<p>'ELA2 aircraft' means the following manned European Light Aircraft:</p> <ul style="list-style-type: none"> (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 2 000 kg or less that is not classified as complex motor-powered aircraft; (ii) a sailplane or powered sailplane of 2 000 kg MTOM or less; (iii) a balloon; (iv) a hot air airship; (v) a gas airship complying with all of the following characteristics: <ul style="list-style-type: none"> – 3 % maximum static heaviness, – Non-vectorred thrust (except reverse thrust), – Conventional and simple design of: structure, control system and ballonnet system, – Non-power assisted controls; (vi) a Very Light Rotorcraft.

2. BACKGROUND

On 13/12/2011 EASA published the Opinion 01/2011 that proposed the introduction of a possibility for owners of aircraft within the ELA scope to accept certain not safety critical parts for installation without an EASA Form 1. This proposal aimed at reducing the regulatory burden to a level proportionate with the safety risks.

The EASA Opinion 01/2011 was adopted by the European Commission and resulted in:

- Commission Regulation (EU) No 593/2012 (06/07/2012) amending Regulation (EC) No 2042/2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks; and
- Commission Regulation (EU) No 748/2012 (03/08/2012) laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations.

It was anticipated at the time of the publication of the opinion that a separate rulemaking task (MDM.032(d)) would be started to develop Acceptable Means of Compliance and Guidance Material to accompany the new provisions in the rule. In the meantime a more fundamental discussion with regard to the need for an EASA Form 1, not restricted to parts and appliances within the ELA scope, has moved the issue for ELA into a new rulemaking task (RMT.0018 and RMT.0571 (21.026) "Installation of parts and appliances that are released without an EASA Form 1 or equivalent."). This rulemaking task is planned to deliver its first results only in 2014. However, because the new rule for ELA is already applicable since 10 September 2012, there is a need for intermediate guidance material.

It is therefore that by means of this Certification Memorandum EASA provides that guidance for the implementation of the possibility for owners of ELA aircraft to accept certain not safety critical parts for installation without an EASA Form 1.

3. EASA CERTIFICATION POLICY

3.1. EASA POLICY

The clarification and guidance provided in this Certification Memorandum relate to the eligibility for installation of parts and appliances in accordance with Part 21 and the installation and maintenance of these parts and appliances in accordance with Part M and Part 145.

3.2. WHO THIS CERTIFICATION MEMORANDUM AFFECTS

This Certification Memorandum affects aircraft owners of ELA aircraft, maintenance organisations, National Aviation Authorities and the EASA Standardisation Department when performing standardisation visits to National Aviation Authorities.

3.3. THE SCOPE OF THIS CERTIFICATION MEMORANDUM

This Certification Memorandum is applicable to determining eligibility for installation and maintenance of parts and appliances that fall within the scope and criteria defined by 21.A.307(c)(1).

It is important for the aircraft owner to understand the consequence of this flexibility provision and the responsibility that comes with it. Parts and appliances that come without an EASA Form 1 are not subject to production control in accordance with Part 21 Subpart F or G. Potential negative safety impact due to the absence of aviation regulated production is mitigated by limiting the concept to non-safety critical parts and appliances. The aircraft owner who intends to make use of the provided flexibility needs to be aware of this when considering replacement parts and appliances without an EASA Form 1.

A pragmatic approach in applying the new rule is to select parts that can be obtained directly from the original source (E.g. a non-aviation vendor). Such parts are often identified with a vendor code in the Illustrated Parts Catalogue (IPC) or in a Service Bulletin (SB).

Another criterion that can be used to select parts that are eligible under this scheme are parts for which manufacturing data is available and for which the quality of the part can also be established after production.

According to 21.A.307(c) parts and appliances without an EASA Form 1 can be considered acceptable for installation by the owner of the aircraft only when they are:

1. not life-limited, nor part of the primary structure, nor part of the flight controls;
2. manufactured in conformity to applicable design;
3. marked in accordance with Subpart Q;
4. identified for installation in the specific aircraft.

And when the owner has verified compliance with the above 4 conditions and has accepted responsibility for this compliance.

The following guidance for these 4 points is provided in this Certification memorandum.

1. Not life-limited, nor part of the primary structure, nor part of the flight controls.

The information that is necessary to determine if these criteria are applicable is not always readily available or transposed into data that is available to the owner (E.g. primary structure is not always clearly defined). An owner should consult documentation (not limited to design data) from the design approval holder (Type Certificate, SB, STC, IPC, Maintenance Manual, Repair) before making the decision. When in doubt, the owner can also consult an aviation organisation approved in accordance with EASA airworthiness regulations. (E.g. the maintenance organisation) Such an organisation can in turn also consult the competent authority or the Agency.

2. Manufactured in conformity with the applicable design

It is also important to realise that the acceptance of parts and appliances without an EASA Form 1 by no means is a way of making or accepting changes to the applicable design. Applicable design data is defined in the TC, STC, minor change approval, repair design approval or standard changes and repairs in accordance with the new Part 21 points 21.A.90B or 21.A.431B.

Note: The wording in Part 21 refers to “applicable” design instead of “approved” design because the change to Part 21 also introduced a new concept of Standard Changes and Standard repairs. Since these do not follow a formal approval process as such, the terminology was changed from “approved” to “applicable”.

There are basically two ways to establish that a part is manufactured in conformity with the applicable design, first by obtaining a part that is identified by its partnumber and manufacturer as the part from the applicable design, secondly by actually manufacturing a part in conformity to the applicable design. Such can be considered for simple parts, such as brackets, doublers, etc., e.g. manufactured to SRM, SB or Standard Changes/Repair data.

3. Marked in accordance with Subpart Q

As for any other part or appliances it needs to be identified (“marked”) for traceability purposes.

4. Identified for installation in the specific aircraft.

In order to record that the owner of the aircraft has decided to accept the part or appliance that came without an EASA Form 1 this needs to be recorded. Preferably this information should be visible in the form of marking of the part itself but in any case the maintenance records need to show that these parts or appliances have been accepted by the owner of the aircraft.

3.4. HOW TO TREAT PARTS AND APPLIANCES WITHOUT AN EASA FORM 1

Ultimately it is the owner of the aircraft within the ELA1 or ELA2 criteria who takes the responsibility to accept a part or appliance within the given criteria for installation on his/her aircraft. For the continuing airworthiness of the aircraft it is required that these parts or appliances are to be clearly identified and handled in accordance with the amended rule in Part M and Part 145.

M.A.502 ‘Component Maintenance’ has been amended for that reason. In order to assure that the parts and appliances that are accepted for a particular aircraft are not installed on other aircraft, component maintenance and release of that maintenance with an EASA Form 1 is not accepted (Refer to M.A.502(e)).

Also storage of these parts and appliances needs to be segregated from other items (Refer to 145.A.42(a)(6)). 145.A.42(e) has been introduced to emphasize the responsibilities of the owner for these parts and appliances.

4. REMARKS

1. This EASA Proposed Certification Memorandum will be closed for public consultation on the **4th of April 2013**. Comments received after the indicated closing date for consultation might not be taken into account.
2. Comments regarding this EASA Proposed Certification Memorandum should be referred to the Certification Policy and Planning Department, Certification Directorate, EASA. E-mail CM@easa.europa.eu or fax +49 (0)221 89990 4459.
3. For any question concerning the technical content of this EASA Proposed Certification Memorandum, please contact:

Name, First Name: THOMAS, Carl

Function: General Aviation Section Manager

Phone: +49 (0)221 89990 4357

Facsimile: +49 (0)221 89990 4857

E-mail: carl.thomas@easa.europa.eu