

NOTICE OF PROPOSED AMENDMENT (NPA) No 20/2005

DRAFT DECISION OF THE EXECUTIVE DIRECTOR OF THE AGENCY

AMENDING

**DECISION NO. 2003/1/RM OF THE EXECUTIVE DIRECTOR
of 17 October 2003**

on acceptable means of compliance and guidance material 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 (“AMC and GM to Part 21”)

And

DRAFT DECISION OF THE EXECUTIVE DIRECTOR OF THE AGENCY

AMENDING

**DECISION NO 2003/19/RM OF THE EXECUTIVE DIRECTOR
of 28 November 2003**

on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003 of 20 November 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.

Standard Parts

TABLE OF CONTENTS.

			Page
A		EXPLANATORY NOTE	3
	I	General	3
	II	Consultation	4
	III	Comment Response Document	4
	IV	Content of the draft decision	4
	V	Regulatory Impact Assessment	4
	VI	Special request for comments	7
B		DRAFT DECISIONS	8
	I	Draft Decision AMC and GM to Part 21	9
	II	Draft Decision AMC and GM to Part M	10

Explanatory Note

I. General

1. The purpose of this Notice of Proposed Amendment (NPA) is to envisage amending the existing guidance material¹ (GM) to paragraph 21A.303(c) of Commission Regulation (EC) No 1702/2003² as amended by Commission Regulation 381/2005³ and amending the existing acceptable means of compliance⁴ (AMC) to paragraph M.A.501(c) of Commission Regulation (EC) No 2042/2003⁵ to enable the installation of certain non-required equipment in sailplanes and powered sailplanes without an EASA Form 1. The scope of this rulemaking activity is described in more detail below.
2. The Agency is directly involved in the rule-shaping process. It assists the Commission in its executive tasks by preparing draft regulations, and amendments thereof, for the implementation of the Basic Regulation⁶ which are adopted as “Opinions” (Article 14.1). It also adopts Certification Specifications, including Airworthiness Codes and Acceptable Means of Compliance and Guidance Material to be used in the certification process (Article 14.2).
3. When developing rules, the Agency is bound to following a structured process as required by article 43.1 of the Basic Regulation. Such process has been adopted by the Agency’s Management Board and is referred to as “The Rulemaking Procedure”⁷.
4. This rulemaking activity is included in the Agency’s rulemaking programme for 2005. It implements the rulemaking task 21.035 “AMC to 21A.303(c) Standard Parts”.
5. The text of this NPA has been developed by the Agency. It is submitted for consultation of all interested parties in accordance with articles 5(3) and 6 of the EASA rulemaking procedure.

¹ Decision No 2003/1/RM of the Executive Director of the Agency of 17.10.2003 on acceptable means of compliance and guidance material 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 (“AMC and GM to Part 21”).

² Commission Regulation (EC) No 1702/2003 of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances. OJ L 243, 27.9.2003, p. 6.

³ Commission Regulation (EC) No 381/2005 of 7 March 2005 amending Regulation (EC) No 1702/2003 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. OJ L 61, 8.3.2005, p. 3.

⁴ Decision No 2003/19/RM of the Executive Director of the Agency of 28.11.2003 on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003 of 20 November 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.

⁵ Commission Regulation (EC) No 2042/2003 of 20 November 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. OJ L 315, 28.11.2003, p. 1.

⁶ Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency. OJ L 240, 7.9.2002, p. 1.

⁷ Management Board decision concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (“rulemaking procedure”), EASA MB/7/03, 27.6.2003.

II. Consultation

6. To achieve optimal consultation, the Agency is publishing the draft decision of the Executive Director on its internet site. Comments should be provided within 3 months in accordance with Article 6(4) of the EASA rulemaking procedure. Comments on this proposal may be forwarded (*preferably by e-mail*), using the attached comment form, to:

By e-mail: NPA@easa.eu.int

By correspondence: Process Support Unit
Rulemaking Directorate
EASA
Ref: NPA 20/2005
Postfach 10 12 53
D-50452 Cologne
Germany

Comments should be received by the Agency before 21st May 2006. If received after this deadline they might not be treated. Comments may not be considered if the form provided for this purpose is not used.

III. Comment response document

7. All comments received in time will be responded to and incorporated in a comment response document (CRD). This may contain a list of all persons and/or organisations that have provided comments. The CRD will be widely available on the Agency's website.

IV. Content of the draft decision

8. According to Part 21 and Part M all parts and appliances to be installed in a type certificated product must be accompanied by an EASA Form 1 certifying airworthiness (or an equivalent form accepted under international agreements). However standard parts are exempted from this requirement. What are considered standard parts is explained in GM and AMC to both Part 21 and Part M. The envisaged decision intends to expand these GM and AMC to explain that certain non-required equipment for sailplanes and powered sailplanes can be considered standard parts. This will confirm that the installation of such equipment without an EASA Form 1 is allowed, which was common practice before Part 21 and Part M became effective.

V. Regulatory Impact Assessment

9. Purpose and Intended Effect

- a. Issue which the NPA is intended to address.
In sailplanes very often equipment is installed for user's comfort or for enabling participation in competitions. This non-required equipment is certified under CS 22.1301(b) on the basis of not constituting a hazard to safe operation. However according to Part 21 and Part M a Form 1 is necessary for the installation of any equipment, unless it can be considered to be a standard part. A standard part is not defined in the rule but in associated guidance. The current guidance

leads to conclude that these kinds of equipment cannot be considered standard parts. This implies that certification and production is done in accordance with Part 21. However, manufacturers of this type of equipment cannot normally issue a Form 1 because they do not hold a Production Organisation Approval (POA) or a Subpart F agreement or because a design approval for the equipment is not issued. In practice installation of such equipment has always been possible under national rules as they are not required for the safe operation of the aircraft nor do they affect its airworthiness. There is therefore no justification to require their installation be subject to all the requirements of Part 21.

- b. Scale of the issue
There are approximately 20 000 sailplanes in Europe.
- c. Brief statement of the objectives of the NPA
The objective is allow for the installation of certain non-required equipment in sailplanes and powered sailplanes without requiring the issuing of an EASA Form 1.

10. Options

- a. The options identified.
 1. Do nothing: According to the current AMC and GM sailplanes will have to comply with all requirements in Part 21, which will initially be impossible because the concerned equipment is unlikely to be accompanied by a Form 1. This will either prevent the installation of the non-required equipment or it could be expected that sailplanes will be modified without approval. Considering the economics, it is not expected that manufacturers of such equipment can be convinced to work in accordance with Part 21.
 2. Amend 21A307 and M.A.501 to exempt non-required equipment from the requirement of Part 21. This necessitates establishing another category of parts and appliances (in addition to Critical Parts, “normal” parts and appliances and Standard parts). Although this is certainly the best solution in legal terms it unfortunately does not provide for the short term solution expected by the users and owners of gliders. Moreover this solution cannot be limited to gliders knowing that in other domains there may also be a category of parts for which a Form 1 is difficult to obtain but which, from the installation perspective need such a document. This solution requires a thorough review of the applicable requirements.
 3. According to 21A.307 and M.A.501 Standard Parts are already exempted from the requirement to be accompanied by a Form 1. The concept of standard parts is further defined in the GM and AMC to both Part 21 and Part M. The definition of Standard Part could therefore be extended to include the above non-required equipment so that simpler certification and production of non-required equipment in sailplanes would be allowed. This can be done by elaborating the already existing GM and AMC material. The advantage of this option is that it builds on an existing regulatory solution and allows a faster resolution of the problem because GM and AMC can be issued by the Agency.

11. Sectors concerned

The sectors of the civil aviation community within the EASA scope, which will be affected, are sailplane owners and clubs, sailplane maintenance organisations, manufacturers of the above non-required equipment such as electrical variometers.

12. Impacts

a. All identified impacts

i. Safety

After a limited research no sailplane accidents were found that were caused by non-required equipment in any way. In fact the overall number of sailplane accidents with “technical” causes is very limited. (in UK 4 fatal accidents in 17 years). This implies that the situation before Part 21 became effective, when this equipment was installed without a Form 1, has not contributed to the causes of accidents.

Moreover devices like an electrical variometer with audible indication have a positive contribution to safety because they allow the pilot to look outside rather than looking at the instruments, thus being able to avoid mid air collisions which is still a major cause of accidents.

ii. Economic

The overall economic impact may not be substantial because the sailplane community does not represent a large economic activity, but the individual owner will be severely affected if the do nothing option was chosen. This is because it is not very likely that the manufacturers, for which the sailplane equipment is only a small part of their total business, would go through the burden and costs of a POA approval or Subpart F agreement.

iii. Environmental

No impact expected.

iv. Social

No impact expected.

v. Other aviation requirements outside EASA scope

No impact expected.

b. Equity and fairness in terms of distribution of positive and negative impacts among concerned sectors.

The envisaged change only affects the sailplane community; other sectors would not be harmed by such change. However because the change from national rules and procedures to Community ones is more important for sailplanes than for other products, the positive impact of the change on the sailplane community cannot be challenged by other sectors.

13. Summary and Final Assessment

a. Comparison of the positive and negative impacts for each option evaluated

Option 1: Safety impact is zero but the economic impact is negative

Option 2: For this option the safety impact and economic impact are yet unclear and will be further developed in an NPA dedicated to this subject. Rulemaking task 21.026 dealing with this is scheduled to start beginning of this year.

Option 3: For the preferred option the safety impact seems zero or even positive, while the economic impact is also positive.

b. A summary describing who would be affected by these impacts and analysing issues of equity and fairness

If the do nothing option was chosen sailplane owners and clubs, sailplane maintenance organisations, manufacturers of non-required equipment would be affected while other areas would not.

c. Final assessment and recommendation of a preferred option

After due consideration the Agency believes that option 3 can be pursued in the short term. One important factor for this choice is the negligible safety impact of the practice before Part 21 became effective. However such option could be legally challenged. This risk is limited because the current definition of standard parts is only in AMC and GM and the proposed new AMC/GM is still compatible with Part 21. Because it is also recognised that the issue is extending beyond the domain of gliders, the Agency will also start a rulemaking task as envisaged in option 2. The Agency envisages therefore starting by implementing option 3 to provide for a short term solution, but will pursue change of Part 21 for a long term solution.

VI. Special request for comments

In the light of the planned rulemaking task as mentioned above in the Regulatory Impact Assessment option 2 you are invited to take part also in the preparation of this task.

The background of this task is the acknowledgement that during design certification the certification of parts can be based on a wide range of requirements, depending on their potential impact on safety. However on the production side there is basically only one possibility leading to the issuance of a Form 1 which states conformity to the approved design. There are few special cases: critical parts (term used only in engines and rotorcraft) for which there are additional production requirements and standard parts for which a Form 1 is not required. The main question is whether there should be a more differentiated approach towards production of parts, commensurate with the design certification of those parts.

For stimulating discussion the following questions are raised:

1. Should a new category of parts be introduced in Part 21 and Part M for parts which do not require a Form 1, but which are not standard parts (e.g. “commercial parts”)?
2. Is the current definition of “parts and appliances” (see 1592/2002 art. 3(d)) satisfactory for determining the applicability of Part 21 production rules and Part M maintenance rules? (issues to be considered: what means “installed” or “attached to”; what means “used in operating or controlling an aircraft”)
3. Should the definition of “standard parts” be further extended?

B DRAFT DECISIONS.

The text of the amendment is arranged to show deleted text, new text or new paragraph as shown below:

1. ~~Text to be deleted is shown with a line through it.~~
2. New text to be inserted is highlighted with grey shading.
3. New paragraph or parts are not highlighted with grey shading, but are accompanied by the following box text:

Insert new paragraph / part (<i>Include N° and title</i>), or replace existing paragraph/ part
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4.
Indicates that remaining text is unchanged in front of or following the reflected amendment.
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I Draft Decision AMC and GM to Part 21

Amend GM No. 1 and No. 2 to 21A.303(c) to read:

GM No. 1 to AMC 21A.303(c) **Standard Parts**

In this context a part is considered as a “standard part”:

1. Where it is designated as such by the design approval holder responsible for the product, part or appliance, in which the part is intended to be used. In order to be considered a “standard part”, all design, manufacturing, inspection data and marking requirements necessary to demonstrate conformity of that part should be in the public domain and published or established as part of officially recognised Standards, or
2. For sailplanes and powered sailplanes, where it is a non-required instrument and/or equipment certified under the provision of CS 22.1301(b), if that instrument or equipment, when installed, functioning, functioning improperly or not functioning at all, does not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard.
 “Required” in the term “non-required” as used above means required by the applicable airworthiness code (CS 22.1303, 22.1305 and 22.1307) or required for certain operations (e.g. an artificial horizon for cloud flying) or required by Air Traffic Management (e.g. a transponder in certain controlled airspace).
 Examples of equipment which can be considered standard parts are electrical variometers, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, data logger / barograph /turnpoint camera and bug-wipers.
 Equipment which must be approved in accordance to the airworthiness code shall comply with the applicable ETSO or equivalent and is not considered a standard part (e.g. oxygen equipment).

GM No. 2 to 21A.303(c) **Officially recognised Standards**

In this context “officially recognised Standards” means:

1. Those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice; or
2. The standard used by the manufacturer of the equipment as mentioned in paragraph 2 of AMC 21A303(c)

II Draft Decision AMC and GM to Part M

Amend AMC M.A.501(c) to read:

AMC M.A.501(c) – Installation

1. Standard parts are:

- a. Parts manufactured in complete compliance with an established industry, Agency, competent authority or other Government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications etc...
 - b. For sailplanes and powered sailplanes, non-required instruments and/or equipment certified under the provision of CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard. "Required" in the term "non-required" as used above means required by the applicable airworthiness code (CS 22.1303, 22.1305 and 22.1307) or required for certain operations (e.g. an artificial horizon for cloud flying) or required by Air Traffic Management (e.g. a transponder in certain controlled airspace). Examples of equipment which can be considered standard parts are electrical variometers, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, data logger / barograph /turnpoint camera and bug-wipers. Equipment which must be approved in accordance to the airworthiness code shall comply with the applicable ETSO or equivalent and is not considered a standard part (e.g. oxygen equipment).
2. To designate a part as a standard part the TC holder may issue a standard parts manual accepted by the competent authority of original TC holder or may make reference in the parts catalogue to a national/international specification (such as a standard diode/capacitor etc) not being an aviation only specification for the particular part.
3. Documentation accompanying standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some material is subject to special conditions such as storage condition or life limitation etc. and this should be included on the documentation and / or material packaging.
4. An EASA Form 1 or equivalent is not normally issued and therefore none should be expected.