

# **OPINION No 01/2011**

## OF THE EUROPEAN AVIATION SAFETY AGENCY

## of 18 March 2011

for a Commission Regulation amending 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, as well as for the certification of design and production organisations

## AND

for a Commission Regulation amending Commission 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

'ELA process' and 'standard changes and repairs'

# **Executive summary**

This Opinion impacts primarily general aviation and addresses the following issues:

A simplified and more proportionate certification process for European Light Aircraft (ELA) is introduced. An applicant for a type certificate for ELA1 aircraft (e.g. aeroplanes below 1200 kg) can use a certification programme to show its design capability. This will eliminate the need for small companies to go through the burdensome and time consuming administrative process of obtaining a Design Organisation Approval (DOA) going at the same time through the certification process. This change will be of benefit to new applicants for a type certificate of ELA1 aircraft.

A concept of "Standard changes and Standard repairs" is introduced. The new concept eliminates the need to go through the design approval process for changes and repairs that are considered standard. For that purpose, a catalogue of standard changes and repairs will be included in a new Certification Specification (CS). The new concept will reduce administrative burden while maintaining a high level of safety. All owners/operators of small aircraft may benefit from this rule.

Under current rules the EASA Form 1 is a prerequisite for installation of all replacement parts in an aircraft. However, some parts and appliances in ELA aircraft are produced in non-aviation regulated industry. The non-regulated manufacturers cannot release these parts with an EASA Form 1. For new aircraft, this is not an issue because then the acceptance of the parts is covered by the approved production organisation of the aircraft manufacturer. However, replacement parts are usually obtained directly from the source. In order to meet the obligation of an EASA Form 1, these parts will nevertheless have to be released via approved production organisations where their added value is not always imminent. This Opinion introduces the possibility for owners of ELA aircraft to accept certain not safety critical parts for installation without an EASA Form 1. This change aims at reducing the regulatory burden to a level proportionate with the safety risks.

#### General

- The purpose of this Opinion is to suggest that the Commission amends the Annex to Commission Regulation (EC) No 1702/2003¹ (hereinafter 'Part-21') and, in particular, to introduce a simplified and more proportionate certification process for European Light Aircraft (ELA). In order to maintain consistency with Part-21, it is also suggested that the Commission amends the Commission Regulation (EC) No 2042/2003² and the Annexes Part-M and Part-145.
- 2. The Opinion has been adopted, following the procedure specified by the European Aviation Safety Agency's (the 'Agency') Management Board<sup>3</sup>, in accordance with the provisions of Article 19 of Regulation (EC) No 216/2008<sup>4</sup> (hereinafter referred to as the 'Basic Regulation').

## II. Consultation

- 3. In the past years there has been a decrease in the activity of 'classic' leisure aviation and the development of the micro-light movement in Europe. Feedback from industry and operators has suggested that the regulatory framework applied to recreational aircraft has become progressively too heavy for the nature of the activities involved and puts a heavy regulatory burden on designers and manufacturers of these types.
- 4. The Agency created the rulemaking task MDM.032 in order to address these concerns. As the task had a broad scope, the Agency issued in 2006 an advance NPA to discuss a concept for better regulation in general aviation. The feedback from this advance NPA was used by the MDM.032 group to develop a concept for better regulation in general aviation. This concept addressed initial and continuing airworthiness, operations and licensing for general aviation.
- 5. The Agency took also into consideration the introduction of the Light Sport Aircraft (LSA) rule by the Federal Aviation Administration (FAA) that has highlighted a reduction in harmonisation between the Agency and FAA in the regulation of recreational aviation. The majority of LSA types in the US are of European origin, but these cannot operate legally in the EU unless they have a take-off weight below 450 kg (and consequently fall under Annex II of the Basic Regulation) or have been certified to CS-VLA (Very Light Aeroplane) or to some higher code.
- 6. As a sub-set of the concept for better regulation for general aviation, several options for initial airworthiness were discussed by the MDM.032 group. With the publication of NPA 2008-07 on 18 April 2008, the group proposed the following for initial airworthiness:

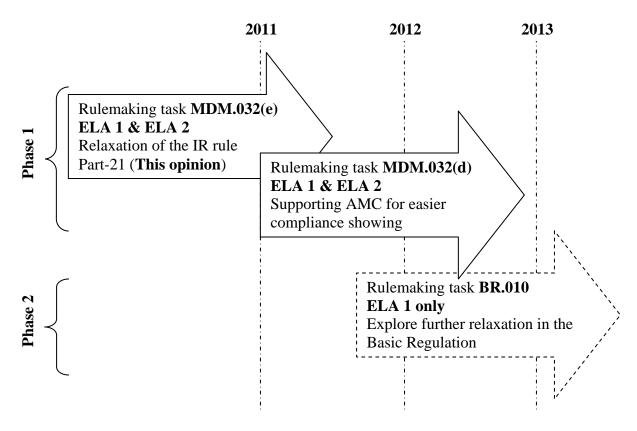
Commission Regulation (EC) No 1702/2003 of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 243, 27.9.2003, p. 6). Regulation as last amended by Regulation (EC) No 1194/2009 of 30 November 2009 (OJ L 321, 6.12.2009, p. 5).

<sup>&</sup>lt;sup>2</sup> 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*). Regulation as last amended by Commission Regulation (EC) No 962/2010 of 27 October 2010 (*OJ L 281, 27.10.2010, p. 78*).

Decision of the Management Board concerning the procedure to be applied by the Agency for the issuing of Opinions, Certification Specifications and Guidance Material. EASA MB 08-2007 of 11.6.2007 ('Rulemaking Procedure').

Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1). Regulation as last amended by Regulation (EC) No 1108/2009 of the European Parliament and of the Council of 21 October 2009 (OJ L 309, 24.11.2009, p. 51).

- No change to the scope of Annex II aircraft (in particular micro-light) of Commission Regulation (EC) No 1702/2003 (hereafter referred to as 'Part-21') and to keep those aircraft outside the scope of this Regulation.
- Create a lighter regulatory regime based on a new process for the European Light Aircraft (ELA) and to introduce a concept for standard changes and repairs.
- Subdivide the lighter regulatory regime for ELA into two processes:
  - o ELA1 for aeroplanes, sailplanes or powered sailplanes that are not classified as complex motor-powered aeroplanes up to a maximum take-off weight of **1 200 kg**.
  - o ELA2 for aeroplanes, sailplanes or powered sailplanes that are not classified as complex motor-powered aeroplanes up to a maximum take-off weight of **2 000 kg**.
- 7. The new proposed process in NPA 2008-07 for ELA was a substantially simpler new process for the regulation of aircraft and related products, parts and appliances. The intention was to continue to issue type certificates for the type and certificates of airworthiness for the individual aircraft. This implies that the new process would follow the existing principles of Part-21.
- 8. By the closing date of 18 July 2008, the Agency had received 843 comments from 79 National Aviation Authorities, professional organisations and private companies.
- 9. Many commentators expressed the view that the NPA did not achieve what they wanted i.e. a certification comparable to what exists in the USA (the Light Sport Aircraft rule), which does not include organisation approvals or significant involvement of the Federal Aviation Administration (FAA). These comments, however, came mostly from stakeholders within the scope of the ELA1 process.
- 10. The Agency, therefore, proposed an important strategic modification to the proposals in the Comment Response Document (CRD) to NPA 2008-07. A parallel rulemaking phase 2 was proposed whereas for these ELA1 aircraft category a further relaxation of the regulatory regime will be explored in the rulemaking task BR.010, which is closer to the FAA LSA rules. At the same time, the NPA 2008-07 proposals for both ELA1 and ELA2 would be progressed in order to introduce as soon as possible a simplification of the existing certification process within Part-21.



- 11. The Agency decided to split the publication of the CRD to NPA 2008-07 in order to communicate more clearly this two-phase approach and to provide a comprehensive summary of the discussions, conclusions, and the resulting text proposal for the changes to Part-21 for the simplification of the existing certification process. It is believed that, despite adverse reactions to this split that are also expressed in the attachment to this Opinion, it improved the consultation on this strategy and provided at the same time a faster process for the changes proposed in this Opinion to Part-21.
- 12. A separate Part II of the CRD to NPA 2008-07 was published on 25 November 2010 containing all 843 comments, responses and the resulting text of the proposed new Certification Specifications for aeroplanes in the ELA1 scope up to 600 kg (CS-LSA). This new CS-LSA is planned to be published in early 2011 and uses industry standards also used in the FAA LSA rules.
- 13. In preparation of the phase 2 (task BR.010) that is proposed by the Agency, a study has been performed on existing national regulation systems for micro-light aircraft in a number of Member States and safety-related data. The intent is to see if lessons can be learned from these regulatory systems applied to aircraft categories close to the ELA1 aeroplanes. The results from this study will be used to explore options in task BR.010.
- 14. The pros and cons of the course chosen by the Agency to progress the change of Part-21 that is proposed in this Opinion are:
  - Simplification of the existing certification process for all aircraft in the ELA1 and ELA2 range while maintaining the type certificate or restricted type certificate.
  - The changes become available as soon as possible from this rulemaking process.
  - The concept of 'Standard changes' and 'Standard repairs' is introduced for:
    - a. ELA1, ELA2 aircraft;

- b. Aeroplanes with a Maximum Take-off Mass (MTOM) of 5 700 kg or less, and
- c. Rotorcraft of 3 175 kg MTOM or less.
- The proposal is considered not to be the optimal solution for ELA1 and additional time is needed to develop a new proposal.
- The 'Fees and charges' Regulation adopted by the Commission remains applicable even though this is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. It was proposed to use the financing based on small fee from air tickets — the same as it is used in the USA. Such a system will assure financing of the EASA system without significant increase in the air ticket price.
- 15. Reactions to the CRD 2008-07 Part I are provided in the attachment to this Opinion and provide for practical reasons a translation or a comprehensive summary of some reactions. A total of seven associations from the ELA1 sector of the general aviation, six European authorities, the FAA and two individuals provided their feedback.
- 16. Especially the stakeholders that are active in the ELA1 category express their disappointment with the current proposal. In their view it will not provide the needed relaxation for their community and on top of that it has taken too long to develop this change. The Agency already expressed in the CRD that it is clear that the proposed changes within Part-21 will not provide the final solution. Therefore, a follow-up is proposed to review options where changes to the Basic Regulation would be required. This is, however, considered separate from the proposal in this Opinion.
- 17. Reactions to the CRD Part I indicate that the combined design and production approval as proposed in a new Subpart L to Part-21 is considered not to provide the benefits anticipated by industry. The proposed Subpart L is considered too complicated. In the long term it could lead to inconsistencies with the existing Subparts in Part-21 for DOA and POA. It is also considered to add more bureaucracy. The Agency considered these reactions and concluded that the new Subpart L, which is only applicable to aircraft within the criteria of ELA1 and ELA2, overcomplicated Part-21 with little or no benefit for the organisations. It is also evident that the proposal for the combined design and production approval depended on the application of Article 20(2)(b)(ii) of the Basic Regulation by a Member State. Only if a Member State had requested that the Agency takes responsibility for a specific production organisation approval in that Member State, a combined approval could be issued. In fact, with the existence of Article 20(2)(b)(ii) of the Basic Regulation, a combined design and production approval is already possible within the current Implementing Rules. When a Member State has agreed to use this provision, the Agency combine the oversight of POA and DOA and eventually issue one combined approval. Therefore the proposed Subpart L has been withdrawn.

# III. Content of the Opinion of the Agency

18. The present Opinion takes into account as much as possible the suggestions made by stakeholders and authorities who participated in the consultation and reacted to the CRD Part I to NPA 2008-07. Amendments to the proposed change to Regulation (EC) No1702/2003 and the Annex I (Part-21) from CRD 2008-07 Part I are presented below for each paragraph when applicable. Editorial corrections are not explicitly mentioned.

## 19. **1702/2003**

A definition of ELA1 and ELA2 is introduced in Article 1 in order to improve the readability of the requirements in Part-21.

#### 20. Part-21

# 21A.14 Demonstration of capability

The resulting text of Part-21 in CRD 2008-07 Part I incorrectly changed 21A.14(c) in a similar way to 21A.14(b) with regard to engines and propellers. This paragraph should only allow the certification programme for engines and propeller installed in aircraft referred to in this paragraph. Paragraphs 21A.14(b) and (c) are corrected and simplified using the definition for ELA1 and ELA2 in Article 1.

# 21A.35 Flight Tests

ELA1 and ELA2 aircraft are included in paragraph (b) consistent with the resulting text in the CRD 2008-07 Part I.

# 21A.90A Scope

This paragraph is re-numbered and standard changes are added to the scope of this Subpart.

# 21A.90B Standard changes

The requirement is re-drafted and renumbered (in the CRD 2008-07 Part I see 21A.98) in order to clearly separate the approval process for changes from the standard changes that do not need such an approval process. The text is also simplified by using the definitions for ELA1 and ELA2 introduced in Article 1.

# 21A.112B Demonstration of capability

Reference to the new paragraph 21A.14(c) is introduced consistent with the resulting text in the CRD 2008-07 Part I.

#### 21A.116 Transferability

The requirement has been amended for ELA1 aircraft consistent with the resulting text in the CRD 2008-07 Part I.

# 21A.307 Release of parts and appliances for installation

The resulting text in the CRD 2008-07 Part-I incorrectly contained a paragraph (c) that was already covered in paragraph (b). This paragraph is therefore removed.

The requirement is re-drafted, taking advantage of the definitions for ELA1 and ELA2 introduced in Article 1. Also, a specific identification requirement for parts manufactured under the responsibility of the owner is added.

# SUBPART L — Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c)

The proposal for this new Subpart has been withdrawn.

## 21A.431A Scope

This paragraph was unchanged in the CRD 2008-07, but is now renumbered and standard repairs are added to the scope of this Subpart.

# 21A.431B Standard repairs

The requirement has been redrafted and renumbered (in the CRD 2008-07 Part I see 21A.436) in order to clearly separate the approval process for repairs from the standard repairs that do not need such a process. The text is also simplified by using the definitions for ELA1 and ELA2 introduced in Article 1.

# 21A.432B Demonstration of capability

The requirement has been amended to include the option to use a certification programme for demonstration of capability for ELA1 aircraft consistent with the resulting text in the CRD 2008-07 Part I.

# 21A.439 Production of repair parts

This requirement was initially changed to include the new Subpart L. This has been withdrawn, and therefore there are no changes to this paragraph.

# 21A.441 Repair embodiment

This requirement was initially changed to include the new Subpart-L. This has been withdrawn. The wording 'approved maintenance organisations' is replaced by a reference to Part-M and Part-145 in order to remove unintended restrictions to Part-M and Part-145.

# SUBPART P and SUBPART Q

The changes proposed to paragraphs in these Subparts have been withdrawn with the withdrawal of the Subpart L.

#### **SECTION B**

The changes proposed to paragraphs in these Subparts have been withdrawn with the withdrawal of the Subpart L.

21. Beyond the change to M.A.501(a) incorporated into Regulation (EC) 1056/2008, changes to Commission Regulation (EC) **2042/2003** are proposed for consistency with Regulation 1702/2003. Those changes take into account the new definition of ELA1, the new category of parts in 21A.307 (b) and the introduction of standard changes and standard repairs.

Article 2(k) is amended to align the definition of ELA1 with the new definition proposed for Regulation 1702/2003 in this Opinion. These changes will allow the possibilities now offered in Part-21 to be fully used.

#### 22. Part-M

## M.A.302 Aircraft maintenance programme

Paragraph (d) is amended to ensure that instructions for continued airworthiness included in Certification Specifications for standard changes and repairs are taken into account in the maintenance programme.

# M.A.304 Data for modifications and repairs

This paragraph is amended to include the Certification Specifications to be issued by the Agency for standard changes and standard repairs.

## M.A. 502 Component maintenance

This paragraph is amended to establish the conditions under which components referred to in 21A.307(b) are to be maintained, and to clarify that these components are not eligible for the issue of an EASA form 1 after maintenance.

## M.A. 613 Component certificate of release to service.

This paragraph is amended to clarify that components referred to in 21A.307(b) are not eligible for the issue of an EASA form 1 after maintenance.

# M.A.614 Maintenance records

Paragraph (b) is amended to make it compatible with data used for standard changes and standard repairs that do not follow the approval process in Part-21.

#### M.A.710 Airworthiness review

The wording of paragraph (a)(6) is amended in order to ensure consistency with the standard changes and standard repairs concept.

# M.A.802 Component certificate of release to service

This paragraph is amended to clarify that components referred to in 21A.307(b) are not eligible for the issue of an EASA form 1 after maintenance.

# M.A.902 Validity of the airworthiness review certificate

The wording of paragraph (b)(5) is amended in order to ensure consistency with the standard changes and standard repairs concept.

## 23. Part-145

# 145.A.42 Acceptance of components

Paragraph (a) is amended to include the components referred to in 21A.307 (c) and the conditions under which these components may be installed.

## 145.A.50 Certification of maintenance

This paragraph is amended to clarify that components referred to in 21A.307(b) are not eligible for the issue of an EASA form 1 after maintenance

#### 145.A.55 Maintenance records

Paragraph (b) is amended to make it compatible with data used for standard changes and standard repairs.

# 145.A.65 Safety and quality policy, maintenance procedures and quality system

The wording of paragraph (b) is amended in order to ensure consistency with the standard changes and standard repairs concept.

Cologne, 18 March 2011

P. GOUDOU Executive Director

# **ATTACHMENT: Reactions to CRD 2008-07**

- (1) One individual person submitted the following comments:
- It is regretted that the initial 'concept for a better regulation' has resulted in only adjustments of the current Part-21 rules. These proposals have their merit but will not rescue GA. It is stated that a less bureaucratic national system like the "deutsche Luftrecht" or extending the Annex II to 2000 kg MTOW would have provided the better regulation for GA.

<u>Response:</u> The Agency expressed in the CRD that it is clear that the proposed changes within Part-21 will not provide the final solution. Therefore, a follow-up will be started to review options where changes to the Basic Regulation would be required. These changes could take the direction as indicated in the reaction. A change at the level of the Basic regulation is likely to take some time.

• The current concept of separate rules for design, production, licenses, maintenance and operations is not considered appropriate for GA. It makes the rules incomprehensible and far too bulky for the people and organisations involved in GA. Why is it not possible to draft dedicated rules for GA when it is on the other hand possible to introduce new technical standards for specific weight classes?

<u>Response:</u> The consequence of the proposed amendment <u>within</u> the current Basic Regulation is that the principles cannot change. Therefore, the separate rules for design and production remain.

• Fees and charges are still applicable and to high for GA organisations. It is suggested to use financing based on small fee from air tickets - the same as is used in the USA. Such system will assure financing of EASA system without significant increase of air ticket price.

<u>Response:</u> The Agency will pass the suggestion to the Commission for their consideration.

• **Demonstration of capability for design.** The introduction of the "Certification Programme" is considered to be an improvement, provided that it is kept to a minimum. Also APDOA was initially also a relative less-bureaucratic system but is sometimes implemented in such a way that it becomes inappropriate for small projects. It is also suggested to create a "Design Approval" for an individual instead of an organisational DOA.

<u>Response:</u> The Agency recognises the issue that the current implementation of design organisation requirements could be too demanding for a GA organisation. The Agency therefore proposes in the CRD 2008-07 to develop AMC for DOA that would make compliance showing easier. The benefit would be that full privileges would be available for the approved design organisation. The suggestion for a 'Design Approval' for an individual has not been considered at this stage because the EASA approach is organisational approvals.

• Parts that do not need an EASA Form 1. This is considered a good development.

Question: Why is an approval required for the installation of approved equipment when that also includes instructions for installation? The installation approval process and costs are hindering implementation of modern equipment like FLARM that could improve safety. How many accidents have nowadays technical causes?

<u>Response:</u> The Agency thanks the commentator for his support to the proposal. It is supported that installation of 'standard changes' should be made easier for GA. This is why this is included in this proposal (see next paragraph). The Agency agrees that the majority of GA accidents are linked to operational causes.

• Standard changes and repairs. In principle this development is supported. The way how, however seems to result in a bureaucratic solution. The FAA AC 43-13 is a pragmatic document and the need for a new CS is not supported.

<u>Response:</u> The Agency proposes the introduction of a new CS that covers standard changes and repairs with a content using data from the FAA AC 43-13. The legal status is, however, not like the FAA Advisory Circular because the CS will contain detailed repairs and changes that do not require an approval process. The process to develop and issue this CS might seem bureaucratic; however it allows the Agency to publish approved designs within the Agency's competence that can be implemented without the need for an approval for each and every individual standard repair or change.

(2) The British Gliding Association and European Gliding Union provided identical reactions:

**Standard changes and repairs.** Part 21, even as amended for light sport aircraft, takes the simplistic legal view that ANY embodied change to an aircraft, however small, represents an impact on the type certification basis on which aircraft's airworthiness is substantiated. The full process, including DOA, is applied for embodiment of sporting equipment, which is expensive and inappropriate when considering the absolutely minimal safety implications. The measure offered in the NPA through the proposed CS – Standard repairs and modifications is most welcome, but might be considered alongside further measures: for example

- o A re-definition within ELA that enables a defined limited class of modification to be carried out at the discretion of the owner, maintenance carer, local association or NAA.
- o Wider freedoms within Part 21 mainly through AMC guidance.
- o Provision of additional, more appropriate guidance to NAAs via 'MB' rules in Part 21.
- o A minimalist option on a new DOA accreditation to accommodate such changes in an economic and proportionate way.
- o A recognition that this activity is in fact more appropriate to 'Continuing Airworthiness' under Part M and that the privileges of an appropriate Part M organisation could be considered acceptable in these cases.
- o The adoption 'on bloc' of extant guidance material into the new CS Standard Repairs and Changes

The primary concern remains with the lowest levels of change that incur modification action. At present minor modification is required even for a re-location of an instrument within its panel. The actual definition of the level at which a 'revised installation' justifies 'minor' modification status remains to be discussed.

<u>Response:</u> The Agency acknowledges that the proposed amendment of Part-21 and the introduction of a new CS for standard changes and repairs have its restrictions because it remains within the principle of approval of all changes. This is, however, due to the current Basic Regulation. The phase 2 for 'a better regulation for General Aviation' carried by task BR.010 is proposed to look into possibilities as proposed by the commentator. On the other hand, the proposed change to Part-21 and introduction of standard changes and repairs is a tool that, within changes that requires approval, are considered to support common and standardised introduction of changes in a less burdensome process.

**Demonstration of competence for approval (DOA, POA and DOA/POA).** The regulatory split of categories for design, initial airworthiness, continuing airworthiness, repair and maintenance has led to a multiplicity of approvals which, while appropriate for large aircraft and companies, is wholly inappropriate for to Associations, SME's and cottage 'industries' of Sport/GA.

The NPA proposes the following measures that fail to accommodate the basic simplistic need, and instead are pursuing multiple courses of action.

**Customised certification programme** - This appears to allow designers to design first and hopefully gain approval retrospectively once adequate progress and confidence is gained. This flexibility appears to change only the order in which applications are made for approval, without impact of the overall workload. It is regretted that the "alternative concept" is not retained for changes to the type certificate.

Demonstration capability for production. The CRD offers generalities concerning 'simplified' the process without any specifics simplifications.

<u>Response:</u> There are no simplifications to the rule for POA, however the Agency will develop AMC for an easier showing of compliance for ELA 1 and ELA 2.

**Combined DOA/POA.** This is the most promising of all these 'Demonstration of capability' measures. The value of this could however be easily lost between EASA and an uncooperative NAA. How will the roles of NAA's and EASA be accommodated in the 'simplified' process?

It is noted that many European sailplane companies who had previously been accredited with full national approvals, have since failed to gain Part 21 approval, presumably on groups of complexity and expense in the Part 21 system. Could it be expected that one or more of the above options should enable them to 'fast- track' to approval? Viewed from the position of this sporting association, we find the combined DOA/POA process the most likely candidate.

<u>Response:</u> The idea behind the certification programme is to allow the type certification without the need for a DOA or AP-DOA for ELA1. It is recognised that this at first will only simplify the initial type certification and will not provide the DOA privileges that would reduce the burden for continued support of the TC. This is why simplified AMC is developed to obtain DOA.

<u>Remark:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

**Parts without Form 1.** The proposal in the CRD to reduce the scope of parts that do not require an EASA Form 1 for release is not adequately justified. The stated need to develop a regulation having commonality with commercial aviation is not logical or reasonable.

The creation of appropriate airframe replacements parts, and local supporting structures from properly sourced raw material, is also more than adequately controlled by the aircraft's Part M qualified maintainers and CA responsible officials. Appropriate record keeping in worksheets and maintenance logs, as to the origin of commercially qualified equipments and the creation of minor airframe parts in accordance with manufacturers recommendations, are already in place under Part M and is entirely adequate to the safety needs of this sector, or indeed to return of an aircraft to commercial operation in rare cases.

The creation of a rule that is proportionate for Sport/General aviation is entirely depended to the detailed implementation of this guidance material, and the scope of applicability of these freedoms.

<u>Response:</u> The proposal for parts without an EASA Form 1 goes beyond the scope of parts produced for maintenance. The scope is open for all parts except for life limited parts and appliances, parts of the primary structure and parts of the flight controls. This limitations to the scope is introduced to control the safety risks and therefore to allow the use in commercial operation.

**Qualified Entities (QE).** The inclusion of opportunities for QE roles for SME's and Sporting Associations is an important development, with the potential to reduce administrative overheads, and as such is welcomed. It is feared that the complexity on the regulatory side and possible lack of commitment at management Board level could overcast the benefits a QE entity which is wholly useful to the Sport/General Aviation movement in general, and the applicants, in particular. The QE should be enabled to accommodate maximum freedom on the chosen roles, and required to interact with only one counter-part on the authorities' side. The commercial viability of the QE's operation requires careful consideration.

<u>Response:</u> We recognise the uncertainty in relation to the process of QE for the Agency and therefore propose the simplified AMC for the current regulatory structure of DOA.

Future Authority Requirements AR GEN.205 (Refer to CRD to NPA 2008-22(b) and 2009-02(d) published 4 October 2010) would define how Competent Authorities can use QE. This would become applicable to POA when the applicable rules from Part-21 are transposed to the Part-AR. The Opinion for this is expected in 2013. (Refer to rulemaking task MDM.060)

# (3) CAA NL:

(Page 6, item 1) It is questioned whether the proposal to limit aircraft through the operational rules to those limitations that are included in the TCDS is feasible without a huge backlog of amending TCDS's of grand fathered pre-EASA certified aircraft. A number of TCDS's will not specifically state applicability limitations from the airworthiness code.

<u>Response:</u> It is believed that there is a misunderstanding with the intention in the CRD. As the issue of engine and propeller type certificate was expected to be too restrictive, the group proposed the use of RTC as a way out. At that time concerns were expressed that an RTC could limit the operational use to non-commercial operations. The draft operational rules envisage that the aircraft require a CofA or restricted CofA and do not put any generic limitations to the operation except for those included in its data-sheet. Therefore, the use of RTC would have no consequences. A retroactive modification of existing TCDS's is not envisaged.

CS-VLA. It is suggested to amend CS-VLA to 900kg consistent with CS-22.

Response: This comment will be considered in the specific rulemaking task VLA.008.

(Page 11) It is not supported that reduced and simplified certification process of "amateur" build replacement parts are acceptable on aircraft used for CAT.

<u>Response:</u> The Agency remains of the opinion that an appropriate level of safety is maintained, taking into account that these parts are not primary structure, flying controls, or life limited parts.

(Page 14 top) It is unclear how EASA could act as 'representative of the State of Design for aircraft designed in the USofA without formal transfer of TC and design responsibilities in the eyes of ICAO.

<u>Response:</u> The Agency needs to further explore the 'State of Design' issue because the scope of US-LSA is up to 600/650 kg and therefore these RTC would be non-ICAO because Annex 8 Part 5 lower limit is 750 kg and ICAO Annex 8 only deals with Type Certificates.

The CAA-NL has the following remarks on the resulting text of Part 21:

**21A.98 Standard changes** As para (a) is formulated now, sailplanes and powered sailplanes with a MTOM > 2000 kg are not able to use the standard changes while CS-23 aeroplanes are able to use these up to MTOM < 5700kg. It seams logical to not include this possibility for all sailplanes and powered sailplanes under 5.7 tons.

Suggested text:

Applicability: This paragraph is applicable only to aeroplanes with a Maximum Take-Off Mass (MTOM) below 5700 kg, rotorcraft with a MTOM below 3175 kg, sailplanes and powered sailplanes with a MTOM below 5700kg, and balloons and airships as defined in paragraph 21A.14(b) or 21A.14(c).

<u>Response:</u> The Agency does not anticipate standard changes applicable to such a sailplane and powered sailplanes that are far beyond the current sailplanes designs.

# 21A.307 Release of parts and appliances for installation.

The proposed change to the scope of parts without an EASA Form-1 is not reflected in the resulting text of 21A.307(b) and (c).

Response: Accepted. The paragraph (c) was incorrectly kept and will be deleted.

# 21A.353 Eligibility

The sentences of (b)5 and (b)6 are not clear.

Suggested text:

- (b) For combined Design and Production Organisation Approval the applicant shall hold or have applied for:
- 5. for a defined scope of work, an approval under this Subpart is appropriate for the purpose of showing conformity with a specific design. Delete 6.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

## 21A.359 Design Assurance System

- (a) The design assurance system should be a **documented** system. Insert the word 'documented' before design assurance system in the first sentence.
- (a)2. The responsibilities that are to be discharged should be in accordance with this **Part**, as also those as design holder are to be met, 21A.3 etc. Delete 'Sub' from Subpart.
- (b) The text for the issuing of a compliance statement to the agency should be included here as it is formulated in 21A.239(b). This statement is required in 21A.381(b) and 21A.385(d).

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

## 21A.361 Production Quality system

- (a) The quality system should be a documented system. Insert the word 'documented before quality system in the first sentence.
- (b)(ix) This can be deleted as the approved organization is the applicant or the holder of the design.
- (b) last sentence: Here there is only a reference made to life limited parts where 21A.307 also gives special treatment to parts of the primary structure or flight controls, normally defined as critical parts.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

# 21A.363 Exposition

All para's: For consistency and clarity include the references to the proper para's of 21A.365, as it is done in 21A.143.

(a)11. A description of the organisational review and 'quality' system and associated procedures. Insert the word 'quality'. As mentioned in para 4 on page 8 of the paper, the proposed alleviation for the production part of the approval was not retained, and also in 21A.361 a quality system is required.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

# 21A.365 Approval Requirements

(c)2. Delete the 'Sub' in Subpart as the organization should stay in compliance with all requirements of Part 21.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

#### 21A.367 Changes to the Approved Organisation

(a) After the issue of the organisation approval, each change to the organisation, particularly changes to the design assurance or organisational review **and Quality** systems. Insert the words 'and quality', reason see under 21A.363(b)11.

Insert the text of 21A.147(b), as the CA or the Agency may wish to make use of this possibility during changes of the organization.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

## 21A.381 Design Privileges

The sentences of (c)4 and 5 are not clear.

- (c)6 is not in line with 21A.710(a). Text should be amended in line with 21A.263(c)6 and 7.
- (d) This part can be deleted as this is regulated in 21A.47.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits

while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

# 21A.383 Production Privileges

- (c) The ref to 21A.307 should be deleted as in 21A.163(c).
- (e) This should also include the privileges to issue a PtF. Text to be amended in line with 21A.163(e). This also triggers a change to 21A.711 to include a ref to this para.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

# 21A.385 Obligations of the Holder

- (j)1 Please change the beginning into: 'The system under (i) should include all cases where ..... As the organization is both the design holder and the production organization this is an internal issue.
- (j)2 from 'Where the holder of the combined......' this can not be the case so the text as this approval is only eligible for organizations holding or having applied for the design approval. Please delete text.
- (k) please delete, not possible.
- (n) the ref to 21A383(f) is not correct, (f) does not exists.
- (o) please insert the text of the current 21A165(k). this is necessary before a PtF can be issued.

<u>Response:</u> The Agency concluded from the reactions to the CRD and internal consultation reactions to this Opinion that the new Subpart-L for the combined design and production organisation approval should be withdrawn. It was concluded that this would not bring benefits while at the same time the option for these approvals issued by the Agency already existed when Article 20(2)(b)(ii) of the Basic Regulation the application would be applied.

## 21A.436 Standard repairs

See remark under 21A.98.

Response: Not accepted. See response to 21A.98.

## 21A.711(b) and (c)

A ref to 21A.381 and 21A.385 should be included.

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

(4) DGAC France

For the beginning of the exercise, DGAC-France has supported strongly the ELA project. DGAC-France is very happy to have read the CRD 2008-07 Part I and supports the EASA proposals.

ELA is awaited by all the General aviation community. As some ELA programmes already started, the rule, the certification procedure and the AMC are needed as soon as possible to insure feasibility of these programmes and standardisation within Europe.

<u>Response:</u> The Agency thanks the DGAC France for their support. A list of actions that need to be concluded, provided by the DGAC-France, will be used to organise the follow-up of MDM.032 and BR.010.

On page 5/28, it is written that the TCH must apply for the ELA regime. We understand the concept for the new products. Nevertheless, the possibility of using the ELA rule should be left to the aircraft owner for used products.

<u>Response:</u> This observation is correct and the proposed wording in Part-21 would not restrict the applicability to new aircraft or TCH only.

Technical conditions for Engine and propeller

On page 5/28, (a) 2, they are noted but they do not exist. For standardisation, they need to be published by EASA.

<u>Response:</u> Accepted. In the scope of the phase 2 task these technical requirements would need to be specified and published. Today they exist only for sailplanes and VLA in the respective airworthiness codes. (Subpart H and J to CS-22 and reference in CS-VLA to these Subparts)

Harmonisation CS-VLA/CS-22

On pages 6/28 and 7/28, (b) 2 (2d and 4th bullets), we read some different maw weight limit for CS-VLA and CS-22. These should be harmonised at 900 kg.

Response: This comment will be addressed in the specific rulemaking task.

(5) European Federation of Light Experimental and Vintage Aircraft (EFLEVA)

The EFLEVA expresses that it is difficult to comment to the CRD Part I without the detailed comments.

The phase 2, task BR.010, is supported however it is very late for this.

It is supported that a TC is not required for engines and propellers for certain ELA aircraft.

EFLEVA agrees with and welcomes the proposal to increase the upper limit of ELA1 to 1200 kg.

EFLEVA supports the introduction of these new CS and the revisions to existing CS. However it is stressed that the industry needs these CS to be issued sooner rather than later.

EFLEVA welcomes the Agency's suggestion to allow simplified means of compliance to Part 21 subpart J, as this will limit the required involvement by the Agency in approval of changes and repairs, therefore helping with cost burden.

EFLEVA agrees with the concept of combined DOA/POA certification if this will reduce the cost burden on small design / production companies.

EFLEVA supports the concept of Qualified Entities to be allocated specific certification tasks. However EFLEVA is concerned that the process of calling for tenders by notification on the EASA web site is not adequate, and further means will be required to notify potential applicants.

EFLEVA supports the Agency's intention to harmonise regulation with the USA on the initial airworthiness requirements for Light Sport Aeroplanes. However the proposals in the CRD show that the route for EU aeroplanes to be exported to the USA is relatively straightforward, whilst aeroplanes from the USA will suffer extra certification requirements when exported to EU. This will add costs to the US producers, and add an unnecessary barrier to US aeroplane sales in EU.

EFLEVA welcomes the proposal to introduce a new CS for Standard Changes and Repairs based upon (AC)43-13. Once again EFLEVA would urge the Agency to introduce this CS quickly, as this will help to reduce/eliminate the approval costs for changes and repairs.

<u>Response:</u> The Agency thanks the commentator for his support and has proposed the various follow-up tasks (e.g. MDM.032(d) and BR.010) in accordance with the published rulemaking plan. We explore ways to accelerate these tasks wherever possible.

# (6) European Sailplane Manufacturers

The European Sailplane Manufacturers express their disappointment with the current proposed change resulting from task MDM.032 that has taken too long and does not achieve the end goal that is desperately needed by GA.

It is again voiced that something needs to be done on the Fees and Charges regulation for GA, because this is detrimental for the GA business.

**Demonstration of capability for design.** The current options; Certification Programme, alternative procedures to DOA (APDOA) and full DOA are not changed by this proposal and therefore do not provide any alleviation for the industry. A full DOA is still considered not affordable and therefore it is proposed to give some privileges to APDOA that will give the incentive to start with APDOA and perhaps to later upgrade to full DOA.

<u>Response:</u> The Agency recognises the issue that the current implementation of design organisation requirements could be too demanding for a GA organisation. The Agency therefore proposes in the CRD 2008-07 to develop AMC for DOA that would make compliance showing easier. The benefit would be that full privileges would be available for the approved design organisation.

**Standard changes and repairs.** The introduction of Standard changes and repair is supported however the need for a new CS is not fully understood. An introduction should be ASAP and pragmatic. The European Sailplane Manufacturers offer support for this work.

<u>Response:</u> The Agency proposes the introduction of a new CS that covers standard changes and repairs using data from the FAA AC 43-13. The legal status is, however, not like the FAA Advisory Circular because the CS will contain detailed repairs and changes that do not require an approval process. The process to develop and issue this CS might seem bureaucratic; however it allows the Agency to publish approved designs within the Agency's competence that can be implemented without the need for an approval for each and every individual standard repair or change. This is believed to provide an easier implementation.

**Changes to CS-LSA**. The introduction of a specific CS based on the ASTM standards for LSA aircraft is supported. This new code should be clearly applicable to these aircraft and not create an ambiguity with regards to the applicability of other existing airworthiness codes like CS-VLA or CS-22.

<u>Response:</u> CS-LSA is only applicable to aeroplanes and therefore not applicable to sailplanes. LSA aeroplanes are by nature powered aeroplanes that perhaps have good gliding characteristics but are not designed for that purpose.

**Qualified Entities.** A central and important complaint of the sailplane manufacturers is the lack of personnel within EASA and accredited NAA which have deep understanding of small aviation.

Very often the problems of manufacturers in our community do not come from wrong regulation but from wrong application of the regulations. QE are seen as a possible solution to this lack of specific small aviation attitude and knowledge. The following should be requirements for QE:

- this organisation should have experience / background in small aviation
- if needed the language should be the same as the mother tongue of the applicant
- the trend towards even more paper and administrative processes must be reversed
- the separation of tasks and approvals must be worked against
- ideally the organisation could supervise all products and organisations within the same company

- if possible the applicant should have the right to chose where these tasks are been done
- and last but not least: it has to be affordable in comparison to typical product prices

<u>Response:</u> We recognise the uncertainty in relation to the process of QE for the Agency and therefore propose the simplified AMC for the current regulatory structure of DOA as a quick fix. The requirements as mentioned above are similar to the rationale provided in the NPA and highlight the potential benefits of using QE.

**Parts without a Form 1.** The manufacturers would welcome the additional flexibility with this concept but it strongly depends on the AMC detailing how compliance to approved data is shown. The European Sailplane Manufacturers offer support for the development of this AMC.

Response: The offer to support the Agency is appreciated.

A sailplane is not an aeroplane. The sailplane manufacturers are of the opinion that an explanation that a sailplane is not an aeroplane and therefore are not "complex motor-powered aircraft" should be included in this opinion instead of changing the definition in the BR.

<u>Response:</u> We understand the possibility of this interpretation for jet powered sailplanes; and will consider a clarification through AMC to Part-21. (Refer to task MDM.032(d)).

**Aircraft TC without an engine and/or propeller TC.** The option for a restricted TC is supported; however a full TC should be possible for sailplanes with non-certified engines and propellers. This would promote the development of more efficient and less noisy propulsions.

Response: This will be considered as part of task BR.010.

(7) FAA

The FAA has reviewed the CRD and has no comments.

Response: Noted.

(8) Fédération Française de Vol à Voile (FFVV)

**Parts without a Form 1.** The possibility for ELA1 aircraft should be extended to clubs owned sailplanes, not only the owner.

Response: A similar interpretation as used in Part-M can be introduced in the AMC.

**Qualified entities.** The FFVV intends to become a QE for sailplanes with a specific scope when this would become available. The FFVV has specific concerns and ideas on the implementation that should support safety and reduce bureaucracy.

<u>Response:</u> We recognise the uncertainty in relation to the process of QE for the Agency and therefore propose the simplified AMC for the current regulatory structure of DOA as a quick fix.

(9) Federal Office of Civil Aviation (FOCA), Switzerland

**Qualified entities.** Comprehensive and unambiguous guidance concerning the competences required to carry out certification tasks is required. Concerning the "confirmation of compliance function" (equivalent to CVE function), required qualification and responsibilities has to be defined in AMC/GM.

<u>Response:</u> We recognise the uncertainty in relation to the process of QE for the Agency and therefore propose the simplified AMC for the current regulatory structure of DOA as a quick fix.

**Changes to CS-LSA**. The precise content of CS-LSA is unknown, however FOCA has detailed comments with regards to the ASTM standards referred to in the NPA that are provided in more detail in this reaction.

<u>Response:</u> The CS-LSA is built on the applicable ASTM standard completed by requirements and AMC that assist in the showing of compliance. The CS-LSA is part of the CRD 2008-07 Part II.

FOCA has the following remarks on the resulting text of Part 21:

21A.14

a) Current text in Part 21, 21A.14(b) is "...fixed or adjustable pitch propeller".

Deleted text in CRD is "...fixed or variable pitch propeller"

New text in CRD is "...fixed or variable pitch propeller"

Text in CRD has to be consistent with current text in Part 21.

<u>Response:</u> Accepted. The change to Part-21 introduced by Amending Regulation 1194/2009 was not incorporated in the CRD.

b) Proposed 21A.14(b) and 21A.14(c) specify applicability to aeroplanes with a MTOM of less than 2000 Kg / 1200 Kg not classified as "complex-motor-powered aircraft". However, based on BR Art. 3(j), aeroplanes with a MTOM of less than 2000 Kg / 1200 Kg automatically qualify as non-complex-motor-powered aircraft. It is proposed to remove text "that is not classified as complex-motor-powered aircraft" from 21A.14(b) and 21A.14(c)".

<u>Response:</u> The reference to complex-motor-powered aircraft should be kept as jet propulsion alone suffice to qualify as 'complex'.

- c) Proposed 21A.14(c) includes:
- 7. a piston engine;
- 9. a propeller

This is a significant relaxation of the current requirement since it appears that the demonstration of capability for the certification of these products would be limited to the approval of a certification programme, regardless of, say, the engine power or the propeller type of construction (it appears that a piston engine may be certified under the provisions of 21A.14(c) and then installed on an aircraft having a MTOM > 1200 Kg). We consider that this is not adequate and that the applicability of 21A.14(c) 7. and 9. should be limited.

Response: Accepted.

21A.307 (b) and (c)

- a) 21A.307 (b) and (c) appear to be contradicting: text has to be changed or clarified.
- b) Proposed text specifies that the requirement is limited to cases "under the responsibility of the aircraft owner when installed in his aircraft". This statement poses different questions.

Does this condition impose limitations on who's allowed to fly the aircraft?

What would be the applicable requirement for an aircraft with MTOM up to 1200 Kg flown in a flight school? 21A.307(a)?

If yes, this is considered inadequate as the intent should be to have means to state that an item "was manufactured in conformity to approved design data and is in a condition for safe operation" without imposing the burdensome prerequisites for the issuance of an EASA Form 1.

Proposed 21A.307 (c) would allow any parts (including life limited parts and appliances, parts of the primary structure and parts of flight controls) being "produced in conformity with approved design data under the responsibility of the aircraft owner when installed in his aircraft". Although understanding the intent behind this requirement, we consider that in this form it goes beyond the initial intent of giving some level of alleviation. The proposed approach is considered

disproportionate since either 21A.307(a) applies (setting for some cases too high a requirement), or 21A.307(c) allows a very low level of conformity based on the "owner's responsibility" proposition. The risk is to have a system legally correct (responsibility on the owner) but questionable from the safety standpoint: in this context the effectiveness of Airworthiness Reviews for conformity purposes is questionable since, for example, the review may be carried out some time after the parts have been installed and the extent of verification during the review is limited.

# Following is proposed:

- define alleviations to 21A.307 (a) not limited to parts "produced in conformity with approved design data under the responsibility of the aircraft owner when installed in his aircraft";
- for life limited parts and appliances, parts of the primary structure and parts of flight controls "produced in conformity with approved design data under the responsibility of the aircraft owner when installed in his aircraft" the Agency/Qualified Entity has to be involved in the conformity. In this context it is proposed to adopt the FAA definition of Owner/Operator Produced Part as provided by AC 20-62:

An owner/operator is considered a producer of a part, if the owner participated in controlling the design, manufacture, or quality of the part. Participating in the design of the part can include supervising the manufacture of the part or providing the manufacturer with the following: the design data, the materials with which to make the part, the fabrication processes, assembly methods, or the quality control procedures.

- For IFR equipment whose function can be classified as critical (failure conditions classified as Hazardous or Catastrophic) the same principle used for life limited parts and appliances, parts of the primary structure and parts of flight controls should be applied.
- Advantage should be taken from national production/maintenance organization approvals provided that a manufacturer's quality assurance system is available (see also 21A.439) or alleviations may be granted in case of production in limited quantity, provided that approved data are used for manufacturing and conformity with approved design data is established in a manner acceptable to Agency/Qualified Entity which shall be informed about the production process so that an adequate level of involvement (e.g. need for conformity inspections) can be determined.
- 21A.307 has to take into consideration possible alleviations applicable to orphan aircraft (see additional comment at the end of this document).

<u>Response:</u> Paragraph 21A.307 has been redrafted to more clearly show the intent. It is not accepted to change the philosophy; and define the owner as the producer of the part. It is the owner who may consider a part without an EASA Form 1 eligible for installation provided that the criteria mentioned are fulfilled. It should also be clear that this is only possible when parts are identified and installed in their own aircraft.

With respect to the point on IFR equipment, a reference to equipments required by operational and ATM will be considered in rulemaking task 21.026 'New categories of parts for which Form 1 is not required' that starts early 2011.

## Standard changes

It is recommended to also consider guidance material contained in FAA AC 23-27 "Parts and materials substitution for vintage aircraft": this is particularly helpful for orphan aircraft.

<u>Response:</u> Vintage or historic aircraft are not part of the EASA remit. Orphan aircraft are not the subject of this NPA.

The CRD indicates that "The standard repairs and changes in the CS therefore are actually approved data that a maintenance organization may use in accordance with Part-M." What is the reason for limiting the use of standard repairs to "maintenance organization"? The intent should be to have also selected tasks which can be carried out by the owners/pilot.

<u>Response:</u> We agree that this statement was too restrictive. The Part-M and Part-145 requirements have been checked and altered (see draft amendment to 2042/2003 linked to this Opinion) where necessary to show that this is also approved data and can be used in accordance with the Part-M or Part-145 requirements.

#### AFM/AFMS and ICA

AMC/GM is deemed required to ensure that a minimum standard is achieved both for initial issuance and revisions. Guidance should also be provided with regard to classification of AFM changes particularly for those applicants who will elect to show compliance with 21A.14(b) and (c). Guidance should also be provided with regard to 21A.381(c) 4 and 5.

<u>Response:</u> ICA are the subject of a specific on-going task (MDM.056). It should be noted that Opinion 01/2010 has introduced for all DOA the possibility to approve certain changes to AFM. GM for classification of changes to the AFM will be published with a Decision resulting from NPA16-2006.

21A.367(a)

Guidance material is needed to clearly define what has to be considered as significant change.

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

21A.377(c)2

Duration of corrective action time granted is not in line with Commission Regulation (EC) No 1194/2009 of 30 November 2009.

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

21A.381(d)

Is this requirement necessary? Isn't already covered by the requirements for TC/STC transfer?

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

21A.439 and 21A.441

Alleviations for owner produced parts should be defined at least for those cases falling under standard changes.

<u>Response:</u> Not Accepted. The production of parts and release of parts are not linked. Parts acceptable without an EASA Form 1 in accordance with 21A.307(b) or for that matter parts belonging to a standard repair or change can by definition not be produced by the owner. The existing requirements provided in Part-M and Part-145 remain applicable.

## Orphan aircraft

Although the NPA was not originally intended to cover issues affecting orphan aircraft it is recommended to take advantage of this rulemaking activity to define specific guidance for these aircraft. Some of the issues that should be addressed include the following:

— Guidance to identify parts and material substitution (ref. to FAA AC 23-27 "Parts and materials substitution for vintage aircraft");

- Part/material substitutions may have previously been approved on like-type aircraft. If the installation (and, if applicable, the manufacturing) is completed in a manner consistent with a previous approval, those approvals may be used as the basis for approval on a similar aircraft. However, in this case, the applicant must have all the previous approvals data, including any instructions for continued airworthiness, or develop any missing data through support from a recognized entity (e.g. qualified entity, DOA/ADOA, etc.). As an alternative the Agency/Qualified Entity will evaluate the applicant competence, by assessing that he/she has sound knowledge of the design principles embodied in the aircraft type being modified or repaired.
- Spare parts compliant with the TC are hard to find in the very first place (small quantities, long lead-times, obsolescence issues, etc.), not to mention parts with a Form 1. Guidance concerning installation of old and or used parts (rebuild, overhauled, or recertified parts). It should be considered that parts in the TC might be obsolete and that other parts might be available which are technologically more advanced and more reliable.

<u>Response:</u> The Agency thanks the commentator for this proposal but feels that it is out of the scope of this task.

(10) One individual person submitted the following comments:

# 21A.14(b) and (c)

It is questioned if sailplanes up to 2000 kg should be considered in 21A.14(b). Concerns are expressed with regards to the implementation of the certification programme option in 21A.14(c). There is strong support for simplified AMC for compliance showing to full DOA for ELA.

<u>Response:</u> See reply to CAA-NL (paragraph 21A.98) for sailplanes up to 2 000kg. The certification programme has now been introduced as a fundamental requirement for certification by Opinion 01/2010 (please see paragraph 21A.20): 21A.20 (b) clearly envisage it as a working document during the whole certification process. In addition, in the specific case of aircraft referred to in 21A.14 (c), the certification programme must be approved by the Agency. The Agency thanks the commentator for his support of the simplified AMC for DOA.

Standard changes and repairs. No comments can be made because this CS is not yet provided.

<u>Response:</u> The Opinion introduces the principle. The CS will be submitted for consultation under task MDM.048.

**21A.112B Demonstration of capability.** Concerns are expressed with regards to the implementation of the certification programme option in 21A.112B.

<u>Response:</u> The certification programme has now been introduced as a fundamental requirement for certification by Opinion 01/2010 (please see paragraph 21A.20): 21A.20 (b) clearly envisage it as a working document during the whole certification process. In addition, in the specific case of aircraft referred to in 21A.14 (c), the certification programme must be approved by the Agency.

**21A. 307 Release of parts and appliance for installation.** Paragraph (c) seems to remove the limitations set by paragraph (b). A difference between requirements for critical parts for ELA 1 and ELA 2 is not supported.

Response: Paragraph 21A.307 has been redrafted and 21A.307(c) in the CRD was incorrect.

Furthermore, as a general remark, I wonder how many aircraft owners are able to take the responsibility of the compliance of a part or appliance to an approved design and which is the convenience of doing that if the part is available on the market.

Then, where is the simplification?

I believe that the possibility of limiting the issue of Forms 1 does exist without reducing safety level. If we consider the high number of non critical parts existing both in ELA 1 and ELA 2

aircraft, for these parts a simple certificate of conformity issued by the manufacturer (with DOA, but also with AP), would be enough.

If then EASA wishes to consider the problem of owner- produced parts as a problem mainly related to old and 'orphan' aircraft for which it is difficult to find replacement parts, my advise is to make reference to the current FAA requirements (FAR 21.303(a)(2) etc.)

<u>Response</u>: It is believed that many owners will be able to take this 'responsibility'. An example is parts as mentioned in the reaction; produced for an aircraft by the original supplier that has no POA, with a statement of conformity. These would not be released with an EASA Form 1, but are built in accordance with the approved design data. With the proposed change to 21A.307, installation with certain restrictions to their scope is considered not to affect safety.

**SUBPART L** - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c)

The relevant paragraph of Part 21 Subparts G and J have been copied in Subpart L without substantial technical changes.

A couple of "administrative" paragraphs with the explication of paragraph 5 of the CRD could have been sufficient, avoiding uncertainty in the future amendments of the matter.

Even with a single certificate, DOA and POA are different matters. The mix of requirements does not make easier the task.

<u>Response</u>: The Agency agrees that the proposed Subpart-L does not bring substantive differences to the individual requirements of DOA and POA. The possibility also already exists in the Basic Regulation Article 20(2)(b)(ii) to transfer the responsibility for POA to the Agency. It is therefore concluded that Subpart-L does not provide enough benefits and overcomplicates the rules, as expressed in this reaction. The Agency has decided to withdraw the proposal of Subpart-L.

**21A. 432B Demonstration of capability.** In subparagraph (b) the « setting out the specific design practices, resources and sequence of activities necessary to comply with this Subpart» should be obtained by an Agency agreement.

In subparagraph (c) the « setting out the specific design practices, resources and sequence of activities necessary to comply with this part ... ». should be obtained by approval of a certification programme.

It is difficult to understand the difference of procedures to obtain the same result and how it could be reached just by a certification program.

<u>Response</u>: In paragraph (b), the reference is to an APDOA (the procedures are not specific to the repair under consideration) where in (c) it is to the approval of a certification programme that is specific for that repair under consideration.

## 21A. 112B Demonstration of capability

The same basic remarks of 21A.14(c).

<u>Response</u>: The certification programme has now been introduced as a fundamental requirement for certification by Opinion 01/2010 (please see paragraph 21A.20): 21A.20 (b) clearly envisage it as a working document during the whole certification process. In addition, in the specific case of aircraft referred to in 21A.14 (c), the certification programme must be approved by the Agency.

# 21A. 710 Approval of flight conditions

The issue of a permit of fly could also concern aircraft for which it was not shown any compliance with the regulations, and an applicant whose competence could be uncertain.

Would you really accept without further verification flight conditions for safety also in these conditions?

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

(11 & 12) The Light Aircraft Association (LAA) of the Czech Republic and Light Aircraft Manufacturers Association Europe (LAMA EUROPE) expressed similar reactions. The text is amended to remove duplication when possible.

Front page - Incomplete and very late publication of this CRD

LAA and LAMA are not very happy with the way EASA handled this very important NPA.

The CRD was published TWO YEARS after the end of commenting period of the original NPA 2008-07!!! Also the fact that the CRD was published during the vacation period does not look right, especially when published so late. The problem with this late publishing is that everybody almost forgot what was this all about...

The time is running fast - in 2005 the first ToR for MDM032 was drafted. Now we are approaching the end of 2010 and what do we have? EASA has received 843 comments. However, we think that this cannot justify such long time for making this CRD.

The fact that the CRD is divided into two parts and only Part 1 was published before deadline is not acceptable. How are we supposed to comment on such an important proposal without the possibility to see the second part?

We think that the second part of this CRD must be published immediately and the deadline for Part 1 comments must be extended accordingly.

<u>Response:</u> Publishing a CRD into two parts is not the usual Agency practice but had the advantage of helping to recover some of the delay. Great care has been taken to provide in the CRD part I an accurate representation of the main comments made and to add the draft Opinion resulting from our review of all the comments. Part I is therefore a valid basis to seek reactions on the opinion and is probably an easier document to read than the 500 pages of CRD Part II.

Part II has been published and contains the draft CS-LSA that will be adopted by the Agency early 2011.

The Agency recognises that it has taken a long time to progress the issue mostly due to resources issues but we have also used the delay to prepare the task BR.010 (Launch of a study on lessons-learned for ELA1 by reviewing National Regulations on Micro-light) and to strengthen the cooperation with FAA in this matter and to gather further information on the experience in the US on LSA rules. The Agency wishes to stress that the delay in not related to lack of understanding of the importance and priority of general aviation as demonstrated by the alleviation to Part-M, the Opinion covering the L licence and the Opinion on FCL including a LAPL.

Page 4 (a) General comment (LAMA EUROPE)

THE BASE OF ANY SUCCESSFUL AVIATION INDUSTRY IS SMALL (LEISURE) AVIATION.

Every pilot starts flying with a small airplane, not with an Airbus, Boeing or Eurofighter. The source of 600 000 leisure pilots (according to Europe Air Sports) including parachutists, hang gliders, ultralights, gliders, hot air balloons up to light powered aircraft provides the advantage of a large base of customers European and US Aviation industry. To understand aerodynamics, flight mechanics, mechanics, economics and the environmental impact of an airplane you must have experience and experience you gain with small leisure aviation. To get enthusiastic about entering a job in aviation, you must be able to get in contact with it and learn the experience. To be able to

design a useful large aircraft, you must understand from own experience, what really is behind it and what you must consider.

Officials in the USA have recognized this years ago. They observed massive problems in getting sufficient and properly qualified employees for the large aviation industry. They recognized stagnating growth in small aviation (number of aircraft and pilots) was a direct result of increasing cost to purchase and operate small aircraft.

In response the LSA (Light-sport Aircraft) program was launched in USA in 2004, with the clear goal to significantly reduce entry level cost for private and leisure flying. This was achieved by defining a non-complex aircraft category that allows registration of aircraft after a manufacturer self declaration basis against an accepted industry standard (ASTM standard). The system allows people to fly with a reasonably reduced training and medical requirement.

With this it was intended to reverse the decreasing aviation population and therefore keep the base for aviation industry and five years after the new rules were announced clearly proves that the way it was done was absolutely correct and shows the desired results. Numbers of aircraft and pilots immediately increased, and with it the pool of available resources for large aviation companies.

The model from USA has been copied to many countries by now, sometimes in slight variations, depending on national circumstances. Amongst these countries are by now the largest populated countries: China and India. Similar programs were adopted to found a base for their future aviation industry.

As of today, the clear market leaders in all the LSA market are European based companies.

The irony is that there is no similar system to enable these aircraft built according to the LSA regulations to be flown in Europe.

The announcement of the creation of the ELA process was thought by many to hold promise of being the European equivalent. However, whilst ELA is a significant easing for some aircraft categories, the result for light two seat sports aircraft is a process significantly more burdensome for design, manufacture and operation than the US LSA system.

Many now believe the answer is to create a specific category for sub 600kg aeroplanes and adopt the LSA system in as close to an equivalent manner as possible.

<u>Response:</u> The scope of MDM.032 is wider than LSA but propose simplifications to Part-21. The Task BR.010 will define how to go beyond the simplifications to Part-21 for the sub-set of ELA1 aircraft.

(LAA) Unfortunately this CRD shows EASA's wrong approach to the sport and recreational aviation. We believe that it is not possible to handle the sport and recreational aviation the same way as Commercial Air Transport.

It is becoming increasingly more apparent, that we are still not getting what we want and what we need – a simple LSA.

We believe that the current regulatory effort of EASA is not delivering what we think is necessary for further development of sport and recreational aviation. In our opinion the LSA could become the entry category for aviation. To address the needs of our members we think that EASA should create a stand-alone LSA category compatible with the US LSA system as much as possible.

The positive consequence of this could be a Global LSA-system which is our long term goal.

During the meeting at the AirVenture 2010 the FAA Administrator Randy Babbitt stated that the safety record of LSA is better then expected. We think that this is a proof that the US LSA concept based on self-declaration together with sensible maintenance regulations does not create a safety

problem. Since 65% of US SLSA comes from Europe we are convinced that the same system can be used in Europe.

The concept of Stand-alone LSA could work – stand-alone does not necessary mean that it is without EASA, but it means that it has a special place in the hierarchy of EASA rules.

It has been done the same way in the USA where the FAA helped to create the LSA category within FAA rules, kept the auditing function, but does not directly govern it.

We are aware that this would require a change of Basic Regulation.

LAA CR is ready to help to work on preparation of such change.

<u>Response:</u> The offer to support EASA for the task BR.010 is appreciated. The proposed changes from task MDM.032(e) that are within the frame of the Part-21 rules indeed do not achieve the goal that LAA CR has in mind. The scope of the FAA LSA rule is however a sub-set from that of the task MDM.032(e) and not appropriate for the entire range up to 2 000kg.

# Page 4 EASA fees and charges

LAA CR and LAMA EUROPE are pleased with the statement that EASA draw the attention of the Commission... but are afraid it is too late, because even current level of the fees and charges is big problem for the small companies. A basis for the fees and charges of EASA is the regulation requiring EASA to be completely self funded by the fees and charges they are entitled to assess. Existing charges already pose a significant burden for the small companies. Typically these companies produce some 10 - 150 aircrafts per year with a turnover range of 1 - 30 million EURO and it is hardly possible to survive with current fees and charges.

Fees and charges is a known problem for years, it must be decided on a political level = Commission, as soon as possible.

## Response: Noted.

Page 4 and 7 CS-23 Light up to 1200kg MTOM

LAA CZ and LAMA EUROPE think that creation of this code is not necessary. In fact the CS-VLA could be extended up to 4 persons and 1200 kg MTOM. In our opinion the explanation that we need such code because ....vast majority of existing... is not valid, because the ELA system is being prepared for new aircraft, not for the existing ones.

Anyway there are so many applicable codes within 1200 kg MTOM that it is desirable to reduce their number rather than extend it!

Instead of this effort would be better if EASA created a good LSA system based on ASTM. It is known that FAA is considering to create an ASTM based system also for FAR-23, maybe this could be the way forward and instead of creating CS-23light it would be good to work with FAA on the ASTM system in order to have world-wide aviation standards.

<u>Response:</u> For the time being it is believed that the FAR Part-23 Amendment 7 is an appropriate proven standard for specific aeroplanes. In the longer term we plan to review the various standards in close cooperation with the FAA who at the same time has performed a Certification process Study (CPS) on Part-23.

Page 9 and 10 Qualified entities

Some of LSA and microlight manufacturers and LAA CZ participated in "EASA study on outsourcing of certification tasks" which was done by Steria Mummert Consulting.

Were results of this study used for this CRD?

Why wasn't the study published?

<u>Response:</u> The Agency thanks you and the other participating industry members for your contribution to this study.

The report is an internal report used by the Agency to achieve a better knowledge of their outsourcing possibilities. As described above, the Agency is preparing an update of the Management Board decision on outsourcing. The report has not been published because of this delicate ongoing discussion.

The study was not used for this CRD as the CRD simply refers to the Agency work to update the Management Board outsourcing policy.

Page 10-11 7. Parts that do not need an EASA form 1

Without publication of comments it is impossible to check this proposal. LAA CZ and LAMA EUROPE do not agree with the proposed solution.

We propose that at least for ELA 1 the use of Form 1 is not required.

<u>Response:</u> The comments received resulted in a less liberal proposal for ELA1 that alleviates the discussion on commercial or non-commercial use for these parts. It provides an acceptable compromise that is different from your proposal to even further limit the requirements for an EASA Form 1. The next phase that is intended by task BR.010 would provide options for different approaches.

Page 11 Changes in marking parts and traceability -

LAA CZ and LAMA EUROPE believed that the original changes were in line with the effort to decrease the burden on manufacturers, whereas this is other way around.

Because we cannot see comments in Part II we do not agree with proposed changes in 21A.804 and 21A.805

<u>Response:</u> The CRD part II has been published in the mean time and shows that part marking should be kept for traceability and for the link to the approved design data.

Page 11 8. Changes to CS-LSA

LAA CZ and LAMA EUROPE welcome the creation of Certification Specifications for Light Sport Aeroplanes based on ASTM F2245.

Unfortunately we cannot comment more on this issue, because CS-LSA will be published in Part II which is not known yet.

<u>Response:</u> Comment on the CS-LSA will be possible on the CRD part II. These comments will be reviewed before the CS-LSA is published early 2011.

Page 13 9. Standard changes and repair

LAA CZ and LAMA EUROPE welcome this announcement, however we are afraid that the creation of this dedicated CS based on FAA AC 43-13 1B and 2B will take too long.

<u>Response:</u> The Agency thanks you for your support. Presently the task MDM.048 is scheduled to start in 2011 and finish in the second quarter 2013. We explore ways to accelerate these tasks wherever possible.

Page 13-14 10. Harmonisation with FAA

LAA CZ and LAMA EUROPE are pleased with this statement. We believe that for the LSA the best idea would be to create a Global LSA system with the common world-wide technical standards based on ASTM.

<u>Response:</u> The Agency thanks you for your support relative to the statement that EASA intends to establish a long term harmonisation on LSA with the FAA (and other authorities) by working in close cooperation with the FAA in the follow-up of their FAR-23 CPS study and in the ASTM process.

(13) Light Aircraft Association UK

Explanatory Note III. (p2)

Since Part II of this CRD has not yet been published, the picture is incomplete and so it is not possible to provide a full response.

<u>Response:</u> Publishing a CRD into two parts is not the usual Agency practice but had the advantage of helping to recover some of the delay. Great care has been taken to provide in the CRD part I an accurate representation of the main comments made and to add the draft opinion resulting from our review of all the comments. Part I is therefore a valid basis to seek reactions on the opinion and is probably an easier document to read than the 500 pages of CRD Part II.

Section a) 2) (p. 5)

The LAA generally supports the proposal to introduce a further consultation to modify the Basic Regulation, but the consultation needs to be conducted very quickly: after all, ANPA 14-2006 was issued four years ago and the response to that was the call for a change to the Basic Regulation. In order to promote much needed innovation in the industry, EASA needs to be swiftly acting to provide an environment for the designers and manufacturers of very light aircraft to act without the expense and resource constraints inherent in the existing DOA/POA systems, alongside commensurate cost and operational benefits to end-user.

Section b) (p6+)

The LAA generally supports the changes made compared with NPA 2008-07. Again, the industry urgently needs the availability of these proposals. The new CS-LSA, CS-23Light and CS-'Standard repairs and changes' and the revised CS-VLA and CS-22 need to be issued as a matter of urgency (by the time the Part 21 amendments are issued, at the latest).

<u>Response:</u> The Agency thanks the commentator for his support and proposes to progress the various follow-up tasks (e.g. MDM.032(d) and BR.010) in accordance with the published rulemaking plan. We explore ways to accelerate these tasks wherever possible. The first standard, CS-LSA, will already be published early 2011. Other 'standards' are being applied through special conditions.

Section b) 6) (p. 9) (Qualified Entities)

It would be appreciated if 'calls for tender' in this case were more widely advertised. The practice of posting a call for tender on your website unannounced is unhelpful. Perhaps an email subscription service whereby an email is sent out to all subscribers when a call for tender is published would be possible?

<u>Response:</u> Open calls for tender are published by the publication office for the Official Journal of the EU and are, when published, added to the <u>EASA procurement webpage</u>. A subscription to an e-mail notification is not possible to the EASA web-page.

It is however possible to subscribe to the Tenders Electronic Database (TED) where all European Union call for tenders are published in the official EU languages. Information and instructions for access and notification based on specific search profiles can be found at: <a href="http://ted.europa.eu/TED/main/HomePage.do">http://ted.europa.eu/TED/main/HomePage.do</a>.

(14) Luftfahrt-Bundesamt

General

In several paragraphs a reference to 21A.14 (b) or (c) is given through the wording "aircraft defined in paragraph 21A.14(b) and (c)". Is it correct that this wording defines the category of aircraft and does not imply that the design of the aircraft really has been approved under 21A.14 (b) or (c)? The answer to this question will help to understand if advantages of the new system (f. e. production under Subpart L, owner produced parts) are also possible for types of aircraft for which the design has been approved before this change of the rule or under the higher standard of a full approved DOA.

<u>Response:</u> When reference is made to 'aircraft defined in 21A.14(b) or (c)' in these requirements, it defines a category of products provided in that paragraph. It would therefore also become applicable for products already approved in accordance with the current rules. In the Opinion the reference is when applicable now replaced by ELA1 and ELA2 for which definitions are proposed in this opinion for changes to 1702/2003.

21A.14 (b) and (c)

This paragraph also addresses engine and propellers. How is their relation to Subpart L and 21A.307 (b) and (c) if the design is included in the aircraft or if the design has already been approved through a DO in compliance with Subpart J? Is it for example possible to produce an engine for an aircraft according to 21A.14 (b) or (c) under Subpart L? Can parts for this engine also be produced under the responsibility of the aircraft owner?

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. Part of the comment is therefore no longer relevant.

With regards to the release of parts without an EASA Form 1, it is indeed intended to allow installation of these parts when they conform to the approved design. For instance, parts for automotive engines that are approved with the aircraft can be installed under the responsibility of the aircraft owner.

21A.377 (b) and (c)

In the Section B-Material for Subpart G the finding level 3 has recently been deleted. In this paragraph it now appears again.

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

21A.353 (b)

A combined Design and Production Organisation under subpart L - would not be able to sign a DO-PO-arrangement with a different DO in addition to their primary scope.

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

21A.383 (c)

The reference "under 21A.307" has been deleted in the relevant text of Subpart G some years ago because it would not enable an EASA Form 1 "conformity only" / "prototype".

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

21A.385 (n)

The reference should be changed from "under the privilege of 21A.383(f)" to "...21A.383(e)".

<u>Response:</u> The Agency has decided to withdraw the proposal of Subpart-L. The comment is therefore no longer relevant.

# 21A.439 Production of repair parts

This paragraph should also address the possibility of parts produced under the responsibility of the aircraft owner, otherwise this paragraph would be in conflict with 21A.307 (b) and (c).

<u>Response:</u> Not accepted. The paragraph 21A.307 is not intended to change the maintenance requirements. This is outside of the scope of this rulemaking task.

Subpart L in total

We do not see real advantages in the creation of such a subpart L.

- As 21A.377(b) and 21A-383 (c) already show, there is a high risk that this subpart unintentionally differs from the relevant requirements of Subpart J or Subpart G. Subpart L, if really needed, should just address the combination of the DO- and PO-approval, the requirements themselves should be kept in Subpart J and G.
- Where are the advantages for the industry? The intended cost reduction might be marginal on the long term, as the requirements to be surveyed remain the same and a split between the involvement of EASA (DO-part) and NAA (PO-part) in this surveillance process is likely to occur.

<u>Response:</u> The Agency agrees that the proposed Subpart-L does not bring substantive differences to the individual requirements of DOA and POA. The possibility also already exists in the Basic Regulation Article 20(2)(b)(ii) to transfer the responsibility for POA to the Agency. It is therefore concluded that Subpart-L does not provide enough benefits and overcomplicates the rules, as expressed in this reaction. The Agency has decided to withdraw the proposal of Subpart-L.

# (15) UK CAA

Page 2 Paragraph No: III 4) and IV

Comment: CAA looks forward to receipt of Part II of the comment document when more comprehensive comments on all proposals, Part I and Part II, will be provided.

The following are some examples of the need to understand the complete CRD: -

The statement on page 4 that "the NPA was received with mixed feelings" should be put into context by the provision of the comment and the EASA response.

<u>Response:</u> Many commentators expressed a similar comment that the proposal was a step into the right direction, however they believe that it does not provide the solution they anticipated, similar to the FAA LSA system. As this would imply a change to the Basic Regulation the second phase, by task BR.010, is proposed.

Reference on page 5 to deregulation of a certain segment of light aviation appears to be at variance with the principles of ICAO and the issue of an international Certificate of Airworthiness. The issue of an ICAO Certificate of Airworthiness requires an individual or organisation to take responsibility for a product or part.

<u>Response:</u> ICAO conformity is an important consideration but needs to be balanced with the wish for further development of GA with an appropriate level of safety.

Reference on Page 5 Paragraph (a), Sub paragraph 2, second bullet point. Although this appears to identify the intent to harmonise future changes to the Basic Regulation with FAA and Transport Canada it is felt that harmonisation should be extended to the proposal to produce additional CS standards.

<u>Response:</u> It is our intention to harmonise processes and standard where possible. The development of harmonised standards could develop into a direction where fewer standards could be appropriate.

Page 5 sub paragraph 2 fourth bullet point, The acceptability of proposals that some ELA aircraft will not require an engine or propeller Type Certificate depends on the size and type of operation allowed. For example it may be acceptable for a two seat home build a/c but not for more capable aircraft with IMC approval (such as the Cessna 172 and PA-28 (!80).

<u>Response:</u> This indeed would require review within the proposed task BR.010.

Page 6 Paragraph No: (b) 'The Opinion to Part-21 and changes compared to the NPA', Subparagraph 1

Comment: The original concept in NPA 2008-07 was for non-commercial operation. The example in the second sentence indicates that this principle has not been maintained in the proposed changes outlined in this Comment Response Document. We would like to seek clarification on this point.

<u>Response:</u> The criteria for the use of the EASA Form 1 are made more stringent and as a consequence allow also commercial application.

Page 6 Paragraph No: (b) Sub-paragraph 2, Note under the title 'CS-VLA' (second bullet point)

Comment: We note that rule-making task VLA.008 will consider extension to CS-VLA to include Night VFR and IMC and note that this could have a significant effect on the safety record for such aircraft and requires careful review and harmonisation with FAA and Transport Canada.

<u>Response:</u> We agree that safety impact needs to be reviewed as part of this task. Harmonisation with, and experience from TCCA and FAA will be an important consideration.

Page 7 Paragraph No: (b) Sub-paragraph 2, Note under the title 'CS-23' (third bullet point)

Comment: CS-23 Light, FAR-23 at Amendment 7 represents a standard that was published by the US Government on 14th September 1969. It is agreed that many aircraft were designed and built to that standard and some still enjoy grandfather rights with some design changes still being designed to those earlier requirements. However, any aircraft with significant modifications or any new aircraft since that time will have been designed to later standards. This enables the manufacturer to take account of design issues not covered adequately in an earlier issue of FAR-23 such as fatigue and damage tolerance in composite structures. JAR-23 and CS-23 were based on FAR 23-42 dated 4th February 1991. Any proposal to create a Certificate of Airworthiness Standard, CS-23 Light, should be based on the latest CS-23 standards that can be seen to be substantially harmonised with FAR-23.

<u>Response:</u> Aeroplanes designed and certified to the FAR Part-23 Amendment 7 have not been challenged and represent the vast majority of the current fleet. Therefore, we think that this can be an airworthiness standard for aeroplanes of a similar design provided that when the requirements are inappropriate (like composite structure) the certification basis will be amended.

Page 7 Paragraph No: (b) Sub-paragraph 2, Note under the title 'CS-22' (fourth bullet point)

Comment: The CAA believes that in the interest of efficiency any exercise to rationalise the design standards of CS-VLA and the proposed CS-23 Light should be completed before creating a new standard such as CS-23 Light. This should be a Harmonisation activity with FAA and Transport Canada.

<u>Response:</u> The introduction of the CS-23Light based on FAR Part-23 Amendment 7 is considered as a pragmatic approach that at a latter stage should be reviewed and perhaps merged in as expressed in the CRD.

Page 8 Paragraph No: 3

Comment: At what stage would the simplified DOA input be required? Would this likely to be required before the issue of a Certificate of Airworthiness or Permit to Fly?

<u>Response:</u> The DOA would not be a requirement at all. The scenario described shows the case where a company can start without a DOA and depending on the business move to DOA to be more efficient for continuing airworthiness.

Page 10 Paragraph No: 6 'Qualified Entities', (second bullet point): "the applicant should be able to propose its selected qualified entity for Agency's approval".

Comment: We note that the EASA Management Board has yet to adopt a policy for using QEs. The CAA suggests that one factor which will need to be considered is whether applicants may choose the weakest perceived path to gain approval and to what extent the Agency should allocate an accredited Qualified Entity based on geographic location for language and cultural benefits. Standardisation will also be a critical issue.

<u>Response:</u> The policy for using qualified entities would need to provide a level playing field that through standardisation prevent 'weakest link' path for certification.

Page 11 Paragraph No: (b) Sub-paragraph 7

Comment: The revised proposal only requires an EASA Form 1 for primary structure flying controls or limited life parts and owners of ELA 1 aircraft to provide a declaration of conformity to an approved design. Any aircraft that is eligible for an ICAO Certificate of Airworthiness must use Parts that are available with an EASA Form 1, limited fabrication being permitted by appropriately approved Maintenance organisations. With owners producing a declaration of conformity it is not clear who would take responsibility. Aircraft modified in this way should be limited to a Permit to Fly and should not be used for commercial operation.

<u>Response:</u> The revised proposal has kept the original proposal for ELA2 and made the proposal for ELA1 more restrictive. The owner will produce a statement of conformity and bear the responsibility for the acceptance of parts in their aircraft.

Page 14 Paragraph No: (b) Sub-paragraph 10, Harmonisation with the FAA

Comment: The CAA agrees that unless special arrangements are made by applicants from outside EASA it would not be possible for EASA to act as the state of design. This will be particularly highlighted by products that are approved in USA as sub ICAO LSA aircraft being considered for the issue of an EASA ICAO Certificate of Airworthiness.

Response: Noted. This issue deserves further consideration.

Page 14 Paragraph No: 2, Last sentence

Comment: The statement that "The European approach of RTC or TC for LSA will not prevent European LSA exported to the US if they have not received any individual certificate of airworthiness" is not fully understood. A further explanation should be provided.

<u>Response:</u> This statement is linked to the quotes from Order 8130.2F presented in this paragraph in the CRD Part I. Because the aircraft type is eligible for certification, or even has an EASA (restricted) type certificate, this would represent the 'similar certification in its country of origin'.

Therefore, the aircraft would be eligible for a special airworthiness certificate in the LSA category.

(16) One Austrian Member of the EASA Committee

General Comment/Justification:

Due to the fact that the CRD has not been published in total – the part with the comments and EASA response is still missing (not available on EASA homepage) – the comment period is considered to be too short.

Proposal:

Extending the comment period for this CRD based on the fact that the part of the CRD including the comments of the stakeholders as well as the EASA responses is still not published is required.

<u>Response:</u> Not accepted. Publishing a CRD into two parts is not the usual agency practices but had the advantage of helping to recover some of the delay. Great care has been taken to provide in the CRD part I an accurate representation of the main comments made and to add the draft opinion resulting from our review of all the comments. Part I is therefore a valid basis to seek reactions on the opinion and is probably an easier document to read than the 500 pages of CRD Part II.

Subpart B

21A.14

Comment/Justification/Proposal:

The definitions as mentioned in this paragraph should be in line with the definitions to be applied in all other relevant Parts of the Implementing Rules.

ELA 1 definition in part M shall be in line with the definition in part 21.

<u>Response:</u> The proposal for the amendment of Part-M is introduced in this Opinion.

(c) 7. a piston engine

Comment: For all kind of piston engines even not used for 21A14(c) products ELA certification process is possible even for very complex engines with FADEC and turbo chargers?

<u>Response:</u> Accepted. 21A.14(c) has been corrected to only allow engines and propellers installed on the aircraft defined in 21A.14(c)

21A.47

It should be clarified, if the transfer of TC for an aircraft, where the Agency has approved a certification programme, is possible, when the qualification requirements for eligibility under 21A.14 are not met, and the new TC holder does not hold an AP to DOA or DOA. (See also 21A.116)

<u>Response:</u> When the Agency approves a certification programme, the qualifications for eligibility are met. This is covered by the change to 21A.14.

A transfer would, however, only be possible when the natural or legal person is able to meet the obligations as specified in the proposed change to 21A.47 (See CRD 2008-06).

Subpart D

21A.98 (a)

Comment/Justification:

This subparagraph is not clear. The applicability - as it is mentioned - is misleading and may lead to different interpretations. Reading this paragraph in conjunction with 21A.14 may confuse applicants.

Proposal:

It is suggested to use bullet-points for the applicability paragraph.

Response: Partially accepted. The paragraph is re-written to improve readability.

Subpart D

21A.98 (b) and (c)

## Comment

We would like to generally comment that the use of Certification Specifications for general approvals as mentioned in this sub-paragraph is not in line with the Basic regulation 216/2010 and exceeds the remit of EASAs responsibility.

<u>Response:</u> The proposed CS for standard repairs will contain specific repairs or modifications, not general approvals. It is the responsibility of EASA to develop Certification Specifications and Acceptable Means of Compliance to be used in the certification process. (Article 19 of the Basic Regulation). Therefore, for the certification of standard changes this new CS will be developed.

# Subpart L

#### Comment/Justification:

This Subpart is not supported because it creates more bureaucratic burden for the aircraft community which is addressed by these requirements.

Subpart L shall only consist of scope, eligibility, application, issue of approval and transfer of approval.

The Subpart shall not provide detailed requirements for approval of DOA and POA. There shall be only a reference to Subpart F, G or J.

The approval process shall not be different to this subpart and less complex organisation Approvals according Subpart F for production and alternate procedures to DOA shall be possible. Only requirements less restrictive than those noted in Subpart F, G or J shall be mentioned in

<u>Response:</u> The Agency agrees that the proposed Subpart-L does not bring substantive differences to the individual requirements of DOA and POA. The possibility also already exists in the Basic Regulation Article 20(2)(b)(ii) to transfer the responsibility for POA to the Agency. It is therefore concluded that Subpart-L does not provide enough benefits and over complicates the rules, as expressed in this reaction. The Agency has decided to withdraw the proposal of Subpart-L.

## 21A.436 Standard repairs

Applicability: See comment to 21a.98

Response: Partially accepted. The paragraph is re-written to improve readability.

CS-23 Light:

Comment: It should be clarified if the proposed applicability and technical content is in line with ICAO Annex 8

Response: The CS23 Light would be in line with ICAO Annex 8.